Final Report

Reproductive Health Commodity Security Assessment for the Caribbean

December 2020

CONTENTS

ABBREVIATIONS AND ACRONYMS

AFPA	Anguilla Family Planning Association
AIDS	Acquired Immunodeficiency Syndrome
ANCs	Antenatal Corticosteroids
BDS	Barbados Drug Service
BFLA	Belize Family Life Association
BFPA	Bahamas Family Planning Association
BGVS	Drug Supply Company, Suriname
BHIS	Belize Health Information System
BIS	Basic Insurance Scheme
BNDF	Barbados National Drug Formulary
BOG	Bureau of Public Health
BVIHSA	British Virgin Islands Health Services Authority
CARICOM	Caribbean Community and Common Market
CARPHA	Caribbean Public Health Agency
CFPA	Consumer Financial Protection Agency
CIA	Central Intelligence Agency
CMS	Central Medical Store
CPA	Country Poverty Assessment
CPR	Contraceptive Prevalence Rate
CSE	Comprehensive Sex Education
CYP	Couple-Years of Protection
DHS	Demographic Health Survey
DKT	International Non-profit Organization
DPPA	Dominica Planned Parenthood Association
ECP	Emergency Contraceptive Pill
EDL	Essential Drug List
EML	Essential Medicines List
FAMPLAN	Jamaica Family Planning Association
FEFO	First Expired First Out Rule
FP	Family Planning
FPA	Family Planning Association
FPATT	Family Planning Association of Trinidad and Tobago
FPU	Family Planning Unit
GDP	Gross Domestic Product
GPHC	Georgetown Public Hospital Corporation
GPPA	Grenada Planned Parenthood Association
GRPA	Guyana Responsible Parenthood Association
HAA	Health Authority of Anguilla
HSA	Health Services Authority
HIV	Human Immunodeficiency Virus
HMIS	National Health Management Information System
IDB	Inter-American Development Bank
IEC	Information Education and Communication
IMF	International Monetary Fund
IPPF	International Planned Parenthood Federation
IUD	Intrauterine Device
LAC	Latin American and the Caribbean
LACRO	Latin America and Caribbean Regional Office
LARC	Long-acting reversible contraceptive
LGTBI	Lesbian, Gay, Bisexual, Transgender and Intersex People
LHCF	Lobi Health Center Foundation
LIAT	Logistics Indicators Assessment Tool
LMIS	Logistics Management Information System
MBS	Medical Benefits Scheme
MHW	Ministry of Health and Wellness of Barbados
MICS	Multiple Indicator Cluster Survey
MMU	Material Management Unit
MNN	Maternal and Neonatal
MOH	Ministry of Health
MOHSD	Ministry of Health and Social Development of Anguilla

ABBREVIATIONS AND ACRONYMS

MOHSS	Ministry of Health and Social Services of Montserrat
MOHW	Ministry of Health and Wellness of Saint Lucia
MOHW	Ministry of Health and Wellness of Jamaica
MOHWE	Ministry of Health Wellness and Environment of Antigua & Barbuda
MOHWE	Ministry of Health, Wellness and the Environment of Saint Vincent & The Grenadines
MOHWNHI	Ministry of Health, Wellness and New Health Investment of Dominica
MOPH	Ministry of Public Health, Guyana
MOS	Months of Stock
MOHTT	Ministry of Health, Trinidad and Tobago
MPU	Medical Procurement Unit
MZPCHS	Medical Mission Primary Health Care, Suriname
NFPB	National Family Planning Board
NGOs	Non-Governmental Organization
NHI	National Health Insurance
NIPDEC	National Insurance Property Development Company of Trinidad and Tobago
NIS	National Insurance Scheme
NN	Neonatal
NSRHRPS	National Sexual and Reproductive Health and Rights Policy of Suriname
OB-GYN	Obstetrician–Gynecologists
OECS	Organization of the Eastern Caribbean States
PAHO	Pan American Health Organization
PHSCM	Public Health Supply Chain Management
PPS	Pooled Procurement System
PPS	Pharmaceutical Procurement Service
PPU	Population Programme Unit
RGD	Regional Health Service
RH	Reproductive Health
RHA	Regional Health Authorities
RHCS	Reproductive Health Commodity Security
RMNCH	Reproductive Maternal Newborn and Child Health
SCM	Supply Chain Management
SDGs	Sustainable Development Goals
SDP	Service delivery points
SLFPA	Saint Lucia Family Planning Association
SLUHIS	Saint Lucia Health Information System
SOH	Stock on Hand
SRH	Sexual and Reproductive Health
SRHR	Sexual and Reproductive Health and Rights
SROC	Subregional Office for the Caribbean
STIs	Sexually Transmitted Infections
SVFPA	Saint Vincent Family Planning Association
SZF	State Health Foundation
TPP	Third-Party Procurement
TTFPA	Trinidad and Tobago Family Planning Association
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNCoLSC	UN Commission of Life Saving Commodities
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VAT	Value-added Tax
VENT List	Vital Essential and Necessary Drugs and Medical Sundries for Public Health Institutions
WG	Working Group
WHO	World Health Organization
WRA	Women of Reproductive Age

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FOREWORD

UNFPA is committed to achieving three transformative and people-centred results by the year 2030: to end preventable maternal deaths, to end the unmet need for family planning, and to end gender-based violence and harmful practices. The UNFPA transformative results are closely aligned with the Sustainable Development Goals (SDGs), particularly SDGs 3 and 5 (Good Health and Well-being; and Gender Equality), as well as with the International Conference on Population and Development (ICPD) Programme of Action.

The ICPD held in Cairo in 1994 and subsequent global commitments and conventions have highlighted universal access to sexual and reproductive health care as being core to the realization of sexual and reproductive health and rights (SRHR) and called for universal access to SRHR as part of universal health coverage. Equity in access, quality of care and accountability, are key to advancing the UNFPA transformative results and the Sexual and Reproductive Health and Rights aspects of the Agenda 2030.

Sexual and reproductive health services are of good quality when services are delivered in a safe, effective, timely, efficient, integrated, equitable and people-centred manner; when they are based on care standards and treatment guidelines; and when necessary and quality commodities are available and take people's experiences and perceptions of care into account, including affordability and acceptability.

An adequate and reliable supply of sexual and reproductive health commodities plays a key role in advancing sexual and reproductive health and rights. Without essential SRH commodities, women are more vulnerable to poor sexual and reproductive health outcomes such as sexually transmitted infections, including HIV/AIDS, unplanned pregnancies, and unsafe abortion. The risk of complications, as well as maternal and newborn mortality and morbidity, is also heightened without the basic medical supplies and equipment for pregnancy and safe delivery.

Reproductive Health Commodity Security (RHCS) means all individuals have access to affordable, quality sexual and reproductive health supplies of their choice whenever they need them. In other words, RHCS is about making sure no one leaves a clinic empty-handed. This is why UNFPA characterizes RHCS as having the right quantities of the right products in the right condition in the right place at the right time for the right price and works to ensure that each of these elements is met.

As the sexual and reproductive health agency of the United Nations, UNFPA takes a leading role in RHCS. This role includes carrying out assessments, such as this one, to evaluate the RHCS maturity and identify strengths and weaknesses at the national and/or regional levels to inform future programming.

Achieving RHCS is critical to improving maternal health and saving lives. It also enables couples and individuals to exercise their right to have children by choice, not chance. Furthermore, RHCS is an important part of UNFPA's mandate and plays a key role in fulfilling our mission to deliver a world where every pregnancy is wanted, every childbirth is safe, and every young person's potential is fulfilled.

EXECUTIVE SUMMARY

For this assessment, the maturity of the Reproductive Health Commodity Security (RHCS) in the Caribbean region was analyzed around six areas:

1. Enabling environment for RHCS
2. Demand satisfaction for family planning (FP)
3. Improved procurement system and processes of family planning and maternal and neonatal (MNN) commodities
4. Improved availability and access of SRH services including contraceptives and MNN commodities
5. Strengthened capacity for supply chain management
6. Improved planning, monitoring and reporting.

Countries that achieved the highest score are Belize, Trinidad and Tobago, Jamaica, Saint Vincent and the Grenadines, and Guyana. However, although their maturity is better when compared with other countries, each of them has several RHCS areas that need significant improvements, as are discussed in detail in country reports (Chapter 3).

Most Caribbean countries have progressed commendably in developing Sexual and Reproductive Health (SRH) policies, strategies, and operational plans and all contraceptives are free of taxes mainly for MOHs. While these policy instruments are a key first step to increase country commitment and visibility for SRH, implementing these policies and plans is often rather limited. Moreover, during the revision of the policies and plans, RHCS is not integrated, there are no in-country Commodity Security Committees or platforms in place to monitor progress against improved access to SRH commodities.

There are no articulated regional initiatives to support Caribbean countries in monitoring progress towards RHCS. Absence of recent demographic studies and RHCS monitoring systems results in a lack of evidence to inform effective policy decisions and program design.

The negative consequences of adolescent pregnancy and early motherhood on the health, human development and the possibilities for economic and social progress of the adolescent are well documented.

There are high adolescent birth rates in the Caribbean, yet in many countries, adolescents are the population group with the greatest barriers to access the contraceptives they need and want. IPPF affiliates' presence in the Caribbean, with their long-standing experience in SRH, foster discussions and advocacy to improve access to SRH services for adolescents and also introduces other LARC to improve the choice of methods.

Based on the information collected, the MOH generated 86% of the couple-years of protection (CYP)[1] and the IPPF affiliates generated 14% of CYP in 2019. The total of CYPs generated by the 16 countries in 2019 of 294,742 and the total projected for 2020 is 222,176 CYPs, which reveals a 25% reduction. When analyzing the public health family planning method mix in the Caribbean, not all contraceptives are included. Contraceptives offered are male condoms (49.4%), injectables (33.1%), orals (6.8%), IUDs (1.6%) and implants (8.5%). Moreover, IUDs are oversupplied, mainly due to a lack of offering and demand, while implants are offered in only four countries (Bahamas, Belize, Guyana and Jamaica). Emergency contraception (ECP) is offered in eight countries. This shows that the quality of FP services, as well as fully, free and informed choice, continues to be a challenge, especially for women who need and want long-acting reversible methods (LARC). In other words, FP is still not consolidated.

1 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

MNN commodities were available mainly at the tertiary level, but some countries had them at the primary level as well. Furthermore, tracer commodities in this assessment show that availability of MNN commodities is greater than contraceptives, which implies that maternal-child health programmes are prioritized over FP programmes.

Among the main strengths found is access to cost-effective procurement mechanisms with certified quality products and prequalified suppliers like OECS Pooled Procurement System and the Third-Party Procurement of UNFPA. Due to the size of the Caribbean countries, supply chain systems are usually composed of two tiers, which promises to be a simplifying factor for future initiatives geared toward improving their performance.

The Supply Chain Management (SCM), the Logistics Management Information System (LMIS) and the inventory control systems are the weakest areas of RHCS across Caribbean countries.

COVID-19 negatively affected the provision of SRH services due to stock-outs experienced both at the central warehouses and at the service delivery level ('the last mile') in many countries. However, some countries experienced a serious oversupply of commodities, which reveals poor quantification skills and lack of monitoring of stock balances. However, less demand for health services due to country lockdowns might also have contributed to oversupplies.

When the right quantity of the right products is not in the right place at the right time, people´s needs are not satisfied and, worse, lives may not be saved. Inefficiencies in the supply chain also have economic implications. In The Bahamas for instance, this assessment found the expired products were equivalent to an estimated US$52,231 loss, representing 172% of their yearly consumption. This example testifies to the mounting importance of paving the way to a more sustainable and efficient RHCS over time, especially in times of humanitarian and health crises like the COVID-19 pandemic, and building stronger and more resilient supply chain systems.

Regional RHCS initiatives in other parts of the world, including the Latin America Region have resulted in long-term country commitments to having measurable policies and legal frameworks that improve SRH indicators. In the Caribbean region, there are strategic regional platforms that can facilitate joint initiatives and partnerships to move the RHCS agenda based on the results of this assessment. Such platforms include CARICOM, OECS, the Caribbean Coalition of SRH, the Caribbean Association of Family Planning. Joint ventures and partnerships around RHCS are also needed to meet the challenges ahead.

vii. Programmatic Recommendations:

Development of a regional RHCS strategy for the Caribbean, with a chapter of OECS member states, informed by this assessment's results; and the definition of a road map for improved and increased visibility of RHCS at all times, including during health emergencies and natural disasters.

Creation of national RHCS committees under the leadership of the Ministries of Health (MOH), with the participation of international development partners, social security schemes, and civil society to develop RHCS plans with indicators, including availability at the last mile. IPPF affiliates should also be part of the multisectoral discussion around responding to population needs, in particular advancing the RHCS agenda involving youth leaders to defend their right to access quality and affordable contraceptives when needed. Some countries that are only offering condoms (i.e., Dominica) should have agreements with IPPF affiliates to better cover population demands.

Countries need to urgently address barriers to access of SRH services by adolescents in response to their needs and include those needs in contraceptive quantification exercises. Experience has demonstrated that involving adolescents and youth in the RHCS agenda reap important benefits and youth leaders are empowered to lead the efforts to sustain RHCS in the future.

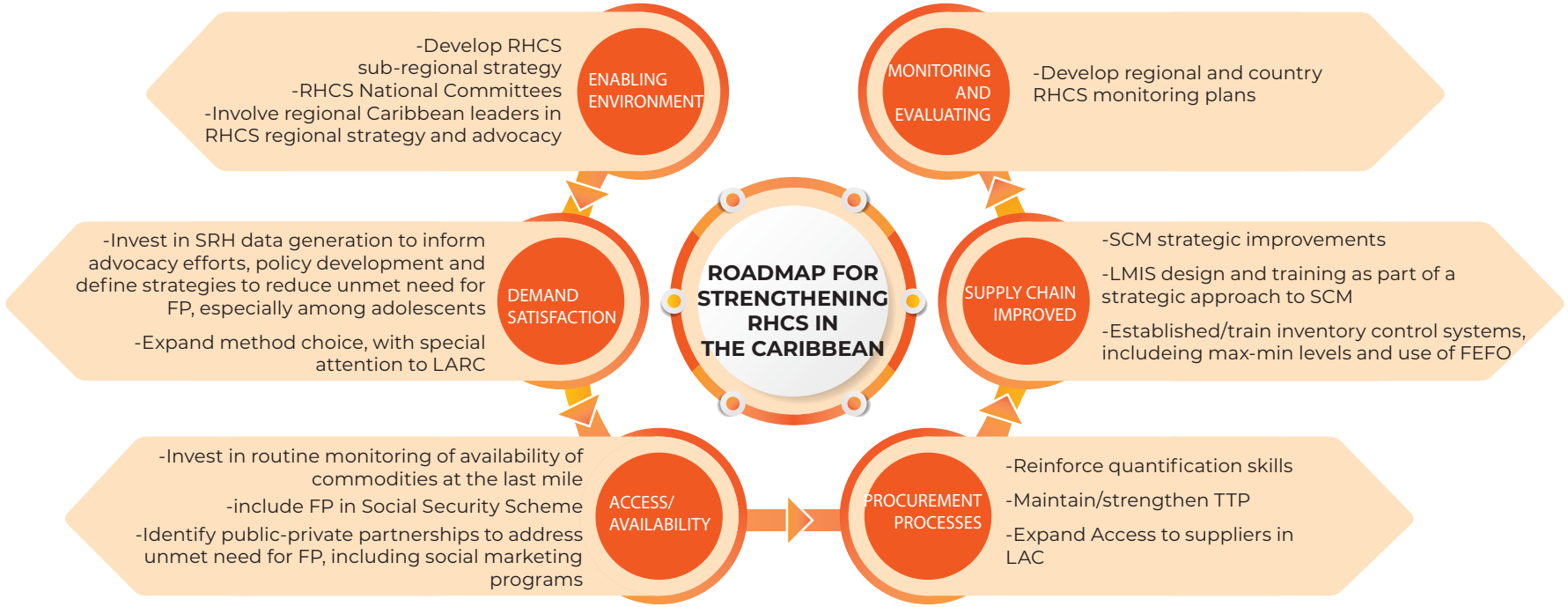
SRH committees, working groups or platforms, where they exist, should include RHCS at the core of their agendas. These platforms can be vital in advancing SRH and Rights (SRHR), making the case for a user's right to not leave a health facility empty-handed and the risks associated with not accessing contraceptives at the right time. It is recommended to plan a regional strategy to reposition FP services and expand the choice of methods with particular emphasis on emergency contraception, IUDs and implants.

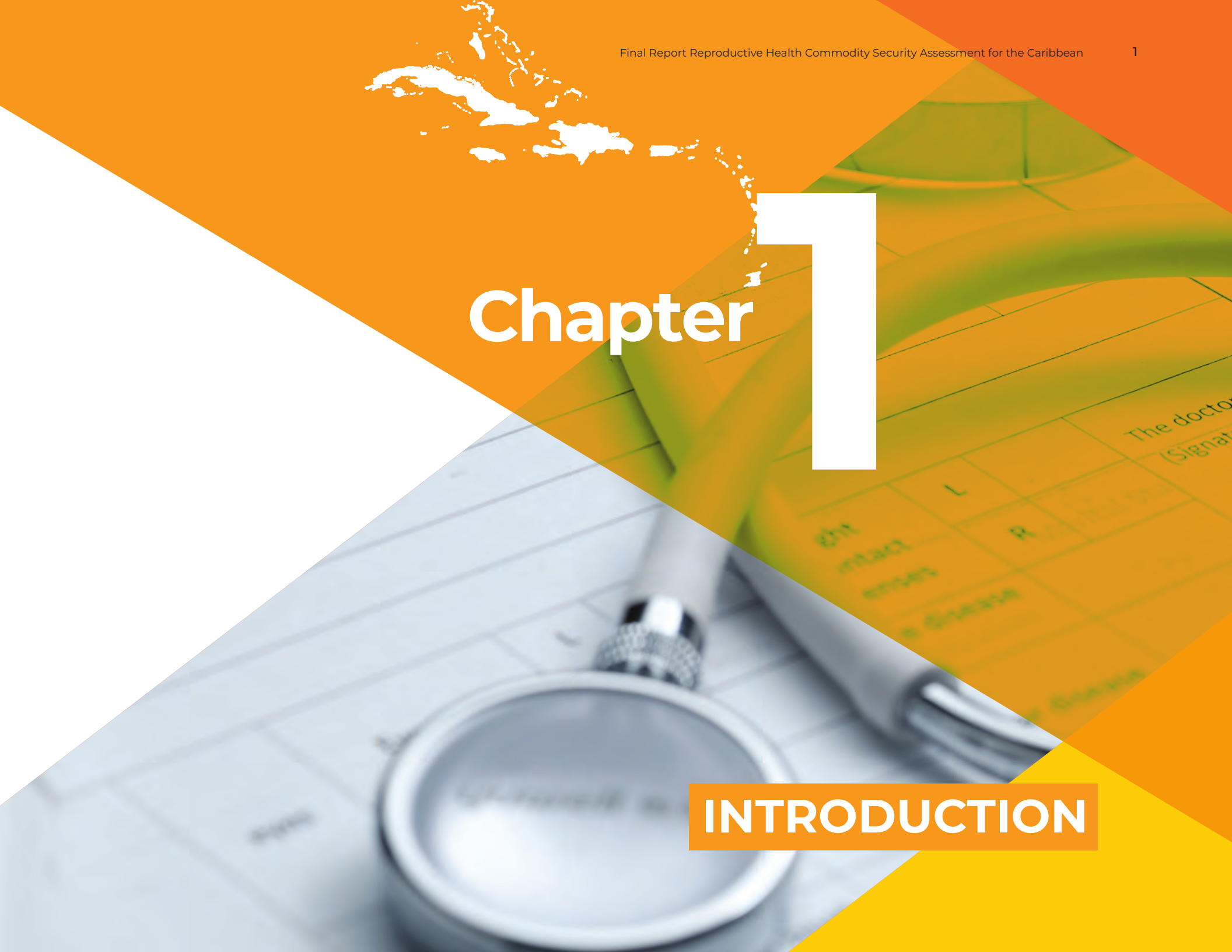
Design robust Supply Chain Management (SCM) systems that include a rapid assessment of infrastructure, capabilities and human resources to improve the SCM performance. This will involve designing an LMIS to guide distribution decisions, based on a maximum-minimum inventory control system. Procurement officers should be coached in accurate quantification based on LMIS and programmatic criteria. A regional SCM workshop can launch the implementation, with subsequent country workshops for adapting the system to each country's reality. Investing in SCM improvements is one of the RHCS components with the greatest potential for impact on the performance of SRH indicators.

Investing in strengthening RHCS in the Caribbean will bear important fruits: If enabling environments are strengthened, unmet need is reduced, method choice is expanded, efficient procurement processes are further strengthened, solid Supply Chain Management Systems are in place and standardized logistics information is gathered. Also, the information will be available to measure progress and challenges periodically and to inform timely decisions. As a result, stock-outs will be greatly reduced, wastage of oversupply will be avoided, financial losses will be minimized and, more importantly, lives can be saved.

A proposed road map (Figure 1) to continue the pathway to improved RHCS is below, bearing in mind that each output is a building block essential to the advancement of RHCS in the Caribbean region and at the country level:

FIGURE 1: ROADMAP FOR STRENGTHENING RHCS IN THE CARIBBEAN





Chapter 1

INTRODUCTION

REGIONAL CONTEXT

The 22 English and Dutch speaking Caribbean countries and territories which are covered by the Sub-Regional Office for the Caribbean (SROC) are classified among the middle to high income countries. However, they face many developmental challenges due to such characteristics as:

- The combination of a youthful population and high levels of teenage pregnancy in the context of low total fertility and ageing
- Rooted and high levels of violence, especially against women and children
- High unemployment, especially among youth
- The significant impact of climate change and high vulnerability levels to natural disasters
- Weak data systems
- Small, and often weak, public service institutions
- Slow/stagnated economic growth with high debt levels and deepening development inequalities
- Complex political environments with external geopolitical influence on Sexual and Reproductive Health and Rights (SRHR).

Sub-optimal supply chain logistics systems, in general, result in frequent stock-outs of medicines, including contraceptives, highlighting the need for more precise forecasting, warehousing, procurement, and distribution systems. In many countries, there is no logistic management information system in place to allow close monitoring of stock to ensure a consistent and reliable supply of a wide range of commodities.

Additionally, the persistent threat posed by natural hazards and environmental fragility exacerbates human vulnerability in the Caribbean, especially for women and girls. In most cases, natural disasters lead to a disruption of already fragile health systems. Climate change is a risk multiplier that will exacerbate current challenges, as well as create new challenges for the health and well-being of the Caribbean population. During natural disasters, in particular, the likelihood of rape, sexual exploitation and risky behaviour greatly increases the likelihood of poor reproductive health outcomes, such as unplanned pregnancies, sexually transmitted infections and reproductive health complications. In the current context, with health systems struggling to cope with the COVID-19 response, SRH services continually risk being sidelined.

The COVID-19 pandemic is indeed already having adverse effects on the supply chains around the world, including the availability of SRH commodities in the region, particularly those provided by the public sector. This disruption is the combined result of stoppages in the contraceptive supply chain (e.g., interruption of the manufacture of key pharmaceutical components and transportation delays of contraceptive commodities), the straining of health service systems (e.g., suspension of certain services; newly revised limited operating hours for the delivery of certain contraceptive and maternal health services; and diversion of equipment and health staff in response to the pandemic), and a drop in demand for sexual and reproductive health services due either to a reluctance to attend healthcare facilities and/or lockdowns. Initial UNFPA estimates[2] of the magnitude of the impact of these factors in low- and middle-income countries suggested that 13-51 million women, who otherwise would have used modern contraceptives, will be unable to do so depending on the duration of the lockdowns (3, 6, 9 or 12 months) and the severity of the disruption to health services (low, medium or high). This reduction in contraceptive use could have dire consequences for women,

2 With contributions from Avenir Health, Johns Hopkins University (USA) and Victoria University (Australia)

from 325,000 unintended pregnancies – the estimate for minimal disruptions for 3 months – up to a staggering 15 million unintended pregnancies if high disruptions are seen for 12 months. Additionally, UNFPA LACRO estimates that COVID-19 will cause discontinuation in the use of modern contraceptives for 17 million people in LAC countries. Moreover, LAC accounts for 8% of WRA in the world and is currently experiencing 36% of the COVID-19 negative impact on the access of modern contraceptives, which threatens to undo 20 to 30 years of longstanding achievements in the reduction of unmet need.

Preliminary estimates of the risk of stock-outs in Belize, Guyana, Jamaica, St Lucia, Suriname and Trinidad and Tobago undertaken by Reproductive Health Supplies Coalition (RHSC) Forolac/Sepremi, in collaboration with UNFPA, indicated a substantive drop in couple-years of protection (CYP) in all countries. They also predicted, if there is a disruption of contraceptives, a potential number of unplanned pregnancies, abortions, maternal and newborn deaths that could be averted.

With the foregoing considered, the UNFPA SROC commissioned an RHCS Assessment in selected countries throughout the Dutch- and the English-speaking Caribbean. This assessment summarizes the analysis of strengths and weakness, aiming to enhance the RHCS situation in each country and guide future interventions at the national and sub-regional levels to help countries on their path to self-reliance and resilient reproductive health (RH) and supply chain systems.

1.1 PURPOSE AND OBJECTIVES

As demand for reproductive health supplies surges, countries are under increased pressure to establish and maintain resilient and secure health systems for procuring and managing the delivery of reproductive health commodities. RHCS involves planning, implementation, as well as monitoring and evaluation of supply chain processes at the program level. It also involves broader policy advocacy, procurement issues, costing strategies, multi-sectoral coordination and contextual considerations. Enabling and strengthening in-country capacity for RHCS is an essential step in guarding against shortfalls in much needed reproductive health supplies, especially in the midst of health crises like the COVID-19 pandemic.

This assessment presents findings, weaknesses, strengths, major challenges, conclusions and recommendations aiming to enhance the RHCS situation in the Dutch and English Caribbean and guide future interventions at the national and sub-regional level. The assessment took place in the Dutch- and English-speaking Caribbean Region, and more concretely, in the following countries: Anguilla, Antigua and Barbuda, Bahamas, Barbados, Belize, British Virgin Islands, Dominica, Grenada, Guyana, Jamaica, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

Box 1. Reproductive Health Commodity Security –

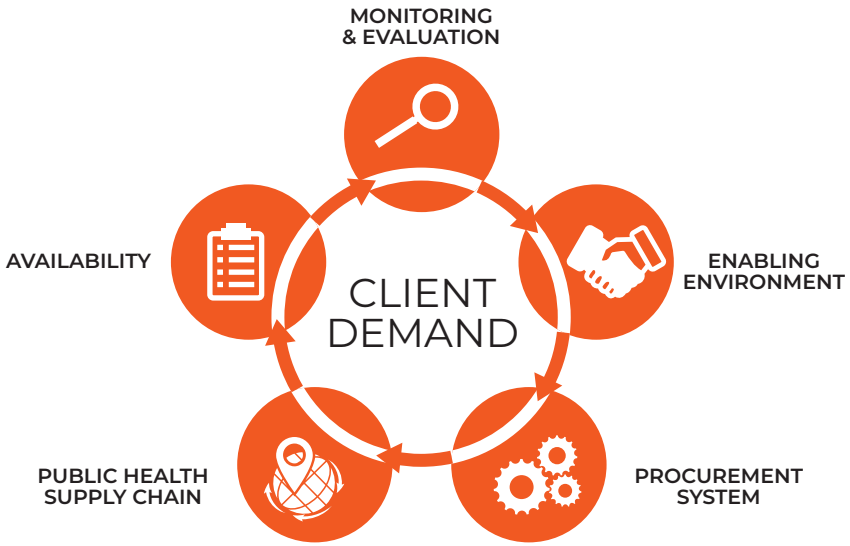
Reproductive Health Commodity Security is a state in which all individuals can obtain and use affordable, quality reproductive health commodities of their choice whenever they need them. As UNFPA charactrises it, this necessitates the right quantities of the right products being in the right condition in the right place at the right time for the right price.
Reproductive Health commodities include equipment, pharmaceuticals and supplies for:

- Obstetric and maternal health care
- Prevention, diagnosis and management of reproductive tract infections and STIs.
- Management of complications of unsafe abortions and for comprehensive abortion services where the law permits, and also
- Contraceptive supplies including male, and female condoms, and those for emergency contraception.

1.2 SCOPE OF THE ASSESSMENT

An assessment framework (Figure 2) guided the process and results obtained – aimed at informing on the country/territory and regional level in the areas of protecting and increasing the uptake of RH/family planning, advancing commodity security, and strengthening regional cooperation. In essence, these elements encompass what Commodity Security is about: availability of the right commodities, in the right quantities, in the right condition, delivered to the right place, at the right time, for the right cost.

Figure 2: RHCS Assessment Framework



The framework concentrates predominantly on supply but also addresses demand issues. It takes into account that RHCS cannot be achieved without attention being given to contextual factors, commitment, financial resources and client demand issues as well. The RHCS framework was first designed and applied to contraceptives and has expanded its usage and application to other life-saving commodities. For example, there is a Maternal Health Commodity Security (MHCS) framework that is used to monitor progress toward attaining MHCS and to adapt or adopt the necessary changes for improvement. In recent years, many countries around the world have used this framework and have established Commodity Security (CS) committees that have played a key role in advancing processes towards RHCS.

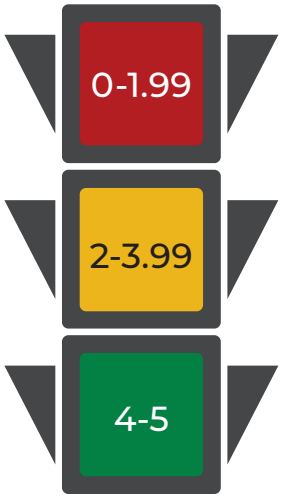
1.3 METHODOLOGY AND PROCESS

A survey was developed with a set of questions aimed at assessing the level of achievement of RHCS, understanding the political environment, and measuring the current situation of demand satisfaction. It aims to create an understanding of the state of access to RH supplies in the last mile; inform countries' performance in procuring and forecasting RH commodities; get a snapshot of the supply chain performance and its processes; as well as gauge countries' capacities for monitoring and reporting. These areas were grouped to obtain scores from 1, the poorest performance, to 5, the highest performance. The six areas of analysis are listed in Figure 3:

Figure 3: RHCS Outputs

Enabling Environment for Reproductive Health Commodity Security	Demand Satisfaction for Family Planning	Improved procurement system and processes of SRH commodities (Contraceptives and MNN)
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	Strengthened capacity for supply chain management	Improved RHCS planning, monitoring and reporting

The traffic light was used to group results and show each country's RHCS maturity level. Red shows the lowest level of performance, yellow an intermediate performance, and green the best performance, the criteria used is the following:



It is important to mention that even when there are areas in each output with a score between 4-5, there might be areas within that particular area/element that still need to be strengthened to consolidate and maintain RHCS over time.

i. Data Sources

The following sources were consulted among others: UNFPA country programme development (CPD) annual reports and other UNFPA relevant documents; MICS Surveys; MOH RH Strategy or any other policy document describing RH/FP services offered in the country; MOH procurement plans for 2020; MOH websites; PAHO country profiles, including social and demographic data; UNFPA TTP excel reports with 2019 and 2020 contraceptive shipments; OECS Product List 2019-2021. Websites of main stakeholders were also consulted, such as PAHO, WHO, UNDESA, World Bank, UNFPA Supplies Programme, OECS, Caribbean IPPF Umbrella organization, IPPF affiliates and MOH official websites.

The main data source was a survey conducted by consultants to interview key informants from the MOH. Other virtual communications took place with key informants from OECS, IPPF affiliates and PAHO. A detailed List of References is shown in Annex 1.

ii. Data Gathering Tools

To design the main data gathering instrument, the following tools and surveys were consulted:

- UNFPA LACRO RHSC Survey: Comprised of six elements analyzed by scoring each element, with 1 being the lowest performance level to 5, the best performance using qualitative questions for each RHCS theme. It measures independence, best practices and institutionalization.
- USAID Contraceptive Security Indicators: Involves a desk-based in-depth review of Contraceptive Security (CS) elements focused on contraceptives and carried out on an annual basis.
- Strategic Pathway for RHCS: The tool that was launched when the RHCS initiative began.
- The RMNCH instrument which analyzes the status of Reproductive Maternal Newborn and Child Health (RMNCH) programmes and the 13 Life Saving Commodities of the UN Commission (UNCoLSC).
- UNFPA Last Mile Assurance Process and UNFPA Supplies Programme indicators.
- The Supply Chain Compass: A tool that provides a quick, virtual high-level overview of how mature your public health supply chain is across key managerial and functional areas.

iii. Tools And Processes

After the aforementioned tools were reviewed and analyzed, the assessment team designed the following instruments:

RHCS Survey: The team developed an RHCS Assessment Questionnaire (Annex 2), where the output, area of analysis, data sources, questions, and criteria descriptions are included. Criteria descriptions range from 1, the lowest score to 5, the maximum score. The excel document was converted to a Google Forms survey to allow the assessment team and key informants to answer questions together (in joint calls) and automatically generate results for data processing and analysis.

Excel sheet to analyze availability at central: An excel sheet was prepared to collect the following data from the Central Warehouse:

- Stock on hand by end of December 2019
- Last stock on hand available in 2020
- Distributions done in 2019
- Distributions done in 2020
- Orders in transit

Note: At the beginning of the assessment, countries were asked to provide consumption reports from lower levels or provide data instead. As will be discussed in the limitations, obtaining the information took longer than expected, so most of the countries provided distribution data. However, since the majority of the countries have a 2-tier logistics system, and no maximum levels are followed in most cases, the distribution information might be similar to the real consumption data.

Also, the last-mile availability was collected from a selected sample of facilities. Due to the complex situation caused by the COVID-19 pandemic, it was important to analyze distribution in 2019 and compare against 2020.

These instruments were used to:

a. Generate Couple-years of protection (CYPs) as a proxy indicator for Women of Reproductive Age (WRA) coverage

b. Compare trends in central level availability of commodities before and after the COVID-19 pandemic to estimate the negative impact on SRH indicators (unplanned pregnancies, abortions, maternal and neonatal deaths)

c. Calculate potential stock-outs and CYPs lost

d. Measure the rate of tracer commodities availability at the last mile

Following the methodology implemented by SEPREMI/Foro LAC, estimated CYPs to be lost due to stock-outs were calculated to estimate the potential impact on the following key RH indicators: unintended pregnancies, abortions, maternal deaths, neonatal deaths that could have been prevented if there was no stock-out. The methodology used by ForoLAC/SEPREMI is based on the MICRO2 program. (See example in Annex 3).

The list of stakeholders interviewed to gather qualitative and complementary information is detailed in Annex 4.

v. Tracer Commodities

When conducting assessments, the use of commodities as tracers provides a practical focus for identifying and addressing implementation challenges. The assessment took into consideration contraceptive methods (short and long-acting reversible methods) and the maternal and newborn commodities of the UN Commission on Life-Saving Commodities for Women and Children (UNCoLSC). The commodities were examined and agreed by the consultants and the UNFPA Regional Caribbean SRH Advisor. During the discussion, the rationale to determine each commodity was analyzed. All contraceptives (including female condoms and implants) were analyzed throughout the assessment, except in the last mile, where five tracer contraceptives were included (male and female condoms, orals, emergency contraception, injectables and IUDs).

As part of neonatal (NN) commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity but the assessment team found it is not used for newborn cord care in most of the Caribbean countries, thus it was later excluded to maintain comparability between Caribbean countries. The following is the list that was used during the assessment.

Contraceptives

1. Male condom
2. Female condom
3. Emergency contraception
4. Oral contraceptive
5. Monthly injectable
6. Bimonthly injectable
7. 3-month injectable
8. IUD
9. Implant

Maternal Health

10. Oxytocin
11. Misoprostol
12. Magnesium sulfate

Newborn/NN Resuscitation

13. Ampicillin
14. Gentamicin
15. Self-inflating neonatal resuscitation bag with mask
16. Antenatal corticosteroids

xvii. RHCS Indicators

i. Percentage of WRA covered with MOH services: this indicator was calculated based on an estimation of CYPs from central warehouse distribution in 2019 and 2020 to have a proxy indicator of the met need of FP services covered by the MOH.

ii. Availability at the central warehouse:

The RHCS Assessment included collecting availability data at the central warehouse of 16 commodities in two instances:

- As of December 31, 2019, to assess the availability of 16 commodities, without the impact of the COVID-19 pandemic.
- As of October 2020, to assess the availability of 16 commodities, considering the potential impact of COVID-19.

iii. Availability at the last mile[3]

Availability of 12 tracer commodities was measured at both primary and secondary/tertiary levels as of October 2020. The results are as follows:

a. At the primary level, the indicator measured the availability of 5 tracer contraceptives: Male condoms, ECP, orals, injectables, and IUDs. Given the characteristics of the Caribbean health care system, the majority of primary health care facilities do not offer delivery and newborn care, so the MNN commodities were not considered at this level to measure last-mile availability. The criteria at this level consist of facilities having at least 4 of 5 contraceptive methods (regardless of the quantity on hand), achieve the highest score in the RHCS scale. Please note that in the case of oral contraceptives and injectables, for this assessment when countries had 3 different types of orals or injectables, they were counted as one.

b. At the secondary and tertiary level (usually hospitals), the indicator measured availability of the following tracer commodities (12): male condom, oral contraceptive, emergency contraception, injectable, IUD, Oxytocin, Misoprostol, Magnesium sulfate, Ampicillin injectable, Gentamicin injectable, Self-inflating neonatal resuscitation bags with masks and ANCs – Dexamethasone or Betamethasone injection. The criteria at this level require facilities to have at least 7-12 tracer commodities (regardless of the quantity on hand) to achieve the highest score on the RHCS scale. Ampicillin and gentamicin were counted together as one commodity when both were present for management of infections during neonatal care[4].

iv. CYPs lost due to stock-outs: Following the methodology implemented by SEPREMI/Foro LAC, CYPs to be lost due to stock-outs were calculated to estimate the potential impact on the following key RH indicators: unintended pregnancies, abortions, maternal deaths, neonatal deaths that could have been prevented with no stock-out.

v. CYPs generated by the MOHs and the Family Planning Associations affiliated to IPPF in 2019 and 2020. The main FP providers in the Caribbean are MOH and IPPF affiliates and comparisons of their CYPs are also presented in the Findings section.

iii. Sample for Last Mile data analysis

A sample of last-mile service delivery points (SDPs) was selected to collect availability of tracer commodities. For last-mile availability data, the assessment team relied on MOH counterparts to provide a list of SDPs from which some SDPs were randomly picked to collect the latest inventory data reported. Random stratification of SDPs was based on facility level of care and geographic region representation, according to each MOH health care structure, and what commodities were offered by the level of care. A second alternate SDP was also selected and provided to be used when:

1. The first SDP option did not provide SRH services;
2. There was a missing report from that particular SDP; or
3. Communication with the first SDP option was not possible.

Quantitative representation of SDPs was not feasible due to time constraints and the inability to perform in-person site visits. The following countries did not provide last mile data: Anguilla, Antigua and Barbuda, Barbados, Guyana and Jamaica.The table below shows the percentage of facilities included in the sample for each country. It is worth noting that the coverage of the sample is between 10% and 100% of the total number of health facilities, as observed in Table

3 Last mile refers to the health facilities at any level of care (primary, secondary, and/or tertiary levels)
4 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6176768

1 below:

Table 1: Sampled facilities

Countries that provided sampled facilities data	Total facilities in the country	Number of facilities (sample)	Percentage of facilities
Belize	44	11	25%
The British Virgin Islands	11	6	55%
Grenada	30	9	30%
Montserrat	5	5	100%
Saint Lucia	42	11	26%
Trinidad and Tobago	115	13	11%
Dominica	45	18	40%
St. Kitts & Nevis	21	10	48%
St. Vincent and The Grenadines	47	11	23%
Suriname	105	10	10%
Bahamas	71	14	20%

Despite the limitations in terms of time and data, which affected quality and completeness, information from the last mile was instrumental in obtaining the aforementioned indicators; validating the offer of tracer commodities; analyzing trends by product, potential stock-outs or over-stocks; and gauging the potential effect of the COVID-19 pandemic during lockdowns and beyond.

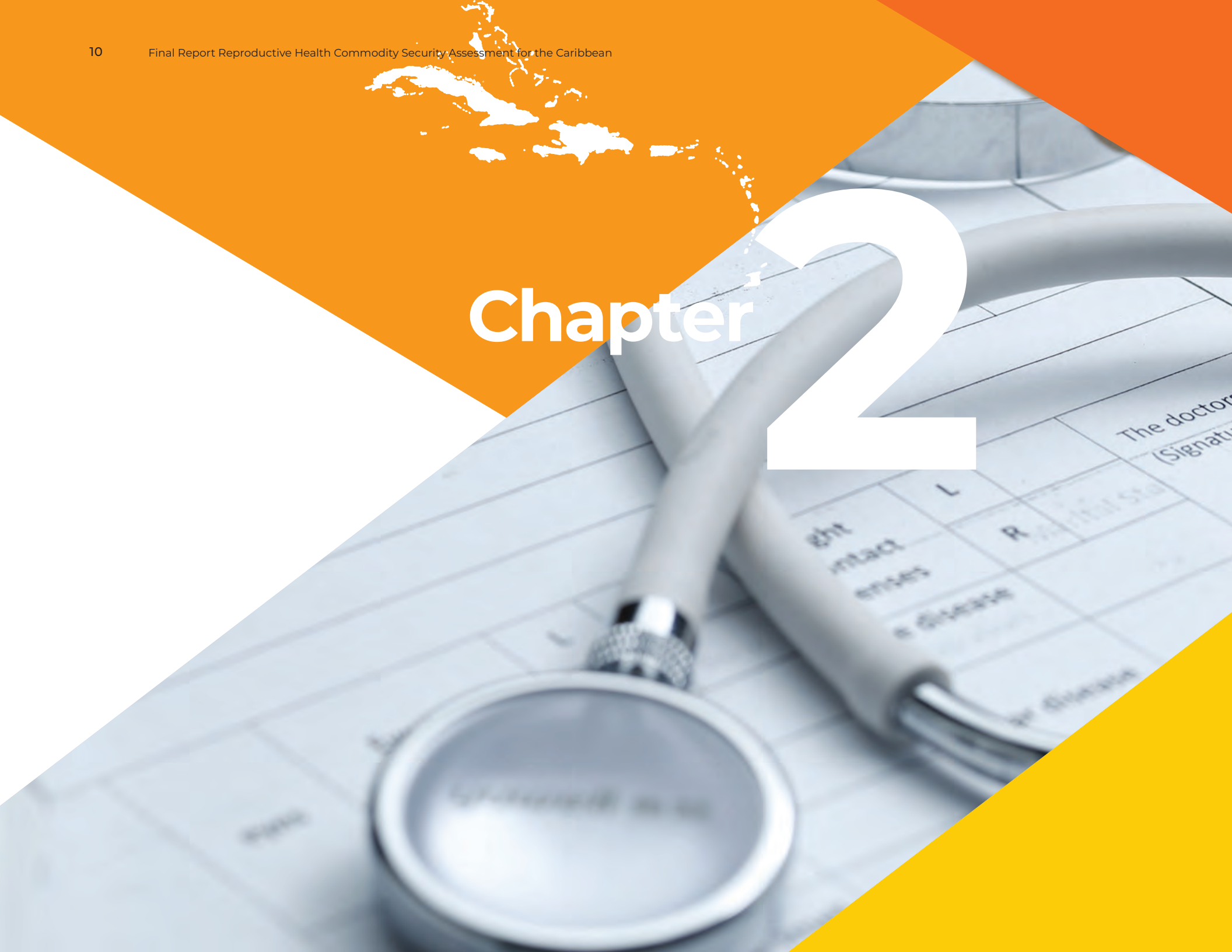
1.4 LIMITATIONS AND OTHER IMPORTANT CONSIDERATIONS

Travel restrictions caused by the COVID-19 pandemic made standard data collection impossible, so the analysis was limited to data that was operationally feasible to be collected virtually. This was especially true for the data required to measure indicators based on central warehouse data, and last-mile availability of tracer commodities in sampled facilities. Additionally, the following limitations affected the timeline which was extended for over a month more than the original plan:

- Data was not submitted according to the agreed timelines and deadlines.
- Once data was received, the revision and validation of data took longer than expected, particularly when inventory units were not consistent or were reported in different units in the last mile and central warehouse.
- Incomplete data was received, which needed weeks of follow up to be completed.
- Long validation processes due to data inconsistency.
- Not all informants proposed to be interviewed were present in the virtual meetings, making it difficult to get all the responses on time.
- Informants for FP and MNN were often operating in separate areas/units of the MOH, which made it difficult to gather data for MNN commodities. Additionally, during interviews, informants could not answer all the questions. As a consequence, the consultants had to make numerous follow-ups with the country teams to complete the survey.
- Lack of functional information systems meant the data provided by MOH was not readily available and involved extensive validation to guarantee the best quality data.

- Guyana, Antigua and Barbuda, Anguilla and Jamaica did not provide last mile data, thus the analysis of the availability of commodities at the last mile was not done for these countries.
- Barbados was the only country that provided neither central warehouse data nor last-mile data; thus, these aspects were not analyzed for Barbados.
- In the case of Jamaica, the information is rather limited for contraceptives, as the data for MNN commodities regarding central warehouse and the last mile was not provided.
- It was difficult and time-consuming to request and receive data from the Family Planning Associations (FPAs) affiliated with IPPF. The following FPAs did not provide their CYP data for 2019 and/or 2020: Jamaica, Anguilla, and Grenada. The exercise to determine what commodity was offered and at what level was essential to adequately assess availability. This information was provided by the MOH during interviews and consultants were needed to crosscheck it for validation with the 2019 and 2020 central warehouse and last-mile reports provided, as there were contradictions in most cases. The team considered a particular commodity to be offered if this was found in 2019 and 2020 reports, regardless of whether the commodity was part of the Essential Medical List or was being offered before 2019.
- As referenced above, chlorhexidine digluconate 7.1% in cream or gel was excluded to maintain comparability amongst Caribbean countries.

Chapter 2



REGIONAL FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Reliably choosing, obtaining and using a wide range of contraceptives and MNN commodities is at the centre of exercising sexual and reproductive health rights. Advancing the Caribbean countries towards a stronger and more resilient RHCS with a regional approach is key to advancing social and human development goals. The sixteen countries that participated in this assessment are part of CARICOM.

All CARICOM countries are classified as developing countries and, except for Belize in Central America and Guyana and Suriname in South America, all members and associate members are island states. All members subscribe to the Community's principles outlined in the Revised Treaty of Chaguaramas (2002). Leaders of member states shape the Community's policies and priorities. All members have an equal say regardless of size or economic status, ensuring that every member has a voice in shaping the Caribbean Community. CARICOM rests on four main pillars: economic integration; foreign policy coordination; human and social development; and security[5].

They are all relatively small, in terms of population and size; and diverse in terms of geography, population, culture and levels of economic and social development. CARICOM countries share similarities and challenges. On the one hand, they are all in proximity to major markets in North and South America, and most countries have had to make the transition from agriculture or mining to a service-driven economy. Most of their GDPs, especially in the OECS, are tourism based. On the other hand, they have to overcome the challenges of frequent natural disasters, in addition to their small size, with the associated lack of economies of scale and vulnerability to external shocks.

To move the RHCS agenda forward, there are three regional entities/platforms that are important to consider as major regional stakeholders:

i. CARICOM Secretariat

The CARICOM Secretariat's mandate is to contribute, in support of Member States, to the improvement of the quality of life of the People of the Community and the development of an innovative and productive society in partnership with institutions and groups working towards attaining a people-centred, sustainable and internationally competitive Community. According to information available on CARICOM´s webpage, the primary objective of CARICOM is the full integration of the national procurement markets in Member States into a single, unified and open market for Public Procurement to bolster the CSME. This platform might serve two-fold (a) as a regional body where the RHCS agenda may be leveraged and further supported in the future, and (b) a regional procurement option for contraceptives and MNN commodities.

ii. OECS

The Organization of Eastern Caribbean States (OECS) is an International Inter-governmental Organization, within CARICOM dedicated to regional integration in the Eastern Caribbean. The Organization of Eastern Caribbean States came into being on June 18, 1981, when seven Eastern Caribbean countries signed a treaty agreeing to cooperate and promote unity and solidarity among the members. The treaty became known as the Treaty of Basseterre, named in honour of the capital city of Saint Kitts and Nevis where it was signed. Since 1981, OECS has established a regional pooled procurement mechanism that favours economies of scale and pre-qualified quality products for their member states. This is the main procurement mechanism used by OECS countries and an excellent sub-regional platform that may promote RHCS in the future.

5 https://caricom.org/member-states-and-associate-members/

Figure 4: OECS Member States

Within the English- and Dutch-speaking Caribbean countries, the Organization of Eastern Caribbean States (OECS) in Figure 4 is a ten-member grouping comprised of member states Antigua and Barbuda, Commonwealth of Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines, that together represent a pharmaceutical market need of 1 million people. The OECS and its state members are part of CARICOM and part of the Economic Union and received the full benefits of Economic Union, like free movement of people and goods, with the British Virgin Islands, Anguilla, Martinique and Guadeloupe as associate members of the OECS. The OECS has a Pharmaceutical Procurement Service (PPS) which serves as a regional agency providing pharmaceutical and medical supplies management service to the OECS countries.

During 2018-2019, OECS Pooled Procurement System purchased medical products valued at US$30.19 million. At an estimated 20% reduction on the unit cost of medical products, member states saved approximately US$6.04 million from pooled procurement. Countries that benefited from this cost-efficient mechanism are Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, and The British Virgin Islands.

iii. The Caribbean Regional Coalition on Sexual and Reproductive Health (CCSRHR)

The Coalition was launched in 2017 and is comprised primarily of Family Planning Associations from across the Caribbean, and regional and international partners. It seeks to ensure the sexual and reproductive rights that have been agreed on internationally are made real in the lives of the average citizen, including access to SRH commodities.

FINDINGS

Several analyses were performed by the assessment team to inform findings, conclusions and recommendations. Namely: 1) Offer of contraceptives and MNN commodities by level of care; 2) availability at the last mile; 3) Couple-years of protection; 4) Impact of COVID-19; and 5) RHCS maturity.

The basis of the availability analysis at the central level and last mile is the commodity that each MOH is procuring and offering to the users, for both contraceptives and MNN commodities.

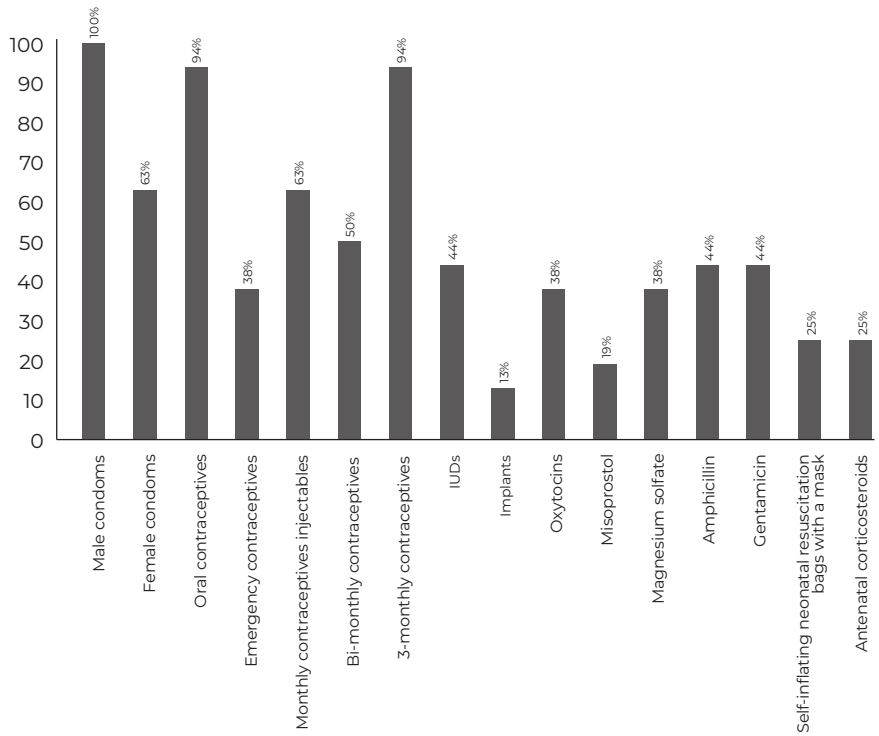
2.1 OFFER OF CONTRACEPTIVES AND MNN COMMODITIES BY LEVEL OF CARE

Countries were requested to share written norms with the assessment team to inform the analysis of the offer of each commodity, but none of the 16 countries provided such documents. Because of this, the offer of contraceptives and MNN commodities was gathered during interviews and was further validated based on the logistics data

provided (as indicated in section 1.4).

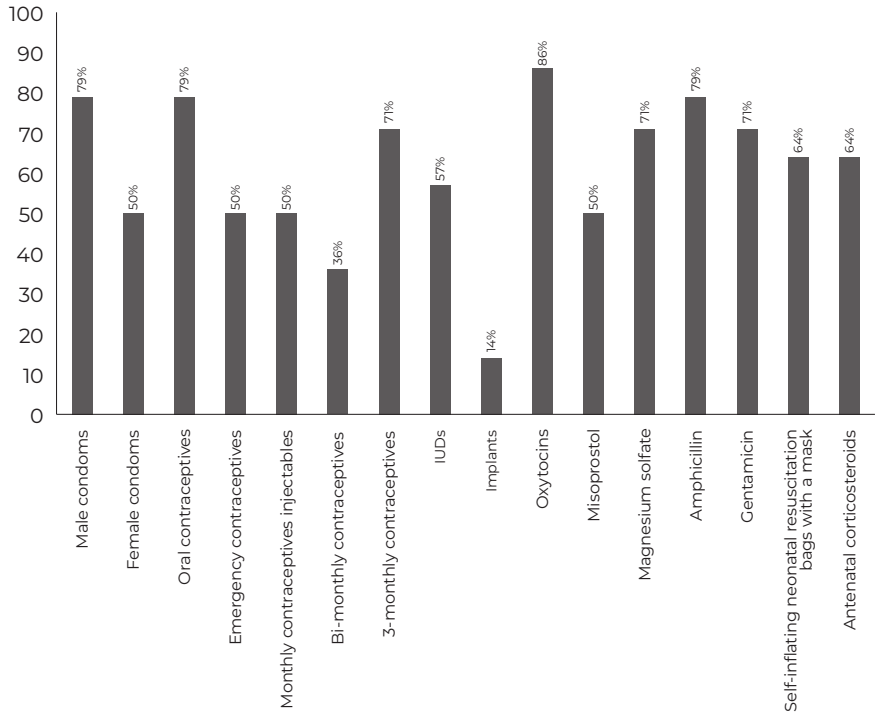
At the primary level, male condoms, orals and 3-month injectables are offered in 94-100% of the countries. The offer of Long-Acting Contraceptive Reversible methods (LARCS) is very limited at the primary health care level. Based on the context of the health care systems in the Caribbean, where MNN services are offered mainly at the secondary and tertiary levels. Graph 1 shows that 100% of countries offer male condoms at the primary level, while only 13% offer implants.

Graph 1: Percentage of countries offering commodities at the primary level (by commodity)



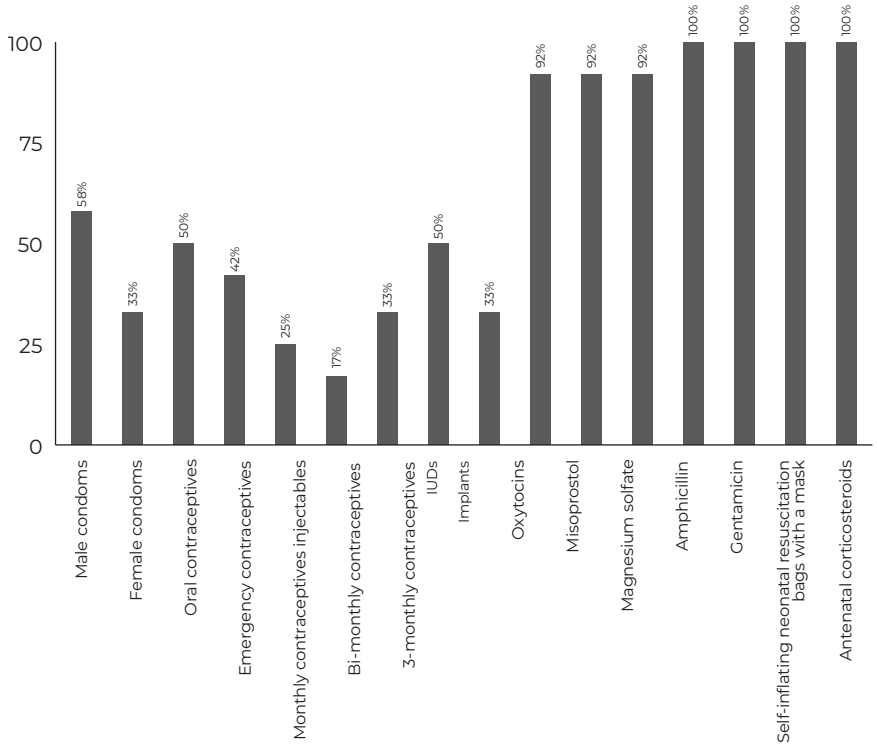
The offer of contraceptives decreases at the secondary and tertiary levels of care (Graph 2 and Graph 3), where male condoms oral contraceptives, monthly injectables, 3-month injectables and IUDs are offered in 65-70% of countries. The offer of emergency contraception (ECP), IUDs and implants slightly increase at these levels, similar to the offer of MNN commodities.

Graph 2: Percentage of countries offering commodities at the secondary level (by commodity)



At the tertiary level (see graph below), the frequency of countries offering contraceptives is more limited than in primary and secondary levels. MNN commodities are widely available at this level, where delivery and newborn care is mostly offered.

Graph 3: Percentage of countries offering commodities at the tertiary level (by commodity)



Across countries and across different levels of care, the offer of female condoms is very limited. Worth noting is the limited offer of emergency contraception, which is a critical commodity for the prevention of unplanned pregnancies and is an essential commodity in the provision of Clinical Management of Rape. The offer of LARCs is also very limited and many countries have not introduced a very effective method, like implants, into their method mix.

In Table 2, there is a summary of commodities offered by country, where it is observed that condoms are the only contraceptive available across all countries, together with ampicillin, gentamicin and ANCs. Regarding contraceptives, The Bahamas, Belize, Guyana and Saint Lucia rank highest for offering FP commodities.

Table 2: Offer of Commodities by Country

Contraceptive Method	Anguilla	Antigua & Barbuda	The Bahamas	Barbados	Belize	The British Virgin Islands	Dominica	Grenada	Guyana	Jamaica	Montserrat	Saint Lucia	St. Kitts & Nevis	St. Vincent & the Grenadines	Suriname	Trinidad & Tobago
Male condoms	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Female condoms	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes
Oral contraceptives	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Emergency Contraceptives	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No
Monthly contraceptive Injectables	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Bi-monthly contraceptive injectables	No	Yes	Yes	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No
3-monthly contraceptive injectables	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IUDs	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes
Implants	No	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No	No	No	No	No
Oxytocin	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Misoprostol	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Magnesium sulfate	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ampicillin	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gentamicin	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Self-inflating neonatal resuscitation bags with masks	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
ANCs – Dexamethasone or Betamethasone injection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2.2 AVAILABILITY AT THE LAST MILE:

In general, ECP, misoprostol and self-inflating neonatal resuscitation bags with masks were the commodities less present in the last mile. Male condoms, oral contraceptives and injectables were the FP methods more readily available, as summarized in Table 3 below:

Table 3: Availability of tracer commodities at last mile

Availability at the last mile of tracer commodities in 11 countries		
Commodity	# Facilities	Present
Male condoms	78	66%
Oral Contraceptives	72	61%
Emergency contraception	6	5%
Injectables	71	60%
IUDs	23	19%
Oxytocin	31	26%
Misoprostol	17	14%
Magnesium sulfate	31	26%
Ampicillin injectable	29	24%
Gentamicin injectable	26	22%
Self-inflating neonatal resuscitation bags with masks	14	12%
Antenatal corticosteroids (ANCs) – Dexamethasone or betamethasone injection	28	24%

In Tables 4 and 5, the availability or presence of commodities is shown at the primary and secondary/tertiary levels. In the primary level, condoms and orals are the contraceptives most present.

Table 4: Presence or Availability of Tracer Contraceptives at Primary Level

Presence or Availability of Tracer Contraceptives at Primary Level		
Contraceptives	# Facilities	Present
Male condoms	65	79%
Oral Contraceptives	54	66%
Emergency contraception	4	5%
Injectables	54	66%
IUDs	11	13%

At the secondary and tertiary levels, the presence of commodities was assessed based on where each commodity is offered. The commodity most present is magnesium sulfate, oxytocin, ampicillin, and ANCs. Contraceptives are less available at these levels.

Table 5: Presence or Availability of Tracer Commodities at Secondary/ Tertiary Levels

Secondary & tertiary level Presence or Availability of Tracer Commodities – Last Mile		
Commodity	# Facilities	Present
Male condoms	13	35%
Oral Contraceptives	18	49%
Emergency contraception	2	5%
Injectables	17	46%
IUDs	12	32%
Oxytocin	31	84%
Misoprostol	17	46%
Magnesium sulfate	31	84%
Ampicillin injectable	29	78%
Gentamicin injectable	26	70%
Self-inflating neonatal resuscitation bags with masks	14	38%
(ANCs) – Dexamethasone or betamethasone injection	28	76%

2.3 AVAILABILITY AT THE CENTRAL WAREHOUSE

The RHCS Assessment included collecting availability data at the central warehouse of 16 commodities in 2020, months of stock on hand were projected to December 2020 and the status expressed in months of stock is summarized in the table below. Following the traffic light colours, the table shows the level of risk for either stock-out (< 0-2.9 months) or oversupply (>18 months). Products in **red** show a high risk of overstock and stock-out, **yellow** for medium risk (between 3-5.9 months) and **green** No Risk (6-18 months) Graph 4 also describes the situation encountered during this assessment, comparing availability (presence) of commodities evaluated at the central warehouse of 16 countries. It is important to note that condoms, orals, oxytocin, magnesium sulfate were the commodities more frequently present in 2019. In 2020 (projected to December 2020) there is a decrease in availability for most commodities, except IUDs and bi-monthly injectables compared to 2019. The commodity less available in all 16 countries was implants. In summary, none of the countries had 100% of all commodities evaluated at the end of 2019 nor projected for the end of 2020.

Graph 4: Availability at Central Warehouse of 16 countries 2019 - 2020

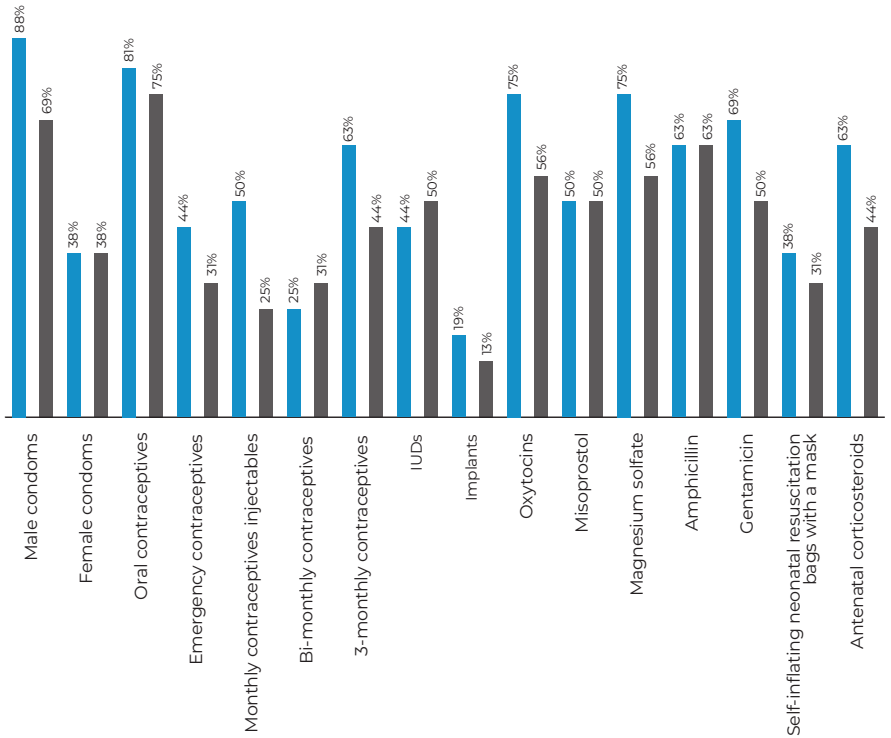


Table 6: Months of Stock by Commodity 2020

Months of Stock by Commodity for 2020 (projected to December 2020)															
Contraceptive Method	Anguilla	Antigua & Barbuda	The Bahamas	Belize	The British Virgin Islands	Dominica	Grenada	Guyana	Jamaica	Montserrat	Saint Lucia	St. Kitts & Nevis	St. Vincent & the Grenadines	Suriname	Trinidad & Tobago
Male condoms	57.7	7.6	9.0	51.6		-1.8	1.7	1.5	1.2	237.6	22.6	99.0	4.0	-1.0	82.0
Female condoms		-3.0	13.7			-3.0		-1.5	-3.5		18.4	32.0	5.3		56.7
Oral contraceptives	46.4	7.4	21.7	23.5	3.5		6.9	-1.5	28.7	-2.4	8.3	8.8	9.8	-0.6	9.7
Emergency Contraceptives	104.0	4.0	1.6	13.4	26.3						4.6			3.8	
Monthly contraceptive Injectables		9.0	56.4	-1.4	17.5		-0.1				12.6		35.8	-1.5	18.1
Bi-monthly contraceptive injectables		0.3	12.5	-2.0				17.4		-2.9	2.5		8.6		
3-monthly contraceptive injectables	26.0	22.9	28.6	15.6	2.9		11.5	9.5	2.8	0.5	2.8		5.4	-1.2	101.5
IUDs	44.0		140.4	108.4	21.5			9.7	512.6	50.0	-2.0		21.4		21.7
Implants			-4.0	52.2				-1.1	11.1		-2.0				
Oxytocin	29.9	6.4	0.5	15.3	5.4	1.1	6.8	-2.0		93.5	1.0	26.4	1.8	3.4	9.4
Misoprostol	0.9	3.0	-1.5	24.4	75.3		15.0	-2.0		27.0	1.1	9.0	9.0	-1.5	5.3
Magnesium sulfate	36.0	10.3	2.9	-2.0	37.5	-3.0	5.4	2.7		17.4	1.8	9.8	-0.9	9.4	-0.5
Ampicillin	22.5	2.1	1.5	32.7	44.5	-2.1	5.1	-1.5		-2.5	0.3	6.2	-0.1	2.4	41.3
Gentamicin injectables	22.5	-3.0	-1.4	35.5	13.2	-2.7	6.8	47.6		31.0	4.8	50.2	-3.0	0.3	16.5
Self-inflating neonatal resuscitation bags with masks		72.5		177.4		1.0	21.0	-2.0		-2.0	-2.0			288.5	
ANCs – Dexamethasone or Betamethasone injection	18.5		-1.3	9.2	31.6	-1.6	8.2	-1.5		5.2	-0.3	13.1	2.9	2.1	-2.3

Availability 2019 Availability 2020

2.4 COUPLE-YEARS OF PROTECTION (CYP)

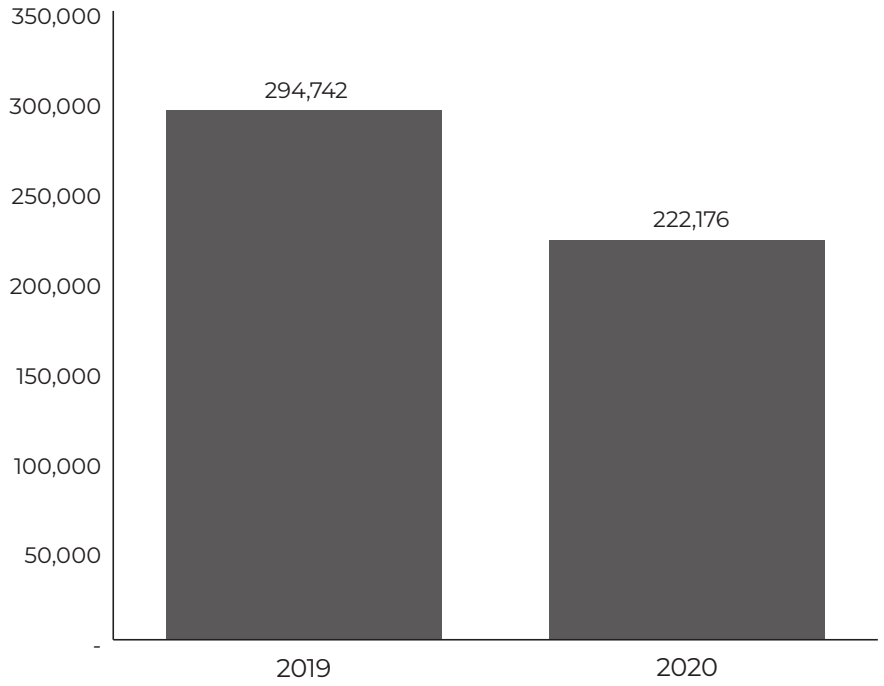
CYP is defined as the estimated protection provided by FP methods during one year based on the volume of all contraceptives distributed to clients during that period, thus, distribution data received from MOHs and IPPFs affiliated were used to calculate this indicator. The factors used are shown in Table 7:

Table 7: Couple-years of Protection Factors

Method	CYP Per Unit
Oral Contraceptives	15 cycles per CYP
Condoms (male and female)	120 units per CYP
Depo Provera Injectables	4 doses (ml) per CYP
Noristerat Injectables	6 doses per CYP
Cyclofem Monthly Injectables	13 doses per CYP
Copper-T 380-A IUDs	4.6 CYP per IUD inserted (3.3 for 5-year IUD, e.g., LNG-IUS)
3-Year Implants (e.g., Implanon)	2.5 CYP per implant
4 Year Implants (e.g., Sino-Implant)	3.2 CYP per implant
5-Year Implants (e.g., Jadelle)	3.8 CYP per implant
Emergency Contraceptive Pills	20 doses per CYP

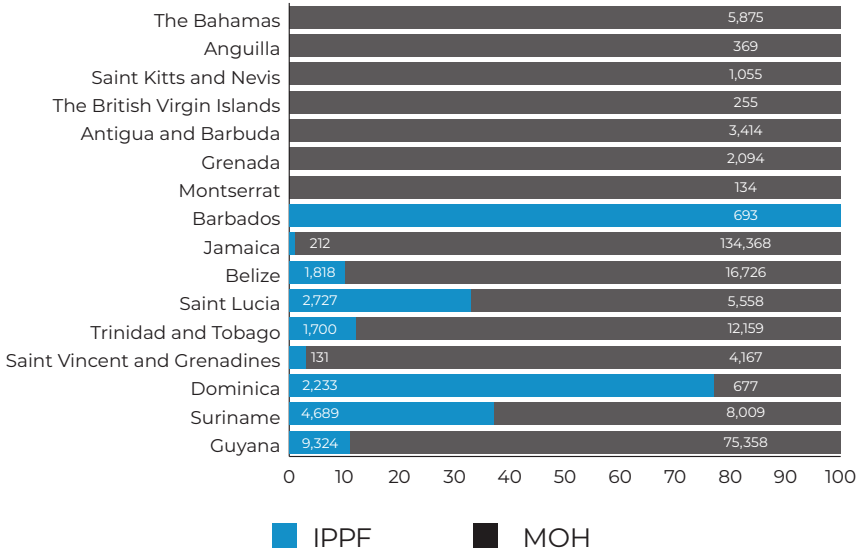
Graph 5 shows the total of CYPs generated by the 16 countries in 2019 of 294,742 and the total projected for 2020 is 222,176 CYPs, which reveals a 25% reduction.

Graph 5: Total CYP by Year, Caribbean Total CYPs by year

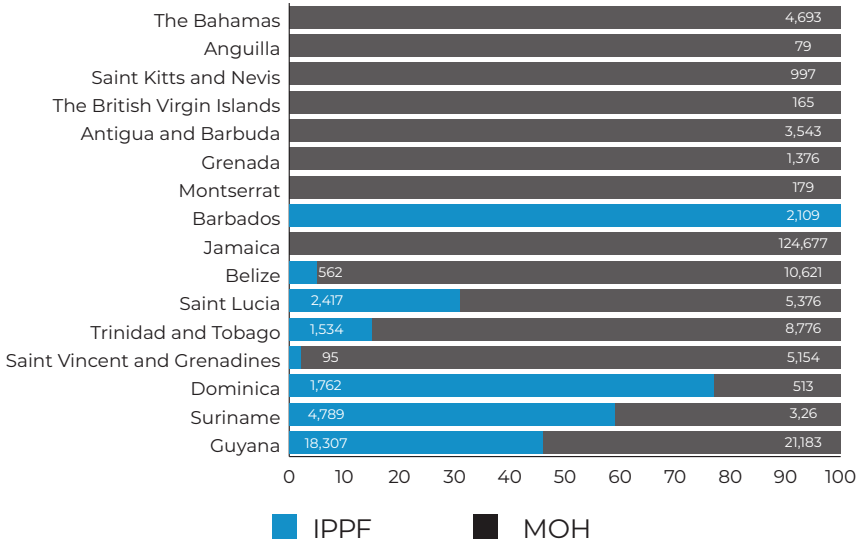


In Graph 6 and Graph 7, it is analyzed the CYPs generated by the two main FP providers (MOH and IPPF affiliates) in 16 countries during 2019 (12 months) and 2020 (projected assuming a similar trend through December 2020). It is interesting to see how the coverage switched in Suriname from the MOH being the main provider in 2019 to the IPPF affiliate in 2020. Note the MOH of Barbados did not provide distribution data.

Graph 6: CYP Comparison 2019, all Caribbean countries



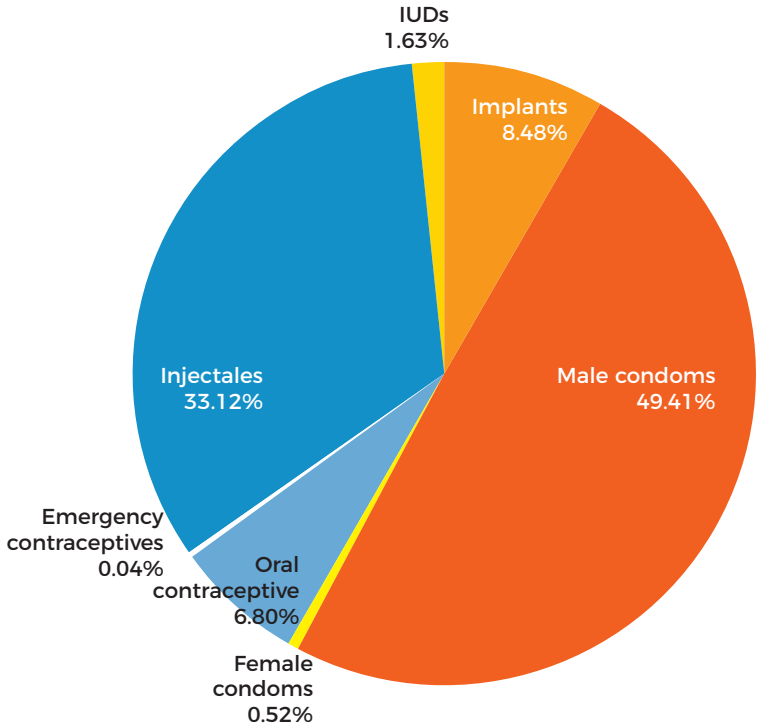
Graph 7: CYP Comparison 2020, all Caribbean countries (Projected)



2.5 METHOD MIX OF PUBLIC SECTOR IN THE CARIBBEAN

Based on distribution data provided by MOH, the assessment team estimated couple-years of protection (CYP) method mix in the Caribbean public sector. As shown in Graph 8, male condoms correspond to 49.41%, injectables 33.12%, orals 6.80%, IUDs 1.63%, implants 8.48%, female condoms 0.52%, and ECP 0.04%. This shows that the quality of FP services and full free and informed choice continue to be a challenge, especially due to the lack of choice for long-acting reversible methods (LARC) and ECP.

Graph 8: 2019 Caribbean Public Health Method Mix

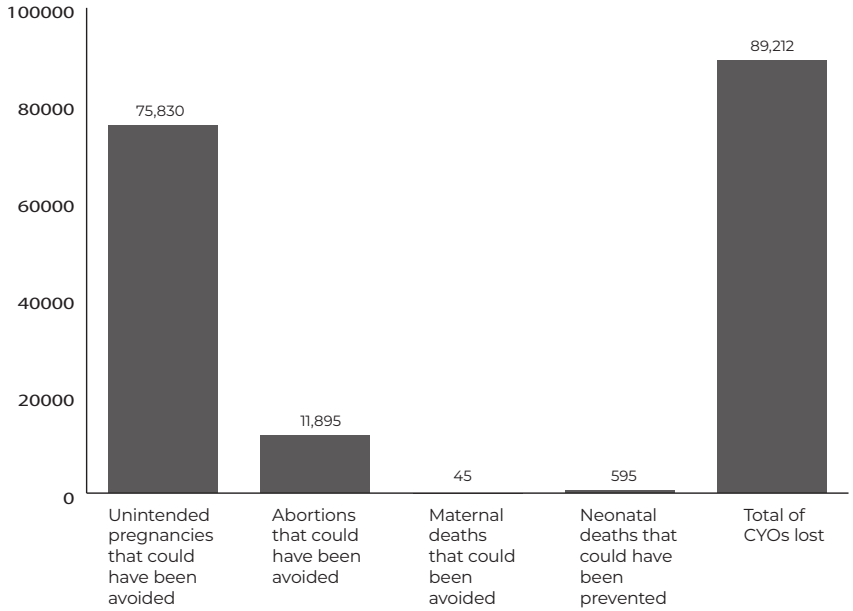


2.6 IMPACT OF COVID-19

All MOH counterparts interviewed indicated that lockdowns due to COVID-19 did not interrupt health services. However, an analysis of central level distribution to SDPs between 2019 and 2020 showed most countries suffered reduced distribution. Other important findings are the fact that some countries have an oversupply of contraceptives commodities in the last mile due to poor quantification and reduced demand as a result of clients' fear of visiting health services or movement restrictions during the COVID-19 pandemic (i.e., Trinidad and Tobago, The Bahamas, The British Virgin Islands, Montserrat, Belize, Saint Kitts and Nevis, Anguilla and Jamaica) while others suffered acute stock-outs (i.e., Guyana, Dominica. Suriname, Montserrat). This will also cause poor reproductive health outcomes and the expiration of products. It will also generate pharmaceutical waste, causing economic and ecological repercussions in a region already suffering the consequences of climate change, in addition to social/ethical burdens. The imbalances of wasting resources in one place while needing them desperately in others are worrisome and immediate corrective actions are needed.

CYPs to be lost due to stock-outs were calculated to estimate potential impact on the following key indicators: unintended pregnancies, abortions, maternal deaths, neonatal deaths that could have been prevented without stock-outs. Graph 9 below aggregates the data for 13 countries, and it is revealing a very worrisome scenario for the Caribbean: from November 2020 to July 2021, it is estimated 89,121 CYPs will be lost and, as a result, 75,830 unintended pregnancies, 11,898 abortions, 45 maternal deaths, 595 neonatal deaths will not be averted. Please note this graph does not include Barbados (information was not provided for inclusion in the analysis), Trinidad and Tobago nor Saint Kitts and Nevis as these countries are experiencing significant oversupply of all contraceptives, thus no stock-outs were reported.

Graph 9: COVID-19 Impact

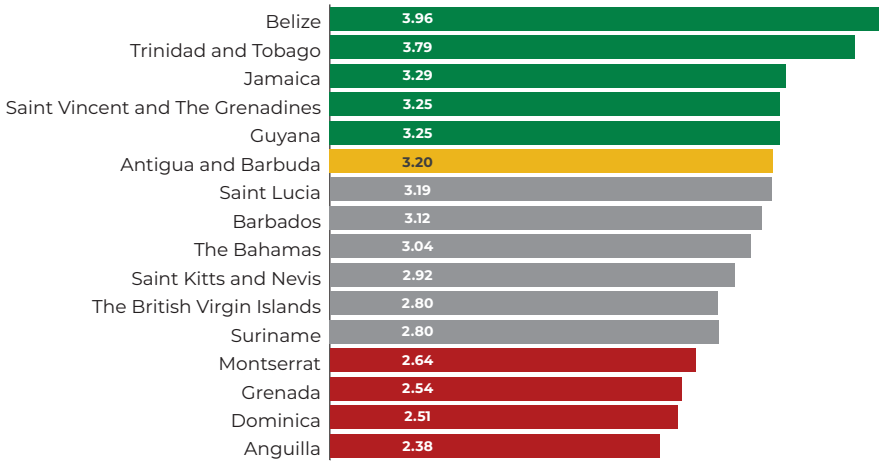


2.7 RHCS MATURITY

In this assessment, the maturity of the RHCS in the Caribbean region was analyzed based on six areas: 1) Enabling environment for RHCS; 2) Demand satisfaction for FP; 3) Improved procurement system and processes of contraceptives and MNN commodities; 4) Improved availability and access to services, including contraceptives and MNN commodities; 5) Strengthened capacity for supply chain management; and 6) Improved planning, monitoring and reporting. As referred earlier in this document, a survey was developed with a set of questions and these six areas were grouped to obtain scores on a scale where 5 is the best score (highest performance), and one is the worst (poorest performance).

In Graph 10, it is important to note the countries that achieved the highest scores like Belize, Trinidad and Tobago, Jamaica, Saint Vincent and The Grenadines, and Guyana. Although their maturity is better than the other countries, every one of them has several RHCS areas that need significant improvement, as are discussed in detail in every country report in Chapter 3 of this report. Regarding OECS member states, it is worth highlighting that Saint Vincent and The Grenadines, Antigua and Barbuda and Saint Lucia had the highest scores of the OECS countries. Montserrat, Grenada, Dominica and Anguilla are the countries with the lowest scores with regards to their RHCS maturity.

Graph 10: RHCS Assessment Score by Country



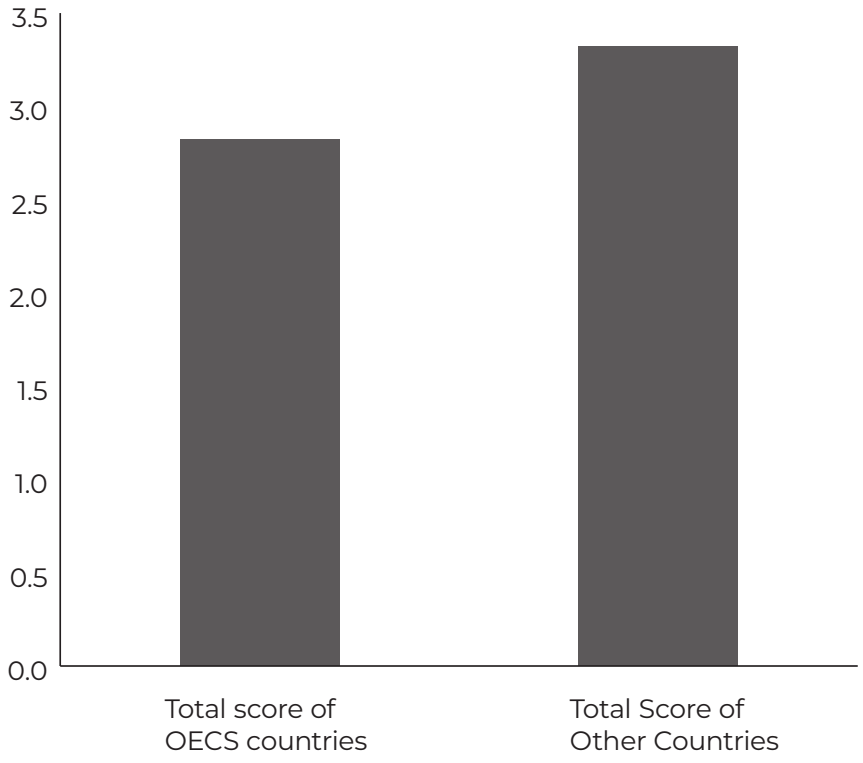
In Table 8, the areas with higher performance are improved procurement system and processes of SRH commodities (Contraceptives and MNN), enabling environments for RHCS, and improved access/availability of SRH commodities (Contraceptives and MNN), in that order. The areas with the lowest RHCS maturity score are improved RHCS planning, monitoring and reporting, and demand satisfaction for family planning.

Table 8: RHCS Output Score by Country

Output	1	2	3	4	5	6	
Country	Enabling Environment for Reproductive Health Commodity Security	Demand Sophistication for family Planning	Improved Procurement System and Processes of SRH Commodities	Improved Access/ Availabilities of SRH Commodities Contraceptives and MNN)	Strenghtened Capacity for Supply Chain Management	Improved RHCS Planning, Monitoring and Reporting	General Score
Anguilla	2.75	1.67	2.00	2.71	1.83	3.33	2.38
Antigua & Barbuda	3.50	3.33	4.50	2.71	2.50	2.67	3.20
The Bahamas	3.50	2.67	4.00	3.43	2.67	2.00	3.04
Barbados	4.00	2.33	4.00	2.86	3.83	1.67	3.12
Belize	3.50	3.00	5.00	4.43	4.50	3.33	3.96
The British Virgin Islands	3.75	2.33	2.50	2.71	3.50	2.00	2.80
Dominica	2.88	1.67	2.50	2.00	3.33	2.67	2.51
Grenada	3.25	3.00	3.00	3.14	1.50	1.33	2.54
Guyana	4.38	4.00	3.50	3.29	2.33	2.00	3.25
Jamaica	4.00	2.67	4.00	3.43	4.00	1.67	3.29
Montserrat	3.13	3.33	3.50	2.71	1.83	1.33	2.64
Saint Kitts and Nevis	3.88	2.00	4.50	3.14	2.67	1.33	2.92
Saint Lucia	3.38	3.00	3.50	3.57	3.33	2.33	3.19
Saint Vincent and the Grenadines	3.38	3.00	3.50	3.43	3.50	2.67	3.25
Suriname	4.25	2.33	3.00	2.57	2.67	2.00	2.80
Trinidad & Tobago	3.88	2.67	5.00	3.71	4.50	3.00	3.79
Global Score by Output	3.59	2.69	3.63	3.12	3.03	2.21	

In Graph 11, when comparing the performance of the OECS member states as a group with the rest of the Caribbean countries ('other countries') in this assessment, it becomes evident that OECS countries need to urgently prioritize their efforts to move the RHCS agenda further in the future.

Graph 11: Score RHCS Assessment: OECS countries vs. other Caribbean countries



CONCLUSIONS

Enabling Environment For Reproductive Health Commodity Security

Most countries have progressed commendably with developing SRH policies, strategies, and operational plans and all contraceptives are mainly free of taxes for MOHs. While these policy instruments are a key first step toward increasing country commitment and visibility for SRH, implementing these policies and plans take time. Moreover, during the revision of the policies and plans, RHCS is not highlighted, nor is the existence of in-country Commodity Security Committees to monitor progress against improved access to SRH commodities.

Contraceptives are financed with government funds in most countries. In cases where MOHs are not providing 100% financing, usually, international development partners like UNFPA and The Global Fund to Fight AIDS, Tuberculosis and Malaria (GF) provide donations. On the other hand, MNN commodities are funded 100% by governments in all 16 countries.

Experience has shown that careful selection of a limited range of essential medicines results in a higher quality of care, rational drug use, and improved quality of prescribed medicines. Except for Belize, Trinidad and Tobago, Saint Kitts and Nevis, Barbados, and Jamaica, countries do not have an Essential Medical List (EML). OECS countries use the OECS Product Medicines List 2019-2021 as reference.

COVID-19 has threatened the quality of SRH services in three ways: (1) Stock-out of vital FP products at the central warehouse, (2) oversupply at the last mile due to a significant reduction in the use of services in 2020, (3) the CYPs lost will have a tremendous impact on key outcome and impact indicators. This might reflect an insufficient priority given by countries to ensuring the continuation of SRH services during the COVID-19 pandemic. The exception to this finding is Jamaica, where, according to the data provided, distribution of all contraceptives increased in 2020.

Demand Satisfaction For Family Planning

In the public sector, the main providers of FP services are health facilities under the Ministries of Health. In the private sector, FPAs (IPPF affiliates), commercial pharmacies and private OB-GYN practitioners provide FP services as well. There are no social marketing projects working in the Caribbean countries, providing contraceptives through commercial pharmacies at social and accessible prices for those users with the ability to pay, which are easily available at any pharmacy and supported by media promotion.

Modern contraceptive prevalence rates (CPR) amongst some of the 16 countries evaluated are low, for example, Guyana and Trinidad and Tobago have the lowest at 32.6% and 37.6% CPR respectively. Also, there are high levels of unmet need for family planning, particularly in Suriname and Guyana (28.4% and 28% respectively). These factors impede the achievement of the core objective of RHCS, which is to ensure no woman or man leaves the health facilities empty-handed, and ultimately impedes the fulfilment of SRH rights .

Based on the information collected from MOH and IPPF affiliates, the MOH generated 86% of the couple-years of protection (CYP)[6] and the IPPF affiliates generated 14% of CYP in 2019 .

When analyzing the public health family planning method mix in the Caribbean, male condoms make up 49.4%, injectables 33.1%, orals 6.8%, IUD 1.6% and implants 8.5%. The low use of IUDs explains the oversupply, mainly due to lack of offer and demand; while implants are offered in only four countries (Bahamas, Belize, Guyana and Jamaica). Emergency contraception (ECP) is offered in eight countries. This shows that the quality of FP services, as well as fully free and informed choice, continues to be a challenge, especially for women who need and want long-acting reversible methods (LARC). In other words, FP is still not consolidated across the Caribbean.

As a region, Latin America and the Caribbean has the second-highest adolescent fertility rate in the world, estimated at 66.5 births per 1,000 girls aged 15–19 years old for 2010–2015; compared to 46 births per 1,000 girls in the same age group worldwide[7]. In particular, the Caribbean region faces other developmental challenges contributing to unplanned pregnancy among youth due to characteristics like high levels of violence, especially against women and children.

Adequate, affordable and timely provision of counselling and contraceptives is key to empowering young women and changing this reality. During this assessment, it is evident that access to SRH services by adolescents has limitations across countries, even in countries where recent policies enable the provision of contraceptives to adolescents without parental consent. Despite all the efforts and advancements in this area over the years, the reproductive health policies, systems, programmes, and services, still face a critical challenge: the access to SRH services by adolescents below the age of 18 and, especially, below age 16, due to: a) lack of knowledge about their sexual and reproductive health and rights, b) poor access and/or inadequate use of modern, effective and safe contraceptives, c) restrictive laws and policies, d) sexual violence and abuse without emergency contraception pills available as a resource and e) unequal gender relations.

National surveys (Demographic Health Surveys and Multiple Indicator Cluster Survey) that provide basic SRH information to monitor progress and challenges are not up-to-date, and in some countries (eg. British Virgin Islands, Dominica, Anguilla and Saint Kitts and Nevis), data, like modern CPR and unmet need for FP, was not available.

Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)

UNFPA Third Party Procurement (TTP) mechanism is used for contraceptives and maternal health commodities in The Bahamas, Belize, Guyana, Jamaica, Suriname, and Trinidad and Tobago. OECS member states use the OECS pooled procurement mechanism for contraceptives and MNN. Both options represent guaranteed economies of scale and quality of commodities. Additionally, when there are bottlenecks, countries may also procure locally through competitive bidding processes, even though at higher prices.

6 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

7 Accelerating progress toward the reduction of adolescent pregnancy in Latin America and the Caribbean. Report of a technical consultation (Washington, D.C., USA, August 29-30, 2016). ISBN: 978-92-75-11976-1

All MOHs are allowed to do international competitive tenders. Belize referred to CARICOM as one mechanism to procure contraceptives in the future. Table 9 summarizes an overview of the procurement mechanisms used by each country for both contraceptives and MNN commodities:

Table 9: List of procurement mechanisms used in the Caribbean

	Country	Contraceptives	MNN	Comments
1	Anguilla	OECS FPA of Antigua and Barbuda	OECS	(3-month injectable) to OECS, the rest to FPAA
2	Antigua and Barbuda	OECS/Global Fund	OECS and international bidding	GF donated female and male condoms
3	The Bahamas	UNFPA	Local competitive bidding	
4	Barbados	PAHO Strategic Fund	Local and international competitive bidding, centralized and decentralized	
5	Belize	UNFPA	Competitive bidding, PAHO Strategic Fund	Has quoted from CARICOM but has not placed orders
6	The British Virgin Islands	OECS	OECS	
7	Dominica	OECS	OECS	
8	Grenada	OECS	OECS	
9	Guyana	UNFPA	Competitive bidding, international suppliers	GF donations
19	Jamaica	UNFPA	Competitive bidding	
11	Montserrat	OECS	OECS	
12	Saint Kitts and Nevis	OECS	OECS	
13	Saint Lucia	OECS and UNFPA	OECS	
14	Saint Vincent and The Grenadines	OECS	OECS	
15	Suriname	UNFPA	International bidding/either using procurement agent or international bidding	
16	Trinidad and Tobago	UNFPA	Competitive bidding	

Quantification methodologies need to be strengthened in all 16 countries, as essential logistics data (i.e., consumption data and stocks) at the facility level is hardly collected and not being used to determine quantities that will maintain adequate stock levels (and therefore, avoid either oversupply or stock-outs).

Procurement is erratic - one-year countries might not procure a particular commodity and the following year they may procure more than needed. Now it will be crucial to monitor the distribution and consumption trends to balance stock levels back to adequate max-min levels.

Regardless if quantification was accurate and if orders will be sufficient to meet demand, countries that reported orders in transit are Anguilla, Antigua and Barbuda, Belize, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and The Grenadines. Countries not showing orders in transit at all are The Bahamas, The British Virgin Islands, Dominica, Montserrat and Suriname. Barbados did not report.

Improved Access/Availability of SRH Commodities (Contraceptives and MNN)

SRH services and commodities are free of charge in most countries. Even in those that charge a user fee, if users cannot pay, services are not denied. However, in BVI for example, users are referred to the commercial pharmacies when there is stock out in MOH and pay out of pocket.

The availability findings both at the central warehouse and the sampled facilities show that there are significant stock imbalances, some caused by the COVID-19 pandemic. But there are also other causes, such as weak Supply Chain Management (SCM) practices that need to be strengthened.

Not all contraceptives of this assessment (male condom, female condom, emergency contraception, oral contraceptives, monthly injectables, bimonthly injectables, 3-month injectables and IUDs) are part of the method choice offered in these countries. Main contraceptives offered in all public health facilities are male condoms, orals, 3-month injectables; in contrast, IUDs, implants and emergency contraception are less available methods. MNN commodities were

mainly available at the tertiary level, but some countries had them at the primary level as well. Self-inflating NN resuscitation bags with masks is not present in all countries, with varying levels of availability. For instance, Belize and Suriname had excess stock, due to rare use of resuscitation bags that could be transferred to other countries where they were needed more.

The analysis of the availability of tracer commodities in this assessment shows that availability of MNN commodities is greater than contraceptives, which somehow reflect that maternal-child health programmes are prioritized against FP programmes.

FP counselling, IEC materials and the WHO Medical Eligibility Criteria wheel are used in all countries; however, training needs to be strengthened, especially in what regards to the provision of quality SRH services responsive to the needs of adolescents.

Strengthened Capacity For Supply Chain Management

Logistics management information systems (LMIS) in most countries are weak. The design and implementation of robust LMIS require immediate attention. Essential logistics data is not readily used across all countries. Few countries reported having a budget to train in LMIS. Distribution is ad-hoc in most countries and they often lack distribution plans, leaving decisions of when should a request should be placed at the lower level. There seem to be no major bottlenecks in transportation, except that nurses are sometimes responsible for picking up orders, which can cause stock out, as they might decide to pick up their products when they have already run out. Stock-outs were more common for contraceptives than for MNN commodities which may reflect that a higher priority is given to maternal health than to family planning.

One major area of weakness is the lack of maximum-minimum inventory control systems that systematize calculations and periods for resupply that allows for the maintenance of appropriate stock levels. An area of strength to be highlighted is that, in most of the countries, the warehouse space does not seem to be a problem and standard warehouse conditions are followed. Worth noting, as well, is the fact that oxytocin is stored appropriately, and according to WHO guidelines.

As mentioned before, quantifications are not always related to population demand. Responsible officers' skills need to be reinforced to enable them to analyze available data, interpret consumption behaviour, plan for realistic programmatic expansion, isolate stock-out periods, reach a national maximum level once receiving the order. They will be able to place orders on time to avoid falling below the minimum level that will probably cause rationing or even stock-outs at some points of the supply chain.

Improved RHCS Planning, Monitoring and Reporting

The Caribbean, as a region, does not have a formal RHCS monitoring plan. Most countries, however, monitor their budgets and procurement processes when the annual procurement cycle starts. Despite the findings revealing that supply chain management is one of the core areas of RHCS that need improved monitoring, in general, countries do not have national RHCS monitoring plans (with indicators, targets and goals) with the participation of relevant stakeholders.

RECOMMENDATIONS

Enabling Environment for Reproductive Health Commodity Security

There are several countries currently updating SRH plans, strategies and national development plans. In these cases, it is strongly recommended to take these opportunities to ensure RHCS is well integrated and prioritized (including the integration of an RHCS monitoring and evaluation plan). This will pave the way for increased commitment to RHCS and availability of commodities for all segments of the population. Alternatively, it is recommended the development of a five-year RHCS strategy and action plans.

The inclusion of RHCS in future COVID-19 preparedness plans or any other health emergency preparedness plans is also of utmost importance.

Accelerate efforts to eliminate the legal barriers to offer comprehensive SRH/FP services to adolescents (<18 years) old without parental

consent. To this end, it is recommended to implement throughout the Caribbean countries awareness-raising strategies targeting policy makers and other stakeholders in what regards to adolescents sexual and reproductive health needs and rights. Of crucial importance as well is the development of clear policy guidelines for duty bearers (namely health providers and legal guardians).

Establish RHCS national committees as part of the dialogue around SRH. Emphasize the fact that policies are the first step, but careful planning needs to take place to go from policy to action at the local levels .

Demand Satisfaction For Family Planning

To improve adolescent SRH requires ensuring universal access to sexual and reproductive health care (SRH) services, including family planning; and the integration of SRH and RHCS into national strategies and programs, with particular attention to the first level of care. Also, comprehensive sexuality education for men and women, and strategies to involve men in SRH need to continue and be reinforced, along with other interventions. Countries are recommended to:

- Seek and/or strengthen their alliances with IPPF affiliates for this purpose.
- Advocate, where applicable, for the inclusion of contraceptives within health insurance schemes. Also, establish reimbursement mechanisms to MOHs for the coverage of this service.

Mobilize resources to improve the monitoring of unmet need for FP. This is particularly important for OECS countries where it is critical to ensure demographic health surveys take place with regularity and include relevant indicators for measuring progress against contraceptive use and unmet need for family planning, among other critical SRH indicators.

Improved Procurement System and Processes Of SRH Commodities (Contraceptives And MNN)

Leveraging the OECS sub-regional platform to inform the development of a Regional RHCS program which would bring together every CARICOM member state to share common challenges and find solutions. For instance, countries would share their excess stock levels, determine country needs and share stock with those in most need, achieving a more balanced regional approach. Across the region, this would ensure less stock-outs and less wastage of commodities (resulting from the expiration of commodities when overstocking takes place).

Learning from the negative effects of the COVID-19 pandemic with regard to supply chain disruptions, the exploration and expansion of procurement mechanisms will allow for timely responses in the event of natural disasters and health emergencies. For instance, map and contact new suppliers in the Latin American region such as Mexico, Brazil, Chile, Colombia, and learn about their products, prices and conditions.

Identification of resources to standardize regional quantification methodologies will help establish purchasing/payment schedules while avoiding stock-outs and oversupply. This area is key to addressing many of the weaknesses found.

Improved Access/Availability of SRH Commodities (Contraceptives And MNN)

In every country promote and support the improvement of stock monitoring throughout the supply chain to improve stock balances.

Access to the full range of contraceptives is a fundamental element of the quality of care in family planning and is essential to the achievement of universal access to rights-based voluntary family planning. A regional strategy is recommended to reposition FP services and analyze the feasibility of expanding the FP offer, especially for ECPs, IUDs and implants. This plan should consider carefully the financial sustainability, over time, of expanding the method mix and the in-country capacity-building needs of health providers to offer those methods.

Strengthened Capacity for Supply Chain Management

Strengthen/design LMIS and establish maximum-inventory control systems across all countries through technical assistance. Mobilize resources for training and raise awareness about the importance of using essential logistics data for effective decision making. Regional

workshops can also be appropriate platforms for capacity building and cross-fertilization of ideas and knowledge sharing across countries.

The implementation of automated LMIS is recommended. However, before that, the MOHs need to invest in training staff at all levels in the importance of using essential logistics data for quantifying, ordering, reporting and maintaining adequate stock levels. This crucial step should precede the launch of an automated LMIS. This will require MOH commitment to improving their monitoring role of data analysis with the support of stakeholders working together in the CS committees.

Improved RHCS Planning, Monitoring and Reporting

As indicated earlier, countries need to develop a formal RHCS plan with a robust framework to monitor and evaluate progress over time. We also recommended the establishment of national RHCS task forces or national commodity security committees, under the leadership of the MOH, with the involvement of relevant stakeholders (UNFPA, PAHO, IPPF affiliates, etc.), to monitor stock levels as well as the access and use of SRH services (including commodities).

A common practice should be monitoring the level of stock at the national level at least four times a year, to adjust inventory imbalances or place emergency orders to avoid stock-out and better serve the population.

Last but not least, we highly recommend the development of a regional RHCS strategy for the Caribbean, addressing all areas (enabling environment, demand satisfaction, procurement system and processes, access and availability, supply chain management, as well as planning, monitoring and reporting) ensuring:

- Political commitment and collaboration amongst all participating countries to elevate RHCS in the regional agenda mainly at the level of the CARICOM Secretariat and OECS
- Cross-fertilization of ideas and knowledge sharing across countries, ensuring the sharing of best practices and lessons learned as a way to advance RHCS throughout the entire region
- A strategic long-term approach to solutions that will strengthen the health systems as a whole and will reduce the event of stock-outs and wastage of commodities
- Coordination among all international development partners to optimize technical and financial resources to advance RHCS in the region.
- Define a road map for improvement and increased visibility of RHCS in times of health emergencies and natural disasters.

Chapter 3

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS BY COUNTRY

Anguilla

Antigua and Barbuda

Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

ANGUILLA

COUNTRY PROFILE

Anguilla is a self-governing, Overseas Territory of the United Kingdom. It is one of the northernmost of the Leeward Islands in the Lesser Antilles group of islands in the Caribbean and covers an area of 91 km^2. It has a parliamentary system of representative government. The territory is divided into 14 administrative districts. There is no formal urban and rural delineation, and the population is classified as 100% urban. The country is an associate member of the Caribbean Community (CARICOM) and the Organization of Eastern Caribbean States (OECS). According to WorldOmeter estimates, the population of Anguilla as of October 2020 is 30,302 (based on United Nations estimates). Annual population growth has shown a downward trend: growth was 2.2% in 2009 and 2.0% in 2014. The crude birth rate was estimated to be 12.8 births per 1,000 population and the total fertility rate was 1.7 children per woman. The economy is heavily dependent upon tourism. In 2014, the estimated GDP was US$310.79 million and per capita GDP was US$21,493.[8] The gross national income per capita for the same year was US$21,188, placing Anguilla's economy in the high-income category. However, Anguilla has experienced a boom-bust cycle related to the 2008 global crisis, which accentuated weaknesses in the financial sector and undermined its fiscal position.

The most recent country poverty assessment (CPA) (2007/2009) indicated a decrease in the proportion of indigent persons to 0% (down from 2% in 2002) and a decrease in the Poverty Headcount Index to 5.8% from 23% over the same period.

Sexual and Reproductive Health Indicators were not readily available for Anguilla; thus a few indicators are summarized below:

Anguilla		
Description	Data	Source
Percentage of women of reproductive age (WRA), 15-49 years	26.43	2018 (Statista)
Total Fertility Rate (births per women)	1.7	https://www.paho.org/salud-en-las-americas-2017/?p=1637
Infant Mortality Rate (per 1,000 live births)	5.4	2011 (CARICOM Statistical report, 2015)
Antenatal care coverage and skilled attendance at birth 2015	100%	National Sexual & Reproductive Health Policy 2018-2023 (Draft)

PUBLIC HEALTH SYSTEM

Health care is the responsibility of the Ministry of Health and Social Development (MoHSD). In 2004, the Health Authority of Anguilla Act No. 1 was enacted, creating the Health Authority of Anguilla (HAA). Under this Act, the MoHSD assumed the role of a purchaser of primary and secondary health services from the HAA as the sole service provider in the public sector. The MoHSD is responsible for governance and regulation of the entire health care system, which includes both public and private sectors.

The island is divided into three health districts that have one polyclinic, four health centres, and the 32-bed Princess Alexandra Hospital, all operated by the HAA. The hospital is the only admitting facility and all births occur there. In the private sector, four private health facilities provide a range of non-emergency services. Tertiary care services are not available in Anguilla and must be accessed overseas. The national public health laboratory, located at the hospital, is also operated by the HAA. Laboratory services are largely dependent on the subregional laboratory at the Caribbean Public Health Agency

8 United Nations Statistics Division. National Accounts Main Aggregates Database. [GDP/GNI:]All countries and regions/subregions (totals) for all years—sorted by region/subregion [Internet]. New York: UN; 2016.

(CARPHA) in Trinidad and Tobago.

Health care services are provided on a co-payment basis and the entire population is not insured, which poses financial barriers to access, especially for most vulnerable groups. The government, through the MoHSD, provides financial assistance for persons who cannot afford to pay for services. It is based on a determination of whether an individual or family is eligible for government assistance. Furthermore, there may be cultural and language barriers for immigrant populations to access services. Secondary and tertiary levels of health care, which must generally be sought overseas, pose an unsustainable financial burden to Anguilla. The government covers these costs in many cases through the MoHSD's Medical Treatment Overseas Program. In 2015, almost US$1 million was spent on overseas medical treatment for 49 persons, 25% of whom were trauma cases.[9]

i. Sexual and Reproductive Health Services

Family Planning (FP) services are provided at the public health facilities by nurses or midwives and the Obstetrician-Gynecologists (OB-GYN). HAA procures contraceptives at a low cost from the Anguilla Family Planning Association (AFPA), an IPPF affiliate which, in turn, place orders through the Antigua and Barbuda FPA. Anguilla FPA is an FP advocate and provides information on sexual & reproductive health. AFPA is part of the Caribbean Family Planning Affiliation (CFPA), staffed entirely by volunteers, delivering comprehensive sexuality education and reproductive health counselling through schools. Users also go directly to private pharmacies for contraceptives and other SRH-related treatments. Unfortunately, there is currently no effective regulation of the private sector and no mechanism of coordination between the public and private sectors to ensure the quality of SRH care and obtain services data.

Private practitioners and pharmacies offer a wider range of contraceptive methods through the intrauterine system. Implants are not readily available and are costly to obtain in the island. Emergency contraception is available in both the public and private sectors.[10]

At the MOHSD, contraceptives, as well as maternal and neonatal (MNN) commodities, are offered, as follows, by the level of care:

	MOHSD Anguilla	Primary	Secondary	Comment
	Commodity	Health centres	Policlinic and Hospital	
1	Male condom	Yes	No	
2	Female condom	Yes	No	Order in transit in 2020
3	Oral contraceptive	Yes	No	
4	Emergency Contraceptive	Yes	No	
5	Monthly contraceptive Injectable	not offered		
6	Bi-monthly contraceptive injectable	not offered		
7	3-monthly contraceptive injectable	Yes	No	
8	IUD	Yes	No	
9	Implant	not offered		
10	Oxytocin	No	Yes	
11	Misoprostol	No	Yes	
12	Magnesium sulfate	No	Yes	
13	Ampicillin	No	Yes	
14	Gentamicin	No	Yes	
15	Self-inflating neonatal resuscitation bags with masks	No	Yes	
16	Antenatal corticosteroids	No	Yes	

Note 1: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most of the Caribbean countries, thus it was excluded to maintain comparability amongst Caribbean countries.

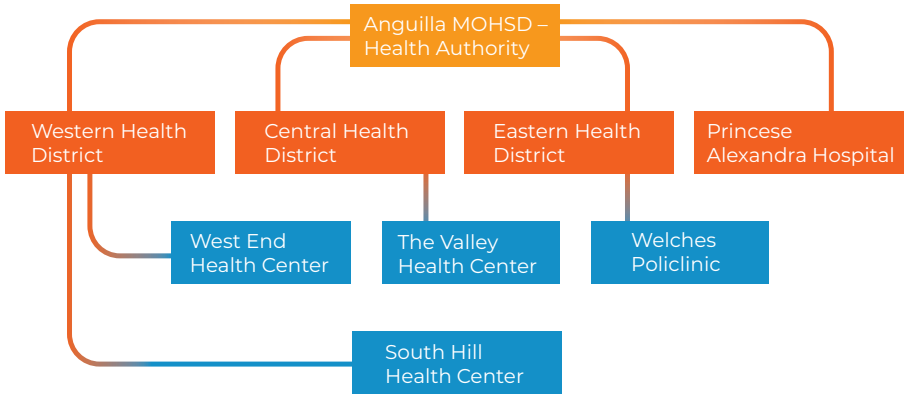
Note 2: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by MOHSD. There are cases where a contraceptive is in the EML but was not found in 2019 or 2020 logistics data at the central level or last mile.

9 https://www.paho.org/salud-en-las-americas-2017/?p=1637
10 National Sexual & Reproductive Health Policy 2018-2023 (Draft), Government of Anguilla

ii. The Public Health Supply Chain System

Health Authority of Anguilla (HAA) is responsible for procuring medicines and contraceptives for the MOHSD. Anguilla also utilizes the Pan American Health Organization (PAHO) Revolving Fund and the OECS procurement mechanism to obtain essential medicines for the population. The AFPA is the supplier of all contraceptives. The MOHSD distributes commodities to three health districts and their corresponding health centres and Hospital Pricess Alexandra. Commodities flow through the logistics system, as shown below:

MoHSD of Anguilla – Flow of commodities



FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse

The RHCS Assessment included collecting availability data for 16 commodities at the central warehouse, in two instances:

1. As of December 31, 2019, to assess the availability without the impact of the COVID-19 pandemic
2. As of October 2020, to assess the availability considering the potential impact of COVID-19.

There are several situations to be highlighted:

a. As of December 2019, the central warehouse showed availability of 11 out of the 16 commodities. Unavailable commodities were emergency contraception (in 2020 there is an order in transit) and implants (which are not offered in the country). Commodities out of stock were IUDs, monthly injectables and resuscitation bags.

b. The table below summarizes the stock status as of October 2020 (expressed in months of stock on hand - MOS), with the following highlights:

- Male condoms – 59.7 MOS; orals – 48.4 MOS; ECP – 106 MOS; 3-month injectables – 28 MOS, IUDs – 46 MOS.
- The Misoprostol has 2.9 MOS and is at risk of stock-out; in contrast, all MNN commodities have excess overstock, with between 20.5 and 38 MOS recorded.

Anguilla Level of Stock-out risk, by commodity, at central warehouse

Level of Risk	High	Medium	No Risk	Over supply
	< 0 to 2.9	3 to 5.9	6 to 18	> 18
Male condoms				59.7
Female condoms				
Oral contraceptives				48.4
Emergency contraception				106.0
Monthly injectables				
Bi-monthly injectables				
3-monthly injectables				28.0
IUDs				46.0
Implants				
Oxytocin				31.9
Misoprostol	2.9			
Magnesium sulfate				38.0
Ampicillin				24.5
Gentamicin				24.5
Resuscitation bags				
Antenatal corticosteroids				20.5

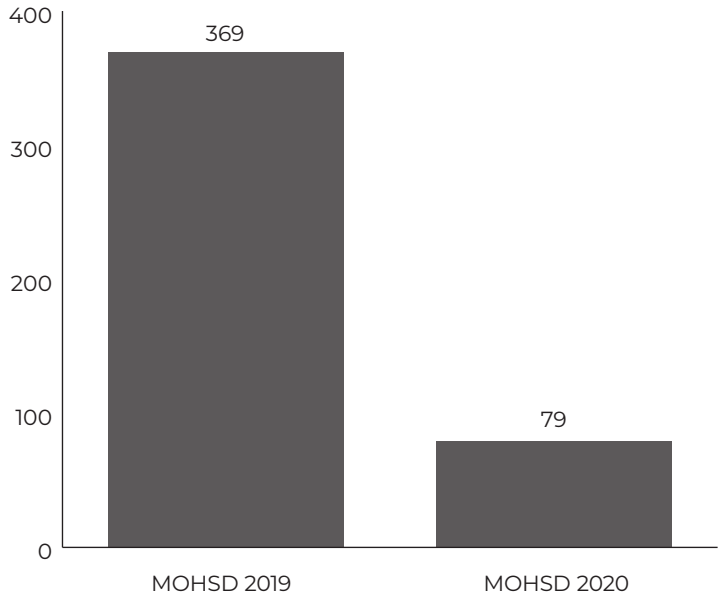
ii. Availability of Contraceptives and MNN Commodities at the Last Mile

It was not possible to measure the availability of tracer commodities at the last mile because data was not provided to the assessment team.

Couple-Years of Protection

According to distribution data from the central warehouse during 2019, the MOHSD generated 369 CYPs[11] (See methodology for further details). In contrast, in 2020 (projected and assuming a similar trend through December 2020) only 79 CYP will be generated by the MOHSD which reflects a reduction of 79% in distribution for 2019. According to informants, the AFPA does not sell contraceptives, thus the commodity was not included.

Anguilla MOHSD CYP Comparison 2019 - 2020



11 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

IMPACT OF COVID-19

According to key informants of the Anguilla MOHSD, COVID-19 has not really affected the provision of SRH services, and users were getting contraceptives regularly amid COVID-19, however, last-mile data was not provided to verify that information. The 2018 orders were only received in November 2019, when there were already stock-outs; and unfortunately, orals received at that time had a very short shelf life (expired September 2020). The 2021 orders have been placed in 2020. Based on this information stock out and overstock seems to have a combination of reasons: (a) previously delayed shipments and the short shelf life of orals, (b) existing weaknesses in procurement and SCM decisions, (c) reduction of distribution and demand in 2020 because of COVID-19 pandemic, which mainly caused serious overstocking of almost all commodities, as explained earlier.

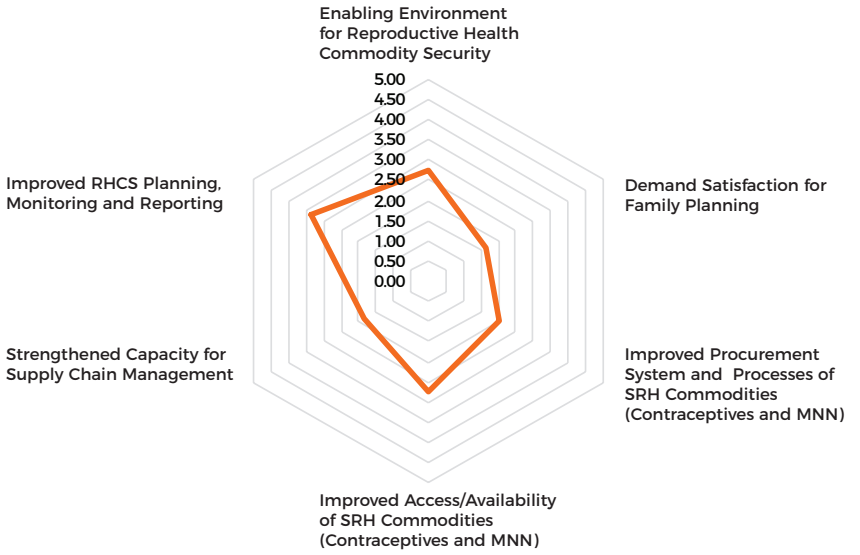
Additionally, 2020 data reported at central warehouse and average distributions show that the distribution of commodities had significant variances compared to 2019. For example, the distribution was reduced for the following contraceptives, probably due to COVID-19 pandemic restrictions: Male condoms reduced by 96%, oral contraceptives by 62%, ECP by 74%, IUD by 98%. In contrast, distribution of 3-month injectables increased by roughly 18%. Interestingly though, when looking at MNN commodities distribution, oxytocin increased 75%, and misoprostol by 68%, while magnesium sulfate was reduced by 3%, ampicillin injectable by 20% and gentamicin injectable by 76%.

When estimating future trends of stock status for MOHSD, and considering the orders in transit placed, contraceptives show oversupply and will not suffer stock-outs between November 2020 and July 2021. Instead, if the distribution and consumption trends are not reverted, there is potential expiration of several commodities, depending on expiry dates.

RHCS MATURITY

The following table captures the maturity of the system in six RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The MOHSD of Anguilla's overall RHCS score is 2.38, where Improved RHCS Planning, Monitoring and Reporting has the highest score (3.33), while Demand Satisfaction for Family Planning has the lowest score (1.67):

Output	Concept	Score – RHCS Scale
1	Enabling Environment for RHCS	2.75
2	Demand Satisfaction for Family Planning	1.67
3	Improved Procurement System and Processes of SRH Commodities (contraceptives and MNN)	2.00
4	Improved Access/Availability of SRH Commodities (contraceptives and MNN)	2.71
5	Strengthened Capacity for Supply Chain Management	1.83
6	Improved RHCS Planning, Monitoring and Reporting	3.33
	Overall Score	2.38



STRENGTHS AND WEAKNESSES

The current situation represents 47.6% of the total score, and there are important strengths and weaknesses to be highlighted:

Output	Strengths	Weaknesses
Enabling Environment for Reproductive Health Commodity Security	There is a draft National Sexual & Reproductive Health Policy 2018-2023	RHCS is not highlighted in the Policy (yet to be approved)
	There is an ad-hoc group that meets with MOHSD, with support from UNFPA, that have developed and institutionalized an SRH monitoring plan and indicators with the participation of MOHSD, NGO, and social security.	No RHCS committee is in place
	60% of contraceptives are financed by the MOHSD/Health Authority of Anguilla (HAA)	According to HAA, condoms are 100% donated from Antigua and Barbuda FPA.
		Financing of MNN commodities was not provided to the assessment team
	Five contraceptives are included in the OECS 2019-2021 Medical Product List: male condoms, orals, ECPs, injectables, and IUDs	No EML is in place in MOHSD nor HAA
	Six MNN commodities are included in the OECS 2019-2021 Medical Product List: Oxytocin, misoprostol, magnesium sulphate, dexamethasone, ampicillin injection, gentamycin injection	
	MOHSD is exempt from taxes	
		Although respondent's perception was that COVID-19 did not affect the provision of subject commodities, central warehouse data provided showed serious stock imbalances.
Demand Satisfaction for Family Planning	Contraceptives are available at MOHSD, private pharmacies and private clinics	No recent survey data available about CPR and unmet need
		Based on distribution data of HAA CMS and estimated CYPs, only 8% of WRA were covered by MOHSD in 2019.
		Last-mile data was not provided by MOHSD nor HAA and no last-mile stock-out analysis was possible
		Implants, 1-month and 2-month injectables not offered
Improved Procurement System and Processes Of SRH Commodities (Contraceptives and MNN)	MNN commodities are procured by the HAA through OECS and the PAHO Strategic Fund. HAA procures contraceptives from Anguilla FPA	According to data provided for 2019, orals arrived with very short shelf life and expired in September 2020, causing expiration and waste of resources
	Central level forecast based on demographic data/ programmatic criteria.	No consumption data is used, and stock on hand and max-min levels are not considered. The oversupply of several commodities as of October 2020 is a consequence of both weak quantification methods and COVID-19 pandemic restrictions.

Output	Strengths	Weaknesses
Improved Access/ Availability Of SRH Commodities (Contraceptives and MNN)	FP counselling and contraceptives are provided to adolescent mothers. All users receive counselling and IEC materials are available for users. Through the AFPA, information and counselling for FP take place in high schools through peers.	No laws are found in Anguilla concerning the age at which persons may access SRH services without parental consent. In the absence of a stated age, the age, by implication, is 18 years. Therefore, contraceptives are not provided to adolescents without parental consent.
	Training of health providers in FP has taken place relatively recently (2018)	National health insurance does not exist, which imposes financial barriers on access and use of SRH services. FP users pay out of pocket for both public and private health care. FP clinics charge a small user fee for the commodity, collected by HAA.
		11 of the 16 commodities were present as of December 31, 2019, according to CMS data provided.
Strengthened Capacity for Supply Chain Management	HAA is financing a new information system (EVIDENT), that will capture LMIS data, and everyone is being trained.	At the time of the assessment, the LMIS is not in place. Essential logistics data does not appear to be collected, except for inventory cards.
		Logistics decisions not based on essential logistics data like consumption, distribution is ad-hoc depending on the demand of health centres using HAA messenger service.
		Few bottlenecks with transportation when health staff come to the CMS when they can pick up their medicines.
		Max-min inventory control system is not in place
	Plans to improve warehousing conditions are in place. Oxytocin is only stored at the hospital and is stored properly.	Issues with insufficient warehouse space and infrastructure conditions.
		HAA received orals in 2019 from AFPA close to the expiry date. They expired in September 2020. No LMIS and stock balances are monitored according to data provided during the assessment.
Improved RHCS Planning, Monitoring and Reporting	According to HAA there is a national SRH monitoring plan institutionalized, with indicators, targets and goals.	Lack of MICS survey with essential SRH indicators limit the monitoring of progress and challenges.
	MOHSD conducts independent yearly analyses of financing and procurement processes.	No monitoring of RHCS or its components.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings and weaknesses identified, the synthesis of conclusions and recommendations for Anguilla is as follows:

Output	Conclusion	Recommendation
Enabling Environment For Reproductive Health Commodity Security	SRH policy (yet to be approved at the time of this assessment) protects the right of people to access SRH services. However, RHCS is not included.	Make RHCS visible in the implementation of the SRH policy, especially the protection of financial resources to cover 100% of contraceptive needs.
		Engage in developing a regional RHCS strategy for the Caribbean, informed by these assessment results. Define a road map for improved and increased visibility of RHCS in times of health emergencies and natural disasters.
	MOHSD does not cover 100% of contraceptive needs.	Create a financial plan to cover 100% of contraceptive needs, including the expansion of new FP choices, including LARC.
	HAA use the OECS 2019-2021 Medical Products List as a reference for procurement of commodities and does not have a national Essential Medicines List (EML).	Develop an official EML that includes current and future FP options, and all MNN commodities, following WHO guidelines
	Although respondents' perception was that COVID-19 did not affect the provision of tracer commodities, CMS data shows a serious reduction in the distribution of commodities.	Coordinate with main stakeholders in the country to ensure the continuation of SRH services and especially FP services in future Covid-19 plans or other humanitarian response plans.
		Establish an RHCS committee that will develop a country plan and monitor all aspects to improve RHCS
Demand Satisfaction For Family Planning	Basic health indicators for SRH, especially the usage and unmet need for modern contraceptives are not available.	Plan for routine demographic health surveys (every 5 years) that can help in monitoring the progress of key FP outcome indicators such as modern CPR and unmet need for FP. If resource constraints impede a survey being conducted, carry out focus groups to measure FP demand preferences.
	Limited contraceptive method choice offered to FP users.	Analyze the technical and financial feasibility of adding implants to the basket of contraceptives. Identify strategies to reposition IUDs, especially with the oversupply encountered.

Output	Conclusion	Recommendation
Improved Procurement System And Processes Of Srh Commodities (Contraceptives And Mnn)	HAA uses different procurement mechanisms for contraceptives and MNN commodities, with MNN following more efficient processes.	Analyze all procurement options available, including OECS, UNFPA TPP, to determine the best option to obtain economies of scale and quality of products in the future, including ample shelf life on arrival.
	The stock situation encountered reveals inefficiencies in the quantification and procurement processes.	Training in quantification methodology, combined with establishing basic maximum-minimum inventory control systems and criteria to determine how much to procure, as well as norms on how to handle the shelf life of commodities at the time of arrival in the CMS.
Improved Access/ Availability Of Srh Commodities (Contraceptives And Mnn)	Access to SRH services to adolescents is limited to counselling at the MOHSD	Based on the strong policy framework set by the SRH policy (not yet official), continue advocacy efforts to eliminate barriers for adolescents to access FP methods.
	National health insurance does not exist, which imposes financial barriers on access, especially since HAA charges a small user fee for the commodity.	If health insurance system efforts are in place soon, advocate for the inclusion of FP services in the social security scheme, so that the cost of this service is not a barrier to access.
		Define a strategy to reposition FP services and recover FP users. This will help revert the oversupply trend as of October 2020, especially IUDs.
	Training has taken place in 2018 to refresh counselling and IEC. Nonetheless, informants did not indicate if recent and updated training had.	Consider including RHCS themes in training materials, as well as digital and virtual tools to provide updates on SRH and RHCS to current health staff, optimizing the use of the WHO medical eligibility criteria in an APP.
Strengthened Capacity For Supply Chain Management	The EVIDENT system seems to be rolling out at the time of this assessment and promises to resolve current weaknesses in LMIS and inventory control.	Ensure that training in the EVIDENT system includes raising awareness about logistics data, analysis and decision making to maintain optimal stock levels, following FEFO principles to avoid expired products.
	SCM needs improvements in the areas of procurement, quantification, LMIS and inventory control systems. Current stock-out reveals weaknesses in the SCM system, and at the same time, the over-stock reveals that in 2020 distribution and demand for FP services decreased.	Develop comprehensive SCM improvement plans that include sufficient financial resources for efficient distribution, based on max-min inventory control system; as well as implementing warehousing improvements. Before continuing the roll-out of EVIDENT, ensure that a formal yet practical LMIS is designed, and staff is trained to create a culture of data use and analysis.
	Transportation does not seem to impose major bottlenecks to availability, however, a last-mile analysis was not possible in Anguilla to verify this information.	Improve the HAA messenger service by defining distribution plans according to max-min levels.
Improved Rhcs Planning, Monitoring And Reporting	There is a national SRH monitoring plan, with indicators, targets and goals, but RHCS is not included	Develop an RHCS monitoring plan with indicators and targets, and with special attention to improving the overall SCM as recommended above.

Anguilla

Antigua and Barbuda

Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

ANTIGUA AND BARBUDA

COUNTRY PROFILE

Antigua and Barbuda consist of ten islands. The permanent population is about 98,214 as of October 2020[12], with 97% residing in Antigua. The twin islands are located to the south-east of the US Commonwealth of Puerto Rico and north of Guadeloupe. The total land area is 440 km, where Antigua has 280 km and Barbuda has 161 km. The capital, which is also the largest port and city, is St. John's on Antigua, with Codrington being the largest town in Barbuda. Antigua and Barbuda is a member of the Commonwealth and Elizabeth II is the country's queen and head of state. Independence was granted from the United Kingdom on November 1, 1981.

In September 2017, Hurricane Irma damaged or destroyed 95% of Barbuda's buildings and infrastructure. As a result, all the island's inhabitants were evacuated to Antigua, leaving Barbuda empty for months for the first time in modern history.

The main income is related to tourism and the annual GDP total ($US Millions, at constant prices, 2010 base year) is 1,525.05. Of that figure, the government's health expenditure is 3.9% (World Bank 2019). Antigua and Barbuda are geopolitically divided into two dependencies (Barbuda and Redonda) and six parishes.

Antigua and Barbuda's main indicators related to RHCS are summarized shown:

Antigua and Barbuda		
Description	Data	Source
Population Growth Rate (per 100)	0.9	2019 (World Bank)
Percentage of women of reproductive age (WRA), 15-49 years	26.91	2018 (Statista)
Maternal Mortality Ratio (per 100,000 live births)	81	2010 (CARICOM Statistical report, 2015)
Infant Mortality Rate (per 1,000 live births)	5	2018 (World Bank)
Neonatal Mortality Rate (per 1,000 live births)	3	2018 (World Bank)
Total Fertility Rate per Woman	2	2018 (World Bank)
Adolescent fertility rate (births per 1,000 women ages 15-19)	42	2018 (World Bank)
Contraceptive prevalence rate (modern method)	61	2019 (United Nation Population Division)
Unmet need for family planning (rate), women aged 15-49 years	13	2019 (United Nation Population Division)

12 https://www.worldometers.info/population/latin-america-and-the-caribbean/

PUBLIC HEALTH SYSTEM

Antigua is divided into six medical districts with a network of 21 public health clinics and centres. Maternal and reproductive health services are offered free of cost at primary level facilities. All births are delivered in Saint John's Hospital in Antigua. After Hurricane Irma, the Barbuda hospital was not reconstructed.

There is a Medical Benefits Scheme (MBS) funded by a payroll tax of 7% that provides a dedicated revenue source for primary and secondary care. The government has taken preparatory steps to transition from the Medical Benefits Scheme into a national health insurance program. (PAHO Health in the Americas 2017)

i. Sexual and Reproductive Health Services

SRH is embedded in other policies such as the Child and Maternal Health Policy and the National Strategic Plan for Health. Family Planning commodities are provided by the MOHWE and commercial pharmacies; while Antigua Planned Parenthood Association (APPA) has an agreement with the MOHWE, receives contraceptives from the MOHWE, and their services are considered MOHWE services. The Global Fund to Fight AIDS, Tuberculosis and Malaria donates male and female condoms.

Modern Contraceptive Prevalence Rate (CPR) is high (61%), and unmet need is relatively low 13%. Even though the adolescent fertility rate (births per 1,000 women between age 15-19) for the years 2010–2018 decreased from 52 to 42, it remains high.

The table on the right summarizes the contraceptives and maternal and neonatal commodities offered by MOHWE, by level of care:

	Primary	Tertiary	
Commodity	health post, clinic	Hospitals	Comments
Male condoms	Yes	No	
Female condoms	Yes	No	
Oral contraceptives	Yes	No	
Emergency Contraceptive	Yes	No	MOHWE reported not offering, but warehouse reported distributions
Monthly contraceptive injectables	Yes	No	
Bi-monthly contraceptive injectables	Yes	No	
3-monthly contraceptive injectables	Yes	No	
IUDs	No	No	Not offered, but offered by APPA
Implants	No	No	Not offered
Oxytocin	No	Yes	
Misoprostol	No	Yes	
Magnesium sulfate	No	Yes	
Ampicillin	No	Yes	
Gentamicin	No	Yes	
Self-inflating neonatal resuscitation bags with masks	No	Yes	
Antenatal corticosteroids	No	Yes	

Note 1: Implants are not offered in the MOHWE nor the APPA, IUDs are inserted in APPA.

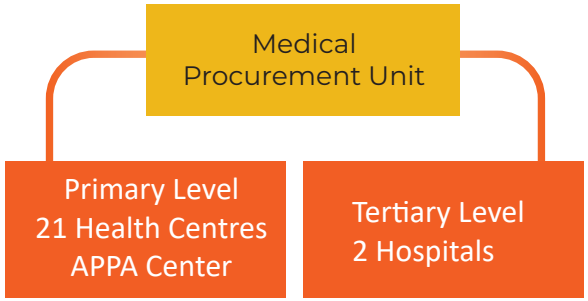
Note 2: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most of the Caribbean countries, thus it was excluded to maintain comparability amongst Caribbean countries.

Note 3: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by MOHW. There are cases where a contraceptive is in the EML but was not found in 2019 or 2020 logistics data at central level or last mile.

ii. The public health supply chain system

The logistics supply chain is a two-tiered system. Most of the commodities are procured by Medical Procurement Unit (MPU) through the OECS. Even though quantifications are based on consumption data, past distribution data is used instead to plan resupply. Transportation is covered by MPU for delivery to health centres, the APPA centre and 2 tertiary hospitals.

The flow chart below summarizes the basic supply chain in Antigua and Barbuda



FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse.

The RHCS Assessment included collecting availability data at the central warehouse of 16 commodities in two instances:

1. As of December 31, 2019, to assess the availability without the impact of the COVID-19 pandemic
2. As of October 2020, to assess the availability considering the potential impact of COVID-19.

There are several situations to be highlighted:

As of December 2019, the central warehouse showed availability of 9 out of 16 commodities. Commodities not available were IUDs, and implants (which are not offered by the MOHWE); Misoprostol, Ampicillin, Magnesium Sulphate and ANC had stock-outs.

The table below summarizes the stock status as of October 2020, with the following highlights:

Neonatal resuscitation bags with masks did not have any distribution in 2019, thus its distribution in 2020 increased by 163% compared to 2019. Distribution of 2020 for this product was used to estimate months of stock on hand, which appear to be oversupplied (32 MOS[13]).

Level of Stock-out risk, by commodity, at central warehouse				
Level Of Risk	High < 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply > 18
Male Condoms			10	
Female Condoms	Stock out			
Oral Contraceptives			9	
Emergency Contraception			6	
Monthly Injectables			11	
Bi-Monthly Injectables	2			
3-Monthly Injectables				25
IUDs	Not offered			
Implants	Not offered			
Oxytocin			8	
Misoprostol		5		
Magnesium Sulfate			12	
Ampicillin		4		
Gentamicin	Stock out			
Resuscitation Bags				32
Antenatal Corticosteroids	Stock out			

13 Months of stock on hand

ii. Availability of Contraceptives and MNN Commodities at the Last Mile

Availability of 12 tracer commodities was measured at both primary and secondary/tertiary levels as of October 2020, as follows:

a. At the primary level, the indicator measures the availability of 5 tracer contraceptives: Condoms, ECPs, orals, injectables, and IUDs. The criteria at this level involve facilities with at least 4 of 5 contraceptives, achieving the highest score in the RHCS scale.

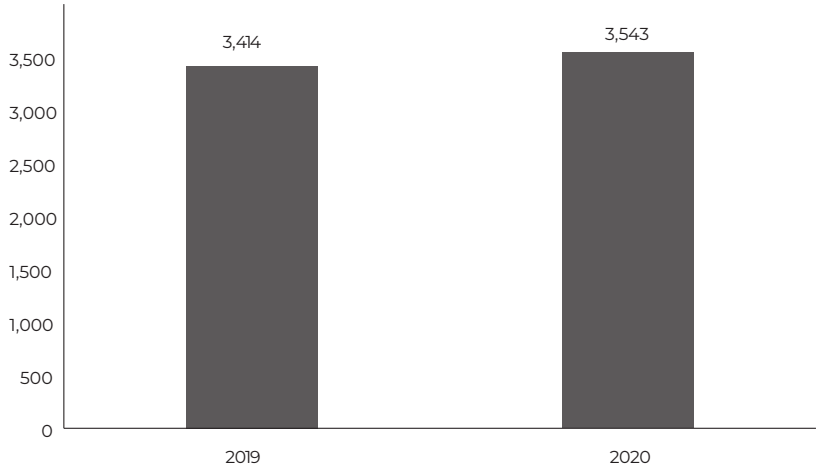
b. At the secondary/tertiary levels (hospitals in the case of Antigua and Barbuda), the indicator measures availability of 12 tracer commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUDs, oxytocin, misoprostol, magnesium sulfate, ampicillin injectables, gentamicin injectables, self-inflating neonatal resuscitation bags with masks, ANCs – Dexamethasone or Betamethasone injections. The criteria at this level involve facilities with at least 7 of 12 tracer commodities achieving the highest score on the RHCS scale.

Unfortunately, for Antigua and Barbuda, this analysis was not possible since the data of sampled facilities at the last mile was not provided by the MOHWE.

Couple-years of protection

According to distribution data from the MPU, the MOHWE produced 3,414 couple-years of protection (CYPs)[14] (see methodology for further details) in 2019. In 2020 (projected and assuming a similar trend through December 2020) the MOHWE will generate 3,543 CYPs which represents an increase of 4%.

CYPs Achieved



IMPACT OF COVID-19

According to the informants of MOHWE, contraceptives were received at health facilities but many of them were not providing services during the lockdown. During 2020, purchases were delayed and received partially. Comparing average distribution trends between 2019 and 2020, the distribution decreased in 2020 for 46% of the commodities, and if no orders are placed for bi-monthly injectables, these commodities will have stock-out by the end of July 2021. Moreover, according to Attachment, the slight reduction of 8% of CYPs between November 2020 and July 2021 can potentially cause the following negative results (See methodology for further information):

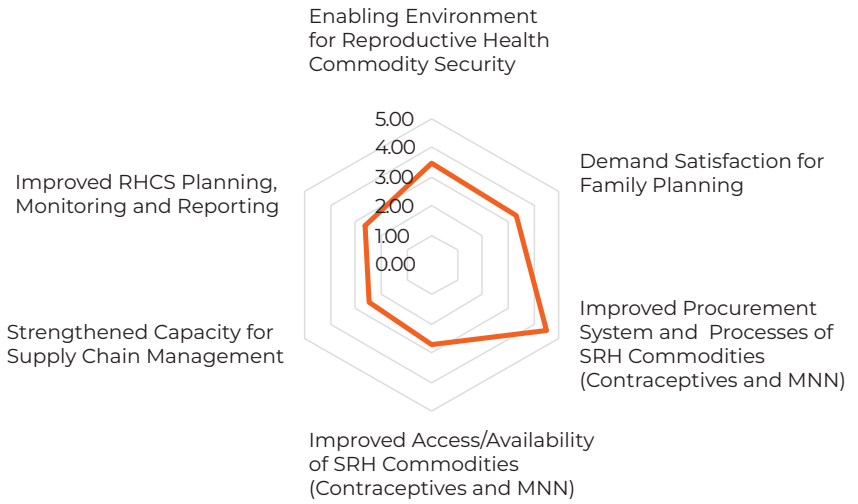
Expected Impact of Stockout	
Total CYPs lost	311
Number of unintended pregnancies	265
Number of abortions	41
Number of maternal deaths	0
Number of neonatal deaths	2

14 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based on the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

RHCS SCORE

The overall score of the MOHWE of Antigua and Barbuda is 3.2, where supply chain capacity has the lowest score of 2.50 while procurement system obtained 4.5 in a scale, where 5 is the best score, as shown in the table below:

Output	Concept	Score in the RHCS Scale
1	Enabling Environment for Reproductive Health Commodity Security	3.50
2	Demand Satisfaction for Family Planning	3.33
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	4.50
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	2.71
5	Strengthened Capacity for Supply Chain Management	2.50
6	Improved RHCS Planning, Monitoring and Reporting	2.67
	Overall Score	3.20



STRENGTHS AND WEAKNESSES

The current situation represents 64% of the total score, and there are important strengths and weaknesses to highlight:

Output	Strengths	Weaknesses
Enabling Environment For Reproductive Health Commodity Security	All seven tracer MNN commodities are procured with governmental funds Contraceptives are 60% funded by MOHWE	There is not an SRHR policy, instead, SRH is included in the Child and Maternal Health Policy which may result in poor prioritization of SRH when competing priorities arise. There is no medium-term work plan nor a budget to implement it.
	All contraceptives, except implants, are included in the PAHO and OECS guidelines that have been adopted by Antigua and Barbuda as their Essential Drug List	The country still receives donated male and female condoms from the Global Fund which probably indicates an elementary HIV and STIs prevention agenda
		There is no National Essential Medicines List (EML), only the OECS formulary.
	All contraceptives are free of sales tax for both public and private organizations, and there is always an opportunity to have fees waived to clear shipments from customs.	Resuscitation bag is not included in the PAHO guidelines nor OECS list.
	There are ad hoc working meetings with UNFPA to discuss specific issues.	There is not a country platform of dialogue to improve access to RHCS.
Demand Satisfaction For Family Planning	CPR of modern methods is considered high (61%).	Only 25% of WRA are covered by MOHWE and APPA. This reveals most WRA are procuring their contraceptives privately.
	According to informants, demand is met and all types of injectables are offered.	IUD is not available at MOHWE facilities, only inserted at APPA centre.
	MOHWE, APPA and commercial pharmacies provide contraceptives in the country.	
Improved Procurement System And Processes Of Srh Commodities (Contraceptives And Mnn)	MPU purchases through OECS to obtain economy of scale. Neonatal resuscitation bags with masks are procured through international tendering processes, not through OECS.	Quantifications are poor and MNN commodities usually experience shortfalls and stock-outs.
	Software is being implemented at the central warehouse to systematize lower-level requisitions and distribution.	

Output	Strengths	Weaknesses
Improved Access/ Availability Of Srh Commodities (Contraceptives And Mnn)	MOHWE does not charge fees for SRH commodities.	Medical Benefit Scheme, the social insurance system in Antigua and Barbuda, does not cover RH services, so users have to get their contraceptives at MOHWE facilities, APPA, or procure them at private pharmacies.
	All seven tracer MNN commodities are provided in the two hospitals.	IUDs and implants are not offered by the MOHWE at any level.
		Male and female condoms, orals, ECPs and injectables are provided only at the primary level.
		Training on FP was conducted years before and materials are only available at the central level.
Strengthened Capacity For Supply Chain Management	MPU is in charge of transport and all costs are covered by MPU.	Only the central warehouse keeps inventory records.
	Space is sufficient, air conditioning is available, and oxytocin is stored using cold chain.	Distribution is based on past distribution; no consumption data is collected.
	Funds have been invested in warehouse software.	LMIS is not implemented at lower levels.
		Lack of LMIS does not allow for analysis of the availability of commodities at the last-mile facilities.
		There is not a max-min inventory control system in place, affecting stock management efficiency.
Improved Rhcs Planning, Monitoring And Reporting	RHCS assessments are done externally.	No institutionalized monitoring of RHCS performance indicators.
	Financial and procurement monitoring is carried out when annual procurement plans are prepared.	Nine out of 16 commodities were found at the central warehouse as of Dec. 2019. Misoprostol, magnesium sulphate, ampicillin and ANC had stock-outs.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings, and weaknesses identified, the synthesis of conclusions and recommendations for Antigua and Barbuda is as follows:

Output	Conclusions	Recommendations
Enabling Environment For Reproductive Health Commodity Security	Country reveals a reasonable use of modern contraceptives and a relatively low unmet need for family planning (61% CPR and 13% of unmet need for FP).	Develop a progressive plan of donation face out, in light of the indicator's performance
	Adolescent births show a decreasing trend.	Develop an SRHR Policy and an SRH strategic plan that places SRH, including HIV and STIs prevention agenda, at the top of the development agenda to consolidate and coordinate strategies and interventions to improve and maintain access to FP, including adolescents.
Demand Satisfaction For Family Planning	MOHWE covers 25% of WRA and the CPR covers 61%. Antigua and Barbuda is a middle-low income country where users are getting their contraceptives mostly from the commercial sector.	Initiate dialogue with MBS to cover FP services, to avoid low-income users paying for contraceptives from their pocket.
	No offer of long-acting reversible contraceptives (LARC), which makes public health facilities unable to satisfy the demand for these methods.	Analyze human resources available and their capacity to offer IUDs and implants in primary health facilities that may be upgraded to a secondary level.
	MNN services are concentrated in the only public hospital in the country, which may limit the ability to satisfy the needs of the population, especially those living in less accessible areas.	Assess the status of primary facilities that may be reinforced with more qualified human resources to be upgraded to secondary care level. This will expand access and meet the demand for MNN services at the secondary level. This intervention can help the country move towards ensuring universal health care for all.
Improved Procurement System And Processes Of Srh Commodities (Contraceptives And Mnn)	MOHWE offers three types of injectables and demand has been created for all, however, one of them is not properly stocked.	Improve quantification exercise by using essential logistics data, especially consumption data.
		Urgently procure ampicillin to avoid stock-outs of this life-saving commodity. This is also needed for bi-monthly injectable as it will be stocked out by Dec. 2020.

Output	Conclusions	Recommendations
Improved Access/ Availability Of Srh Commodities (Contraceptives And Mnn)	Public health facilities do not offer IUDs nor implants.	Increase the method choice, especially with respect to long-acting reversible contraceptives (LARC) such as IUDs and implants. Emergency contraception should be available at Saint John's hospital.
	When analyzing the availability at the central warehouse level, there was more stock-out of tracer commodities by the end of December 2019 than by October 2020	Analyze the level of purchases of products not highly used; e.g. the recommended shelf life of resuscitation bags is five years. Their use needs to be monitored before the next procurement takes place.
	Lack of LMIS in place does not allow a more profound analysis of availability at last mile	
Strengthened Capacity For Supply Chain Management	MOHW lacks a well-established LMIS that enables information to flow from lower levels to the MPU. This hinders every process, which leads to poor decision making that limits adequate availability.	Design, train and implement a max-min inventory control system to improve current imbalances in stock and availability. Develop norms and processes to use LMIS data, such as consumption data, for resupplying and quantifying needs, considering increases where consumption trends show that demand is rising.
Improved Rhcs Planning, Monitoring And Reporting		Design, test and implement LMIS to collect essential data from lower levels
	Monitoring of health indicators is not done independently. Monitoring of RHCS elements is not taking place, which is evident in the stock-outs found and the lack of monitoring to maintain adequate stock.	Start a working group with the involvement of MBS, PAHO, UNFPA, APPA, NGOs and civil society that together may improve monitoring of every aspect to achieve RHCS.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

THE BAHAMAS

COUNTRY PROFILE

The Bahamas is an archipelagic state and consists of more than 700 islands, cays, and islets located north of Cuba and Hispaniola Island (Haiti and the Dominican Republic), northwest of the Turks and Caicos Islands, southeast of the US state of Florida, and east of the Florida Keys. The Royal Bahamas Defense Force describes The Bahamas' territory as encompassing 470,000 km^2 of ocean space. The most recent population estimate is 394,568 inhabitants (worlddometers 2020).

Meanwhile, in terms of gross domestic product per capita, The Bahamas is one of the richest countries in the Americas (US$33,516) with an economy based on tourism and offshore finance. The annual GDP total is not as high ($US Millions, at constant prices, 2010 base year) being $10,702.17 and the government health expenditure is 3.5% (World Bank 2019). The Bahamas is geopolitically divided into 15 family islands, Gran Bahamas and New Providence where Nassau, the capital, is located.

The Bahamas' main health indicators related to RHCS are summarized on the right:

The Bahamas		
Description	Data	Source
Population Growth Rate (per 100)	1	2018 (World Bank)
Percentage of women of reproductive age (WRA), 15-49 years	26.99	2018 (Statista)
Maternal Mortality Ratio (per 100,000 live births)	9.9	2010 (Bahamas Socio-economic report, 2012)
Infant Mortality Rate (per 1000 live births)	8	2018 (World Bank)
Neo-natal Mortality Rate (per 1,000 live births)	5	2018 (World Bank)
Total Fertility Rate (births per woman)	1.8	2018 (World Bank)
Adolescent Birth Rate x 1,000 (15 to 19 years)	29	2018 (World Bank)
Contraceptive prevalence rate (modern method)	65	2019 (United Nations Population Division)
Unmet Need for family planning (rate), women aged 15-49 years	12	2019 (United Nations Population Division)

PUBLIC HEALTH SYSTEM

The MOH is the regulatory entity for the health sector, payer of all public health services, and is responsible for the delivery of health services in the community through 67 primary care facilities and three hospitals.

In 2016, the National Health Insurance – NHI bill was passed. This law ensures universal access to health services free of charge at the point of care for all legal residents of The Bahamas, including access to primary, secondary and tertiary care services.

Secondary and tertiary care is provided at three public hospitals: Princess Margaret Hospital (with 400 beds), Sandilands Rehabilitation Center on New Providence, and Rand Memorial Hospital (with 85 beds) on Grand Bahama run by the Public Hospital Authority. (PAHO Health in the Americas 2017)

i. Sexual and Reproductive Health Services

There is not a sexual and reproductive health policy and/or strategy and plan, nor are SRH services integrated either into a national health plan or a social development plan. There is a protocol (2004) that includes family planning norms for counselling based on informed choice.

Family planning services are offered at primary levels certain days a week and there is an adolescent clinic that addresses the contraceptive needs of adolescents. However, the law is silent in regards to access to SRH service by minors, and in the absence of a stated age. The age by implication is 18 years. As a result, parents need to sign consent for their pregnant adolescent to access health care.

The Bahamas Family Planning Association (BFPA), an IPPF affiliate, used to be the only NGO providing FP services but is not active anymore. This leaves a gap to cover the needs of the population, especially the most vulnerable groups. Contraceptives are available at MOH facilities and commercial pharmacies.

At the MOH, contraceptives, as well as maternal and neonatal (MNN)

		Primary	Secondary/ Tertiary
	Commodity	health center, clinic, polyclinic	Hospital
1	Male condoms	Yes	No
2	Female condoms	Yes	No
3	Oral contraceptives	Yes	Yes
4	Emergency Contraceptive	Yes	No
5	Monthly contraceptive Injectables	Yes	No
6	Bi-monthly contraceptive injectables	Yes	No
7	3-monthly contraceptive injectables	Yes	No
8	IUDs	Yes	Yes
9	Implants	No	Yes
10	Oxytocin	Yes	Yes
11	Misoprostol	No	Yes
12	Magnesium sulfate	Yes	Yes
13	Ampicillin	Yes	Yes
14	Gentamicin	Yes	Yes
15	Self-inflating neonatal resuscitation bags with masks	Yes	Yes
16	Antenatal corticosteroids	Yes	Yes

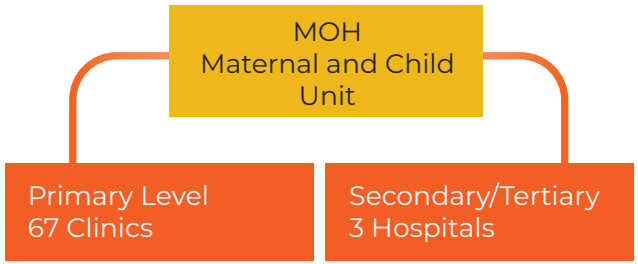
Note 1: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most of the Caribbean countries, thus it was not included in order to maintain comparability amongst Caribbean countries.
Note 2: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by the MOH. There are cases where a contraceptive is in the EML but is not found in 2019 or 2020 logistics data at central level or last mile.

commodities, are offered as follows, by level of care:

ii. The Public Health Supply Chain System

The MOH procures contraceptives through UNFPA and quantification is based on past consumption data reported by health facilities. The MOH supply chain is a two-tiered system. The Maternal and Child Unit and its central warehouse deliver to lower-level facilities. Distributions are planned based on past consumption and transportation costs are fully covered by the central level. The Bahamas National Drug Agency is in charge of commodities procurement.

The following is the basic flow chart of the supply chain of The Bahamas MOH:



FINDINGS

iii. Availability of Contraceptives and MNN Commodities at the Central Warehouse

The RHCS Assessment included collecting availability data for 16 commodities at the MOH central warehouse, in two instances:

1. As of December 31, 2019, to assess the availability without the impact of the COVID-19 pandemic
2. As of October 2020, to assess the availability considering the potential impact of COVID-19.

There are several situations to be highlighted:

a. As of December 2019, the central warehouse showed availability of 11 out of the 16 commodities. Commodities not present were implants, misoprostol, gentamicin, resuscitation bags and antenatal corticosteroids.

b. It is worth noting The Bahamas reported several products will expire soon.

c. The table below summarizes the stock status of the commodities it will be possible to use before expiration, as of October 2020 (expressed in months of stock on hand (MOS)), with the following highlights:

   I. Distribution to health facilities of oral contraceptives decreased in 2020 that is the reason to see a moderate oversupply, and only one month will expire due to its short shelf life.

   II. Oversupply of monthly and 3-monthly injectables generated in previous years will cause expirations in February 2021 and January 2021 respectively.

   III. Bi-monthly injectables will also expire by February 2021 due to close-to-expire date.

   IV. Emergency contraception will expire by April 2021, due to there being no distribution reported in 2019 or 2020.

   V. IUDs will also expire for two reasons. They have been sitting at the central warehouse without distribution to health facilities and there is very little demand and use of this method in the country.

   VI. Implants were only distributed in 2019. They were out of stock by December 2019 and were still stock-out in 2020.

   VII. On the other hand, MNN commodities are under high risk of stock out.

Level Of Stock-Out Risk, By Commodity, At Central Warehouse				
Level Of Risk	High < 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply > 18
Male Condoms			11	
Female Condoms			16	
Oral Contraceptives				23
Emergency Contraception		4		
Monthly Injectables		4		
Bi-Monthly Injectables		4		
3-Monthly Injectables		3		
Iuds				57
Implants	Not complete information			
Oxytocin	2			
Misoprostol	1			
Magnesium Sulfate		5		
Ampicillin		3		
Gentamicin	1			
Resuscitation Bags	Stock out			
Antenatal Corticosteroids	1			

The following table makes visible the level of wastage and financial loss (compared to the level of distribution in 2019) due to the short shelf life of the following contraceptives:

Contraceptives	Quantities distributed 2019	Unit price US$	Cost (2019)	Quantity of Product Waste	% of distribution that the product waste represents	Funds wasted US$	% of funds wasted
Oral contraceptives	20,414	0.43	8,778	693	6%	298	
Monthly injectables	1,855	1.00*	1,855	8,408	453%	8,408	
Bi-monthly injectables	1,291	1.15	1,485	1,129	87%	1,298	
3-monthly injectables	14,451	1.25	18,064	33,281	230%	41,601	
IUDs	26	3.38	88	185	712%	625	
*Estimated			30,269			52,231	172.55%

iv. Availability of Contraceptives and MNN Commodities at the Last Mile

Availability of tracer commodities was measured at both primary and secondary/tertiary levels, as of October 2020, as follows:

a. In the primary level, the indicator measures the availability of five tracer contraceptives: Condoms, ECPs, orals, injectables, and IUDs. The criteria at this level involve facilities having at least 4 out of 5 contraceptives achieving the highest score on the RHCS scale.

b. At the secondary/tertiary levels (hospitals in the case of The Bahamas), the indicator measures the availability of 12 tracer commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUDs, Oxytocin, Misoprostol, magnesium sulfate, Ampicillin injectables, Gentamicin injectables, self-inflating neonatal resuscitation bags with masks, ANCs – Dexamethasone or Betamethasone injections. The criteria at this level involve facilities having at least 7 of the 12 tracer commodities achieving the highest score in the RHCS scale.

At the primary health care level, seven clinics were in the sample, of which only 17% had 4 of the 5 tracer contraceptives. The table below summarizes availability by method:

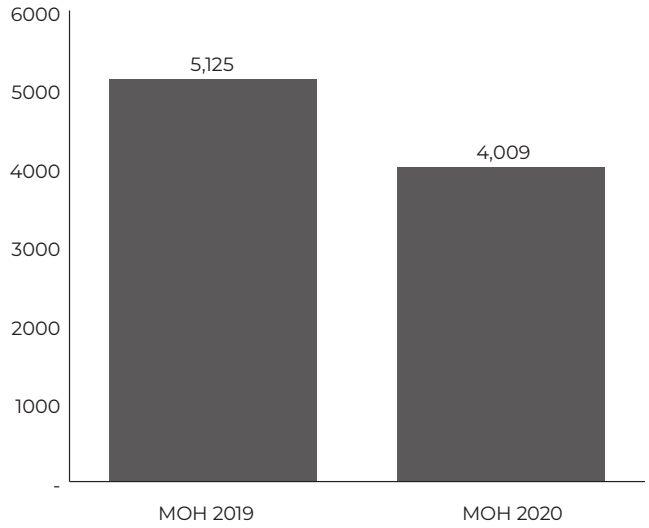
Contraceptives	Present in 12 primary facilities
Male condoms	83%
Oral Contraceptives	92%
Emergency contraception	17%
Injectable	92%
IUDs	0%

At the secondary and tertiary levels, two facilities were in the sample, of which 50% (only one) had seven of the 12 tracer commodities. The graphic below summarizes availability by commodity:

Commodities	Present in 2 secondary/ tertiary facilities
Male condoms	0%
Oral Contraceptives	50%
Emergency contraception	0%
Injectables	0%
IUDs	0%
Oxytocin	100%
Misoprostol	100%
Magnesium sulfate	100%
Ampicillin injectables	100%
Gentamicin injectables	100%
Self-inflating neonatal resuscitation bags with masks	0%
ANCs – Dexamethasone or Betamethasone injection	100%

Couple-years of protection

There is no active presence of IPPF in The Bahamas FPA, therefore the analysis of couple-year of protection (CYP)[15] (see methodology for further details) generated in 2019 and 2020 corresponds only to those generated by the MOH. According to distribution data from the Maternal and Child Unit, the MOH produced 5,125 CYPs in 2019. Projections for 2020 (assuming a similar trend through December 2020) indicate that the MOH will generate 4,009 CYPs, representing a 22% reduction.



IMPACT OF COVID-19

According to the key informants of MOH, allocation of funds or procurement was not affected by COVID-19. The distribution of commodities to the health facilities continued. All of them continued providing services and human resources, as long as SRH services were not reduced. However, when analyzing the distribution trends between 2019 and 2020, data reveals that the distribution decreased for 43% of the tracer commodities compared to 2019, ranging from 22% to 66% (depending on the commodity).

A dramatic waste of products is anticipated due to the combined effects of oversupply and short shelf life. Meanwhile, it is important to note the expirations are not related to the COVID-19 pandemic, but due to oversupply accumulated from 2019. Stock and average distribution reported in 2020 plus orders in transit were analyzed to report Months of Stock (MOH) available. The MOH stock status during the nine months after this assessment (November 2020-July 2021) revealed that if new orders are not placed soon, the impact on CYPs

15 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

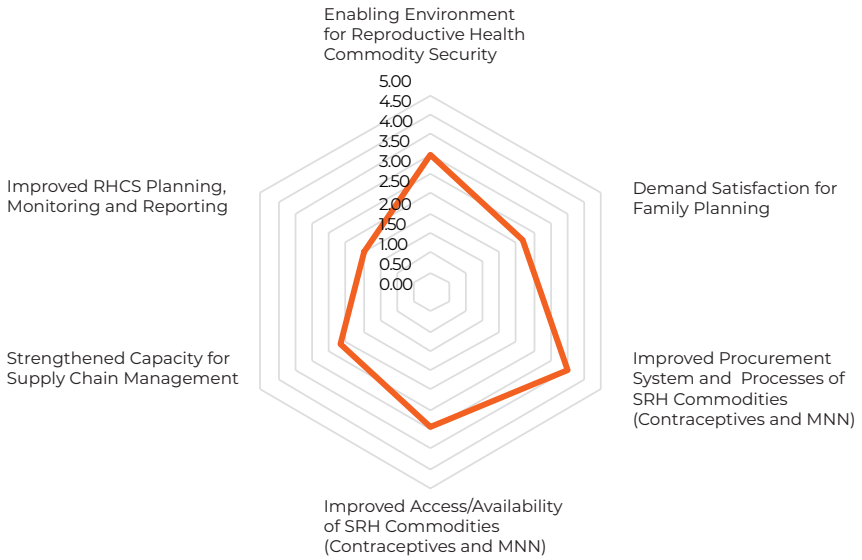
production and other health indicators will be affected as follows (See the methodology section for further information):

Expected Impact of Stockout	
Total CYPs lost	2,831
Number of unintended pregnancies	2,406
Number of abortions	377
Number of maternal deaths	1
Number of neonatal deaths	19

RHCS MATURITY

The following table captures the maturity of the system in six RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The MOH of The Bahamas overall RHCS score is 3.04, where procurement system has the highest score (4), while improved monitoring has the lowest score (2):

Output	Concept	Score in the RHCS Scale
1	Enabling Environment for Reproductive Health Commodity Security	3.50
2	Demand Satisfaction for Family Planning	2.67
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	4.00
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	3.43
5	Strengthened Capacity for Supply Chain Management	2.67
6	Improved RHCS Planning, Monitoring and Reporting	2.00
	Overall Score	3.04



STRENGTHS AND WEAKNESSES

The current situation represents 61% of the total score, and there are important strengths and weaknesses to be highlighted:

Output	Strengths	Weaknesses
Enabling Environment or Reproductive Health Commodity Security	Contraceptives and MNN commodities are procured with government funds.	There is not an SRH plan or strategy.
	WHO EML is used as a reference and all contraceptives are included, as well as all tracer MNN commodities.	There is not a national EML.
		There is not a platform for dialogue where stakeholders participate to improve access to SRH commodities.
		Contraceptives are subject to import taxes, even for the MOH and sales taxes for commercial pharmacies.
Demand Satisfaction For Family Planning	Seems there is a disconnection between the perception of key informants ("users are satisfied and no stock-outs were reported") and what data reveals: only 17% of primary facilities had 4 of the 5 tracer contraceptives.	Contraceptives are available only at MOH facilities, commercial pharmacies, and private clinics. There are no NGOs providing FP services, which limits the options for users.
	According to the informants, all contraceptives, including ECPs and implants, are offered at all levels.	Last-mile reports revealed IUDs are not available at any level. Central warehouse did not distribute implants during 2020 and hospitals only offer orals.
		Only 9% of WRA were covered by MOH facilities in 2019.
Improved Procurement System And Processes Of Srh Commodities (Contraceptives And Mnn)	MOH procures using UNFPA Third Party Procurement mechanism to obtain the benefit of economy of scale and quality assurance.	Serious oversupply of contraceptives and shortfall of MNN commodities revealed a lack of procedures and abilities to quantify needs.
	According to informants, quantifications are based on past consumption.	
Improved Access/ Availability Of Srh Commodities(Contraceptive And Mnn)	MOH does not charge fees for contraceptives nor consultation.	National Health Insurance system proposed universal access; however, FP services are not covered.
	50% of hospitals had 7 of the 12 tracer commodities.	Only 17% of primary facilities had 4 of 5 tracer commodities available at last-mile reports.
	Counselling is provided to adolescents and people living with disabilities. IEC materials are used when needed.	FP training for human resources was conducted more than 2 years ago and materials are available only at the central level.
	At the central warehouse, 11 out of 16 RHMNN commodities were found by December 2019.	Gentamicin, ANC, resuscitation bags and implants were not found at the central warehouse by December 2019.
	All tracer MNN commodities are also offered at primary health facilities (Misoprostol only at the hospital level).	
	Impact of COVID-19 did not affect procurement. Commodities continued being delivered from central warehouse to health facilities	
Strengthen Capacity For Supply Chain Management	According to informants, distributions are based on consumption data.	LMIS16 is not functional, does not collect losses or adjustments and it is not aggregated at the national level.
	Funds have been allocated for training in LMIS at the facility level.	Max-min inventory control system is not in place.
	Maternal and Child Unit is in charge of delivering commodities to health facilities and transportation cost is fully covered.	'First to expire – First out' rule is not followed, and expired products have been reported in the past year.
		Training not yet conducted to standardize LMIS, implement max-min system, and quantify using consumption data.
		Oxytocin is not stored using cold chain.

16 A logistics management information system (LMIS) is a set of records and reports used to collect essential data (consumption, stock) to facilitate analysis and decision making all the way through the logistics system. It is the basis for implementing an inventory control system that allows for scheduling periodic resupply to avoid stock imbalances.

Improved Rhcs Planning, Monitoring And Reporting		No RHCS monitoring or assessments are conducted.
		There is no participation of any other stakeholder when MOH yearly monitors the accuracy of the financial allocation and procurement

Output	Conclusions	Recommendations
Enabling Environment For Reproductive Health Commodity Security	It seems SRH is not envisioned as a crucial component to improve health and living conditions. Contraceptives are subject to taxes.	Create an RHCS committee with the participation of PAHO, UNFPA, NGOs to design, jointly with the MOH, an SRH strategy and to position the SRH and RHCS agendas as priorities. Include SRH and RHCS in the next version of national development plans.
Demand Satisfaction For Family Planning	Modern CPR is high and unmet need for FP is relatively low. Main providers of contraceptives are commercial pharmacies, private clinics and the MOH. Contraceptives are rarely found in MOH hospitals.	Consolidate CPR by improving the provision of contraceptives at all MOH facilities. Especially since MOH is the sole source of contraceptives for the low-income population.
Improved Procurement System and Processes Of SRH Commodities (Contraceptives and MNN)	Distribution and stock in 2019 and 2020 reveal there is a total disconnect between how much is being consumed and how much is being procured.	Reinforce methodology to quantify needs and procure based on consumption trends in health facilities; especially to avoid serious waste of resources caused by expired products.
	Five contraceptives will expire and MNN commodities will be stock-out shortly.	Place the order for contraceptives and MNN commodities as soon as possible to avoid stock-outs.
		UNFPA to provide technical guidance and validation when orders are received.
Improved Access/ Availability Of SRH Commodities (Contraceptives and MNN)	Adolescent access to SRH services with parent consents once they are pregnant.	Advocate for adolescents' better access to SRH services and expand days and facilities to receive them.
	Poor MOH FP services coverage in 2019 and 2020 enforces the need to identify new strategies to reduce the unmet need of users that cannot afford to pay at private pharmacies.	Reduce unmet need by negotiating with NHI to cover FP services. To recover from the negative effects of COVID-19, plan a repositioning of FP services.
	700 islands only have three hospitals, thus primary care facilities are the main point of contact to solve health needs.	Ensure offer and availability of Misoprostol at all facilities, as well as emergency contraception.
	After a year of stock-out of implants the fact that there is no order in place might be due to several factors, namely: poor demand creation, poor acceptability, lack of capacity of health providers or financial and/or programmatic constraints.	
Strengthened Capacity For Supply Chain Management	Lack of information readily available for this assessment and severe oversupply and stock-outs reveals sound LMIS is not in place and not used for decision making.	Implement an LMIS and inventory control system that uses essential data to quantify needs and plan distributions. Train all levels in record keeping and reporting to improve SCM and adequate stock levels.
	Having oversupply at the central warehouse and stock out at health facilities reveal a lack of planning.	Plan distributions based on an analysis of consumption data to improve availability.
	MOH has two separate channels to manage RHMNN commodities. The Maternal and Child Unit does not have access to information about hospitals.	Centralize information for a better understanding of country needs, better planning and resolution of logistics issues.
	The MOH SCM reveal a series of weaknesses that require external technical assistance and support.	Design a comprehensive LMIS as part of an inventory control system and introduce Key Performance Indicators to monitor its operational implementation.
Improved RHCS Planning, Monitoring And Reporting	There is no monitoring of RHCS nor a plan with indicators in place.	Develop a comprehensive RHCS plan with indicators and targets to improve the maturity level shown in this assessment, especially the SCM output.
	The serious level of stock imbalances, oversupply of contraceptives, stock-out of MNN commodities, and expired products demonstrate a lack of monitoring of the stock situation.	The above-mentioned RHCS Committee to closely monitor levels of stock, accuracy and timeliness of procurement and quantities to avoid stock imbalances and waste of resources.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

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BARBADOS

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings and weaknesses identified, the synthesis of conclusions and recommendations for Antigua and Barbuda are as follows:

COUNTRY PROFILE

Barbados covers an area of 432 km^2. It is about 168 km east of both Saint Lucia and Saint Vincent and The Grenadines and 180 km south-east of Martinique and 400 km north-east of Trinidad and Tobago. Its capital, Bridgetown is also the largest city. On November 30, 1966, Barbados became an independent state and commonwealth. It has a population of 287,025 people (wordometer 2020)

The annual GDP total ($US Millions, at constant prices, 2010 base year) is $4,621.05 (World Bank 2019). In the 2011/2012 financial year, health expenditure as a percentage of total government expenditure was 12.1%, declining over the next three years to approximately 10.6% in 2014/2015 and continued declining to 4.8% (World Bank 2018). The country's three main economic drivers are tourism, the international business sector, and foreign direct investment. These are supported, in part, by Barbados operating as a service-driven economy and an international business centre. Barbados is geopolitically divided into 11 parishes.

Barbados' main health indicators related to RHCS are summarized on the right:

Barbados		
Description	Data	Source
Population Growth Rate (per 100)	0.1	2018 (World Bank)
Percentage of women of reproductive age (WRA), 15-49 years	26.43	2018 (Statista)
Maternal Mortality Ratio (per 100,000 live births)	27	2018 (Index Mundi)
Infant Mortality Rate (per 1,000 live births)	11	2018 (World Bank)
Neo-natal Mortality Rate (per 1,000 live births)	8	2018 (World Bank)
Total Fertility Rate (births per woman)	1.6	2018 (World Bank)
Adolescent Birth Rate x 1,000 (15 to 19 years)	31	2018 (World Bank)
Contraceptive prevalence rate (modern method)	59	2019 (United Nations Population Division)
Unmet Need for Family Planning (rate), women aged 15 to 49 years	15	2019 (United Nations Population Division)
Annual GDP Total ($US Millions, at constant prices, 2010 base year)	4,621	2019 (World Bank)

PUBLIC HEALTH SYSTEM

The Ministry of Health and Wellness (MHW) has statutory responsibility for the provision of health care. The Ministry defines policies, sets strategic directions, regulates the sector, and finances the public health services. Decision-making is centralized and there are no local health authorities.

The Government's policy of providing free health care services at the point of delivery, there are nine community-based polyclinics to attend primary health care services, they are very well developed. The Queen Elizabeth Hospital, that is secondary care, and the Ladymeade reference unit, that is a clinic for persons living with HIV that functions as a secondary and tertiary care facility. Some levels of specialized care have to be accessed outside of the country.

Access to essential medicines is secured by way of the Barbados National Drug Formulary (BNDF), which is administered by the Barbados Drug Service.

i. Sexual and Reproductive Health Services

Contraceptives are available at nine MHW policlinics where reproductive health services are available; commercial pharmacies; and the Barbados Family Planning Association (IPPF affiliated). Social security does not include health care. However, contraceptives are covered by most private health insurance policies. Even though the population growth rate is only 0.1%, adolescent pregnancy is high.

There is an adolescent strategy (2017) that identifies medium-term growth; and a development strategy with a crosscutting approach has been developed to address family health. (PAHO health in the Americas 2017)

At the MHW contraceptives and maternal and neonatal (MNN) commodities are offered as follows, by level of care:

		Primary	Secondary	Tertiary	Comments
	Commodity	Health Post (Outpatient Clinics)	Policlinics	Hospital (QEH)	Hospitals are considered as secondary/tertiary
1	Male condoms	Yes	Yes	Yes	
2	Female condoms	Yes	Yes	Yes	Not always available, only available if donated, not a popular choice
3	Oral contraceptives	Yes	Yes	Yes	
4	Emergency Contraceptives	No	Yes	Yes	It is on the official MHW formulary. Can be purchased from several private pharmacies for approximately $15
5	Monthly Injectables	No	No	No	Only available at the Barbados Family Planning Association
6	Bi-monthly injectables	No	No	No	
7	3-monthly injectables	Yes	Yes	Yes	
8	IUDs	No	Yes	Yes	
9	Implants	No	No	No	Included in the BNDF
10	Oxytocin	No	Yes	Yes	
11	Misoprostol	No	No	Yes	
12	Magnesium sulfate	No	No	Yes	
13	Ampicillin	Yes	Yes	Yes	
14	Gentamicin	Yes	Yes	Yes	
15	Self-inflating neonatal resuscitation bags with masks	No	No	Yes	
16	Antenatal corticosteroids	No	No	Yes	All high-risk pregnancies, like preterm labour, are managed at the hospital

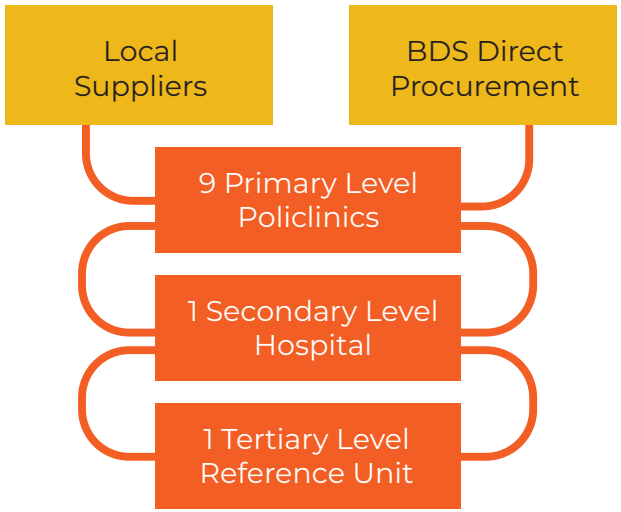
Note 1: As part of the neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most of the Caribbean countries, thus it was excluded to maintain comparability amongst Caribbean countries
Note 2: Implants are not offered by the MHW nor BFPA
Note 3: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by MOH. There are cases where a contraceptive is in the EML but was not found in 2019 or 2020 logistics data at the central level or last mile.

ii. The Public Health Supply Chain System

The Barbados Drug Service Program allows for centralized and decentralized procurement. The tender committee is comprised of public sector (Barbados Drug Service (BDS) and the Ministry of Finance) and private sector (pharmacist and doctors) players. PAHO provides support towards strengthening procurement processes but is not part of the committee. Purchases can either be local or international. Local procurement establishes that suppliers are responsible for warehousing and delivery of commodities purchased by any pharmacy. However, BDS has some storage space to store products purchased directly from local suppliers.

The BDS procures some commodities from PAHO and quantifications are based on past consumption collected from lower-level facilities. However, distribution is not planned and, in responding to requisitions from lower-level facilities, no evidence of consumption is used for those calculations. The transportation of all drugs, including contraceptives, is integrated and covered by the supplier or delivered by BDS.

The following flow chart represents the basic MHW supply chain:



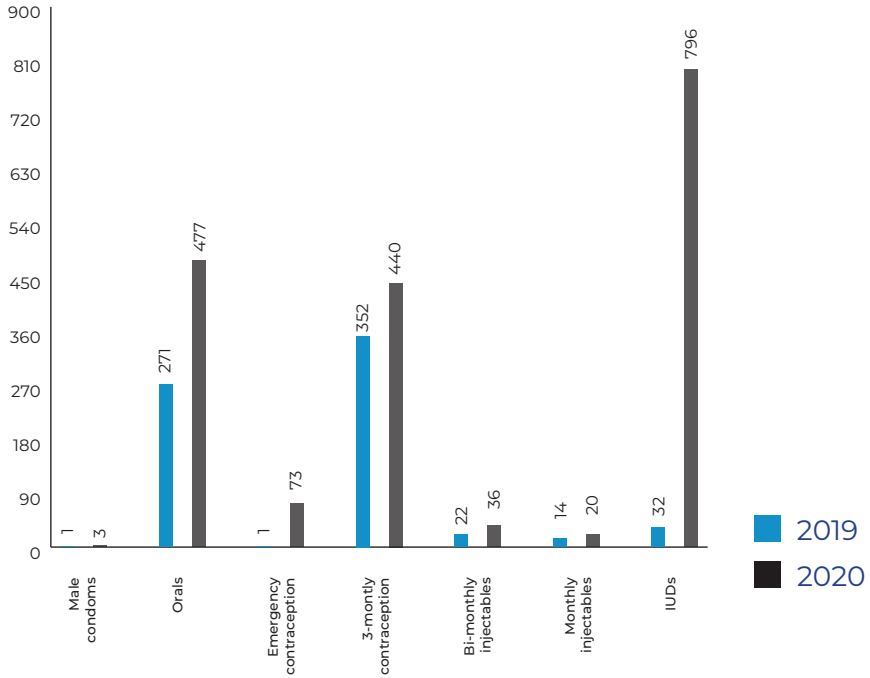
FINDINGS

Barbados did not provide data to analyze the availability of Contraceptives and MNN commodities at the central warehouse or at the last mile.

Couple-years of protection

Unfortunately for Barbados, an analysis of the couple-years of protection (CYP) 17 (see methodology for further details), generated by the MHW in 2019 and 2020 against CYPs generated by BFPA was not possible, since the distribution data from the central warehouse was not provided to the assessment team. However, an analysis of the CYPs generated by BFPA showed 693 CYPs in 2019 and 2,109 CYPs projected for 2020 (assuming a similar trend through December 2020), an increase of 205% can be observed, mainly due to IUD insertions.

BFPA CYPs



17 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

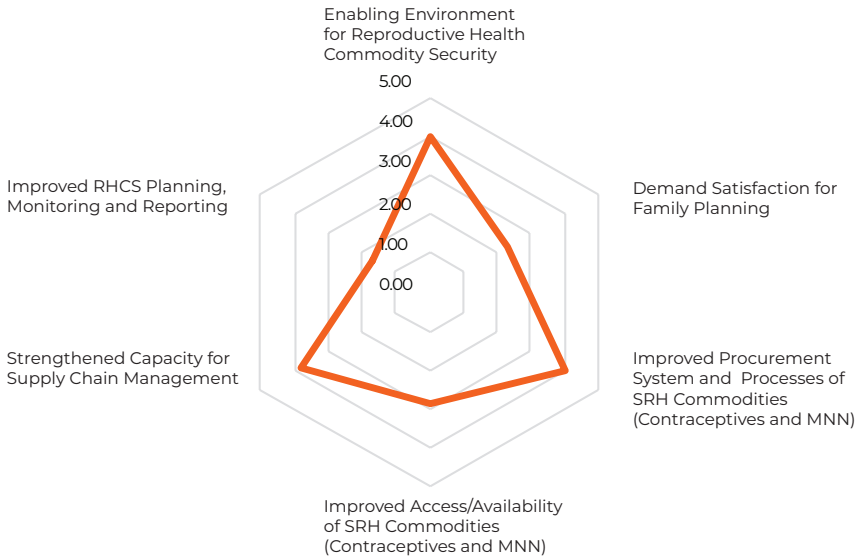
IMPACT OF COVID-19

According to the informants from MOH, neither allocation of funds nor procurement were affected by COVID-19. The distribution of commodities continued at the lower levels, health facilities continued providing services, and human resources were not reduced. So, the impact was minimal. However, the validation of this information was not possible since no distribution data, stock information for the central warehouse nor last-mile data were provided to the assessment team.

RHCS MATURITY

The following table captures the maturity of the system in six RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The MHW of Barbados RHCS score is 2.98, where enabling environment and procurement system have the highest score (4), while improved monitoring has the lowest score (1.67):

Output	Concept	Score in the RHCS Scale
1	Enabling Environment for Reproductive Health Commodity Security	4.00
2	Demand Satisfaction for Family Planning	2.33
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	4.00
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	2.86
5	Strengthened Capacity for Supply Chain Management	3.83
6	Improved RHCS Planning, Monitoring and Reporting	1.67
	Overall Score	3.12



STRENGTHS AND WEAKNESSES

The current situation represents 54% of the total score, and there are important strengths and weaknesses to be highlighted:

Output	Strengths	Weaknesses
Enabling Environment For Reproductive Health Commodity Security	There is a Health Strategic Plan 2002-2021, there is also a Growth and Development Strategy 2013-2020.	Implants are not offered. Condoms are donated by UNAIDS only for the HIV prevention programme.
	There is an EML (BNDF) that includes all contraceptives.	
	There is close collaboration with BFPA to advocate for SRH and rights.	
	All products in the BNDF are duty- and tax-exempt.	
Demand Satisfaction For Family Planning	Contraceptives are provided by MHW, commercial pharmacies and BFPA. SRH is covered by most private insurance policies.	Informants estimated 70% of WRA covered by the MOH. However, no distribution data was provided, so it was not possible to validate this perception.
	Informants indicated that ECPs and IUDs are available at some policlinics and the hospital.	Demand is not met for adolescents as they need parental consent if they are younger than 18. However, the age of consent for sexual activity is 16.
		Social security does not cover health care.
Improved Procurement System and Processes Of SRH Commodities (Contraceptives and MNN)	According to key informants, quantifications are based on past consumption, this was not confirmed by BDS.	Procurement can be either done locally or internationally and centrally or decentralized. This might be costly.
	MHW procures some commodities through PAHO and shipments are scheduled every year.	
Improved Access/ Availability Of SRH Commodities (Contraceptives And MNN)	All tracer MNN commodities are in the BNDF and are used mainly at the hospital; at clinics, only for emergencies	MHW does not charge for consultations, but it does for contraceptives (i.e. US$2 per oral cycle)
	Counselling is provided by skilled midwives or doctors, as part of their professional training and includes adolescents.	Data was not provided; thus, last-mile availability analysis was not possible.
	FP training materials are according to WHO guidelines and available at all levels. New personnel is trained before taking their positions.	FP training took place 3 years ago.
Strengthened Capacity For Supply Chain Management	According to informants, distribution plans are in place and based on consumption data.	LMIS[18] is not available and it was not possible to receive basic data for analysis of this assessment.
	There is no central medical store, only a storage space at BDS office. BDS procures and suppliers deliver the commodities directly to public pharmacies. The cost of delivering directly to MHW is part of the negotiated price at the time of the tendering process.	There are no plans to invest in supply chain improvements.
	According to the informants, health staff have been trained to follow the max-min system when placing resupply orders.	
	Air conditioning is available, the cold chain is used when storing Oxytocin,	

18 A logistics management information system (LMIS) is a set of records and reports used to collect essential data (i.e., consumption, stock) to facilitate analysis and decision making through the logistics system. It is the basis of implementing an inventory control system that allows scheduling for periodic resupply and to avoid stock imbalances.

Improved RHCS Planning, Monitoring And Reporting		According to key informants, commodity security monitoring is independently conducted, but is weak, because no plans, indicators, targets or goals are developed as a result.
		There is no financial or procurement monitoring in place.

CONCLUSIONS AND RECOMMENDATIONS

Output	Conclusions	Recommendations
Enabling Environment For Reproductive Health Commodity Security	MHW does not have a comprehensive SRH strategy that includes RHCS.	Develop a substantive SRH strategy that includes RHCS, especially for securing the availability of current method options and access to services by adolescents. As part of the strategy, promote coordination amongst governmental, international cooperating partners, and NGOs to monitor progress over time of every RHCS element to achieve and maintain MNN and RHCS.
	Having a formulary (BNDF) that includes all contraceptives and MNN live-saving commodities is a powerful tool for advancing commodity security.	Create the formation of an RHCS committee that will promote coordination amongst governmental and international cooperating partners, as well as NGOs, including BFPA. They will monitor progress over time of every RHCS element to achieve and maintain MNN and RHCS. Also, this committee can advocate for the inclusion of SRH in every health strategy.
	Condoms are donated and only for HIV prevention.	Condoms should be procured for family planning.
		Expand the method mix by ensuring the introduction of implants in Barbados.
		Seek alliances with UNFPA, PAHO and BFPA to advocate for changes in the legislation to ensure access to SRH services by adolescents. BFPA has already presented an adolescent policy to the MHW.
Demand Satisfaction For Family Planning	CPR is at 59%, and unmet need is 15%. That might be considered above the average in the Caribbean, but adolescent pregnancy is still high.	Provide comprehensive sexuality education (in and out of schools) in collaboration with stakeholders (UNFPA, PAHO and BFPA), to empower adolescents about their SRH rights and reduce the high levels of adolescent pregnancy rates.
Improved Procurement System And Processes of SRH Commodities (Contraceptives And MNN)	It wasn't possible to analyze the accuracy of quantification and procurement.	Make sure quantifications are based on past consumption, national maximum-minimum inventory control levels, taking into consideration buffer stocks, lead time and the shelf life of commodities.
	Local procurement is costly, and decentralized purchases need to be based on decentralized skills and good local suppliers.	Carry out a cost study that compares current and potential procurement options, including supply chain costs. Explore the use of procurement agencies (UNFPA /PAHO/UNOPS) that can be more cost-efficient than procuring at local prices that are usually higher.
Improved Access/ Availability Of Srh Commodities (Contraceptives And MNN)	IUDs are available only in some policlinics and the hospital; implants are not available at any level.	Train primary care facilities to insert IUDs, and plan for the introduction of implants in the country to expand the method choice, especially of LARC.
	A 287,000 population only has one public facility to get Misoprostol.	Expand the availability of Misoprostol to other public facilities.
		Plan qualitative research to understand if financial constraints (charges for contraceptives) are a barrier for users accessing their method of choice.
Strengthened Capacity For Supply Chain Management	When a comprehensive LMIS exists, information is readily available at any time. This did not happen after one month of requesting basic data.	MHW to invest in LMIS training to ensure sound logistics analysis and decisions are made, and as the foundation for a well-functioning max-min inventory control system.
Improved RHCS Planning, Monitoring And Reporting	Without an institutionalized monitoring culture, information might not be made available for decision-makers inside and outside the MHW.	The above-mentioned (and suggested) RHCS committee to monitor all RHCS elements going forward – yearly indicator achievements, proper allocation of funds, inventory levels and availability at last mile.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

BELIZE

COUNTRY PROFILE

Although geographically it is part of the Central American Isthmus, Belize has historical ties with the Anglophone Caribbean; as such, it is the only English-speaking country in Central America. In 2020, Belize's estimated population is 399,892 (Oct 2020 Worldometer based on UN data estimates). Belize is considered to be a small, upper-middle-income developing country with a GDP per capita of US$4,829 (Ministry of Finance Belize approved estimates of revenue and expenditure for the fiscal year 2016/2017). Annual GDP Total ($US Millions, at constant prices, 2010 base year) is $1,619.91, 2019 (World Bank). The country's multi-ethnic population includes a majority Mestizo (52.9%), followed by Afro-descendant Creoles (26%), Garifuna (6.1%), and indigenous Maya (11.3%). Belize stretches for 22,966 km^2 and has a low population density of 16.4 persons per km^2. An estimated 31% of the population lives along the coast, with the remainder scattered widely throughout the country's interior. These characteristics make it difficult and expensive to provide health care services.[19]

The leading cause for almost half of all hospitalizations in the country is complications of pregnancy, childbirth, and the puerperium; 94% of mothers deliver in a health care facility.

Belize's main reproductive health indicators are shown:

Belize		
Description	Data	Source
Population Growth Rate (per 100)	1.9	2018 (World Bank)
Percentage of women of reproductive age (WRA), 15-49 years	26.34	2018 (Statista)
Maternal Mortality Ratio (per 100,000 live births)	138.1	2018 (Belize Abstract of Statistics)
Infant Mortality Rate (per 1,000 live births)	12.6	2018 (Belize Abstract of Statistics)
Neo-natal Mortality Rate (per 1,000 live births)	5	Belize MICS, 2015 (2016)
Total Fertility Rate (births per Woman)	2.6	Belize MICS, 2015 (2016)
Adolescent Birth Rate (10 to 19 years)	74	Belize MICS, 2015 (2016)
Contraceptive prevalence rate (modern method)	48.5	Belize MICS, 2015 (2016)
Unmet Need for family planning rate, women aged 15-49 years	22.2	Belize MICS, 2015 (2016)

PUBLIC HEALTH SYSTEM

The Ministry of Health is organized in four health regions (Northern Region, Central Region, Western Region and Southern Region), headed by regional health managers. All regional hospitals are urban, with the rural population being served by a network of primary health clinics, health posts, and mobile health clinics. There are approximately 51 health facilities, including hospitals, health centres, polyclinics and health posts. The public sector is the larger provider of family planning, free of cost.

19 PAHO Country Report 2017 Belize https://www.paho.org/salud-en-las-americas-2017/?p=2362

The Ministry of Health relies on a nationwide Belize Health Information System (BHIS) to record patient data and to integrate data sources electronically, thus facilitating analysis and reporting of health information. The logistics management information system (LMIS) is one of the modules included in this BHIS.

i. Sexual and Reproductive Health Services

The leading cause for almost half of all hospitalizations in the country is complications of pregnancy, childbirth, and the puerperium; 94% of mothers deliver in a health care facility[20], this is why the government launched the Belize Health Sector Strategic Plan 2014-2024 which includes sexual and reproductive health services as a priority. The 2015 MICS survey shows that modern CPR is at 48.5% and the unmet need for family planning is 22%. This data was used in advocacy efforts to convince health authorities to treat contraceptives as a public good to prioritize it and revamp FP services in Belize. Also, under the IDB Mesoamerican Project, a commitment was made by the MOH to fund 100% of contraceptive needs.

In the private sector, contraceptives are sold in supermarkets, private pharmacies and private clinics. Belize Family Life Association (BFLA) is an IPPF affiliate organization that focuses exclusively on sexual and reproductive health. It manages six clinics that provide general health services including FP, Pap smears, pregnancy tests, abortion services, and testing for sexually transmitted infections including HIV. In addition to its static clinics, BFLA operates three mobile clinics to provide contraception and cervical cancer screenings to remote and underserved communities.

The table on the right summarizes the contraceptive, maternal and neonatal commodities offered by MOH, by level of care:

		Primary	Secondary	Tertiary	Comments
	Commodity	Health post, and mobile clinic	Health centre, policlinic, regional hospital	Hospitals	Mobile clinics carry out contraceptives
1	Male condoms	Yes	Yes	Yes	
2	Female condoms	No	No	No	Not available in Central warehouse in 2019 nor 2020
3	Oral contraceptives	Yes	Yes	Yes	
4	Emergency Contraceptives	No	Yes	Yes	Found in central warehouse, but none in last mile
5	Monthly contraceptive Injectables	No	Yes	Yes	
6	Bi-monthly contraceptive injectables	Yes	Yes	Yes	
7	3-monthly contraceptive injectables	Yes	Yes	Yes	
8	IUDs	No	Yes	Yes	Found in 2 primary level facilities
9	Implants	Yes	Yes	Yes	Implants were present in primary level
10	Oxytocin	Yes	Yes	Yes	
11	Misoprostol	Yes	Yes	Yes	
12	Magnesium sulfate	Yes	Yes	Yes	
13	Ampicillin	Yes	Yes	Yes	
14	Gentamicin	Yes	Yes	Yes	
15	Self-inflating neonatal resuscitation bags with masks	No	Yes	Yes	
16	Antenatal corticosteroids	Yes	Yes	Yes	

Note 1: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most of the Caribbean countries, so it was excluded to maintain comparability amongst Caribbean countries.

Note 2: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by MOHW. There are cases where a contraceptive is in the EML but was not found in 2019 or 2020 logistics data, at central level or last mile.

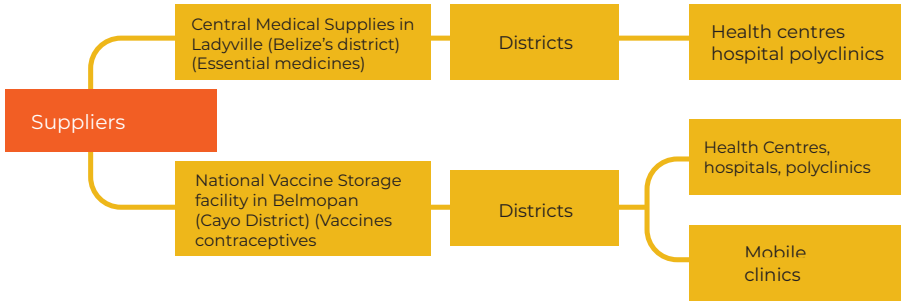
20 Belize Health Sector Strategic Plan 2014-2024 http://health.gov.bz/www/attachments/article/801/Belize%20Health%20Sector%20Strategic%20Plan%20 2014-2024-April%202014.pdf.

ii. The Public Health Supply Chain System

Forecasting of medicines and contraceptives uses the logistics management information system within BHIS, although not yet utilized fully for forecasting. Distribution by district is documented in the LMIS within BHIS as well. For essential medicines, including maternal and neonatal commodities, the procurement and tendering processes with local suppliers are awarded based on a competitive selection process. For local procurement, the cost of the award usually includes transportation to the district level and larger facilities.

The supply chain system is a three-tiered system with two central warehouses, one located in Belize District, and the other in the National Vaccine Storage Facility in Belmopan, where contraceptives are stored. From there, the medicines are distributed to districts, and then to the network of facilities.

Below is a basic diagram of the supply chain system:



FINDINGS

i. Availability of RH and MNN commodities at the central warehouse.

The RHCS Assessment included collecting availability data at the central warehouse for 16 commodities in two instances:

1. As of December 31, 2019, to assess the availability without the impact of the COVID-19 pandemic
2. As of October 2020, to assess the availability, considering the potential impact of COVID-19.

There are several situations to be highlighted as follows:

- As of December 2019, the central warehouse showed availability of 13 out of 16 commodities. Commodities not available were female condoms, 1-month injectables, and 2-month injectables.

The table below summarizes the stock status as of October 2020 (expressed in months of stock on hand (MOS)), with the following highlights:

- There is approximately 4.4 years stock of male condoms on hand, which reflects excess inventory; there is 2 years stock of orals on hand and 9 years of IUDs, there is 4.5 years of implants stock.
- In contrast, monthly and bi-monthly injectables are out of stock and orders need to be placed immediately to prevent stock-out.
- The following commodities are at no risk of stock-out or oversupply: 3-month injectables (17.6 MOS), ECPs (15.6 MOS), oxytocin (17.3 MOS), and ANCs (11.2 MOS).
- Ampicillin and gentamicin are at 34.7 and 37.5 MOS.
- The pattern of distribution, demand and MOS of NN self-inflating resuscitation bags with masks is unusual as this commodity is used for NN resuscitation. It is estimated the stock will last 14.95 years.

Belize				
Level of stock-out risk, by commodity, at central warehouse as of October 2020				
Level of Risk	High < 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply > 18
Male condoms				53.6
Female condoms	Not offered			
Oral contraceptives				25.5
Emergency contraception			15.4	
Monthly injectables	0.6			
Bi-monthly injectables	0.0			
3-monthly injectables			17.6	
IUDs				110.4
Implants				54.2
Oxytocin			17.3	
Misoprostol				26.4
Magnesium sulfate	Offered, but data was incomplete			
Ampicillin				34.7
Gentamicin				37.5
Self-inflating NN Resuscitation bags				179.4
Antenatal corticosteroids			11.2	

ii. Availability of Contraceptives and MNN Commodities at the Last Mile

Availability of 12 tracer commodities was measured at both the primary and secondary/tertiary levels as of October 2020, as follows:

a. At the primary level, the indicator measures the availability of 5 tracer contraceptives: Condoms, ECPs, orals, injectables, and IUDs. The criteria at this level involve facilities with at least 4 of the 5 contraceptives, achieving the highest score in the RHCS scale.

b. At the secondary/tertiary levels, the indicator measures the availability of 12 tracer commodities: Male condoms, oral contraceptives, emergency contraception, injectables, IUDs, oxytocin, misoprostol, magnesium sulfate, ampicillin injectables, gentamicin injectables, self-inflating neonatal resuscitation bags with masks, ANCs – dexamethasone or betamethasone injection. The criteria at this level involve facilities with at least 7 of the 12 tracer commodities, achieving the highest score in the RHCS scale.

In Belize, at the primary health care level, six health centres were in the sample, of which 0% had 4 of the 5 tracer contraceptives. The table below summarizes availability by method:

Contraceptives	Present in 6 primary facilities
Male condoms	50%
Oral Contraceptives	100%
Emergency contraception	0%
Injectable	50%
IUDs	33%

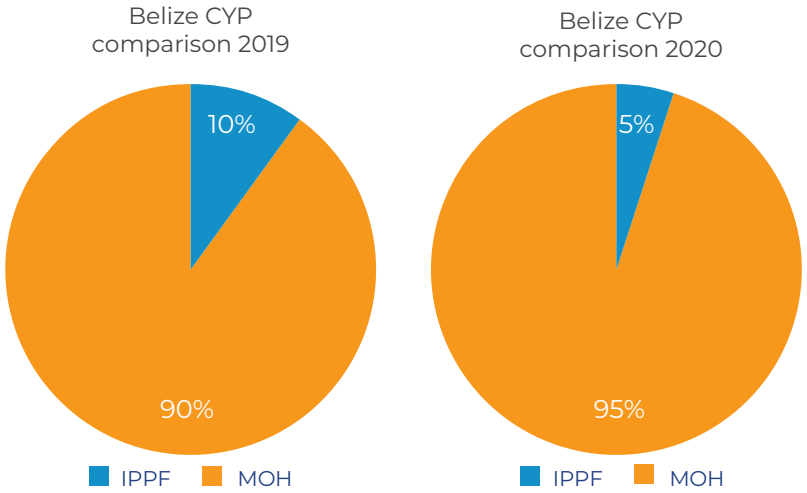
Note: Although implants were not part of the tracer commodities at the primary level, it is worth noting that this commodity was present in five of the six facilities.

At the secondary and tertiary level, five facilities were in the sample, of which 100% had at least seven of the 12 tracer commodities. The table below summarizes availability by commodity:

Commodities	Present in 5 secondary/tertiary facilities
Male condoms	100%
Oral Contraceptives	100%
Emergency contraception	0%
Injectables	80%
IUDs	80%
Oxytocin	100%
Misoprostol	100%
Magnesium sulfate	100%
Ampicillin injectable	100%
Gentamicin injectables	100%
Self-inflating neonatal resuscitation bags with masks	20%
ANCs - Dexamethasone or Betamethasone injection	100%

Couple-years of protection

According to distribution data from the central warehouse, the MOH generated 16,726 couple-years of protection (CYPs)[21] (See methodology for further details) in 2019, and BFLA generated 1,818 CYPs, which represents coverage of 90% and 10% respectively. In contrast, in 2020 (projected and assuming a similar trend through December 2020) the MOH generated 10,621 CYPs and BLFA generated 562 CYPs, which reflects a reduction in CYPs of 37% for MOH and 69% for BFLA. This is an indication that COVID-19 negatively impacted the offer and demand for FP services.



IMPACT OF COVID-19

According to the key informants of MOH, during the COVID-19 pandemic, the distribution of commodities has continued with social distancing measures. However, the logistics data show the distribution of contraceptives reduced significantly, compared to 2019: Bi-monthly injectables were at 100%, 3-monthly injectables 27%, IUDs 76%, and implants 56%. For MNN commodities, oxytocin was reduced by 42%, misoprostol by 29%, ampicillin by 33% and ANCs by 18%. On the other hand, the distribution for gentamicin more than doubled in 2020, and self-inflating NN bag was distributed three times more than in 2019.

Stocks and average distribution reported in 2020 plus orders in transit were analyzed to determine Months of Stock available. When estimating future trends of stock status of the MOH, monthly and bimonthly injectables were stocked out in November 2020, with a need to place new orders as soon as possible to avoid foreseen stock-outs.

The impact of the reduction of CYPs between November 2020 and July 2021 can potentially cause the following negative results (See the methodology section for further information):

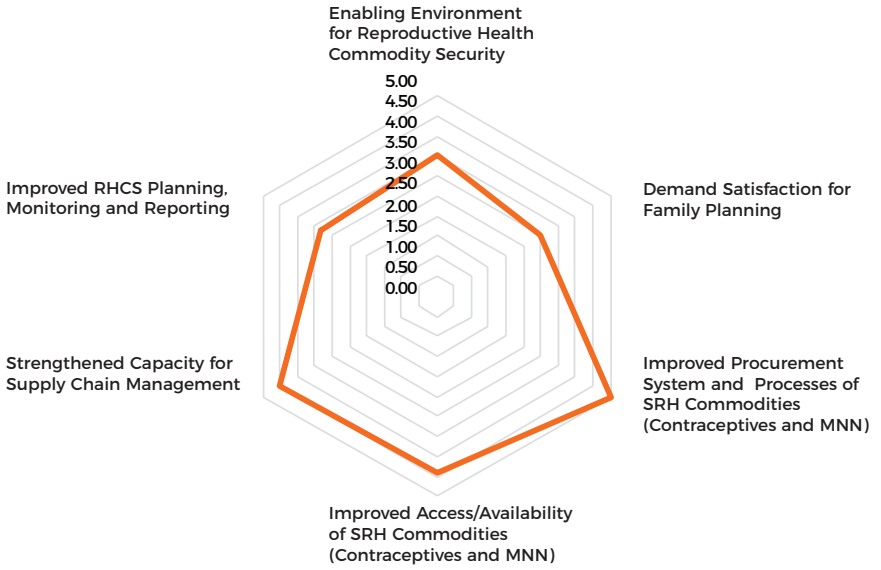
Belize – Expected Impact of Stock-out	
Total CYPs lost	1,249
Number of unintended pregnancies	1,061
Number of abortions	167
Number of maternal deaths	1
Number of neonatal deaths	8

RHCS MATURITY

The following table captures the maturity of the system in terms of six RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The overall RHCS score of the Ministry of Health of Belize is 3.96, where Demand Satisfaction for Family Planning has the lowest score of 3.00 while Improved Procurement System and Processes of SRH and MNN Commodities obtained 5 in a scale where 5 is the best score, as shown in the table below:

21 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

Output	Concept	RHCS Score
1	Enabling Environment for Reproductive Health Commodity Security	3.50
2	Demand Satisfaction for Family Planning	3.00
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	5.00
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	4.43
5	Strengthened Capacity for Supply Chain Management	4.50
6	Improved RHCS Planning, Monitoring and Reporting	3.33
	Overall Score	3.96



STRENGTHS AND WEAKNESSES

The current situation represents 79% of the total score, and there are important strengths and weaknesses to be highlighted:

Output	Strengths	Weaknesses
Enabling Environment For Reproductive Health Commodity Security	SRH Policy (2002), 2010-2015 National SRH Plan, and 2019-2030 Adolescent Health Plan. Under finalization the revision of the 2002 SRH Policy. There is a national SRH Committee under the leadership of the MoH and is a multisectoral platform that also integrates development partners.	There is not a national RHCS coordinating committee nor is RHCS integrated into the SRH Committee.
	Contraceptives and MNN commodities are fully funded by the government.	
	There is a Belize Drug Formulary and Therapeutics Manual, 10th Edition 2017-2020 where orals, injectables, ECPs, and condoms are included.	
	According to MOH information, MOH COVID-19 measures secured provision of 6 months' worth of orals for users. Mobile clinics also continued visiting the community using social distancing measures.	COVID-19 social distancing influenced the reduction of commodities distribution during 2020, which is reflected in the central warehouse availability analysis.
Demand Satisfaction For Family Planning	The diverse variety of FP service delivery points: public health facilities (MOH), BFLA, private clinics, private pharmacies and supermarkets.	High unmet need for family planning (22.2%). Only 19% of WRA were covered by MOH in 2019 (based on CYPs distributed in 2019)
Improved Procurement System And Processes Of SRH Commodities (Contraceptives And MNN)	Belize's main procurement mechanism for contraceptives is UNFPA Third Party Procurement, which offers prices negotiated globally that guarantee economies of scale while guaranteeing quality. MOH also procures from Women Care/DKT International. For MNN, procurement is done through local and international competitive tendering.	Lengthy procurement process. First, within the MOH to approve the procurement plan and then TPP process from quotations to actual receipt of the commodities from suppliers. The main impact of COVID-19 has been significant increases in shipping, freight, and insurance.
	Quantification is done based on consumption over up to 18 months, including 6 months of buffer stock.	Despite the good practice of doing the quantification based on consumption, central warehouse stock on hand shows stock-out and an oversupply of several commodities.
Improved Access/ Availability Of SRH Commodities (Contraceptives And MNN)	By December 2019, 12 of the 16 commodities were available in the Central warehouses.	As of October 2020, at the central warehouse, 1-month, and 2-month injectables were out of stock.
	Implants were not part of the monitoring of tracer FP commodities in the last mile, but worth noting that they were present in 83% of sampled primary level facilities and 80% of sampled secondary/tertiary level facilities.	0% of sampled primary health facilities had 4 of the 5 contraceptives (male condoms, orals, injectables, ECPs and IUDs).
	MOH has mobile clinics that deliver services to hard-to-reach communities.	
	FP services are offered to adolescents and people with disabilities, but MOH considers this is an area to further improve to guarantee access and quality of care for vulnerable groups.	Lack of full understanding by health providers of the Family and Children's act in what refers to the legal age in which FP services can be offered to adolescents under the age of 18.
	FP services are free of charge.	
	MOH offers a wide variety of FP methods: male condoms, orals, injectables, ECPs, IUDs, implants.	Female condoms are not offered and ECPs were not present in any of the sampled health facilities, despite being available at the central warehouse.
	100% of the sample health secondary and tertiary facilities had at least 7 of 12 MNN commodities.	
	Regular training is provided to staff, and WHO medical eligibility criteria are used for counselling and training.	

Strengthened Capacity For Supply Chain Management	MOH LMIS [22]is included in the BHIS, an electronic medical record system that includes supply chain management information. Forecasting is done using the BHIS.	Stock-outs and oversupply observed during this assessment reveal that LMIS is not being used fully for making supply chain decisions, especially when placing orders. The stock-out situation in 2019 exacerbated the effects of COVID-19 on 2020 stock, particularly 1-month, 2-month, and 3-month injectables.
	Oxytocin is stored in cold chain according to WHO recommendations.	An inventory control system is not being applied in full, as there are both several stock-outs and serious oversupply.
	Warehousing is sufficient and follows standard warehouse management procedures.	Distribution is not scheduled, there is a combination of assigning quantities when the central warehouse is short of supply and responds to requests from lower levels. Bottlenecks in distribution and transportation lead to stock-outs in the last mile, as seen in the sampled facilities of this assessment.
Improved Rhcs Planning And Monitoring	MOH conducts regular monitoring of health data, budget and procurement needs.	No monitoring plan for RHCS is in place.

CONCLUSIONS AND RECOMMENDATIONS

Belize RHCS overall score of 3.96 demonstrates that MOH is performing well in several aspects of RHCS. However, several areas need further strengthening. Based on the weaknesses identified, to progress in the path of RHCS and maintain it over time, the following conclusions and recommendations serve that purpose:

Output	Conclusions	Recommendations
Enabling environment for reproductive health commodity security	Several policies and plans related to SRH demonstrate a commitment to SRH (including FP) and RHCS.	Ensure the integration of all elements of RHCS in the upcoming national SRH strategy and costed operational plan. In particular, prioritize interventions to reduce unmet need for family planning and consolidate the supply chain system as a building block for resilient and effective supply chains in times of health emergencies. Advocate to ensure that SRH and RHCS are priorities in the next National Development Plan.
		Form an RHCS committee or integrate RHCS in the current SRH national committee to monitor progress and sustain RHCS over time. The inclusion of private stakeholders in this platform (i.e., NGOs) is recommended.
		Engage with other Caribbean countries and regional institutions in the development of a regional RHCS strategy for the Caribbean informed by the assessment results. Define a road map for improved and increased visibility of RHCS in times of health emergencies and natural disasters. This strategy may include lessons learned and the sharing of best practices, for instance, providing FP services through mobile clinics during the COVID-19 pandemic, or activating community outreach strategies in alliance with NGOs.
	Despite efforts in implementing measures to avoid interruption of FP services during COVID-19, the distribution of contraceptives reduced compared to 2019.	Develop protocols for health emergencies and how to respond quickly to minimize disruption of FP services, in alliance with BFLA and other organizations.

22 A logistics management information system (LMIS) is a set of records and reports used to collect essential data (i.e. consumption, stock) to facilitate analysis and decision making through the logistics system. It is the basis for implementing an inventory control system that allows for scheduling periodic resupply to avoid stock imbalances

Demand satisfaction for family planning	MOH offers a wide range of contraceptive options, including LARC, except for female condoms.	Introduce female condoms into the method choice. Before that, it is recommended to undertake common qualitative research techniques, such as focus group discussions to learn about acceptability and raise awareness to ensure female condom uptake.
	Excess inventory of IUDs reflects reduced demand, both because of COVID-19 and the preference of WRA for this method trending down.	Implement demand-creation strategies for IUDs, including tools and trained staff to reposition this method at all levels of care. If excess inventory continues, review expiry dates and consider transferring to neighbouring countries.
	Unmet need for family planning is high and requires immediate attention.	Identify collaboration efforts between BFLA and MOH to plan targeted interventions to reduce unmet need, focusing on the most cost-effective methods and always based on full, free and informed choice.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	UNFPA TTP procurement mechanism offers the best price and guarantees quality of products, but the procurement cycle can be shortened.	Carry out a process mapping and timeline analysis to identify bottlenecks, as well as internal and external processes that can be streamlined to optimize lead times and the final arrival of contraceptives tp the MOH warehouse.
	MOH has also procured from other organizations, such as Women Care International/DKT International. MOH has requested quotes from CARICOM but UNFPA prices are the best choice.	Continue exploring and expanding procurement options that may help MOH in times of health crisis or uncertainty to protect the SCMS from stock imbalances.
	Quantification is an essential part of the procurement process that needs revision and improvements.	After experiencing the effects of the COVID-19 pandemic, and the stock-outs and oversupply, it is advisable to review the quantification methodology, and include criteria to protect the SCM from supply imbalances.
Improved access/ Availability of SRH commodities (contraceptives and MNN)	Services for adolescents are limited, due to the diverse interpretation of the Family and Children's Act and discussions are underway to improve their access.	Continue efforts to implement advocacy to ensure that health staff offer FP services responsive to the needs of the adolescents, in alliance with BLFA, the Ministry of Education and other key stakeholders. Develop and/or revise FP norms, where it is clearly stated what the package of SRH services is to be provided for adolescents under the age of 18.
	Stock-outs of injectables took place in 2019 and 2020.	Place orders of injectables urgently to revert stock-out situation.
	There are several FP and MNN commodities with serious oversupply.	Analyze each product and start distributing to facilities based on a normal year distribution pattern, together with reactivating the FP offer to reduce unmet need. For NN self-inflating resuscitation bags, consider transferring to neighbouring countries that have a higher risk of NN deaths.
	Availability of contraceptives in the last mile (at the primary health care level) needs substantial improvement.	Carry out an in-depth logistics assessment that can demonstrate the bottlenecks, especially in distribution, transportation and requisitions at the lower levels.
	The MOH of Belize regularly invests in capacity building through training of their health staff in SRH/FP, however, RHCS is not included.	Update training curricula to include basic concepts of RHCS, and maximize the use of digital tools like the WHO Contraceptive Criteria in an APP.
Strengthened capacity for supply chain management	The LMIS is part of the BHIS, but improvements are needed in terms of its use for decision making and ordering quantities to avoid oversupply and stock-out.	Carry out refresher training in the collection and usage of essential logistics data for quantification and requisition of commodities.
		Review inventory control system norms, establish maximum-minimum levels and adjust as needed to bring stock levels to acceptable levels.
		Promote a meeting between Belize and Trinidad and Tobago to share lessons learned and best practices for a successful and sustainable implementation of an automated LMIS. This initiative could include other countries as well.
Improved RHCS planning, monitoring and reporting	RHCS elements are not monitored as a strategic priority.	Include RHCS as part of the current recently drafted National Health Plan as well as the upcoming SRH Strategy and costed operational plan to improve monitoring of all RHCS aspects. Monitor availability in times of emergency and health crises like the COVID-19 pandemic. Oversupply of male condoms, orals, IUDs, implants, ampicillin and gentamicin, and NN self-inflating resuscitation bags needs immediate attention. Determine strategies for avoiding the expiration of products and to analyze demand patterns to adjust/distribute stocks to lower levels.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

THE BRITISH VIRGIN ISLANDS

COUNTRY PROFILE

The British Virgin Islands (BVI), an overseas territory of the United Kingdom, is self-governed by a democratically elected House of Assembly, with the Governor representing Her Majesty, the Queen. Road Town is the capital. Under the constitution, the Governor is responsible for foreign affairs, defense, and internal security, while the Government is responsible for internal affairs. The Virgin Islands' total landmass of 59.3 mi^2 includes some 50 islands, cays, rocks, and islets. The largest islands are Tortola (21.5 mi^2), Anegada (15.2 mi^2), Virgin Gorda (8.5 mi^2), and Jost Van Dyke (3.2 mi^2). The territory has an extensive road network, and transportation between the islands is mainly by ferry, with limited air transportation, mainly to Anegada. According to Worldometer estimates, the population of BVI, as of October 2020, is 30,302. The British Virgin Islands utilizes the US dollar as its currency; its economy is based on tourism and international financial services, which together account for more than 70% of the territory's GDP (Central Statistics Office British Virgin Islands)[23]. GDP per capita is $34,200 (2017 estimate, CIA factbook[24]). Financial services contribute 51.8% of the Government's revenue from license fees for offshore companies and payroll taxes relating to salaries paid within the finance sector.

The main reproductive health indicators are shown below:

British Virgin Islands - Main Reproductive Health Indicators		
Description	Data	Source
Population Growth Rate (per 100)	0.8	2009 (Pan American Health Organization)
Percentage of Women of Reproductive Age (WRA), 15-49 years	4,296	2020 https://countrymeters.info/en/British_Virgin_Islands
Infant Mortality Rate (per 1000 live births)	20.3	2017 (Statistical Office, BVI)
Neonatal Mortality Rate (per 1,000 live births)	0.0	2015 (Pan American Health Organization) https://www.paho.org/salud-en-las-americas-2017/?p=2541
Total Fertility Rate per Woman	0.9	2017 (Statistical Office, BVI)
Adolescent Birth Rate (10-19 years)	9	2015 (Pan American Health Organization)
Contraceptive prevalence rate (modern method) (%)		Data not available
Unmet Need for Family Planning rate, women aged 15-49 years (%)		Data not available

PUBLIC HEALTH SYSTEM

Since 2004, public health care services[25] have fallen under the responsibility of the BVI Health Services Authority (HSA), a statutory corporate body. Public primary health care services are provided through 10 health centres; public secondary care is provided at the Dr. D. Orlando Smith Hospital, a bed institution that offers services in the major medical disciplines. There is a well-developed private health care system that includes a private hospital (PAHO Country Profile, 2017). Health services are financed through National Health Insurance (NHI), which was put in place in January 2016. The NHI receives contributions from employers and employees in addition to government direct investment and reimbursement for care provided

23 Statistics [Internet]. Tortola: BVI-CSO; 2016. Available from: http://www.bvi.gov.vg/statistics Statistics [Internet]. Tortola: BVI-CSO; 2016. Available from: http://www.bvi.gov.vg/statistics.
24 https://www.cia.gov/library/publications/resources/the-world-factbook/geos/print_vi.html
25 https://www.paho.org/salud-en-las-americas-2017/?p=2541

in both the public and private sector. In the public health system, co-payments or fee requirements for consultations and medicines are levied at the point of delivery. Revenue from fees or the sale of medicines is used by the BVI Health Services Authority (BVIHSA) to pay the salaries or supplement the income of public health personnel in the same facility. BVI imposes 10% duty on imported finished products. Value-added tax (VAT) is not imposed on pharmaceuticals procured by the BVI Health Services Authority.[26]

i. Sexual and Reproductive Health Services

Sexual and Reproductive health, including FP services, are provided by the Ministry of Health and Social Development (MOHSD), private pharmacies, and physicians in the private sector. In BVI, there is no local association affiliated to the International Planned Parenthood Association that presently provides SRH services.

The table below summarizes the contraceptives as well as maternal and neonatal (MNN) commodities offered by MOHSD, by level of care:

		Primary	Secondary	
	Commodity offered by MOHSD	Clinics	Hospital	Comments
1	Male condom	Yes	Yes	
2	Female condom	Not offered		This method was however offered in the past
3	Oral contraceptive	Yes	Yes	
4	Emergency Contraception (ECP)	Yes	Yes	
5	Monthly contraceptive Injectable	Yes	Yes	
6	2-month contraceptive injectable	Not offered		
7	3-month contraceptive injectable	Yes	Yes	
8	IUD	No	Yes	
9	Implant	Not offered		
10	Oxytocin	No	Yes	
11	Misoprostol	No	Yes	
12	Magnesium sulfate	No	Yes	
13	Ampicillin injectable	No	Yes	
14	Gentamicin injectable	No	Yes	
15	Self-inflating neonatal resuscitation bags with masks	Not offered		
16	(ANCs) – injection	No	Yes	Dexamethasone or Betamethasone

Note 1: In MOHSD, orals and male condoms are offered at the primary level and the secondary level hospital. IUDs are offered in the hospital.
Note 2: Contraceptives are also offered by private physicians and pharmacies.
Note 3: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most of the Caribbean countries, thus it was excluded to maintain comparability amongst Caribbean countries.
Note 4: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by MOH.

ii. The Public Health Supply Chain System

Public sector procurement is centralized and is performed by the BVI Health Services Authority (BVIHSA), which is a semi-autonomous agency with oversight of the MOHSD, which is responsible for quantification and procurement tendering of products. BVI is part of the Organization of Eastern Caribbean States/Pharmaceutical

26 Pharmaceutical Profile Published by the Ministry of Health and Social Development in collaboration with the Pan American Health Organization/World Health Organization (PAHO/WHO) June 2013

Procurement Service (OECS/PPS), which procures medicines on behalf of the Member States. The Dr Orlando Smith Hospital serves as the central pharmacy, from which commodities are distributed to clinics.

The supply chain system is two-tiered as shown in the following diagram:

British Virgin Islands Ministry of Health and Social Development Flow of commodities

FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse

The RHCS Assessment included collecting availability data at the central warehouse (Pharmacy of Dr. D. Orlando Smith Hospital) in two instances:

1. As of December 31, 2019, to assess the availability without the impact of the COVID-19 pandemic
2. As of October 2020, to assess the availability considering the potential impact of COVID-19.

There are several situations to be highlighted in BVI as follows:

a. As of December 2019, the central warehouse (Dr. D. Orlando Smith Hospital pharmacy) showed availability for 11 out of 16 commodities: there was stock-out of male condoms and, as referenced above, female condoms and implants are not part of the basic FP offer and, therefore, were not available and the self-inflating neonatal resuscitation bag with a mask is not offered.

b. The table below summarizes the stock status as of October 2020 (expressed in months of stock on hand (MOS)), with the following highlights:

- There is no high risk of stock-out for any commodity.
- However, seven products have between 20-78 MOS, in other words, they have oversupply: ECPs, monthly injectables, IUDs, misoprostol, magnesium sulfate, ampicillin, and ANCs. One of the possible reasons for this oversupply is the reduction in their distribution during 2020.

Level of stock, by risk of stock-out or oversupply as of October 2020

Central Pharmacy	High	Medium	No risk	Oversupply
	MOS 0 -2.9	MOS 3 – 5.9	MOS 6 – 18	MOS >18
Male condoms	Stock out			
Female condoms	Not offered			
Oral contraceptives			6	
Emergency contraception				29
Monthly injectables				20
Bi-monthly injectables	Not offered			
3-monthly injectables		5		
IUDs				24
Implants (Not offered)	Not offered			
Oxytocin			8	
Misoprostol				78
Magnesium sulfate				40
Ampicillin injectables				47
Gentamicin injectables			16	
Self-inflating neonatal resuscitation bags with masks	Not offered			
ANC – dexamethasone or betamethasone injection				34

ii. Availability of Contraceptives and MNN Commodities at the Last Mile

Availability was measured at both the primary and secondary levels as of October 2020:

a. At the primary level, the indicator measures availability for five contraceptives: condoms, ECPs, orals, injectables, and IUDs. The criteria at this level requires facilities to have at least 4 of 5 contraceptives to achieve the highest score on the RHCS scale.

b. At the secondary level, the indicator measures the availability of 12 commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUDs, oxytocin, misoprostol, magnesium sulfate, ampicillin injectables, gentamicin injectables, self-inflating neonatal resuscitation bags with masks, ANCs – dexamethasone or betamethasone injection. The criteria at this level require facilities to have at least seven of the 12 commodities to achieve the highest score on the RHCS scale.

At the primary health care level, 0% of the health facilities sampled had 4 of the 5 contraceptives. The table below summarizes availability by the contraceptive method:

Contraceptives	Present in 6 primary facilities
Male condom	29%
Oral Contraceptive	29%
Emergency contraception	0%
Injectable (3-month)	71%
IUD	0%

At the secondary level, the only facility at this level in BVI is Dr. D. Orlando Smith hospital, which achieved 100% availability, having seven of the 12 tracer commodities. As shown in the table below, the commodities that were stocked-out were male condoms, oral contraceptives, emergency contraception, and misoprostol. The self-inflating neonatal resuscitation bag with a mask is not offered.

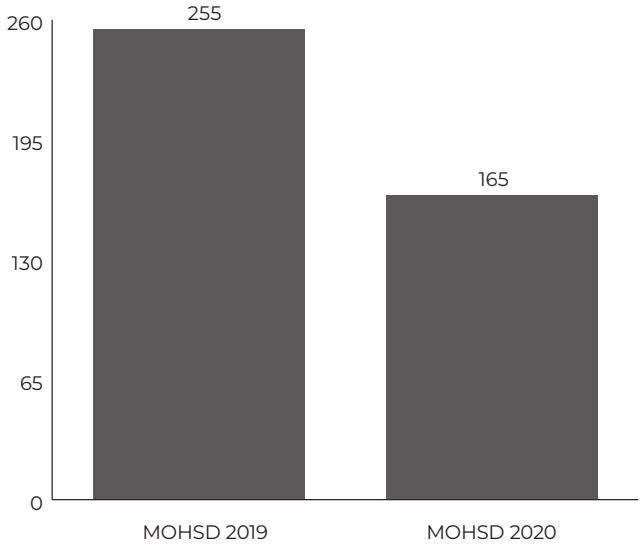
	Commodities	Present in 1 secondary facility
1	Male condoms	0%
2	Oral Contraceptives	0%
3	Emergency contraception (ECP)	0%
4	Injectables	100%
5	IUDs	100%
6	Oxytocin	100%
7	Misoprostol	0%
8	Magnesium sulfate	100%
9	Ampicillin injectables	100%
10	Gentamicin injectables	100%
11	Self-inflating neonatal resuscitation bags with masks (not offered)	0%
12	ANCs – dexamethasone or betamethasone injection	100%

Couple-years of protection

According to distribution data from the central warehouse (at the Dr. D. Orlando Smith Hospital) during 2019, MOH generated 147 CYP[27] (see further details in the Methodology section). In contrast, in 2020 (projected and assuming a similar trend through December 2020) MOH generated 165 CYPs, which reflect a 35% reduction in FP coverage, which may reflect the impact of COVID-19 lockdowns. Contrary to other Caribbean countries and territories, there is no contribution of an IPPF affiliate to the BVI's CYP.

27 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

British Virgin Islands MOH CYP comparison 2019-2020



IMPACT OF COVID-19

During the interviews, key informants indicated that clinics stayed open, but patients avoided visiting clinics because of a fear of COVID-19. This is reflected in the reduction of distribution between 2019 and 2020. For instance, orals, 1-month injectables and IUDs were reduced by 58%, ECPs by 100%, 3-month injectables by 4%. In the case of MNN commodities, all were reduced by 60-90%, except gentamicin which was reduced by 11% and ANCs by 58%.

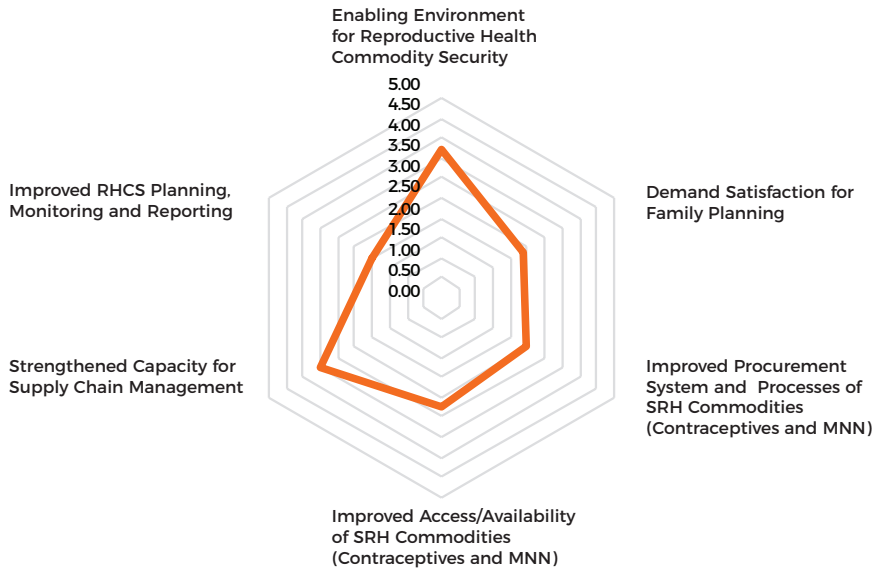
Stock and average distribution reported in 2020, plus orders in transit were analyzed to report MOS available. Part of the analysis included estimating future trends of stock status for MOHSD's contraceptives. It is anticipated that orals will be out of stock in May 2021, and 3-month injectables will be out of stock in April 2021. Unless new orders are placed, the impact of not meeting the need of women using contraceptives between now and July 2021 will potentially cause the following negative results (See the methodology section for further information):

Expected Impact of Stock-out of Contraceptives	
Total of CYPs lost	37
Number of unintended pregnancies	31
Number of abortions	5
Number of maternal deaths	0
Number of neonatal deaths	0

RHCS MATURITY

The following table captures the maturity of the system in six RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The Ministry of Health and Social Development (MOHSD) of BVI's overall RHCS score is 2.8, where monitoring RHCS planning and reporting obtained the lowest score (2.00) while Enabling Environment for RHCS obtained 3.75.

Output	Concept	Score on the RHCS Scale
1	Enabling Environment for Reproductive Health Commodity Security	3.75
2	Demand Satisfaction for Family Planning	2.33
3	Improved Procurement System and Processes of SRH Commodities (contraceptives and MNN)	2.50
4	Improved Access/Availability of SRH commodities (contraceptives and MNN)	2.71
5	Strengthened Capacity for Supply Chain Management	3.50
6	Improved RHCS Planning, Monitoring and Reporting	2.00
Overall Score		2.80


Enabling Environment for Reproductive Health Commodity Security
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
Demand Satisfaction for Family Planning
Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)
Improved Access/Availability of SRH Commodities (Contraceptives and MNN)
Strengthened Capacity for Supply Chain Management
Improved RHCS Planning, Monitoring and Reporting

STRENGTHS AND WEAKNESSES

The current situation represents 56% of the total score, and there are important strengths and weaknesses to be highlighted:

Output	Strengths	Weaknesses
Enabling environment for reproductive health commodity security	All contraceptives and MNN commodities are financed 100% with government funds.	No SRH policy, strategy nor plan developed.
	Medicines are exempt from import and VAT taxes.	There is no national SRH or RHCS platform of dialogue to improve access to SRH commodities.
	Informants indicated that contraceptives are included in the draft 2020 EML, except for implants. Informants indicated that COVID-19 did not reduce access to services.	Contraceptives are mainly available in the private sector and pharmacies, which shows less commitment in the MOHSD.
Demand satisfaction for family planning	Condoms and orals are offered at the primary level. Injectables are offered at the primary and secondary levels (Dr. D. Orlando Smith Hospital).	In MOHSD female, condoms nor implants are part of the FP method choice.
	Private sector and commercial pharmacies offer FP products, which allow women (who can afford it) to continue with their methods.	Only 3% of WRA are receiving contraceptives from the MOH, based on 2020 central warehouse data.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	National Medicines Policy in place since 2019.	Forecasting is not based on essential logistics data, only on distribution data.
	Procurement from OECS with economies of scale and quality of products.	
Improved access/ Availability of SRH commodities (contraceptives and MNN)	At the end of 2019, 11 of 16 commodities were available at the central pharmacy (located in Dr. D. Orlando Smith Hospital).	User's fees are charged by BVIHSA, limiting access to those who cannot pay.
	As of October 2020, the only secondary level health facility (the Dr. D. Orlando Smith Hospital) had at least seven of 12 FP and MNN commodities.	As of October 2020, 0% of the six primary level facilities sampled had at least 4 of 5 contraceptives.
	FP counselling is provided to all patients. Nurses also visit schools to provide FP information to adolescents.	Health providers have not benefitted from any training in SRH/FP in the last 2 years nor is the latest WHO eligibility criteria information at hand.
Strengthened capacity for supply chain management	No bottlenecks to transport/deliver commodities to the last mile.	Essential logistics data is not systematized, LMIS[28] is not in place.
	Some training on max-min inventory control has taken place.	Inventory control is not functioning based on the oversupply patterns shown later in this report.
	Space is sufficient, and oxytocin stored properly (in line with WHO recommendations).	Distribution to primary health clinics is not scheduled, which impacts availability in the last mile.
	No bottlenecks in transportation were reported.	The central pharmacy has excess inventory of misoprostol – 77 months of stock on hand (MOS).
		ECPs at the central warehouse has 29 MOS, while there is stock-out in the last mile.

28 A logistics management information system (LMIS) is a set of records and reports used to collect essential data (i.e., consumption, stock) to facilitate analysis and decision making throughout the logistics system. It is the basis for implementing an inventory control system that allows for scheduling periodic resupply to avoid stock imbalances.

Improved rhcs planning and monitoring	The finance department monitor budgets for commodities; and the pharmacy manager monitors availability.	No monitoring of SRH programme or RHCS (i.e. oversupply of misoprostol indicates a lack of monitoring of stock and demand trends).

CONCLUSIONS AND RECOMMENDATIONS

Output	Conclusions	Recommendations
Enabling environment for reproductive health commodity security	MOHSD does not have a current national SRH strategy.	Support to advocate and develop an SRH strategy that includes RHCS as a priority. Use the cost-benefit evidence of investing in FP to increase resources and the coverage of WRA served by the MOHSD; highlighting that RH/FP contributes to achieving the SDGs. Make visible SRH in the next national health plan. This will increase financial commitment to procure enough FP products to meet the demand of WRA in the more populated BVI islands.
		In the draft EML currently in progress, include self-inflating resuscitation bag with a mask, as it is a life-saving commodity recommended by WHO.
		Consider including female condoms and implants in the offer of FP, if MOHSD has sufficient resources to cover the cost of implants in the short- and medium-term.
		Develop a regional RHCS strategy for the Caribbean, with a chapter of OECS member states to share the assessment results and define a road map for improvement and increased visibility of RHCS in times of health emergencies and natural disasters.
Demand satisfaction for family planning	Low-income FP users have no access to contraception if they cannot pay for the service in the MOHSD or the private sector.	Provide support to advocate FP services be provided free of charge.
	The estimate of WRA is 4,296 women that potentially need FP services, and only 3% of them are being covered by MOHSD.	Strengthen the FP services to actively offer them at the primary clinic level. This can be achieved through the design of an FP repositioning strategy, together with securing enough government resources to cover 100% of the needs.
Improved procurement system and processes of srh commodities (contraceptives and MNN)	High levels of oversupply for injectables, ECPs, IUDs, misoprostol and ampicillin injections reveal insufficient inventory control processes.	Reinforce MOH staff abilities to consider lead time and buffer stocks when procuring commodities. This will help to optimize limited financial resources.
Improved access/ Availability of srh commodities (contraceptives and MNN)	The country's population of 30,302, living in different islands, has access to life-saving MNN commodities mainly at the secondary level hospital located in Road Town in Tortola.	Assess which primary clinics can be upgraded to secondary level, especially in Anegada and Virgin Gorda islands, assigning qualified human resources to assist with more complex levels of care and improve access to FP and MNN commodities.
Strengthened capacity for supply chain management	No financial constraints have been reported for transportation, warehousing, and training, but improvements are needed in information and inventory control management.	Design, test and implement a logistics management system that uses essential logistics data – including consumption data to forecast, procure and monitor levels of stock.
		Improve the level of LMIS training to use essential data and manage an inventory control system that determines both maximum and minimum levels. Implement scheduled distributions to improve the timely availability of products in the last mile.
		Advocate making the supply chain visible as an essential building block to have resilient systems that can rapidly respond to pandemics and natural disasters.
Improved RHCS planning, monitoring, and reporting	Lack of systematization causes stock-out and oversupply in both RH/FP and MNN commodities	Improve monitoring of financial allocation needs and stock availability to avoid stock-outs and oversupply that leads to the waste of limited resources.
		Leverage resources so that BVI may carry out an MIC survey that will provide essential information on SRH, and to strengthen FP as a priority in country.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

DOMINICA

Based on the findings, and weaknesses identified, the synthesis of conclusions and recommendations for the British Virgin Islands is as follows:

COUNTRY PROFILE

The island, located near Guadeloupe to the northwest and Martinique to the south-southeast, gained independence in 1978 from the British. With an area of 750 km^2, the population estimate, as of October 2020, is 72,048 (Worldometer), and the capital is Roseau.

The annual GDP total ($US millions, at constant prices, 2010 base year) is 506.64. The main income is related to tourism, construction, offshore banking and other services, as well as some sub-sectors of the banana industry. Dominica is geopolitically divided into 10 parishes.

Dominica's main health indicators related to RHCS are summarized below:

Dominica		
Description	Data	Source
Population Growth Rate (per 100)	0.2	2018 (World Bank)
Percentage of Women of Reproductive Age (WRA), 15-49 years	26.43	2020 Worldometer[29]
Maternal Mortality Ratio (per 100,000 live births)	105.2	2012 (CARICOM Statistical report, 2015)
Infant Mortality Rate (per 1,000 live births)	33	2018 (World Bank)
Neo-natal Mortality Rate (per 1,000 live births)	28	2019 (World Bank)
Total Fertility Rate (births per woman)	2	2010 (CARICOM Statistical report, 2015)
First child when they were 10-19 years old	44.6%	2017 (PAHO health in the Americas)
Contraceptive Prevalence rate modern method (%)	59.5	2015 UNDESA
Unmet Need for Family Planning rate, women aged 15 to 49 years (%)	14	2015 UNDESA

PUBLIC HEALTH SYSTEM

The government health expenditure is 3.7% (World Bank 2018) of total government expenditure. The Ministry of Health, Wellness and New Health Investment (MOHWNHI) is charged with the leadership and governance of the health care system. For delivering primary health care, Dominican MOHWNHI has been structured into seven health districts and grouped into two administrative regions under the supervision of a regional manager, who reports to the director of primary health care services. The two administrative regions are Region One (health districts Roseau, St. Joseph and Grand Bay) and Region Two (Portsmouth, Marigot, Castle Bruce and La Plaine health districts) both regions totalling 43 primary health facilities. There is one Dominican China Friendship hospital, which is secondary level. Dominica MOHWNHI categorizes Type 3 health centres as tertiary care level facilities. There is one in each of the seven health districts, and there are two district hospitals: Reginald Fitzgerald Armour Hospital and Marigot Hospital. However, at the time of this assessment, they are functioning as Accident and Emergency due to renovation. Most specialized tertiary healthcare is commonly provided outside of the country.

Dominica's National Strategic Five-year Plan includes maternal and child health and health care is provided free of cost to everyone at the primary health care level.

i. Sexual and Reproductive Health services

29 www.worldometers.info/population/latin-america-and-the-caribbean/
29 https://www.paho.org/salud-en-las-americas-2017/?p=3988

The MOHWNHI only provides male condoms; the rest of the contraceptives are provided mainly through the Dominica Planned Parenthood Association (DPPA) at lower prices. They are also available at pharmacies at commercial prices. Even though the fertility rate remains on the decline, ranging from 1.82 in 2010 to 1.79 in 2014, the first birth occurs with teenage mothers (aged 10-19) in 44.6% of deliveries.

[30]The table below summarizes the contraceptives and maternal and neonatal commodities offered by MOHWNHI, by level of care:

		Primary	Secondary	Tertiary	Comments
#	Commodity	Health Centre	Hospital	Health Centre, Hospital	
1	Male condoms	Yes	No	No	Offered by DPPA
2	Female condoms		Yes, HIV Unit	No	Only HIV Health Center, they are donated. Not offered by DPPA
3	Oral contraceptives	No	No	No	Not offered by Dominican MOHWNHI, but all offered by DPPA, except for implants.
4	Emergency Contraceptives	No	No	No	
5	Monthly Injectables	No	No	No	
6	Bi-monthly injectables	No	No	No	
7	3-monthly injectables	No	No	No	
8	IUDs	No	No	No	
9	Implants	No	No	No	
10	Oxytocin	No	No	Yes	
11	Misoprostol	No	No	No	Not offered in Dominica
12	Magnesium sulfate	No	No	Yes	
13	Ampicillin	No	No	Yes	
14	Gentamicin	No	No	Yes	
15	Resuscitation bags	No	No	Yes	Labor ward in hospital
16	Antenatal corticosteroids	No	No	Yes	Dexamethasone or betamethasone injection

~~Note 1: Implants a~~re not offered by the MOHWNHI or by DPPA, emergency contraception is offered by DPPA.
Note 2: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most of the Caribbean countries, thus it was excluded to maintain comparability amongst Caribbean countries.
Note 3: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by MOHW. There are cases where a contraceptive is in the EML

ii. The Public Health Supply Chain System

Central Medical Stores (CMS) procures through OECS, and shipment delays are minimal. Even though consumption data is collected at lower levels and used by CMS for distribution plans, quantification is based on projections, such as WRA that they plan to serve the following year. Lower-level facilities pick up their goods from the central level and the cost is covered by MOHWNHI. Below is a basic diagram of the logistics system of MOHWNHI in Dominica:

FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse

The RHCS Assessment included collecting availability data at the central warehouse of 16 commodities in two instances:

1. As of December 31, 2019, to assess the availability without the impact of the COVID-19 pandemic
2. As of October 2020, to assess the availability, considering the potential impact of COVID-19.

There are several situations to be highlighted:

- As of December 2019, the central warehouse showed availability of seven out of 16 commodities. Unavailable commodities were oral contraceptives, emergency oral contraceptives, injectables

IUDs, implants and misoprostol because they are not offered by the public sector.

The table below summarizes the stock status (expressed in months of stock on hand (MOS)) as of October 2020, with the following highlights:

- Serious stock-out as of today if they do not urgently procure the following commodities: male condoms, magnesium sulfate, ampicillin, gentamicin, antenatal corticosteroids.

Level of Risk	High 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply >18
Male condoms	0			
Female condoms	(1)			
Oral contraceptives	not offered			
Emergency contraception	not offered			
Monthly injectables	not offered			
Bi-monthly injectables	not offered			
3-monthly injectables	not offered			
IUDs	not offered			
Implants				
Oxytocin		3		
Misoprostol	not offered			
Magnesium sulfate	(1)			
Ampicillin	(0)			
Gentamicin	(1)			
Resuscitation bags		3		
Antenatal corticosteroids	0			

ii. Availability of Contraceptives and MNN Commodities at the Last Mile

Availability of 12 tracer commodities was measured at both primary and secondary/tertiary levels as of October 2020, as follows:

a. At the primary level, the indicator measures the availability of 5 tracer contraceptives: Condoms, ECPs, orals, injectables, and IUDs. The criteria at this level involve facilities having at least 4 of 5 contraceptives, achieving the highest score on the RHCS scale.

b. In the secondary/tertiary levels, the indicator measures the availability of 12 tracer commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUD, oxytocin, misoprostol, magnesium sulfate, ampicillin injectables, gentamicin injectables, self-inflating neonatal resuscitation bags with masks, ANCs – dexamethasone or betamethasone injection. The criteria at this level involve facilities having at least seven of 12 tracer commodities achieving the highest score in the RHCS scale.

In MOHWNHI of Dominica, at the primary health care level, 15 health centres were in the sample from which 0% had 4 of the 5 tracer contraceptives mainly because only condoms are offered. The table below summarizes availability by method:

Contraceptives	Present in 15 primary facilities
Male condoms	100%
Oral contraceptives	0%
Emergency contraception	0%
Injectables	0%
IUDs	0%

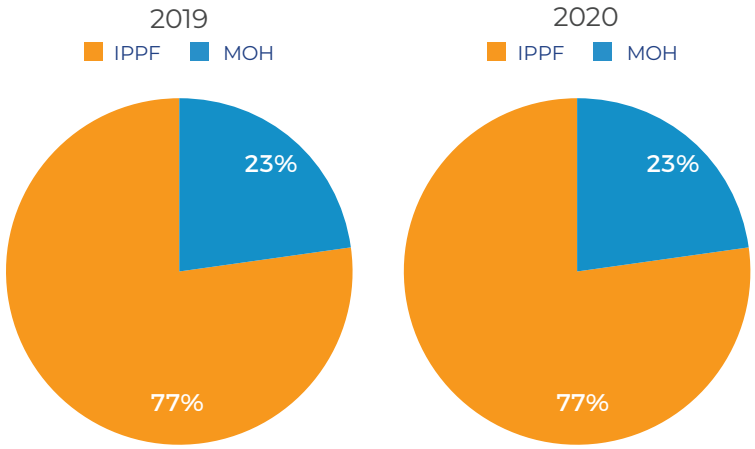
At the secondary and tertiary level, 3 facilities were in the sample, of which 0% had 7 of 12 tracer commodities. Gentamicin and oxytocin are out of stock, misoprostol and contraceptives are not offered and therefore, not available at the health facilities. Condoms are not offered at tertiary level, thus are not present in this level of care.

The table below summarizes availability by commodity:

Commodities	Present in 3 secondary/ tertiary facilities
Male condoms	0%
Oral Contraceptives	0%
Emergency contraception	0%
Injectables	0%
IUDs	0%
Oxytocin	0%
Misoprostol	0%
Magnesium sulfate	33%
Ampicillin injectables	67%
Gentamicin injectables	0%
Self-inflating neonatal resuscitation bags with masks	67%
ANCs – dexamethasone or betamethasone injection	67%

Couple-years of protection

The contribution of the DPPA to ensure the availability of family planning commodities in Dominica cannot be underestimated. Fortunately, family planning users still have this source to get their contraceptives at lower prices, compared with commercial pharmacies. However, this might still be an access barrier for low-income users who cannot afford them. In the graph below, the percentage contribution of DPPA to couple-years of protection CYPs[31] (see methodology for further details) is very similar when comparing 2019 and 2020 (projected and assuming a similar trend through December 2020). However, in absolute numbers, data reveals substantive reductions in the CYPs for both entities combined (2,909 CYPs in 2019 versus 2,275 CYPs in 2020) representing 22% of the total reduction. This is most likely a consequence of reduced access to contraceptives during 2020 due to the COVID-19 pandemic.



IMPACT OF COVID-19

According to the informants of the MOHWNHI, the health centres did not close even during the lockdown, and distribution of commodities continued to the areas that continued providing services. However, when looking at the distribution trends between 2019 and 2020, in 2020 the quantities distributed for 63% of the tracer commodities were less than those for 2019. When analyzing the months of stock on hand (see table above), the data indicates the MOHWNHI may have not procured enough quantities, so that magnesium sulfate, ampicillin, gentamicin, antenatal corticosteroids will be stock-out by the end of November 2020.

Stocks and average distribution reported in 2020 plus orders in transit were analyzed to report MOS. If immediate action is not taken, the stock out of condoms will cause the following negative results starting in November 2020 (See the methodology section for further information):

31 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based on the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

Expected Impact of Stockout	
Total of CYPs lost	507
Number of unintended pregnancies	431
Number of abortions	68
Number of maternal deaths	0
Number of neonatal deaths	3

RHCS SCORE

The following table captured the maturity of the system in the six RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The MOHWNHI of Dominica's overall RHCS score is 2.51, where demand satisfaction for FP has the lowest score (1.67) because only condoms are being offered by the public health sector:

Output	Concept	Score in the RHCS Scale
1	Enabling Environment for Reproductive Health Commodity Security	2.88
2	Demand Satisfaction for Family Planning	1.67
3	Improved Procurement System and Processes for SRH Commodities (Contraceptives and MNN)	2.50
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	2.00
5	Strengthened Capacity for Supply Chain Management	3.33
6	Improved RHCS Planning, Monitoring and Reporting	2.67
	Overall Score	2.51

STRENGTHS AND WEAKNESSES

The current situation represents 50% of the total score, and there are important strengths and weaknesses to highlight:

Output	Strengths	Weaknesses
Enabling environment for reproductive health commodity security	There is a 5-year MCH plan.	Male condoms are the only contraceptive offered by the public sector.
	Condoms and maternal and neonatal commodities are 100% covered by government funding.	MOH does not have an EML and uses the OECS Medical Products List as reference.
		There is no platform for dialogue to improve access to SRH and availability of commodities.
		Contraceptives are subject to all taxes, even condoms procured by the MOHWNHI.
		Adolescents need parental consent to receive counselling and contraceptives.
Demand satisfaction for family planning		Only 7.24% of the WRA are covered by the MOHWNHI.
		According to the informants, demand is not being satisfied because only condoms are offered by the MOHWNHI facilities. Contraceptives are mainly offered by DPPA and commercial pharmacies.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	OECS is used to get better prices, delays are minimal.	Population data is used to quantify needs instead of consumption data.
Improved access/ availability of SRH commodities (contraceptives and MNN)	The MOHWNHI does not charge for services or commodities to patients.	Tertiary level facilities did not have gentamicin.
	100% of primary facilities had condoms.	Condoms are not offered at the hospital level.
	Counselling is provided to adolescents with parental consent, if they do not choose condoms, they are referred to the DPPA.	Misoprostol is not offered.
	Human resources receive on-the-job training regularly.	
Strengthened capacity for supply chain management	Distribution is scheduled and based on consumption data and buffer stock.	LMIS does not include some essential data, like losses and adjustments.
	No bottlenecks for transportation reported, lower-level facilities go and pick their products, and the cost is covered by MOHWNHI.	There is no inventory control system to maintain maximum-minimum stock levels.
	Warehouse space is sufficient, Oxytocin is stored properly, air conditioning is available. Government funds are allocated for LMIS training.	Max-min inventory control system design, training and monitoring are not in place and funds are not available for its implementation.
	There is a budget to cover LMIS training and previous consumption is used for resupply.	
Improved RHCS planning, monitoring and reporting	PAHO, UNFPA and OECS support in areas such as monitoring, procurement and policies.	Inventories at the national level are not monitored to solve shortfalls.

CONCLUSIONS AND RECOMMENDATIONS

After analyzing the findings, the following table proposes interventions that can improve the MOHWNHI's performance that goes from the political platform to organizational development, resulting in a better response to public health needs.

Output	Conclusions	Recommendations
Enabling environment for reproductive health commodity security	Family Planning is not a priority in the MOHWNHI agenda, as the offer of FP options is limited to condoms.	Initiate advocacy efforts that highlight the cost-benefit evidence of investing in family planning to increase resource allocation for family planning and save financial resources in the long run.
		Develop a regional RHCS strategy for the Caribbean, with a chapter for OECS member states informed by these assessment results. Define a road map for improved and increased visibility of RHCS in times of health emergencies and natural disasters.
		Develop and approve a national essential drug list with all contraceptives and Misoprostol included in accordance with OECS Product List 2019-2021.
Demand satisfaction for family planning	Births to adolescents are high due to barriers to access contraceptives.	Seek strategic alliances (UNFPA, PAHO, IPPF, UNICEF, USAID, CFPA) to position RH/FP at the top of the political agenda, including removal of legal barriers to accessing SRH services by adolescents without parental consent.
	Low-income Family Planning users have limited access to contraception.	Advocate for a political decision to expand contraceptives offered by at least adding orals and injectables to the FP offer at the public health facilities.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	External support is received to focus on procurement policies. However, quantities procured are not sufficient.	Reinforce MOHWNHI staff abilities on quantification to consider lead time and buffer stocks when procuring goods, to maintain the appropriate level of stocks.
	High risk of-stock out reveals poor quantification of their needs.	Analyze the financial allocation of resources as well as detailed analysis of procurement processes to determine which is the reason for serious stock-outs.
Improved access/ availability of SRH commodities (contraceptives and MNN)	MNN life-saving commodities are only available at five tertiary level facilities in the country.	Determine which primary facilities have the staff and resources to be upgraded to secondary health care, where higher population density exists. Assign qualified human resources to assist with more complex levels of care and improve access to MNN commodities.
		Introduce misoprostol and ensure it is accessible at secondary/tertiary level facilities.
Strengthened capacity for supply chain management	No financial constraints have been reported to transport, warehousing and conduct training.	Improve training skills to reinforce the use of LMIS essential data for analysis and decision making. Implement an inventory control system and schedule distributions accordingly.
	On the job training might be costly and may delay updating processes and launching systems.	Implement a logistic system that uses demand data for quantification, distribution and monitoring of stock levels
Improved RHCS planning, monitoring and reporting	Poor analysis of the environment does not allow for work on policies that contribute to commodities security achievements.	Improve monitoring of financial allocation needs and stock availability to avoid stock-outs.
	Lack of systematization of monitoring causes shortfalls.	Carry out market segmentation analysis to better serve low-income users not covered by the MOHWNHI.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

GRENADA

COUNTRY PROFILE

Grenada, with its capital Saint George's, comprises the island of Grenada, Carriacou and Petite Martinique, and several smaller uninhabited islands, all of which are accessible by sea and air. The country extends for 344 km^2 and is located in the Caribbean's southernmost region, 160 km north of Venezuela. Grenada's tropical climate fluctuates between rainy and dry seasons. Grenada is classified as a middle-income country and is a member of the Caribbean Community (CARICOM) and the Organization of Eastern Caribbean States (OECS). According to the 2011 population census, the population of Grenada was 106,667 people (50.5% males; 49.47% females). As of October 2020, the population is estimated at 112,688 people (WorldOmeter). In 2015, GDP growth was 4.6% and the per capita income was US$9,156. Tourism and agriculture are the main economic drivers, with tourism being the leading foreign exchange earner.[32] Annual GDP Total in $US millions, at constant prices, 2010 base year is $1,044.99 (World Bank 2019).

Grenada's main health indicators related to RHCS are summarized on the right:

Tourism and agriculture are the main economic drivers, with tourism being the leading foreign exchange earner. Annual GDP Total in $US millions, at constant prices, 2010 base year is $1,044.99 (World Bank 2019).

GRENADA Main Reproductive Health (RH) Indicators

Description	Data	Source
Population Growth Rate (per 100)	0.5	2018 (World Bank)
Percentage of women of reproductive age (WRA), 15-49 years	26.43	2018 (Statista)
Maternal Mortality Ratio (per 100,000 live births)	54.4	2013 (CARICOM Statistical report, 2015)
Infant Mortality Rate (per 1,000 live births)	14	2018 (World Bank)
Neo-natal Mortality Rate (per 1,000 live births)	10	2018 (World Bank)
Total Fertility Rate (births per woman)	2.1	2018 (World Bank)
Adolescent Birth Rate (10-19 years)	28	2018 (World Bank)
Contraceptive prevalence rate (modern method)	62	2019 (United Nations Population Division)
Unmet Need for Family Planning rate, women aged 15 to 49 years	12	2019 (United Nations Population Division)

PUBLIC HEALTH SYSTEM

The Ministry of Health is responsible for overseeing the health services and for formulating policies and regulations. Health care in Grenada is universal, supplemented by minimal fees for service in public institutions. Health services are provided at the primary and secondary level through public and private health services. There is a network of public health facilities, including 3 acute hospitals and 36 health facilities, which in turn encompass 6 health centres (one in each of the five health district) and 30 satellite medical stations scattered within a 3-mile radius throughout the country. The primary health care policy adopted in 2015 guides the delivery of a range of services.

A review of estimates indicates that total health expenditures in 2008-2014 were on average, 5%-6% of GDP annually, which is consistent

32 PAHO Country Profile Grenada, 2017. https://www.paho.org/salud-en-las-americas-2017/?p=4276

with WHO guidelines.[33]

i. Sexual and Reproductive Health Services

The MOH of Grenada has a 2013 National Sexual and Reproductive Health Policy and Strategic Plan. According to information from MOH, this SRH policy and plan needs to be updated and costed. Sexual and Reproductive Health services are offered at the primary and secondary level, contraceptives are offered at the primary level and the Alice Hospital. The Grenada Planned Parenthood Association (GPPA) was active and provided SRH/FP Services until 2019. In the private sector, pharmacies and private clinics and hospitals also sell contraceptives.

The table on the right summarizes the contraceptives and maternal and neonatal commodities offered by MOH, by level of care:

		Primary	Secondary	
	Commodity	Health centres and medical stations	Hospital	Comments
1	Male condoms	Yes	Yes	
2	Female condoms	Yes	Yes	
3	Oral contraceptives	Yes	Yes	
4	Emergency Contraceptive	Not offered		
5	Monthly contraceptive injectables	Yes	Yes	
6	Bi-monthly contraceptive injectables	Not offered		
7	3-monthly contraceptive injectables	Yes	Yes	
8	IUDs	Not offered		Plans to offer in the future
9	Implants	Not offered		
10	Oxytocin	No	Yes	
11	Misoprostol	No	Yes	
12	Magnesium sulfate	No	Yes	
13	Ampicillin injectables	No	Yes	
14	Gentamicin injectables	No	Yes	
15	Self-inflating neonatal resuscitation bags with masks	No	Yes	
16	ANCs – dexamethasone or betamethasone injections	No	Yes	

Note 1: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most of the Caribbean countries, thus it was not included to maintain comparability amongst Caribbean countries.
Note 2: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by MOH. There are cases where a contraceptive is in the EML but was not found in 2019 or 2020 logistics data at the central level or last mile.

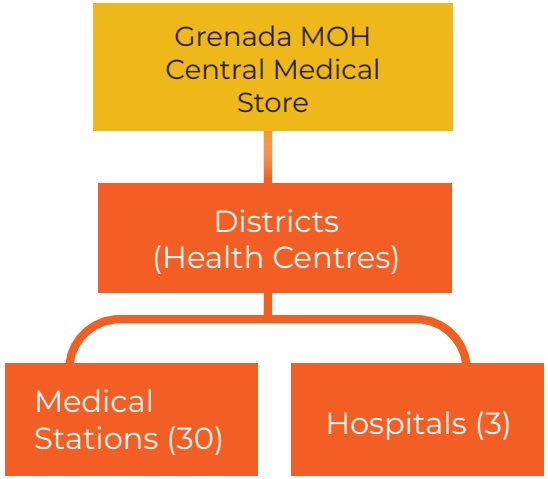
33 PAHO Country Profile Grenada, 2017. https://www.paho.org/salud-en-las-americas-2017/?p=4276

ii. The Public Health Supply Chain System

Public sector procurement in Grenada is centralized and is under the administration of the Ministry of Health Procurement Unit. As a member of the OECS Pharmaceutical Procurement Services, Grenada procures its pharmaceuticals at a reduced rate while guaranteeing the quality of the drugs provided. Procurement is based on OECS Medical Products List 2019-2021, and the prequalification of suppliers. Modalities employed in public procurement include international competitive tenders and direct purchasing.

The government supply system department in Grenada has a Central Medical Store (CMS). Several processes are in place at the CMS including forecasting of order quantities, requisition/stock orders occur quarterly, order preparation, reports of stock on hand, expiry date management, batch tracking, reports of out-of-stock products.

A basic flowchart of the two-tiered supply chain system is shown below:



Districts:

St. Andrew´s

St. Patrick´s

Carriacou

St. George´s

St. Andrew´s

FINDINGS

i. Availability of RH and MNN commodities at the central warehouse.

The RHCS Assessment included collecting availability data at the central warehouse of 16 commodities in two instances: as of December 31, 2019, to assess the availability without the impact of the COVID-19 pandemic; and as of October 2020, to assess the availability considering the potential impact of COVID-19.

There are several situations to highlight as follows:

- As of December 2019, the central warehouse showed availability of 6 out of the 16 commodities. Commodities present were male condoms, orals, 1-month injectables, oxytocin, magnesium sulfate, gentamicin and self-inflating neonatal bags with masks.

The table below summarizes the stock status as of October 2020 (expressed in months of stock on hand (MOS)), with the following highlights:

- There is only 1.9 months of injectables in stock and there is an urgent need to place a new order as soon as possible to avoid stock-out.
- There is 3.7 months of male condoms in stock and there needs to be planning for the next order to avoid stock-out.
- Oral contraceptives and 3-month injectables have no risk of stock-out.
- The following MNN commodities have no risk of stock-out: oxytocin, misoprostol, Magnesium sulfate, ampicillin, gentamicin, and ANCs.
- NN self-inflating resuscitation bags with masks has 23 MOS.

GRENADA: Level of stock-out risk, by commodity, at the central warehouse				
Level of Risk	High < 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply > 18
Male condoms		3.7		
Female condoms	2,000 Stock on hand (1)			
Oral contraceptives			8.9	
Emergency contraception	Not offered			
Monthly injectables	1.9			
Bi-monthly injectables	Not offered			
3-monthly injectables			13.5	
IUDs	Not offered			
Implants	Not offered			
Oxytocin			8.8	
Misoprostol			17.0	
Magnesium sulfate			7.4	
Ampicillin			7.1	
Gentamicin			8.8	
Resuscitation bags				23.0
Antenatal corticosteroids			10.2	

Note: Female condoms have not been offered as of the date of this assessment, but central warehouse has 2,000 units. To date, no distribution to lower levels has been reported.

ii. Availability at the last mile

The availability of 12 tracer commodities was measured at the primary and secondary/tertiary levels as of October 2020, and the following found:

a. At the primary level, the indicator measures the availability of five tracer contraceptives: Condoms, ECPs, orals, injectables, and IUDs. The criteria at this level involve facilities with at least 4 of 5 contraceptives, achieving the highest score on the RHCS scale.

b. At the secondary level (hospitals in the case of Grenada), the indicator measures the availability of 12 tracer commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUDs, oxytocin, misoprostol, magnesium sulfate, ampicillin injectables, gentamicin injectables, self-inflating neonatal resuscitation bags with masks, ANCs – dexamethasone or betamethasone injection. The criteria at this level involve facilities with at least 7 of 12 tracer commodities, achieving the highest score on the RHCS scale.

In Grenada, at the primary health care level, six health centres were in the sample, of which 0% had 4 of the 5 tracer contraceptives. The table below summarizes availability by method:

Grenada	
Contraceptives	Present in 6 primary facilities
Male condoms	100%
Oral Contraceptives	50%
Emergency contraception (not offered)	0%
Injectables	50%
IUDs	0%

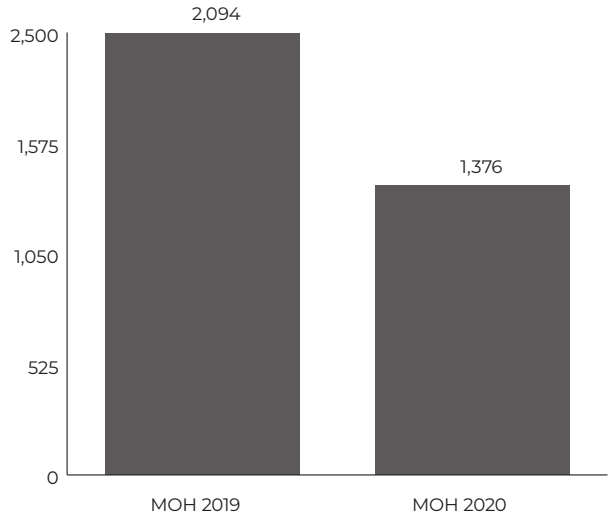
At the secondary and tertiary levels, three facilities were in the sample, of which 33% had seven of 12 tracer commodities. The table below summarizes availability by commodity:

Grenada	
Commodities	Present in 3 secondary facilities
Male condoms	33%
Oral Contraceptives	0%
Emergency contraception (not offered)	0%
Injectables	33%
IUDs (not offered)	0%
Oxytocin	100%
Misoprostol	33%
Magnesium sulfate	100%
Ampicillin injectables	100%
Gentamicin injectables	100%
Self-inflating neonatal resuscitation bags with masks	33%
ANCs – dexamethasone or betamethasone injection	100%

Couple-years of protection

The Grenada Planned Parenthood Association has not been active in the country since 2019, therefore they did not provide CYP information. In the following graph, and according to distribution data from the MOH central warehouse, the MOH generated 2,094 couple-years of protection (CYPs)[34] in 2019 and 1,376 in 2020 (projected and assuming a similar trend through December 2020), which shows a 34% decrease compared to 2019.

Grenada MOH CYP comparison 2019-2020



IMPACT OF COVID-19

According to the key informants of the MOH, the distribution of commodities continued during the first months of the COVID-19 pandemic lockdowns, for instance granting appointments and maintaining social distance protocols. However, for several FP commodities, the distribution in 2020 appears to have reduced compared to 2019. For instance, male condoms reduced by 32%, monthly injectables by 5%, and 3-month injectables by 63%, in contrast, orals increased by 45%.

Stock and average distribution reported in 2020 plus orders in transit were analyzed to report months of stock available. Estimates of future trends of stock status for the MOH show that condoms will be out of stock in February 2021, and new orders need to be placed as soon as possible to avoid foreseen stock-outs; orals will be out of stock in July 2021; monthly injectables will be out in December 2020 an order needs to be placed immediately. The impact of not meeting the needs of women using contraceptives will potentially cause the following negative results between December 2020 through July 2021 (See methodology section for further information):

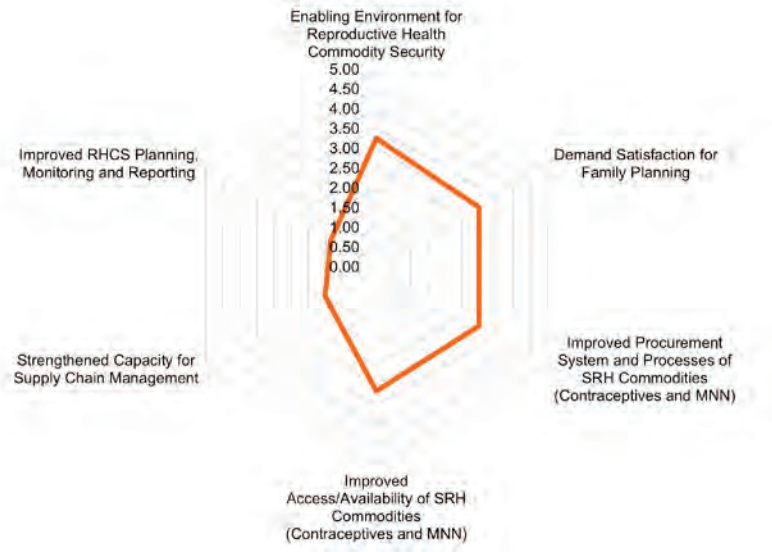
34 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

GRENADA - Expected Impact of Stock-out	
Total CYPs lost	742
Number of unintended pregnancies	630
Number of abortions	99
Number of maternal deaths	0
Number of neonatal deaths	5

RHCS MATURITY

The following table captures the maturity of the system in six RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The overall score of the Ministry of Health of Grenada is 2.54, where Improved RHCS Planning, Monitoring and Reporting has the lowest score of 1.33 while Enabling Environment for RHCS was 3.25. See the following table:

Output	Concept	RHCS Score
1	Enabling Environment for Reproductive Health Commodity Security	3.25
2	Demand Satisfaction for Family Planning	3.00
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	3.00
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	3.14
5	Strengthened Capacity for Supply Chain Management	1.50
6	Improved RHCS Planning, Monitoring and Reporting	1.33
	Overall Score	2.54



STRENGTHS AND WEAKNESSES

The current situation represents 50.8 % of the total score, and there are important strengths and weaknesses to be highlighted:

Output	Strengths	Weaknesses
Enabling environment for reproductive health commodity security	There is a 2013 SRH policy and plan.	Limited implementation of the 2013 National SRH Policy and Plan, FP is not addressed comprehensively. This policy does not mention RHCS.
		The law in Grenada is silent as to whether minors can access medical treatment without parental consent. Health providers often operate on the principle that the age of access is 18.
	Contraceptives and MNN commodities are fully funded by MOH.	COVID-19 restrictions limited users to visit clinics.
		EML is not available and Grenada relies on the OECS Medical Product List 2019-2021 where ECPs and implants are not included.
		No RHCS coordination platform in place.
	Medicines are tax-free for the MOH.	
		The Grenada Planned Parenthood Association which, in the past, has had an essential role in advancing SRH, has not been active since 2019.
Demand satisfaction for family planning	According to UNDP Population Division data, Grenada has 62% of CPR for modern methods. Unmet need is 12%, which is considered low compared with unmet need for other ECCs.	Based on the central warehouse data, it is estimated that only 14% of WRA were covered by public health facilities in 2019.
	There is a diverse set of FP providers: MOH, private clinics and hospitals, and private pharmacies.	
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	The main procurement mechanism for contraceptives is OECS, which guarantees quality and economies of scale.	There was a problem with an OECS supplier of 3-month injectables in the past.
	Quantification is based on distribution to clinics and includes demand increases depending on distribution trends.	Quantification does not use consumption.

Output	Strengths	Weaknesses
Improved access/ Availability of SRH commodities (Contraceptives and MNN)	FP offer includes condoms, orals,1-month and 3-month injectables, female condoms (donated). There are intentions to expand the method choice by introducing IUDs soon.	Very limited method choice with ECPs, bi-monthly injectables, implants and IUDs not being offered by public health facilities. As of December 2019, the CMS showed availability of only six of the 16 commodities. At the CMS as of October 2020, the FP product with the highest risk of stock-out is 1-month injectables.
	None of the MNN commodities is at risk of stock-out in the months following this assessment.	None of the sample primary health facilities had four of the five contraceptives. At the sampled secondary level facilities, 33% had seven of 12 tracer commodities.
	FP informed-choice principles are followed.	
		No FP training targeting health providers has been conducted recently.
Strengthened capacity for supply chain management	Inventory control is electronic at the CMS with receipts and issues data. Earlier in 2020, MOH funded a plan to improve LMIS[35] and inventory control.	No LMIS is in place. An inventory control system is not yet in place, nor is the use of maximum and minimum levels.
		No distribution plan in place. Distribution is done depending on the availability of the commodities at the CMS.
		Transportation is ad-hoc, whenever MOH provides a vehicle, often chief nurses pick up orders.
	Cold chain is used when storing oxytocin. Air conditioning available. Warehouse Space is sufficient. First-expired, first-out rule (FEFO) is followed at CMS and the health facility level.	Expiry occurs, MOH informed orals had expired in Sep 2020 and were received with short shelf life.
	Training on Public Health Supply Chain Management (PHSCM) was conducted in February 2020 for Senior Nurses and Community Health Nurses.	

35 A logistics management information system (LMIS) is a set of records and reports used to collect essential data (i.e., consumption, stock) to facilitate analysis and decision making through the logistics system. It is the basis for implementing an inventory control system that allows for scheduling periodic resupply to avoid stock imbalances.

Output	Strengths	Weaknesses
Improved RHCS planning and monitoring	MOH monitors annual procurement budgets, but not specifically for contraceptives.	No RHCS monitoring system in place to prevent stock-outs, as timely decisions can't be made (i.e., secure financing and procurement, improve FP demand, and a strengthen PHSCMS)

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings, and weaknesses identified, the synthesis of conclusions and recommendations for Grenada is as follows:

Output	Conclusions	Recommendations
Enabling environment for reproductive health commodity security	The 2013 SRH policy and strategic plan is the current tool for protecting and improving SRH services; however, it has not been fully implemented and FP was not addressed comprehensibly.	Convene a working group to evaluate progress made in SRH, adolescent health and FP based on the 2013 policy and strategic plan. As part of this exercise, raise awareness to prioritize RHCS in operational plans.
	The current basket of contraceptives (although limited) and MNN commodities are fully funded by MOH.	Continue securing sufficient financial resources, especially to ensure funding for an expanded FP offer that improves women´s choices.
	The operational policy framework for procurement is guided by the OECS Medicines Product List 2019-2021.	Support Grenada in developing their own EML, to include current method options and include female condoms and implants and 2-month injectables.
	There is no coordinating mechanism to discuss SRH nor RHCS.	Include RHCS in an existing national coordinating body or establish an SRH/RHCS coordinating platform with local stakeholders, MOH, National Insurance Plan, Ministry of Finance, Ministry of Education, and local NGOs supporting SRH.
		Develop protocols for health emergencies like the COVID-19 pandemic to respond quickly and minimize any reduction in FP services. This should be done in alliance with the Grenada Planned Parenthood Association (when they are active again) and other local organizations.
		Engage with other Caribbean countries and regional institutions in the development of a regional RHCS strategy for the Caribbean, informed by this assessment's results. Define a road map for improved and increased visibility of RHCS in times of health emergencies and natural disasters.
Demand satisfaction for family planning	MOH is the main provider of SRH/FP services in the country, but based on 2019 central warehouse data, FP coverage is as low as 14% of WRA.	Convene all relevant stakeholders mentioned above to work on a national approach to repositioning FP services, including an expanded array of FP options, i.e., LARC options like IUDs and implants.
		Monitor when the Grenada Planned Parenthood Association will restart their operations and their contribution to SRH/FP in the country and include them in the SRH/RHCS platform.

Output	Conclusions	Recommendations
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	Main procurement mechanism for contraceptives is OECS, which guarantees quality and economies of scale.	Strengthen the processes with OECS in terms of timely delivery of orders, with enough shelf life, and complying with the terms of payment to avoid delays.
	Quantification is based on distribution to clinics, and includes increases, depending on demand trends. MOH is receiving technical support in this regard and to improve LMIS.	As part of the current technical support in SCM, include the importance of emphasizing LMIS data collection at all levels as well as the use of that data for quantification.
Improved access/ Availability of SRH commodities (contraceptives and MNN)	Very limited method mix whereby FP offer is limited to condoms, orals, injectables, female condoms (donated).	Identify technical and financial resources to help MOH expand the method choice by introducing: ECPs, implants and IUDs. Female condoms will require focus groups to identify barriers to use and strategies to make them available to users who need them.
	The COVID-19 pandemic negatively impacted access to services, as users could not visit health clinics as usual. Distribution levels decreased for several commodities, and increased for some, creating imbalances in stock management.	Carry out a virtual inventory count at health facilities to assess the real stock situation, identify bottlenecks, stock imbalances, and make necessary adjustments.
	There is limited access to quality SRH/FP services for adolescents. Only counselling is offered in public health facilities.	Continue advocacy efforts to ensure health staff offer FP services responsive to the needs of adolescents, in alliance with the Ministry of Education and other key stakeholders.
	Training in several aspects of FP services and RHCS has not occurred in the last two years.	Design a training curriculum that includes WHO contraceptive medical eligibility criteria, counselling, and the offer of an expanded contraceptive method mix. It should have an RHCS component to draw attention to the strategic importance of, and the link between, improving services and the availability of commodities at the right time and the right place. Promote the use of digital tools like the recent WHO Medical Eligibility APP.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

GUYANA

Output	Conclusions	Recommendations
Strengthened capacity for supply chain management	There is no well-established inventory control system nor an LMIS.	Design, train, and implement a well-functioning inventory control system and a functioning LMIS. Inventory control system must set both maximum and minimum levels.
	There is no formal distribution plan.	Create an annual distribution plan that is supported by a well-functioning inventory control system and a functioning LMIS.
	SCM is being supported with financial resources and training.	Continue this effort, and stress the need to create a culture of using and reporting LMIS and data analysis to improve availability of commodities at all levels.
Improved RHCS planning and monitoring	MOH does not have a monitoring mechanism that provides information on the progress of every RHCS output. Particularly, having 6 out of 16 products at the end of 2019 reflects the lack of decisions to stock enough quantities to begin the year with acceptable stock balances.	Include RHCS as an integral part of the implementation of the SRH Policy and plans, to be able to improve monitoring of all RHCS aspects, especially to monitor adequate availability in times of emergency and health crisis like the COVID-19 pandemic.

COUNTRY PROFILE

Guyana, officially known as the Co-operative Republic of Guyana, is a country on the northern mainland of South America. It is considered part of the Caribbean region because of its strong cultural, historical, and political ties with other Caribbean countries and the Caribbean Community (CARICOM). Guyana is bordered by the Atlantic Ocean to the north, Brazil to the south and southwest, Venezuela to the west, and Suriname to the east. With an estimated 787,770 inhabitants as of October 202036 in 215,000 square kilometers, Guyana is the third-smallest sovereign state on mainland South America after Uruguay and Suriname. It gained independence in 1966 and officially became a republic within the Commonwealth of Nations in 1970. CARICOM, of which Guyana is a member, is headquartered in Guyana's capital and largest city, Georgetown. In 2008, the country joined the Union of South American Nations as a founding member.

Guyana is geopolitically divided into the capital city and ten regions. Guyana's economy depends on exports of gold, bauxite, and agriculture. In 2017, 41% of Guyana's population lived below the poverty line, with less than $3.50 a day. The annual GDP total ($US Millions, at constant prices, 2010 base year) is 3,880 and the government health expenditure was 3.1% (World Bank 2018). According to the International Monetary Fund (IMF), the recent discovery of oil fields will boost Guyana´s income in the next decade, with an estimated increase of their income by 53% in 2020, despite the COVID-19 pandemic crisis. [37]

Guyana's main health indicators related to RHCS are summarized on the right:

Guyana		
Description	Data	Source
Population Growth Rate (per 100)	0.5	2018 (World Bank)
Percentage of women of reproductive age (WRA), 15-49 years	25.84	2018 (Statista)
Maternal Mortality Ratio (per 100,000 live births)	86.0	2008 (CARICOM Statistical report, 2015)
Infant Mortality Rate (per 1000 live births)	32	2014 (Guyana MICS, 2015)
Neo-natal Mortality Rate (per 1,000 live births)	23	2014 (Guyana MICS, 2015)
Total Fertility Rate per Woman	2.6	2014 (Guyana MICS, 2015)
Adolescent Birth Rate per 1,000 women (15 to 19 years)	74	2014 (Guyana MICS, 2015)
Contraceptive prevalence rate (modern method)	32.6	2014 (Guyana MICS, 2015)
Unmet Need for family planning rate, women aged 15 to 49 years	28	2014 (Guyana MICS, 2015)

36 https://www.worldometers.info/population/latin-america-and-the-caribbean/
37 https://www.imf.org/en/Countries/GUY

PUBLIC HEALTH SYSTEM

The Ministry of Public Health (MOPH) is responsible for the provision of services in addition to its normative role, and the administration is decentralized at the regional level. The regions have control of the health budget allocated by the Ministry of Finance. Donor funding for health decreased from 35.5% in 2008, to 7.2% in 2014. Public sector health services are free in Guyana and the private sector operates on a fee-for-service basis. The Georgetown Public Hospital Corporation (GPHC) receives and manages its own funding for all hospital services. Private spending on health is through the National Insurance Scheme – NIS and out-of-pocket household expenditures. (PAHO Health in the Americas 2017)

NIS covers all persons between 16 – 60 engaged in employment, or voluntary, if they cease that employment before reaching 60 years. NIS covers maternal benefits but not SRH. [38]

The public health service delivery is largely based on the primary health care level comprising 328 facilities. There are also 22 secondary level facilities and nine tertiary level hospitals.

Gaps in quality of service provision exist, particularly at the more basic levels of care. Such issues are evident in certain geographic areas, especially in the difficult to reach hinterlands. (PAHO Health in the Americas 2017)

i. Sexual and Reproductive Health Services

The SRH services (and commodities) are offered by the public health facilities under the MOPH, Guyana Responsible Parenthood Association (GRPA), and private commercial pharmacies. According to the 2014 MICS report, the total unmet need for modern contraceptive methods was 28% with important disparities among age groups (61.9% among women 15-19 vs 20% among women aged 40-44).

- The SRH national policy, passed by Congress in November 2019, was a recent important milestone for SRHR in Guyana when the government made it clear that SRHR is at the top of the political agenda. It is worthwhile to mention its commitments to: ensuring the availability and accessibility of family planning commodities, including a full range of modern contraceptive methods to all persons; establishing a functional logistic management information system for sustained provision of essential commodities, especially in remote regions; and ensuring access to sexual and reproductive health information and services for adolescent and youth without parental consent.
- Despite progress made at the policy level, key informants revealed that stigma around contraception still exists, requiring continuous community education and outreach, which is one of the areas of support from the Guyana Responsible Parenthood Association (GRPA).
- Approximately 80% of contraceptive needs are financed by MOPH and six of seven tracer MNN commodities, (resuscitation bags are donated by various sources). The MOPH has recently received donated implants from the Global Fund and PAHO; UNFPA has donated several types of contraceptives under the Indian grant (2019-2020).
- It is worth noting that AIDS is one of the leading health causes of mortality in the age cohort 15-24 years old in Guyana.

The table below summarizes the contraceptives and maternal and neonatal commodities offered by MOH, by level of care:

		Primary	Secondary	Tertiary	
	Commodity	health post, referral centre, health centre	diagnostic centre, cottage hospital, district hospital	regional hospital, referral hospital	Comments
1	Male condoms	Yes	Yes	Yes	
2	Female condoms	Yes	Yes	Yes	Reported as not offered, but found at central warehouse
3	Oral contraceptive	Yes	Yes	Yes	
4	Emergency Contraceptives (ECPs)	No	Yes	Yes	
5	Monthly Injectables	Yes	Yes	Yes	Reported as not offered, however found at central warehouse
6	Bi-monthly injectables	Yes	Yes	Yes	
7	3-monthly injectables	Yes	Yes	Yes	
8	IUDs	Yes	Yes	Yes	
9	Implants	No	No	Yes	
10	Oxytocin	No	Yes	Yes	
11	Misoprostol	No	Yes	Yes	
12	Magnesium sulfate	No	Yes	Yes	

38 www.nis.org.gy

ii. The Public Health Supply Chain System

The logistics system of MOPH is a two-tier system. The Materials Management Unit (MMU) at the central level of MOPH prepares quantifications based on demographic data and MOPH Procurement Unit procures through competitive tendering processes either locally or internationally. The logistics information system is only available at MMU. Distributions are done by MMU, but are not scheduled by, nor respond to, requisitions from lower levels. Transport is not covered at all levels, and sometimes lower facilities go and pick up their orders from higher levels; ambulances are also used occasionally to deliver shipments.

FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse.

The RHCS Assessment included collecting available data at the central warehouse on 16 commodities in two instances: as of December 31, 2019, to assess the availability without the impact of the COVID-19 pandemic; and as of October 2020, to assess the availability considering the potential impact of COVID-19.

There are several situations to highlight as follows:

- The MOPH did not send the inventory as of December 2019. For this reason, it was estimated based on inventory reported as of October 2020, subtracting distribution reported in 2020. For IUDs and male condoms, the estimation of stock on hand (SOH) as of Dec. 2019 was based on the SOH reported in the analysis of CYPs lost due to the COVID-19 pandemic, done by UNFPA in April 2020. According to these estimates, only 6 out of 16 commodities were available. The following products had stock-out: orals and female condoms, Oxytocin, Misoprostol, Ampicillin, Gentamicin, and ANC.

The table below summarizes the stock status as of October 2020, with the following highlights:

- Male and female condoms and oral contraceptives will have stock-out by the end of November 2020, and no orders have been placed.
- Misoprostol, Ampicillin, Gentamicin, and ANC need to be ordered immediately to avoid stock-outs at the end of November 2020.
- Magnesium Sulphate distribution decreased 300% in 2020, thus, the expiration date needs to be monitored closely to avoid expired products.

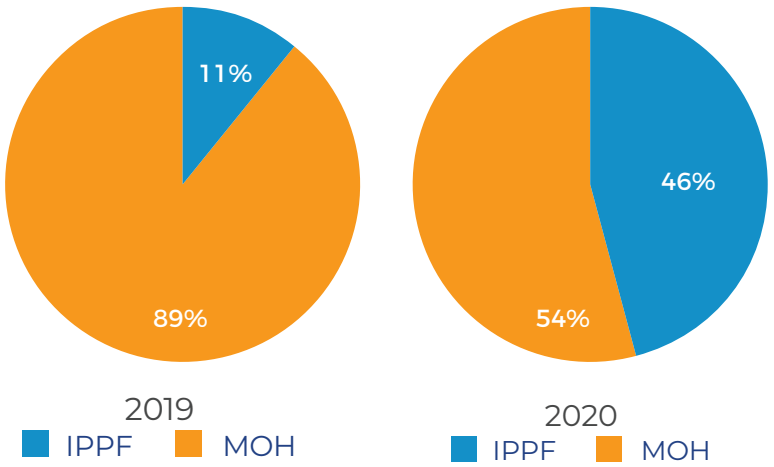
Level of Risk	High 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply >18
Male condoms	1			
Female condoms	1			
Oral contraceptives	1			
Emergency contraception	Included in the drug list but not commonly procured			
Monthly injectables	Uncomplete data			
Bi-monthly injectables				19
3-monthly injectables		12		
IUDs			12	
Implants	1			
Oxytocin		5		
Misoprostol	1			
Magnesium sulfate				50
Ampicillin	1			
Gentamicin	1			
Resuscitation bags				23
Antenatal corticosteroids	1			

ii. Availability of Contraceptive and MNN Commodities at the Last Mile

The MOPH of Guyana was not able to provide the information on the sample health facilities that could allow the consultants to do an analysis of the availability of the 12 tracer commodities at the different levels of the system: 5 tracer contraceptives for the primary level and 12 tracer commodities for the upper levels.

Couple-years of protection

According to distribution data from the MMU, MOPH generated 75,358 couple-years of protection (CYPs)[39] (see methodology for further detail) in 2019. In contrast, in 2020 (projected and assuming a similar trend through December 2020) the MOPH will generate 21,183 CYPs, reflecting a dramatic reduction in FP coverage. On the other hand, the GRPA is an important provider of FP services. As shown in the graphs below, its contribution to CYPs went from 9,324 in 2019 to 18,307 in 2020. Total CYPs generated by both MOPH and GRPA in 2019 was 84,682, down to 39,491 in 2020 representing a 53% decrease.



IMPACT OF COVID-19

According to the key informants, COVID-19 did not have an impact on the procurement, nor distribution and provision of health services provision. There was a decrease in demand, attributed to users' preference to avoid visiting health clinics due to fear of COVID-19. However, analysis of the data for 2020 clearly indicates that the distribution decreased by 64% of the tracer commodities. When stock data is analyzed, there is a serious weakness in procurement and inventory control management resulting in stock-out of eight commodities from a total of 14 commodities that the MOPH manages (and are part of this study).

Stocks and average distribution reported in 2020, plus orders in transit, were analyzed to report Months of Stock available. The imminent stock-out will begin in December 2020 and will last through July 2021 if urgent orders are not placed. Not meeting the needs of women using contraceptives will potentially cause the following negative results from December 2020 through July 2021, (See methodology section for further information):

Expected Impact of Stockout	
Total of CYPs lost	49,496
Number of unintended pregnancies	42,072
Number of abortions	6,600
Number of maternal deaths	25
Number of neonatal deaths	330

RHCS SCORE

The overall RHCS score of the Ministry of Health of Guyana is 3.25, where Monitoring and Evaluation has the lowest score of 2 while Environment for RHCS obtained 4.38 – in a scale where 5 is the best score, as shown in the table below:

39 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishek and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

Output	Concept	Score in the RHCS Scale
1	Enabling Environment for Reproductive Health Commodity Security	4.38
2	Demand Satisfaction for Family Planning	4.00
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	3.50
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	3.29
5	Strengthened Capacity for Supply Chain Management	2.33
6	Improved RHCS Planning, Monitoring and Reporting	2.00
	Overall Score	3.25

STRENGTHS AND WEAKNESSES

The current situation represents 64% of the total score, and there are important strengths and weaknesses to highlight:

Output	Strengths	Weaknesses
Enabling environment for reproductive health commodity security	SRH is part of a 2021 – 2030 National Health Plan and there is a sound SRH Policy which enables adolescents and youth to access SRH services (including contraception) without parental consent and commits to ensure the provision of comprehensive age-appropriate SRH education and information for adolescents and youth throughout all levels of the education system and the health care system.	There is not a platform for dialogue to improve access to SRH commodities.
	Even though the country receives donations, approximately 80% of contraceptive needs are financed by MOPH.	RHCS is not part of the SRH plan and is very superficially addressed in the SRH policy.
	The 2019 Essential Drug List (EDL) includes contraceptives (including ECP and Long-Acting Reversible Contraception - LARC) and live-saving MNN commodities.	
	Contraceptives are free of taxes for MOPH and GRPA.	
Demand satisfaction for family planning	51% of WRA are covered by the MOPH.	Stock-outs in 2020 will directly increase the unmet need for family planning of WRA.
	Contraceptives are available at the MOH, GRPA, and commercial pharmacies.	
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	MOPH has a unit with skills to procure either locally or internationally.	Central warehouse has an information system, but quantification does not consider lead time, buffer stocks, and max-min levels. Quantification is based on population and not based on consumption.
Improved access/ availability of SRH commodities (contraceptives and MNN)	MOPH does not charge fees for SRH commodities.	NIS, which is a separate and different organization than the MOPH, does not cover SRH services. Whether beneficiaries procure their contraceptives at the private sector, or if they use MOPH facilities, the MOPH is not reimbursed by the NIS.
	Injectables and IUDs are available at all levels, emergency contraception is available at hospitals.	Neonatal resuscitation bags are not procured by the MOPH, they are donated by the Helping Babies Breathe Program, by the Latter Days Saints (USA), and by the MCSP in collaboration with USAID.
	All 7 MNN commodities are available at secondary and tertiary care level facilities.	
	Counselling and contraceptives are provided to adolescents without parental consent, facilitating access to contraception to reduce unplanned pregnancies amongst youth.	
	Training has been conducted at all levels, and IEC materials are available.	

Output	Strengths	Weaknesses
Strengthened capacity for supply chain management	Distributions are based on requisitions from lower levels.	Information system is not fully implemented at the central warehouse; essential data from lower levels is missing. Consequently, the last mile availability was not provided and not able to be analyzed.
	Training is being conducted on the Logistics Information System.	Distribution is not scheduled; thus, facilities pick up their orders when needed, and at other times, are delivered by the MMU using ambulances.
	Cold chain is used when storing Oxytocin.	An inventory control system is not applied.
		Space is insufficient and air conditioning is not always available in remote areas.
Improved RHCS planning, monitoring, and reporting		The Maternal and Child program monitors national stock levels but seems to be ineffective.
		MOPH independently checks yearly if quantities purchased are sufficient. They are not assessed against programmatic expansion plans, and no other organizations are part of the analysis, allowing a critical eye.
		The stock by December 2019 was not provided. When calculated based on stock on hand in 2020, only 6 tracer commodities were available. Missing data significantly impacts negatively on data analysis and decision making to maintain adequate stock.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings, and weaknesses identified, the following conclusions and recommendations are provided:

Output	Conclusions	Recommendations
Enabling environment for reproductive health commodity security	Guyana has achieved a remarkable political environment to enable SRHR and more concretely, RHCS.	Support the implementation and monitoring of the SRH Policy by consolidating a national committee that monitors the policy and especially RHCS. This committee would ideally be formed by MOPH, MMU (including the Chief Pharmacist), GRPA, Ministry of Finance, Ministry of Education, and international development partners such as UNFPA, PAHO, UNICEF, USAID, UNAIDS.
	SRH policy allows 10-19-year-olds to get access to contraceptives.	Develop a costed RHCS strategy for Guyana that includes a vision to maintain RHCS in times of natural disasters and health emergencies. Predictions for Guyana's GDP growth are promising which provide a unique opportunity to dedicate financial resources to implement the SRH policy and strengthen RHCS in Guyana in the medium and long term.
Demand satisfaction for family planning	Interestingly, Guyana got a high score in this output for its good performance in 2019 (covered 51% of WRA); however, in 2020 the MOPH only covered 15% of the WRA given the stock-outs experienced in a number of contraceptives as a result of the COVID-19 pandemic. This is a drastic reduction that will more than likely contribute to a reduction in the use of modern contraceptives and an increase of the already high unmet need for FP in Guyana, particularly among adolescents and youth. Poor reproductive health outcomes are expected in the short and medium term (as referred above in the impact table).	Convene all stakeholders, especially NIS, to identify opportunities for stronger coordination to better serve the needs for FP and MNN commodities and develop a 5-year plan with the main objective of reducing unmet need for FP.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	The Procurement Unit has skills to sign sound contracts to get good prices, but its poor quantification methodology results in shortfalls and stock-outs.	Place contraceptive orders immediately to avoid stock-outs and the consequences of not having adequate availability at the last mile. Procure according to a well-designed inventory control system and improved quantification practices that are based in real needs.

Output	Conclusions	Recommendations
Improved access/ availability of SRH commodities (contraceptives and MNN)	One-time donations of contraceptives might have relaxed the Materials Management Unit's reflex to procure enough quantities on time and resulted in process delays.	Develop a formal graduation plan to secure 100% of the financial resources needed to cover the procurement of 100% of the contraceptives needs when donations end.
	Resuscitation bags are donated from different sources and seem to be oversupplied	Resuscitation bags need to be part of the MOPH procurement plan to reflect real needs.
	HIV/AIDS is among the leading causes of death in the cohort 15-24 years old.	Reinforce campaigns and key messages in social networks for condom dual protection, coupled with the preferred FP method of choice, as part of a comprehensive condom strategy.
Strengthened capacity for supply chain management	Even though some training on logistics management information system has been conducted, it has not been sufficient to improve the supply chain performance.	Strengthen the supply chain through the capacity building (training and technical assistance) of staff to better respond to users' demand and secure availability in the last mile.
	Serious stock-outs in 2020 reveal deficient quantification and procurement decisions.	Implement an LMIS that collects essential logistics data: consumption, adjustments, balance at the beginning and end of a reporting period, and receipts. Design, develop and use a max-min inventory control system that supports supply planning.
	COVID-19 might have a greater impact than informants reported and might cause reduced financial resource allocation to order contraceptives.	Quantify needs based on max-min inventory control at the national level, considering buffer stock and lead time.
		Assess space needs for proper warehousing conditions and provide air conditioning where needed.
Improved RHCS planning, monitoring and reporting	Weak independent self-monitoring of the availability of life-saving commodities at the MOPH does not allow informed decisions to mitigate and avoid serious stock-outs.	Ensure that the recommended costed RHCS strategy for Guyana has a strong monitoring and evaluation framework, and its progress is monitored systematically with the participation of key stakeholders. In the meantime, hold regular meetings with MOPH, GRPA, NIS, UNFPA, PAHO, Global Fund, NGOs, and civil society to monitor SRH policy accomplishments and monitor: progress against critical SRH indicators (modern CPR, unmet need for family planning, STIs and HIV incidence); accurate financial resource allocation; sound procurement procedures and supply chain functionality, including maintaining proper stock levels.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

JAMAICA

COUNTRY PROFILE

Jamaica is the largest English-speaking and third-largest island in the Caribbean, with a land area of 11,424 km^2. It is located 150 km south of Cuba and 160 km west of Haiti. Volcanic in origin, Jamaica has three landforms: the eastern mountains, the central valleys, and plateaus, and a narrow, discontinuous coastal plain, where agricultural production is concentrated. The Blue Mountain Peak, the island's highest point, has an elevation of 2,256 m. The country is divided into 3 counties further divided into 14 parishes; Kingston, the capital, is located on the southeast coast, and Montego Bay, the second largest city, is on the northwest coast. The country has annual GDP Total 14,349.24 ($US Millions, at constant prices, 2010 base year, 2019 World Bank). The total estimated population as of October 2020, is 2,965,686 (World-O-meter)[40]. Jamaica's economy relies heavily on tourism, which has become one of the country's largest sources of foreign exchange.

Jamaica's main health indicators related to RHCS are summarized on the right:

Jamaica		
Description	Data	Source
Population Growth Rate (per 100)	0.5	2019 (World Bank)
% of women of reproductive age (WRA), 15-49 years	27.79	2018 (Statista)
Maternal Mortality Ratio (per 100,000 live births)	83.4	2012 - STATIN, Social Statistics at a Glance, 2014
Infant Mortality Rate (per 1000 live births)	15.5	RGD 2016 (MOH VITALS, 2019)
Neo-natal Mortality Rate (per 1,000 live births)	12.0	RGD 2016 (MOH VITALS, 2019)
Total Fertility Rate (births per woman)	2.2	MICS 2011 Jamaica, 2013
Adolescent Birth Rate (10 to 19 years)	70	MICS 2011 Jamaica, 2013
Contraceptive prevalence rate (modern method)	84.2	RHS, 2008
Unmet Need for family planning rate, women aged 15 to 49 years	10	2019 (United Nations Population Division)

PUBLIC HEALTH SYSTEM

[41]Between 2010 and 2015, Jamaica's growth and the macroeconomic situation continued to operate within the ambit of Vision 2030, Jamaica's 21-year National Development Plan (4), which seeks to put the country on a path to achieve developed-country status. Vision 2030 is aligned with the 2030 Agenda for Sustainable Development and emphasizes the centrality of health in the stated goals and expected outcomes.

The Ministry of Health and Wellness (MOHW) is responsible for health care delivery island wide. Headed by the Minister, the Ministry provides policy and strategic guidance on public health and regulatory matters, such as drugs, chemicals, and quarantine control, and has

40 https://www.worldometers.info/population/latin-america-and-the-caribbean/
41 PAHO Country Report Health in the Americas, 2017 https://www.paho.org/salud-en-las-americas-2017/?p=2457

the mandate to develop policy guidelines and supporting legislation in keeping with the overall goal and objectives of the government.

The Ministry's Head Office comprises five divisions: Technical Services, Policy Planning and Development, Standards and Regulations, Human Resource Management, and Corporate Services and Financial Management and Accounting Services. The health system is decentralized with four Regional Health Authorities (RHA) responsible for service delivery, as stated in the National Health Services Act of 1997. Regional Directors provide day-to-day administration of the RHA and report to the Boards of Management, with Board Chairmen appointed by and reporting directly to the Minister.

Health service delivery in the public sector is provided through a network of primary (first level of contact), secondary, and tertiary care facilities. There are five levels of health centres (Types 1-5) and four levels of hospitals (Types A, B, C, and Specialist). In 2015, there were 318 primary care health centres linked through a referral system to the secondary and tertiary care levels. Twenty-four hospitals and one quasi-government hospital (the University Hospital of the West Indies) have a total bed complement of 4,865. Five of these are specialized hospitals, which also provide training for health professionals. Departments and agencies that provide support services include the National Public Health Laboratory and the National Health Fund, which is a major contributor to health financing.

i. Sexual and Reproductive Health Services

The National Family Planning Board (NFPB) is the government agency within the MOHW responsible for sexual and reproductive health information and services in Jamaica. The NFPB, in coordination with the MOHW, conducts research, develops campaigns, disseminates information, and delivers and monitors SRH services. The NFPB procures contraceptives and sells them to the MOHW RHA and private health practitioners. The Jamaica Family Planning Association (FAMPLAN) is the IPPF affiliate, with an in-country presence, that pioneered family planning services in Jamaica and played an important role in establishing government policy and programmes. FAMPLAN supports the national SRH programme by providing family planning information and education and offering services to underserved peripheral communities. In the private sector, the pharmacies and clinics provide FP services as well.

Jamaica has had a robust FP program in recent years, however high levels of debt might hinder future sustainability. In addition, at the time of this assessment, the MOHW and the NFPB are involved in major organizational restructuring with the vision to integrate FP programme into SRH services.

	Jamaica MOHW	Primary	Secondary	Tertiary
	Commodity	Health post, clinic	Health centre, policlinic, regional hospital	Hospitals
1	Male condoms	Yes	Yes	Yes
2	Female condoms	Yes	Yes	Yes
3	Oral contraceptives	Yes	Yes	Yes
4	Emergency Contraceptives	Not offered	Not offered	Not offered
5	Monthly contraceptive injectables	Not offered	Not offered	Not offered
6	Bi-monthly contraceptive injectables	Not offered	Not offered	Not offered
7	3-monthly contraceptive injectables	Yes	Yes	No
8	IUDs	No	Yes	Yes
9	Implants	No	No	Yes
10	Oxytocin	No	Yes	Yes
11	Misoprostol	No	Yes	Yes
12	Magnesium sulfate	Yes	Yes	Yes
13	Ampicillin	Yes	Yes	Yes
14	Gentamicin	No	Yes	Yes
15	Self-inflating neonatal resuscitation bags with masks	No	Yes	Yes
16	Antenatal corticosteroids	No	Yes	Yes

Note 1: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most Caribbean countries, thus it was not included to maintain comparability amongst countries.
Note 2: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by MOH. Please note that offer is considered when available at central or last-mile level during these two years.

ii. The Public Health Supply Chain System

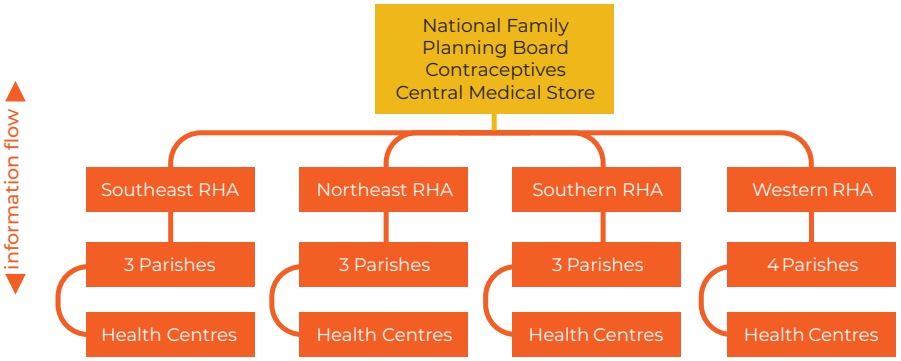
The NFPB is responsible for procuring contraceptives for the entire island and often uses the UNFPA Third Party Procurement (TTP) mechanism.

In 2019, a logistics management study was implemented which showed that the prevalence of stock-outs of contraceptive methods had significantly declined from 65% and 85% in 2013 and 2015 respectively, to 20% in 2019 - mainly condoms (13%) and orals (5%) had stock-outs. Such good progress is indicative of: increased availability of the key contraceptive methods for women who desire family planning and delayed pregnancy; standardization of stock management records; capacity building of healthcare professionals in inventory control procedures/contraceptive forecasting methodologies; and sound monitoring and evaluation.42

As part of this study, contraceptive stock-out was assessed both on the day of the investigation and over a six-month period (August 2018 to February 2019). The reduction in stock-out on the day of the visit from 17% in 2015 to 5% in 2019 supports the improvement in the system as stated above. This result indicates that there was a 95% chance that a family planning client would get their method of choice at any selected health centre island-wide if they should randomly select a health centre to visit.

The NFPB has a central warehouse from where RHA, who cover transportation costs, are responsible for picking up from and paying the NFPB for their contraceptive orders. In the following basic diagram, a 3-tier system is in place to distribute contraceptives to MOHW facilities:

iii. Jamaica Ministry of Health and Wellness



Total Health facilities: 317 (as of 2013) and 23 hospitals, including 3 regional hospital

FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse

The RHCS Assessment included collecting availability data of 16 commodities at the central warehouse, in two instances: as of December 31, 2019, to assess the availability without the impact of the COVID-19 pandemic; and as of October 2020, to assess the availability considering the potential impact of COVID-19. Jamaica only reported data for contraceptives, and therefore, findings for Jamaica relate only to contraceptives commodities.

There are several situations to highlight as follows:

a. As of December 2019, the NFPB central warehouse showed availability of 6 contraceptives: male and female condoms, orals, 3-month injectables, IUDs and implants.

42 Jamaica CLMIS in the era of Sustainable Development, A Best Practice Approach. March 2020.

b. The table below summarizes the stock status as of October 2020 (expressed in months of stock on hand - MOS), with the following highlights:

- Male condoms have 3.2 MOS.
- Female condoms have 1.5 MOS, with a high risk of stock-out.
- Orals have 30.7 MOS (oversupply).
- 3-month injectables have 4.8 MOS.
- IUDs have a serious oversupply of 514 MOS.

Level of Stock-out risk, by commodity, at central warehouse				
Level of Risk	High < 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply > 18
Male condoms		3.2		
Female condoms	-1.5			
Oral contraceptives				30.7
Emergency contraception	Not offered			
Monthly injectables	No distribution nor stock in 2019 and 2020			
Bi-monthly injectables	No distribution nor stock in 2019 and 2020			
3-monthly injectables		4.8		
IUDs				514.6
Implants			13.1	

ii. Availability of Contraceptives and MNN Commodities at the Last Mile

Availability of tracer commodities was measured at both primary and secondary/tertiary levels as of October 2020, as follows:

a. At the primary level, the indicator measures the availability of 5 tracer contraceptives: Condoms, ECP, orals, injectables, and IUDs. The criteria at this level consist of facilities having at least 4 out of 5 contraceptives to achieve the highest score in the RHCS scale.

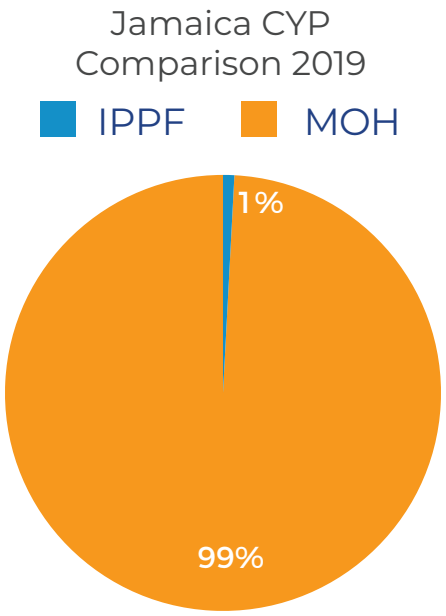
b. At the secondary/tertiary levels, the indicator measures availability of 12 tracer commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUDs, Oxytocin, Misoprostol, Magnesium sulfate, Ampicillin injectable, Gentamicin injectable, Self-inflating neonatal resuscitation bags with masks, ANCs – Dexamethasone or Betamethasone injection. The criteria at this level consist of facilities having at least 7 of the 12 tracer commodities to achieve the highest score in the RHCS scale.

However, this analysis was not possible for Jamaica since MNN commodities data was not provided to the assessment team.

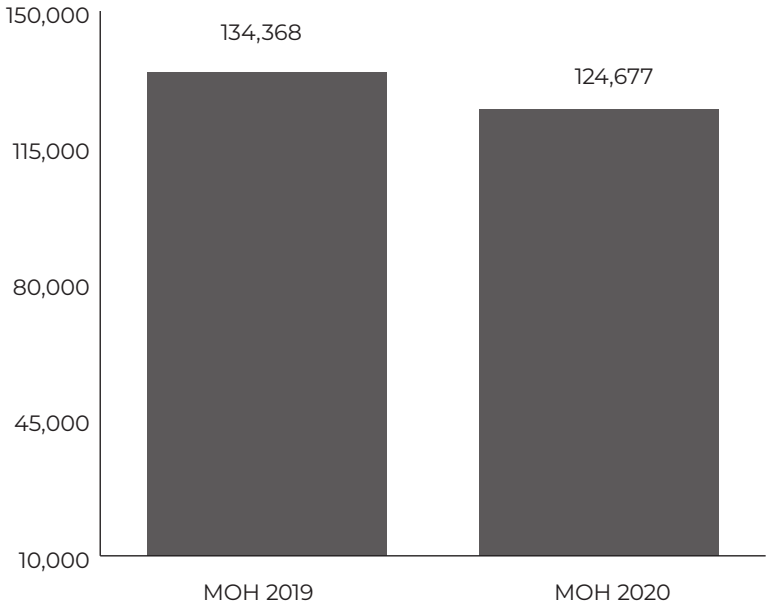
Couple-years of protection

According to distribution data in 2019, the MOHW generated 134,368 CYP[43] (See methodology for further details) and the Jamaica FPA (FAMPLAM) 1,212 CYPs. FAMPLAM did not provide data for the year 2020, and therefore, analysis of their comparison to the total CYP was not possible for this year. In 2020, (projected and assuming a similar trend through December 2020) the MOHW will generate 124,677 CYPs which indicates a reduction of 7% when compared to 2019.

43 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)



Jamaica CYP comparison 2020



IMPACT OF COVID-19

Stocks and average distribution reported in 2020, plus orders in transit, were analyzed to report Months of Stock available. When estimating future trends of stock status of the NFPB, it is anticipated that male condoms will have stock-out by February 2021, female condoms will have stock-out in November 2020 and an urgent order is needed; 3-month injectables will have stock-out in March 2021, unless an order arrives before such date. When looking at the sales trends from NFPB to RHA in 2020 and compared to 2019, all contraceptive distributions increased as follows: male condoms 38%, female condoms 189%, orals 58%, 3-month injectables 8%, IUDs 45% and implants 10%. In the case of male condoms, the NFPB provided data on condoms procured by the Government of Jamaica and donations from the Global Fund for the HIV/AIDS program. This is important to note as 55% of total CYPs lost correspond to condoms.

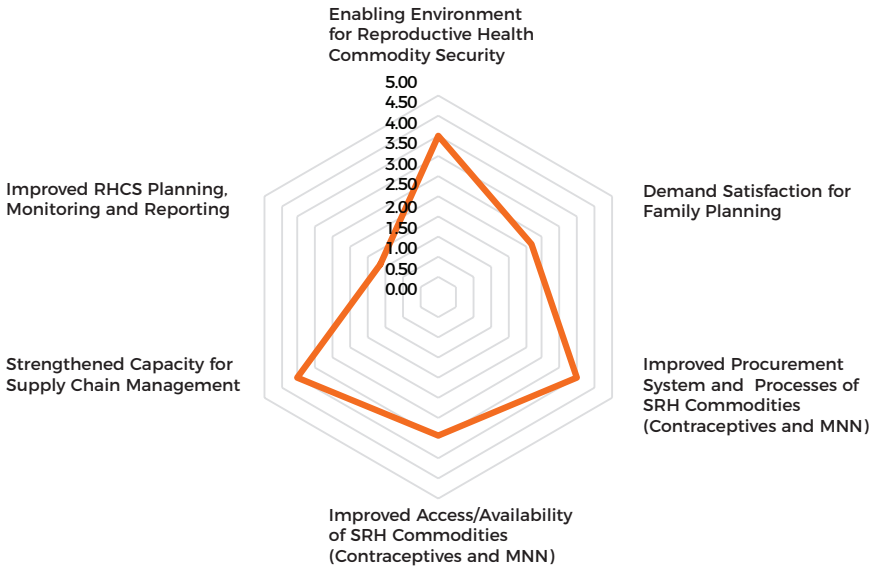
The impact of the reduction of CYPs between November 2020 and July 2021 can potentially cause the following negative results (See methodology section for further information):

JAMAICA - Expected Impact of Stockout	
Total of CYPs lost	53,076
Number of unintended pregnancies	45,114
Number of abortions	7,077
Number of maternal deaths	27
Number of neonatal deaths	354

RHCS MATURITY

The following table captures the maturity of the system in six RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The overall score for MOHW of Jamaica is 3.29, where Enabling Environment for RHCS, Improved Procurement System, and Strengthened Capacity for Supply Chain Management (SCM) have the highest score (4.00), while Improved RHCS Monitoring has the lowest score (1.67):

Output	Concept	Score in the RHCS Scale
1	Enabling Environment for Reproductive Health Commodity Security	4.00
2	Demand Satisfaction for Family Planning	2.67
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	4.00
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	3.43
5	Strengthened Capacity for Supply Chain Management	4.00
6	Improved RHCS Planning, Monitoring and Reporting	1.67
	Overall Score	3.29



STRENGTHS AND WEAKNESSES

The current situation represents 66% of the total score, and there are important strengths and weaknesses to highlight:

Output	Strengths	Weaknesses
Enabling environment for reproductive health commodity security	There is a 5-year SRH Strategy ended in 2019, which is being updated for the 2020-2025 period. SRH is included in the National Health Plan.	RHCS is not integrated as part of any of these high-level documents.
	100% of contraceptive financial needs are covered with governmental funds.	
	100% of tracer MNN commodities are purchased with governmental funds.	
	According to NFPB informants, all contraceptives are included in the VENT List[44] (equivalent to EML).	
	VENT List 2015, includes all MNN but the self-inflating neonatal resuscitation bag.	
	There is a Technical Population WG that meets quarterly and includes SRH topics with all agencies and partners.	The Population Technical WG does not include RHCS in their agenda.
	According to key informants, during COVID-19 users were able to access health services. Health facilities were not closed, and appointments were staggering. Distribution trends in 2020 for all contraceptives increased compared to 2019, despite COVID-19 restrictions. There were no delays in procurement orders because of COVID-19.	
Demand satisfaction for family planning	MOHW covered 29.32% of WRA based on the central level distribution of NFPB in 2019.	MOH pays taxes on imports.
	Male and female condoms, orals, 3-month injectables, IUDs, and implants are offered.	ECP, 1-month and 2-month injectables are not offered. ECP is no longer offered since 2009. According to key informants, there was an "abuse of ECP" use. Not offering ECP might have implications in the delivery of quality Clinical Management of Rape (where ECP is an essential commodity to be provided).
	NFPB is the government agency for FP in-country, and MOHW provides services to commercial pharmacies, private clinics, and NGOs (i.e., FAMPLAN-IPPF Affiliate)	NFPB indicated that stock-outs have been reported recently, but the NFPB did not provide detailed information.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	The NFPB procures contraceptives for the entire island using mainly TPP through UNFPA. The NFPB also sells small quantities for individual private practitioners.	
	Requisitions are sent from health facilities to the regional level and consolidated at the central level. At the regional level staff is trained in forecasting. Both distribution and consumption are used for forecasting.	Quantification methodology needs to be strengthened as there are stock imbalances, stock-outs and oversupply.
Improved access/ Availability of SRH commodities (contraceptives and MNN)	No fees are charged in the public health (MOHW) facilities.	Social Security does not cover FP.
	All 7 MNN commodities are offered in MOHW facilities.	Last-mile availability analysis was not possible because the MOHW did not provide information to the assessment team.
	There are specific clinics for adolescents, functioning as centres of excellence, with staff trained in adolescent health.	
	As of 31 Dec19, the NFPB warehouse had 3-month injectables, male and female condoms, orals, implants, and IUDs.	As of October 2020, female condoms are at risk of stock out.
	Training is ongoing, i.e., Training on insertion and removal of IUDs was done recently, at least twice per year. Training in the insertion and removal of implants and IUDs is done as part of the in-service training, as an additional skill (and not part of the pre-service training).	

44 List of Vital Essential and Necessary Drugs and Medical Sundries for Public Health Institutions, MOH 2015

Output	Strengths	Weaknesses
Strengthened capacity for supply chain management	LMIS is in place – used by all MOHW health regions and parishes. A contraceptive register and logbook are kept.	Despite having an LMIS in place, last-mile data from sampled facilities was not provided.
	RHA are responsible for requesting and picking up contraceptives from NFPB.	
	All transportation costs are budgeted by RHA which include fuel, maintenance, and other transportation costs.	RHA have sometimes challenges with schedules with the drivers. A delay in picking up may occur. Often some lower facilities still would have to pick up commodities using their own financial resources.
	NFPB indicated that staff has been trained in max-min levels and ensure that it is followed and used during their visits to MOH health facilities.	Despite training in the max-min inventory system, there is no evidence in the data analyzed that maximum levels are followed.
	Cold chain is used when storing Oxytocin and air conditioning is available. Some training has been conducted to follow the first-expired, first-out rule.	NFPB warehouse space is reported to be insufficient. Expired products are still reported for 2019.
Improved RHCS planning, monitoring and reporting	Monitoring of logistics is done independently based on the Logistics Indicators Assessment Tool (LIAT).	There is no monitoring system in place – neither assessments of SRH Programme or RHCS.
	MOH conducts an independent yearly analysis of financing and procurement processes.	

CONCLUSIONS AND RECOMMENDATIONS

After analyzing the findings, the following interventions are proposed to improve the NFPB and MOHW of Jamaica's performances, ranging from the enabling environment to more resilient supply chain system, and resulting in a better response to the public health needs.

Output	Conclusion	Recommendation
Enabling environment for reproductive health commodity security	There is a 5-year SRH Strategy that ended in 2019, and SRH is included in the National Health Plan, but no written priority is given to RHCS.	Include RHCS elements in the next SRH Strategy, especially aiming to maintain adequate stock levels at the central warehouse, RHA and last mile. Establish an RHCS Committee and develop an RHCS strategy with a monitoring plan, indicators, and targets.
		Engage with other Caribbean countries and regional institutions in the development of a regional RHCS strategy for the Caribbean informed by this assessment results, and define a road map for improved and increased visibility of RHCS in times of health emergencies and natural disasters. This strategy may include lessons learned and best practices sharing, for instance, providing FP services through mobile clinics during COVID-19 pandemic, or activating community outreach strategies in alliance with NGOs.
	COVID-19 pandemic did not impact the distribution of contraceptives, as evidenced by 2020 increase compared to 2019. However, there is a need to improve planning for future health crisis and for monitoring stock level imbalances in the coming months.	Incorporate in emergency preparedness plans the Minimum Initial Service Package for SRH to guarantee access to SRH services (including contraceptives) by the population during a health crisis.
Demand satisfaction for family planning	Jamaica has a CPR of 84.2 according to 2008 MICS survey, but MOHW only covered 29.32% of WRA in 2019, according to CYPs estimates based on central warehouse data.	Plan for routine demographic health surveys (every 5 years) that can help in monitoring the progress of key FP outcome indicators such as modern CPR and unmet need for FP.
	Several stakeholders provide FP services including NGOs, private clinics, and commercial pharmacies.	Develop joint strategies with FAMPLAN and other NGOs to increase FP services with targeting strategies for those users that can pay.
		Conduct qualitative research methods that help to understand the low uptake of LARC methods, and identify ways for repositioning these methods, especially IUDs that are in serious oversupply.

Output	Conclusion	Recommendation
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	Analysis of limited data provided suggests that NFPB procurement processes (including quantification exercise) need to be monitored more closely, as there are potential stock-outs and oversupply of FP products.	Urgently analyze orders in transit and confirm whether after receiving those orders, existing quantities in-country will be used before expiration dates. Otherwise, explore if neighbouring countries may use them (particularly IUD).
		Quantification methodology needs strengthening by planning refresher training to establish max-min levels in writing, including the FEFO rule to avoid expired products.
Improved access/ Availability of SRH commodities (contraceptives and MNN)	No fees are charged in the MOHW facilities, but Social Security Scheme does not cover FP services.	Explore opportunities in the future to include FP services as a basic right in social security schemes.
	There are specific clinics for adolescents, functioning as centres of excellence, with staff trained for adolescent health, but pregnancies amongst adolescents 10-19 years old continue to be high.	Continue advocacy efforts to expand SRH education for youth and training for health staff to eliminate all barriers to provide FP services to adolescents.
		Include RHCS elements in future training to take advantage of every opportunity to raise awareness about users not leaving the health facility empty handed.
Strengthened capacity for supply chain management	LMIS is operational and has helped to decrease stock-outs, however, last-mile data was not readily available during this assessment.	Despite having an LMIS in place, stock-outs have occurred and oversupply as well. Convene working meetings to analyse the cause of the stock-outs and over supply and make timely corrective actions.
	Although RHA is responsible for transportation, some bottlenecks occur when picking up contraceptives.	Make sure that distribution plans are in place in coordination with NFPB and RHA, especially during the organizational transition of NFPB into the MOH structure.
	There are warehouse space limitations at the NFPB.	Develop an improvement plan with resources to resolve limitations of space, which will enable staff to better carry out their warehouse management duties.
		Design a transition plan to support the NFPB and their personnel during their upcoming integration within the MOHW to minimize disruptions in the provision of FP commodities and all the other NFPB functions.
Improved RHCS planning, monitoring and reporting	Monitoring of supply chain aspects are in place but are not sufficient to avoid stock-outs, oversupply, and expired products.	Link monitoring responsibilities with the RHCS plan recommended above. This will increase commitment and resources for monitoring the last mile and efficiency of the supply chain.
	MOH conducts an independent yearly analysis of financing and procurement processes.	Include monitoring of financial and procurement processes in the RHCS monitoring plan, which will reduce the risk of stock imbalances and will support effective SCM decision making.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

MONTSERRAT

COUNTRY PROFILE

Montserrat is a self-governing Overseas Territory of the United Kingdom situated in the Lesser Antilles in the Eastern Caribbean. The territory's 102 km^2 is mostly mountainous with a small coastal plain. Montserrat's Soufrière Hills Volcano began erupting in 1995, resulting in the destruction of the capital, Plymouth, and the evacuation of the southern and central parts of the island. Thousands moved to nearby Antigua, other parts of the Caribbean, or further afield. In the last decade, the population has returned to 45% of the pre-volcanic eruption population. There was a new major eruption in February 2010; the ongoing threat of further eruptions has curtailed any potential economic growth, as it is difficult to maintain a viable population and economic activity. Residents live in the northern third of the island, which is considered safe. The current population of Montserrat is 4,993 as of October 2020 (WorldOmeter based on UN estimates). Montserrat is a member of the Organization of Eastern Caribbean States (OECS) and the Caribbean Community (CARICOM). Annual GDP Total US$ 62.20 million at constant prices (CARICOM Statistical report, 2015).

Montserrat's main health indicators related to RHCS are summarized on the right:

Montserrat		
Description	Data	Source
Population Growth Rate (per 100)	0.58	2020 (CIA) https://www.cia.gov/library/publications/the-world-factbook/geos/print_mh.html
% of women of reproductive age (WRA), 15-49 years	23.1	2020 https://countrymeters.info/en/Montserrat
Maternal Mortality Ratio (per 100,000 live births)	No Data available	2012 (Pan American Health Organization)
Infant Mortality Rate (per 1000 live births)	16.1	2010 (CARICOM Statistical report, 2015)
Total Fertility Rate (births per woman)	1.36	2020 (CIA)
Teenage pregnancy 16-19 yrs.	8	2015 (PAHO 2017 country report)
Contraceptive prevalence rate (modern method)	Not available	
Unmet need for family planning rate, women aged 15 to 49 years	Not available	

PUBLIC HEALTH SYSTEM

The government's general revenues are the main source of health care financing. For the fiscal year 2015/16, the allocation to the Ministry of Health and Social Services (MoHSS) was EC$15.1 million (US$ 5,557,804), 9.4% of the island's recurrent budget for that year. While most persons are responsible for paying for their health care at the point of service, the 2002 Public Health Act exempts some groups and some types of care: full-time university students, children under 16 years old; senior citizens (those over 60 years old); up to two months' free postnatal care for women; persons defined as "indigent"; some public servants; and prisoners. If someone cannot make a payment (on or off-island),

they may apply for means-tested medical assistance from the Social Services Unit.

Montserrat's 2008-2020 National Sustainable Development Plan places health at the centre of their development. In late 2018, the MoHSS developed this overarching strategy with Primary Health Care and progress towards Universal Health at the heart of this development plan.

The 2019-2022 strategic plan details MoHSS's objectives and operations aimed at strengthening the health system based on a new 'SMART' Hospital approach and spearheaded by stronger Primary Health Care. The MOHSS of Montserrat has an effective primary health care system, with four primary health clinics. Basic secondary care services are only available at Glendon Hospital, and there are no tertiary facilities. The Glendon Hospital provides laboratory, pharmacy, diagnostic imaging, and physiotherapy services; nutritional counselling; accident and emergency services; medical and surgical outpatient services; medical, surgical, and obstetric inpatient care; and ambulance services. The health centres offer prenatal and postnatal care, child welfare clinics, immunization services, family-planning services, mental health services, and nutrition services. Health services attract a fee which informants do not consider a barrier to health care.

i. Sexual and Reproductive Health Services

The Ministry of Health and Social Services (MoHSS) of Montserrat offer family planning services in their primary health care clinics and at the Glendon Hospital. In the private sector, some pharmacies offer limited contraceptive options, and the Family Planning Association (IPPF Affiliate) does not have a presence in Montserrat.

The table below summarizes the contraceptives and maternal and neonatal (MNN) commodities offered by MoHSS, by level of care:

		Primary	Secondary	
	Commodity	Clinics	Glendon Hospital	Comments
1	Male condoms	Yes	Yes	Managed by the Health Promotion Department
2	Female condoms	Not offered		
3	Oral contraceptives	Yes	Yes	
4	Emergency contraceptives	Not offered		
5	Monthly contraceptive injectables	Not offered		
6	Bi-monthly contraceptive injectables	Yes	Yes	
7	3-monthly contraceptive injectables	Yes	Yes	
8	IUDs	No	Yes	
9	Implants	Not offered		
10	Oxytocin	Yes	Yes	
11	Misoprostol	Yes	Yes	
12	Magnesium sulfate	Yes	Yes	
13	Ampicillin	Yes	Yes	
14	Gentamicin	Yes	Yes	
15	Self-inflating neonatal resuscitation bags with masks	No	Yes	
16	Antenatal corticosteroids	Yes	Yes	

Note 1: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most Caribbean countries, thus it was not included in order to maintain comparability amongst countries.
Note 2: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by MOHSS. There are cases where a contraceptive is in the EML but was not found in 2019 or 2020 logistics data at central level or last mile.

ii. The Public Health Supply Chain System

The supply chain system of the Ministry of Health and Social Services (MoHSS) is a two-tier system where Glendon Hospital serves as the warehouse from which the four primary health clinics receive commodities. The hospital prepares the annual forecast of the commodities and submits them to OECS for tendering processes. Health clinic nurses come to Glendon Hospital with their registry when they need to replenish stock. On the other hand, the Health Promotion Department orders condoms and distributes them to the Glendon Hospital and the clinics. Below is a basic diagram of the supply chain system:

FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse.

The RHCS Assessment included collecting availability data at the central warehouse for 16 commodities in two instances: as of December 31, 2019, in order to assess the availability without the impact of the COVID-19 pandemic; and as of October 2020, to assess the availability considering the potential impact of COVID-19.

In Montserrat, the significant limitations and challenges to obtain logistics data required the use of several assumptions and estimates of stock on hand at different dates in order to include an estimation in this report.

There are several situations to highlight as follows:

- As of December 2019, the central warehouse showed availability of 5 out of the 16 commodities. Commodities with stock on hand were male condoms, orals, magnesium sulfate, self-inflating neonatal resuscitation bags with masks, and dexamethasone.

The table below summarizes the stock status as of October 2020 (expressed in months of stock on hand - MOS), with the following highlights:

- Male condoms, IUDs, oxytocin, misoprostol, magnesium sulfate, and gentamicin appear to have excess inventory.
- Oral contraceptives and 3-month injectables have stock-outs.
- No orders in transit were reported.

Level of Stock-out risk, by commodity, at the central pharmacy

Level of Risk in MOS	High 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply >18
Male condoms				239.6
Female condoms	Not offered			
Oral contraceptives	-0.4			
Emergency contraception	Not offered			
Monthly injectables	Not Offered			
Bi-monthly injectables	-0.9			
3-monthly injectables	2.5			
IUDs				52
Implants	Not offered			
Oxytocin				95.5
Misoprostol				29
Magnesium sulfate				19.4
Ampicillin	-0.5			
Gentamicin				33
Neonatal Resuscitation bags with masks	There is 1 in the Glendon Hospital			
Antenatal corticosteroids			7.2	

ii. Availability of Contraceptives and MNN Commodities at the Last Mile

Availability of 12 tracer commodities was measured at both primary and secondary/tertiary levels as of October 2020, as follows:

a. At the primary level, the indicator measures availability of 5 tracer contraceptives: Condoms, ECPs, orals, injectables, and IUDs. The criteria at this level consist of facilities having at least 4 of 5 contraceptives to achieve the highest score in the RHCS scale.

b. At the secondary/tertiary levels (Glendon Hospital in the case of Montserrat), the indicator measures availability of 12 tracer commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUDs, Oxytocin, Misoprostol, Magnesium sulfate, Ampicillin injectable, Gentamicin injectable, self-inflating neonatal resuscitation bags with masks, ANCs – Dexamethasone or Betamethasone injection. The criteria at this level consist of facilities having at least 7 of 12 tracer commodities to achieve the highest score in the RHCS scale.

In Montserrat, at the primary health care level, all four clinics were in the sample, of which 0% had 4 of the 5 tracer contraceptives. In addition, it is worth noting that orals had expired at the last mile.

The table below summarizes availability by method in all 4 clinics, highlighting that ECP had zero because it is not offered, and IUDs are only offered at the Glendon Hospital:

Contraceptives	Present in 4 primary facilities
Male condoms	25%
Oral contraceptives	50%
Emergency contraception	0%
Injectables	50%
IUDs	0%

At the secondary level, the only health facility is the Glendon Hospital, which had 100% of at least 7 of 12 tracer commodities. The table below summarizes availability by commodity, highlighting that male condoms and ampicillin had stock-outs. The Glendon Hospital's last order for self-inflating neonatal resuscitation bags was during the year 2018-2019, and there was only one in stock at the time of this survey:

	Present in 1 secondary facility
Commodities	
Male condoms	0%
Oral contraceptives	100%
Emergency contraception (not offered)	0%
Injectables	100%
IUDs	100%
Oxytocin	100%
Misoprostol	100%
Magnesium sulfate	100%
Ampicillin injectable	0%
Gentamicin injectable	100%
Self-inflating neonatal resuscitation bags with masks	100%
ANCs – Dexamethasone or Betamethasone injection	100%

Couple-years of protection

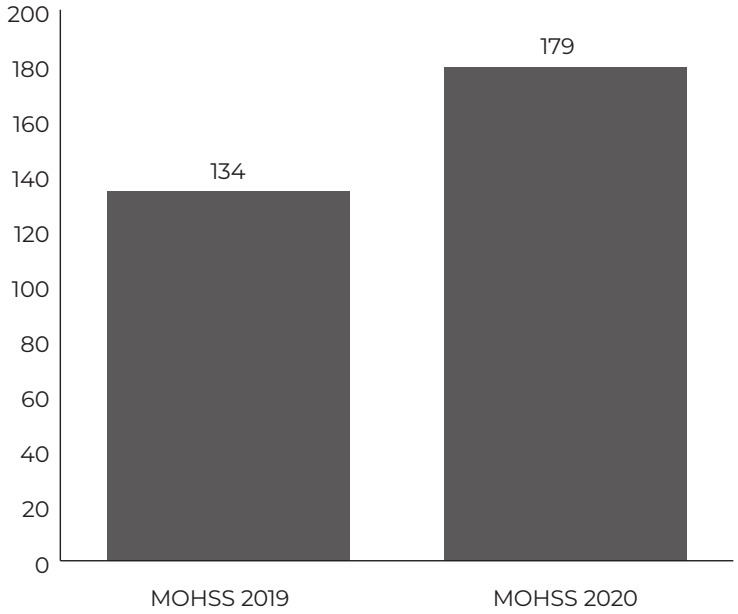
Montserrat does not have the presence of an FP Association, therefore, the MOHSS is the main provider of FP services. According to distribution data from the Central Pharmacy located at the Glendon Hospital, MOHSS produced 134 couple-years of protection (CYPs)45 (See methodology for further details) in 2019; while in 2020 (projected and assuming a similar trend through December 2020), CYPs total

45 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

was 179, which reflect 33% increase in coverage of FP services.

Montserrat MOH CYP comparison

2019 - 2020



IMPACT OF COVID-19

According to the informant of MOHSS, FP and maternal neonatal services were not affected by COVID-19. Montserrat only has 13 reported cases of COVID-19 to date. Distribution of commodities continued in the middle of COVID-19, and the public sector continued to provide services during lockdowns.

Stocks and average distribution reported in 2020, plus orders in transit, were analysed to report Months of Stock on hand available. When estimating future trends of stock status of MOHSS, orals and bi-monthly injectables will be out of stock in December and November 2020 respectively, with no orders in transit. In contrast, all other commodities appear to have excess inventory, however, due to the significant limitations of the data provided and the assumptions that were necessary to use, this picture needs to be viewed with this caveat in mind.

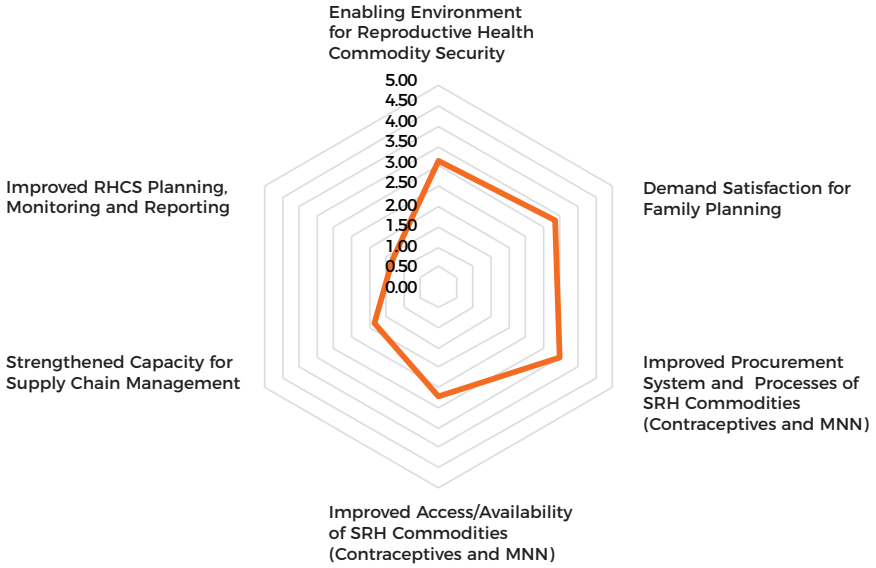
The impact of not meeting the need of women using contraceptives between November 2020 and July 2021 will potentially cause the following negative results (See methodology section for further information):

Expected Impact of Stockout Nov. 2020- July 2021	
Total of CYPs lost	117
Number of unintended pregnancies	99
Number of abortions	16
Number of maternal deaths	0
Number of neonatal deaths	1

RHCS MATURITY

The following table captures the maturity of the system in 6 RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The overall score of the MOHSS is 2.64, where the capacity for supply chain management has the lowest score of 1.83 while procurement system and processes obtained 3.50.

Output	Concept	Score - RHCS Scale
1	Enabling Environment for Reproductive Health Commodity Security	3.13
2	Demand Satisfaction for Family Planning	3.33
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	3.50
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	2.71
5	Strengthened Capacity for Supply Chain Management	1.83
6	Improved RHCS Planning, Monitoring and Reporting	1.33
	Overall Score	2.64



STRENGTHS AND WEAKNESSES

The current situation represents 52% of the total score, and there are important strengths and weaknesses to highlight:

Output	Strengths	Weaknesses
Enabling environment for reproductive health commodity security	Both contraceptives and MNN commodities are funded 100% by the MOHSS.	There is no SRH policy, strategy, or plan.
		There is not a national RHCS coordinating committee
	4 contraceptives and 5 MNN commodities are part of the OECS formulary.	Despite 4 contraceptives and 5 MNN commodities being part of the OECS formulary, there is no official formulary in Montserrat. There is no MoHSS formulary or EML.
	MoHSS is exempted from import taxes.	
Demand satisfaction for family planning	MoHSS and private pharmacies are the only FP providers.	There is limited method choice offered in primary health facilities with only 4 types of modern contraceptives being offered: male condoms, orals, injectables and IUDs.
		Only 25% of WRA are covered by MoHSS in 2019, based on distribution and estimated CYPs.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	Pooled procurement through OECS guarantee economies of scale and quality products.	COVID-19 has created substantive increases in freight charges, causing budget constraints and delays.
		Quantification is not based on consumption data nor essential LMIS but rather on demographic data.
Improved access/ Availability of SRH commodities (contraceptives and MNN)	WHO medical eligibility criteria are used for counselling and training.	0% of health facilities had 4 of the 5 contraceptives.
	As of October 2020, the only secondary level hospital had 100% of stock for 7 of the 12 commodities.	Patients are charged a fee. Adolescents rarely go to the health centres which is partly explained by the legal barriers for adolescents below 18 years to access services without parental consent.
		No FP training has been conducted in the last 2 years targeting health providers.
		Only 5 products out of 12 were available at the Central pharmacy of the Glendon Hospital as of December 2019.
Strengthened capacity for supply chain management		There is no LMIS in place and logistics data is kept in registry books. No max-min inventory control systems are in place. Data provided was in disarray with no specific dates for most quantities issued or balances on hand.
		Organized distribution and schedules are not in place. Sometimes the hospital distributes commodities. In other instances, nurses come with their logbook to report data and request resupply. Distribution is ad-hoc affecting adequate stock levels at the health clinics.
		Insufficient warehouse space, air conditioning not always available, thus, oxytocin optimal conditions not guaranteed
Improved RHCS planning, monitoring and reporting	MoHSS monitors financing and procurement processes to place orders.	No monitoring plan for RHCS is in place. No monitoring of stock on hand and expired products nor actions to correct both stock-out and oversupply. There is an oversupply of male condoms, IUDs, oxytocin, misoprostol, magnesium sulfate, and Gentamicin.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings and weaknesses identified, the synthesis of conclusions and recommendations for Montserrat is as follows:

Output	Conclusions	Recommendations
Enabling environment for reproductive health commodity security	Policy framework for SRH is weak, as no policies, strategies, nor plans, are in place.	Develop an SRH policy with the goal of ensuring that sexual and reproductive health and rights are given increased priority in planning and budget allocations in the health sector and laws are enacted to ensure universal access to sexual and reproductive health irrespective of age.
		Considering that Montserrat is a 4,993-population country, and because of their particular characteristics as an island that is still being rebuilt, search for opportunities to include SRH and RHCS in broader national policies and plans. For instance, include RHCS in the next 5-year national health plan.
		Advocate to increase and protect financing for contraceptives, avoiding the effects of COVID-19 caused by reduced fiscal resources. Using the evidence of the cost-benefit of investing in FP can help governments to prioritize FP in resource allocation. For example, in LAC countries, studies show that for every dollar invested in FP[46], governments save about $14 in MCH and MNN services[47].
		Develop a regional RHCS strategy for the Caribbean, with a chapter of OECS member states informed by this assessment results, and define a road map for improvement and increased visibility of RHCS in times of health emergencies and natural disasters.
	There is no official national drug formulary that guides procurement, except the OECS 2019-2021 Medical Product List.	Continue using the OECS Medical Product List and advocate for the inclusion of all commodities (including female condoms, ECP and implants) in the OECS formulary while Montserrat develops its own formulary or EML, ensuring the inclusion of all contraceptives.
		Review the COVID-19 preparedness plan making a priority of securing the availability of FP and MNN commodities in times of health emergencies with particular attention to supplying users with additional amounts of condoms and cycles of oral contraceptives.
Demand satisfaction for family planning	MOHSS covered 25 % of WRA in 2019, often leaving women without FP coverage and subsequent unplanned pregnancies, which are expected to happen by the end of 2020 and 2021.	Integrate FP counselling and provision of contraceptives in other services in order to increase access to FP services and contraception uptake with the aim to reduce unmet need for family planning, and ultimately, reduce unplanned pregnancies.
Improved procurement system and processes of SRH commodities (Contraceptives and MNN)	OECS pooled procurement offers economies of scale and quality products, however, quantification and inventory control systems need significant improvement.	Strengthen internal processes in the MOHSS in order to secure better accuracy of orders and on-time payment to OECS to avoid potential delays from suppliers.

46 Health Policy Plus Project, Dollars and Sense article by Jay Gribble http://www.healthpolicyplus.com/DollarsSenseBlog.cfm#:~:text=More%20than%20a%20decade%20ago,many%20countries%2C%20it%20saved%20much

47 Cost-benefit analysis of investing in family planning in Guatemala, 2008, Valladares, Jaramillo, University Research Corporation

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

SAINT KITTS AND NEVIS

Improved access/ Availability of SRH commodities (contraceptives and MNN)	Services for adolescents are not actively offered, and adolescents visits to clinics are rare – probably due to the restrictive legal framework.	Identify venues to help MOHSS ensure SRH services are responsive to the needs of adolescents as part of their health services.
	Limited method mix offered.	Continue efforts to secure availability of current method options, while exploring the best way to improve the IUD offer, increase the distribution of male condoms that are managed by the Health Promotion Department, and expand the method mix by introducing female condoms, ECP, 1 month injectable and implants in Montserrat.
		Include MNN life-saving commodities at primary level to improve universal access to these commodities wherever adequate clinical staff is available and trained and there is adequate infrastructure to deliver MNN care.
	Training in several aspects of FP services and RHCS have not occurred in the last two years.	Design a training curriculum that: includes WHO contraceptive medical eligibility criteria, counselling, offers of an expanded contraceptive method mix, and with a component of RHCS to draw attention the strategic importance and link between improving services and availability of commodities at the right time and at the right place. This training can be virtual as long as the COVID-19 pandemic conditions continue, maximizing the use of digital tools like the WHO eligibility criteria APP.
Strengthened capacity for supply chain management	Lack of inventory control system causes both stock-out and oversupply.	Design an inventory control system, including maximum and minimum levels, and train staff at the central pharmacy and the health clinics. This is crucial to improve supply chain management in general for all other health commodities.
	Logistics management information system (LMIS) does not exist and requires immediate attention.	Design, test and implement a comprehensive yet practical LMIS that includes essential logistics data: consumption, SOH, adjustments, and max-min levels expressed in quantities and months. This can be initially in paper with improved use of the Kardex, and later an automated LMIS if resources allow.
Improved RHCS planning, monitoring and reporting	RHCS nor SRH elements are not monitored as a strategic priority.	Include RHCS in universal health coverage plans to improve monitoring of all RHCS aspects, especially to monitor the availability of essential life-saving commodities in times of emergency and health crisis like the COVID-19 pandemic.

COUNTRY PROFILE

Saint Kitts and Nevis is one of the smallest sovereign states in the Western Hemisphere, in both area and population with 53,331 inhabitants (WordOmeters 2020). The capital city is Basseterre, located on the larger island of Saint Kitts (168 km^2) while Nevis is the smaller island (93 km^2). The country is a Commonwealth realm, with Elizabeth II as Queen and head of state. It is the only federation in the Caribbean and is also the most recent British territory in the Caribbean to become independent, gaining independence in 1983. To the north-northwest lie the islands of Saint Eustatius, Saba, Saint Barthelemy, Saint-Martin and Anguilla. To the east and northeast are Antigua and Barbuda, and to the southeast is the small uninhabited island of Redonda (part of Antigua and Barbuda) and the island of Montserrat.

The British dependency of Anguilla was historically also a part of this union, which was then known collectively as Saint Christopher-Nevis-Anguilla. However, Anguilla chose to secede from the union and remains a British overseas territory.

The main economic income in Saint Kitts and Nevis comes from tourism, (Caribbean Development Bank, 2019). The annual GDP total ($US Millions, at constant prices, 2010 base year) is 910.75, and the government health expenditure was 2.1% (World Bank, 2018).

The country is geopolitically divided into 14 parishes, nine in Saint Kitts and five in Nevis.

Saint Kitts and Nevis's main health indicators related to RHCS are summarized in the table on the right:

Main Reproductive Health Indicators		
Description	Data	Source
Population Growth Rate (per 100)	0.8	2018 (World Bank)
Percentage of women of reproductive age (WRA), 15-49 years	26.43	2020 (Country Meters)
Maternal Mortality Ratio (per 100,000 live births)	156.0	2014 (CARICOM Statistical report, 2015)
Infant Mortality Rate (per 1000 live births)	10	2018 (World Bank)
Neo-natal Mortality Rate (per 1,000 live births)	8	2018 (World Bank)
Total Fertility Rate (births per Woman)	2.1	2002 (World Bank)
Adolescent Birth Rate x 1,000 (15 to 19 years)	46	2019 (United Nations Population Division)
Contraceptive prevalence rate (modern method)		No Data
Unmet Need for family planning rate, women aged 15-49 years		No Data
Annual GDP Total ($US Millions, at constant prices, 2010 base year)	910.75	2019 (World Bank)

PUBLIC HEALTH SYSTEM

Both islands have parallel organizational structures, with each island's Minister leading final policy determination. Permanent Secretaries, as heads of administration, are responsible for matters related to finance, budget, personnel, and procurement. The two Ministers regularly confer with one another to harmonize policies. Even though each island has a Minister and a Permanent Secretary, the Ministry of Health has federal responsibilities and administers the public health sector and is accountable for the delivery of quality public `health services. There is a single Chief Medical Officer for the Federation who is responsible for oversight of scientific and technical matters pertaining to public health policy.

The National Strategic Health Plan (2008-2012) guides program performance and assessment. The country has a National Social Protection Strategy, 2012-2017, which includes addressing the social determinants of health. This system of social protection which includes social security and safety net programs are complementary to universal access to health care services and should ensure equity and support sustainable development. (WHO, 2018) Health care in the public sector (17 primary level facilities and 4 hospitals) is financed through government allocations and from minimum fees for service. Social Security covers health care for children under the age of 18 and persons over the age of 62 years who are exempt from charges at public health services for basic health care; these services are not withheld for other groups due to inability to pay. There are also subsidies that apply to health and assist with unanticipated expenses, such as hurricane damage, fires, and special emergency medical expenses. (PAHO health in the Americas, 2017)

i. Sexual and Reproductive Health Services

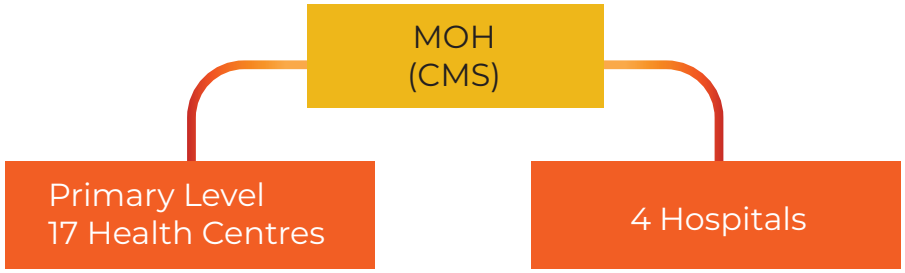
9	Implants	No	No	Not in the EDL
10	Oxytocin	No	Yes	
11	Misoprostol	No	No	
12	Magnesium sulfate	No	Yes	
13	Ampicillin	No	Yes	
14	Gentamicin	Yes	Yes	
15	Self-inflating neonatal resuscitation bags with masks	Yes	Yes	
16	Antenatal corticosteroids	No	Yes	

Note 1: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most Caribbean countries, thus it was not included in order to maintain comparability amongst Caribbean countries.
Note 2: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by the MOH. There are cases where a contraceptive is in the EML but was not found in 2019 or 2020 logistics data at central level or last mile.

ii. The Public Supply Chain System

Central Medical Stores (CMS) procures through OECS, and according to key informants, quantifications are based on past consumption collected at the facility level. Central Medical Stores (CMS) is in charge of the distributions, they are not scheduled and respond to requisitions. Transportation is secured and covered the delivery from the central level to all facilities.

The following is a basic flow chart of the supply chain:



FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse

The RHCS Assessment included collecting availability data on 16 commodities at the MOHWE central warehouse, in two instances: as of December 31, 2019, in order to assess the availability without the impact of the COVID-19 pandemic; and as of October 2020, to assess the availability considering the potential impact of COVID-19.

There are several situations to highlight as follows:

a. As of December 2019, the central warehouse showed availability of 8 out of the 16 commodities. Commodities not available were emergency contraception and implants (which are not offered in the country). Commodities out of stock were IUDs, injectables, and resuscitation bags.

b. The table below summarizes the stock status as of October 2020 (expressed in months of stock on hand - MOS), with the following highlights:

- According to the information provided, injectables and IUDs are stock-out.
- According to the information provided, the oversupply of condoms might result in expirations and wastage even while Hospitals are supposed to offer it and they are stock-out.

Level of Stock-out risk, by commodity, at central warehouse				
Level of Risk	High < 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply > 18
Male condoms				101.0
Female condoms				34.0
Oral contraceptives			10.8	
Emergency contraception	Not offered			
Monthly injectables	Stock-out			
Bi-monthly injectables	Stock-out			
3-monthly injectables	Stock-out			
IUDs	Stock-out			
Implants	Not offered			
Oxytocin				28.4
Misoprostol			11.0	
Magnesium sulfate			11.8	
Ampicillin			8.2	

ii. Availability of Contraceptives and MNN Commodities at the Last Mile

Availability of tracer commodities was measured at both primary and secondary/tertiary levels as of October 2020, as follows:

At the primary level, the indicator measures the availability of 5 tracer contraceptives: condoms, ECP, orals, injectables, and IUDs. The criteria at this level consist of facilities having at least 4 out of 5 contraceptives to achieve the highest score in the RHCS scale.

In the secondary/tertiary levels (hospitals in the case of Saint Kits and Nevis), the indicator measures availability of 12 tracer commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUDs, oxytocin, misoprostol, magnesium sulfate, ampicillin injectable, gentamicin injectable, self-inflating neonatal resuscitation bags with masks, ANCs – Dexamethasone or Betamethasone injection. The criteria at this level consist of facilities having at least 7 of the 12 tracer commodities to achieve the highest score in the RHCS scale.

At the primary health care level, seven clinics were in the sample, of which only 17% had 4 of the 5 tracer contraceptives. The table below summarizes availability by method:

Contraceptives	Present in 6 primary facilities
Male condoms	100%
Oral contraceptives	67%
Emergency contraception	0%
Injectables	100%
IUDs	33%

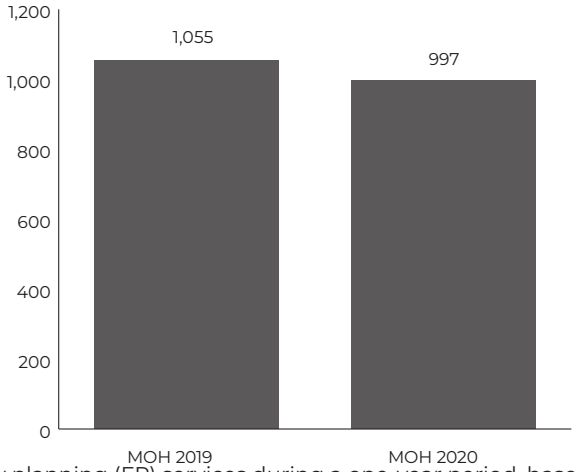
At the secondary and tertiary levels, 4 facilities were in the sample, of which 0% had 7 of the 12 tracer commodities. Even though contraceptives are to be offered at all levels, none was found at this level. The table below summarizes availability by commodity:

Contraceptives	Present in 4 secondary/tertiary facilities
Male condoms	0%
Oral contraceptives	0%
Emergency contraceptions	0%
Injectables	0%
IUDs	0%
Oxytocin	75%
Misoprostol	0%
Magnesium sulfate	75%
Ampicillin injectable	50%
Gentamicin injectable	50%
Self-inflating neonatal resuscitation bags with masks	25%
ANCs – Dexamethasone or Betamethasone injection	75%

Couple-years of protection

According to distribution data from the FP Unit, the MOHWE produced 1,055 couple-years of protection (CYPs) [48] in 2019 (see methodology for further detail). The projection for 2020 (assuming a similar trend through December 2020) indicates MOH will generate 997 CYPs which represents a slight reduction (5.5%) when compared with 2019.

2019-2020



48 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishek and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

IMPACT OF COVID-19

According to key informants of the MOH, COVID-19 pandemic did not result in the disruption of services or in the supply chain. No problems on procurement, distribution, the closing of services, nor reduction of human resources were reported. They did report a reduction in the demand of services by patients and the slow return of patients. However, analyzing the central warehouse distribution data for 2019 and 2020 indicated that none of the injectables or IUDs were distributed at all in 2020. In general, data reveals that distribution decreased by 78% of the commodities in 2020, and IUDs were not found in 67% of the primary health facilities sampled. Certainly, the country will suffer if injectables and IUDs are not received any time soon.

Stocks and average distribution reported as of October 2020, plus orders in transit, were analysed to report MOS available. Estimating future trends of stock status of MOH male and female condoms shows oversupply, indicating they will not suffer stock-outs between November 2020 and July 2021. Warehouse data provided does not show stock of injectables nor IUDs by December 2019, the same thing for November 2020. Similarly, warehouse data does not report the distribution of these two methods in 2019 nor 2020, however, it was found at last mile, meaning they are provided at primary care level facilities, and consequently, they will be stock-out, but lack of consumption/distribution data makes impossible further analysis of how many CYPs will be lost, the number of unintended pregnancies, abortions, maternal deaths, or neonatal deaths.

RHCS MATURITY

The following table captures the maturity of the system in 6 RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The MOH of Saint Kitts and Nevis overall RHCS score is 2.95, where the procurement system has the highest score (4.50), while improved monitoring has the lowest score (1.33):

Output	Concept	Score in the RHCS Scale
1	Enabling Environment for Reproductive Health Commodity Security	3.88
2	Demand Satisfaction for Family Planning	2.00
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	4.50
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	3.14
5	Strengthened Capacity for Supply Chain Management	2.67
6	Improved RHCS Planning, Monitoring and Reporting	1.33
	Overall Score	2.92

STRENGTHS AND WEAKNESSES

The current situation represents 58% of the total score, and there are important strengths and weaknesses to highlight:

Output	Strengths	Weaknesses
Enabling environment for reproductive health commodity security	Male and female condoms are donated by the National HIV program. Other contraceptives and MNN commodities are procured with governmental funds.	There is not an SRH policy, strategy, or plan, and there is not an SRH platform of dialogue only ad hoc working meetings with PAHO.
	Male and female condoms, orals, injectables and IUDs are included in the Essential Medicine List (EML). All tracer MNN commodities are also included.	Implants and emergency contraception are not included in the EML.
	Services were not affected by COVID-19.	
	Contraceptives are exempt of taxes for the MOH.	
Demand satisfaction for family planning		Only 15% of WRA are estimated to be covered by the MOH.
		Limited method choice to satisfy the demand – ECP and implants are not offered.
		Absence of non-profit health care providers like IPPF can be a limitation in increasing the demand and use of SRH services, especially contraceptives.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	Procurement is made through OECS.	Orders are not placed every year, resulting in stock-outs.
	Quantifications are made based on past consumption.	
Improved access/ availability of SRH commodities (contraceptives and MNN)	The MOH does not charge fees for SRH commodities.	Only 17% of primary facilities had 4 of the 5 tracer contraceptives.
	According to informants, male and female condoms, oral cycles, injectables and IUDs are offered at all levels.	None of the hospitals reported having any of the contraceptives.
	Counselling is provided to adolescents and people living with disabilities. IEC materials are used when needed.	Limited method choice – emergency contraception and implants are not offered
	FP training has been conducted during the past 2 years, and materials are available at all levels.	Only 8 out of 16 commodities were present at the central warehouse by the end of December 2020. (Contraceptives – only male condoms and orals)
Strengthened capacity for supply chain management	CMS delivers to all facilities, and the cost is fully covered.	The list of health facilities was received two weeks after the deadline. Warehouse availability was received one month after the deadline and was incomplete. The last mile data was received five weeks after the deadline.
	Air conditioning is available and cold chain is used when storing Oxytocin.	According to informants, consumption and balance on hand data is collected at last mile, but distributions are done upon requisitions.
	Some instructions to follow FEFO have been provided.	A max-min inventory control system is not in place.
		Space is insufficient, and expirations have been reported,
		Plans to improve the supply chain are not funded.
Improved RHCS planning, monitoring and reporting		There is no RHCS monitoring.
		Financial and procurement monitoring is not institutionalized.

CONCLUSIONS AND RECOMMENDATIONS

After analyzing the findings, the following interventions are proposed to improve the MOH's performance, ranging from the enabling environment to a more resilient supply chain system, resulting in a better response to the public health needs:

Output	Conclusions	Recommendations
Enabling environment for reproductive health commodity security	Lack of an SRH strategy leaves ad-lib decisions about what SRH services (and commodities) are to be offered. FP does not seem to be a priority.	Establish an RHCS committee, with the participation of PAHO, UNFPA, NGOs, and civil society to define medium and long-term objectives.
	Having two ministries of health might result in difficult health sector priority negotiations where SRH can be sidelined.	Develop a national RHCS strategy and yearly plans, under the leadership of the above-mentioned RHCS committee.
	According to informants, contraceptives should be offered at all levels, but they were not found at hospitals.	Close monitoring of the provision of contraceptives, especially at the hospital level.
Demand satisfaction for family planning	Not having an IPPF affiliate in-country makes it difficult for low-income users and other vulnerable groups to access contraceptives.	Involve civil society representatives to ensure SRH is prioritized and claim rights and access to contraceptives for all.
	Stock-outs do not allow the MOH to satisfy demand.	
	Erratic stock maintenance and distribution might reveal FP is not prioritized.	
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	Based on the procurement mechanism used to obtain benefits of economy of scale (OECS) and basing quantification on consumption data, the score obtained in this outcome is 4.5, however that good performance is not reflected when availability of all contraceptives is analysed.	Quantification needs to be based on data and procurement should be planned in order to maintain adequate stocks nationwide.
	According to the informants, quantification is based on past consumption, however past consumption data is not available.	
Improved access/ availability of SRH commodities (contraceptives and MNN)	A basic range of contraceptives are reported to be offered for free at MOH facilities.	Improve accessibility providing enough quantities of all contraceptives to health facilities.
	Not having an IPPF affiliated in country makes it difficult to access to emergency contraception that the MOH does not offer.	Introduce emergency contraception. This is particularly important when contraceptive supply is erratic and no other accessible source is available.
	Adolescents can access to counselling and human resources are trained on FP.	
Strengthened capacity for supply chain management	When an LMIS form cannot allow checking how lower levels came up with the quantities requested, there is no evidence what the criteria is used to do those calculations.	Improve the LMIS flow in order to resupply health facilities on time with the appropriate quantities based on their consumption.
	Information was hardly available. The information is the centre of a logistics system and should feed all decisions on what to deliver, how to quantify, and when to procure.	Improve procurement practices ensuring quantifications based on functional LMIS and an inventory control system to avoid oversupply and stock outs.
Improved RHCS planning, monitoring and reporting	Overall, there is limited available SRH data at all levels (from outcome to routine data) as a result of weak information systems which is essential in the development of strategies and plans to better serve the population.	Conduct a national survey to measure relevant SRH outcome indicators, especially modern CPR and unmet need for family planning to inform policy decisions.
	RHCS elements are not monitored as a strategic priority.	Quantifications methodology and procurement process need to be monitored due to oversupply of some products and lack of procurement of others. Routing monitoring of stock levels might speed up distributions, stop or place orders when needed.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

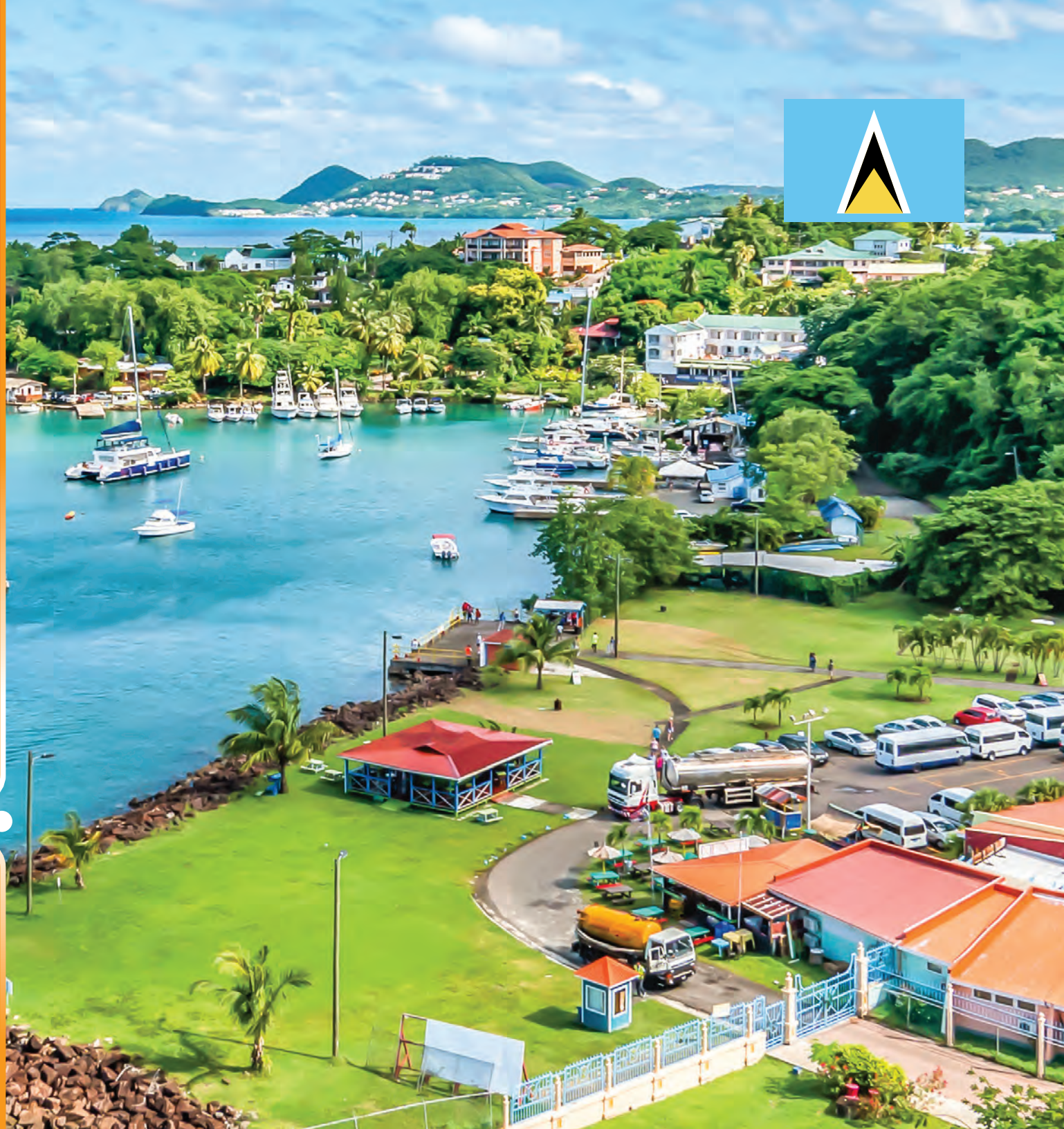
Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago



SAINT LUCIA

COUNTRY PROFILE

Saint Lucia is located northeast of Saint Vincent and the Grenadines, northwest of Barbados, and south of Martinique; it is part of the Windward Islands. The country extends for 620 km^2 with very mountainous terrain. Saint Lucia is a member of the Caribbean Community (CARICOM) and home to the Organization of Eastern Caribbean States (OECS), which leads a pooled procurement mechanism to their member states. Annual GDP Total is $1,709.22. ($US Millions, at constant prices, 2010 base year, 2019 World Bank). The total estimated population in 2020 was 183,916 (World-O-meter). The country's economy depends primarily on tourism (65% of GDP), banana production, and light manufacturing.

Saint Lucia's main health indicators related to RHCS are summarized below:

Saint Lucia Main Health Indicators		
Description	Data	Source
Population Growth Rate (per 100)	0.5	2019 (World Bank)
% of Women of reproductive age (WRA), 15-49 years	27.3	2018 (Statista)
Maternal Mortality Ratio (per 100,000 live births)	117	2017 (World Bank)
Infant Mortality Rate (per 1000 live births)	15	2018 (World Bank)
Neonatal Mortality Rate (per 1,000 live births)	12	2018 (World Bank)
Total Fertility Rate (births per Woman)	1.4	2018 (World Bank)
Adolescent Birth Rate (10-19 years)[49]	40.5	2017 (St. Lucia VNR, 2019)
Contraceptive prevalence rate (modern method) (%)	52	MICS, 2012
Unmet Need for family planning rate, women aged 15-49 years (%)	17	2017 (St. Lucia VNR, 2019)[50]

PUBLIC HEALTH SYSTEM

In Saint Lucia, the health expenditure, as a % of total government expenditure, ranged from 6% to 8% between 2004 and 2014. Health expenditure accounted for somewhat more than 2.5% of GDP in 2014-2015. Saint Lucia's health services are funded primarily through a government consolidated fund, donor contributions, out-of-pocket payments, and private health insurance schemes. Public polyclinic services charge a service fee, and medicines are separate, charged at a lower cost than the private sector; nonetheless, if clients cannot pay, they are not denied the service. Clients pay out-of-pocket in both St. Jude Hospital (semi-private), and Tapion Hospital (private).

The Ministry of Health and Wellness (MOHW) is responsible for overseeing the health of the population by providing the budget, issuing regulations, and developing and enforcing public health policies. Saint Lucia's health system offers primary, secondary, and some tertiary level of care (PAHO Saint Lucia Report).[51] Saint Lucia is organized into 8 districts with a total of 42 health facilities: 31 primary level wellness centres, 4 secondary level wellness centres (also known as polyclinics), two district hospitals, 1 private hospital, 1 mental health wellness centre and 3 NGOs (Saint Lucia Planned Parenthood Association, United and Strong Inc, and Saint Lucia Red Cross Society).

In 2014, a Basic Insurance Scheme (BIS) was implemented, where the employee pays 50% and the employer the other 50%. The BIS covers people who are under 16, above 60, and/or pregnant, for free. Low-income people can also apply to the BIS to receive a prescription to get their service and medicines at any private health clinic/pharmacy or NGO. However, this insurance scheme does not include contraceptives.

49 The number of births to women ages 15–19 per 1,000 women in that age group per year
50 Saint Lucia Sustainable Development Goals Voluntary National Review,2019 https://sustainabledevelopment.un.org/memberstates/saintlucia
51 Health in the Americas, Saint Lucia. https://www.paho.org/salud-en-las-americas-2017/?p=4211

i. Sexual and Reproductive Health Services

The FP/RH services are offered by the MOHW and the Saint Lucia Family Planning Association (SLFPA). Contraceptives are also available through private commercial pharmacies. Access to FP/RH services is to minors below the age of 16. When adolescents go to the health facility, counselling is given and informed principles are covered, but contraceptives are not provided. According to the 2012 MICS report, the total met need for modern contraceptive methods is 52% – more than three times the total unmet need (17%). Interestingly, unmet need is higher among women in urban areas (22%) compared to women in rural areas (16%). This means that 22% of women of reproductive age in urban areas who are married or in a union want to either limit or space their pregnancies, but they are not able to do so.[52]

Saint Lucia MOHW is currently writing its National Strategic Health Plan, which includes SRH and adolescent health as part of their priorities.

The table on the right summarizes the contraceptives and maternal and neonatal (MNN) commodities offered by MOHW, by level of care:

#	Commodity offered by MOHW	Wellness Center	Polyclinic	Hospital	
1	Male condoms	Yes	Yes	Yes	Limited quantities available in hospitals.
2	Female condoms	Yes	Yes	Yes	Primary facilities reported stock-out.
3	Oral contraceptives	Yes	Yes	No	
4	Emergency Contraception (ECP)	Yes	Yes	Yes	Only 2 of 11 health facilities sampled had stock.
5	Monthly contraceptive Injectables	Yes	Yes	No	
6	2-month contraceptive injectables	Yes	Yes	No	
7	3-month contraceptive injectables	Yes	Yes	No	
8	IUD	Yes	Yes	No	Limited offer due to lack of trained staff and tools.
9	Implants	No	No	No	Not offered.
10	Oxytocin	Yes	Yes	Yes	Limited at the primary and secondary levels.
11	Misoprostol	No	No	Yes	
12	Magnesium sulfate	No	No	Yes	
13	Ampicillin injectable	No	No	Yes	
14	Gentamicin injectables	No	No	Yes	
15	Self-inflating neonatal resuscitation bags with masks	No	Yes	Yes	
16	(ANCs) – Dexamethasone or Betamethasone injections	No	No	Yes	

Note 1: Implants are not offered in the MOHW, nor by the SLFPA.
Note 2: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most Caribbean countries, thus it was not included to maintain comparability amongst Caribbean countries.
Note 3: This table was validated with the 2019 and 2020 central warehouse and last mile reports provided by MOHW. There are cases where a contraceptive is in the EML but was not found in 2019 or 2020 logistics data at central level or last mile.

		Primary	Secondary	Tertiary	Comments

The National Health Management Information System (HMIS) Unit is

52 MICS Saint Lucia 2012

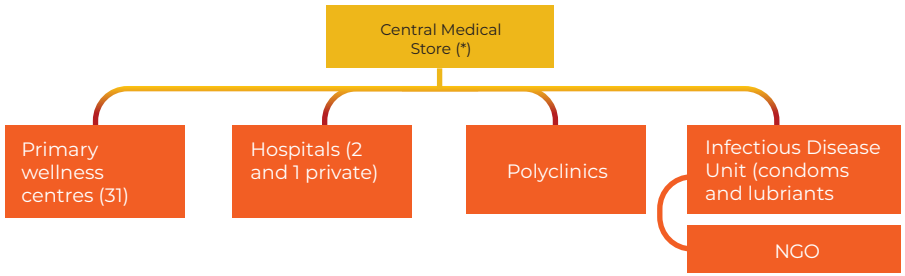
responsible for implementing the electronic national system known as the Saint Lucia Health Information System (SLUHIS).
The logistics management information system is part of the SLUHIS and is connected to the Central Medical Store (CMS) for data analysis and monitoring.

ii. The Public Health Supply Chain System

Pharmaceuticals, including contraceptives, are sourced through the Pharmaceutical Procurement Service of the OECS, following an essential pharmaceuticals list which is reviewed and updated regularly. UNFPA has for the past few years been procuring commodities on behalf of MOHW of Saint Lucia (Third Party Procurement), for example male and female condoms in 2020.

The supply chain is a two-tier system, where the CMS of the MOHW distributes all commodities to health wellness centres, polyclinics, and hospitals monthly, according to the consumption and stock on hand reported through the electronic logistics management information system (LMIS).[53] Below there is a basic diagram of the distribution system in Saint Lucia where the Infectious Disease Unit also distributes condoms and lubricants to NGOs. Commodities to patients are dispensed at the wellness centre pharmacy through prescriptions that are given by licensed physicians and family nurses. Medications purchased within the public health facilities, including the public hospital, are offered at subsidized costs.

iii. Saint Lucia Minitry of Health and Wellness Flow of commodities



FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse.

The RHCS assessment involved collecting data on the availability of 16 commodities at the central warehouse on two occasions: December 31, 2019, to assess availability without the impact of the COVID-19 pandemic; and October 2020, to assess availability considering the potential impact of COVID-19.

There are several situations to highlight as follows:

- As of December 2019, the central warehouse showed availability of 13 out of 16 commodities. Commodities that were not available were IUDs and implants (which are not offered in the country), and self-inflating neonatal resuscitation bags with masks.
- The table below summarizes the stock status as of October 2020 (expressed in months of stock – MOS – on hand) and corresponding stock-out risk, with the following highlights:
- Both male and female condoms have approximately two years of stock which reflects excess inventory.
- Ampicillin has only two months of stock (MOS), however, an order is in transit which might minimize the risk of stock-out if shipment arrives on time. ANCs only have 2 MOS.

53 A logistics management information system (LMIS) is a set of records and reports used to collect essential data (i.e., consumption, stock) to facilitate analysis and decision making through the logistics system. It is the base to implement an inventory control system that allows to schedule periodic resupply to avoid stock imbalances.

MOHW of Saint Lucia - Level of Stock-out risk, by commodity				
Level of Risk:	High	Medium	No risk	Oversupply
	MOS 0 -2.9	MOS 3 – 5.9	MOS 6 – 18	MOS >18
Male condoms				25
Female condoms				20
Oral contraceptives			10	
ECP			7	
Monthly injectables			15	
Bi-monthly injectables		5		
3-monthly injectables		5		
IUDs (not available)	Stock-out			
Implants (Not offered)	Not offered			
Oxytocin		3		
Misoprostol		3		
Magnesium sulfate		4		
Ampicillin injectables	2			
Gentamicin injectables			7	
Self-inflating neonatal resuscitation bags with masks	Stock out			
ANCs–dexamethasone or betamethasone injection	2			

ii. Availability of Contraceptives and MNN Commodities at the Last Mile

The availability of 12 tracer commodities was measured at both primary and secondary/tertiary levels as of October 2020, as follows:

a. At the primary level, the indicator measures availability of 5 tracer contraceptives: Condoms, ECP, orals, injectables, and IUDs. The criteria at this level require facilities to have at least 4 of 5 contraceptives to achieve the highest score in the RHCS scale.

b. At the secondary/tertiary levels (hospitals in the case of Saint Lucia), the indicator measures availability of 12 tracer commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUDs, Oxytocin, Misoprostol, Magnesium sulfate, Ampicillin injectable, Gentamicin injectable, self-inflating neonatal resuscitation bags with masks, ANCs – Dexamethasone or Betamethasone injection. The criteria at this level require facilities to have at least 7 of 12 tracer commodities to achieve the highest score in the RHCS scale.

In Saint Lucia, at the primary health care level, six wellness centres were in the sample, of which 33% had 4 of the 5 tracer contraceptives. The table below summarizes availability by method:

Contraceptives	Present in 6 primary facilities
Male condoms	100%
Oral contraceptives	100%
Emergency contraception	17%
Injectables	100%
IUDs	17%

Note: Although not part of the tracer commodities at the primary level, it was noted that all 6 facilities had zero female condoms, while there are 20 MOS at the central warehouse. This might be due to poor offer, low demand, or health facilities not requesting female condoms.

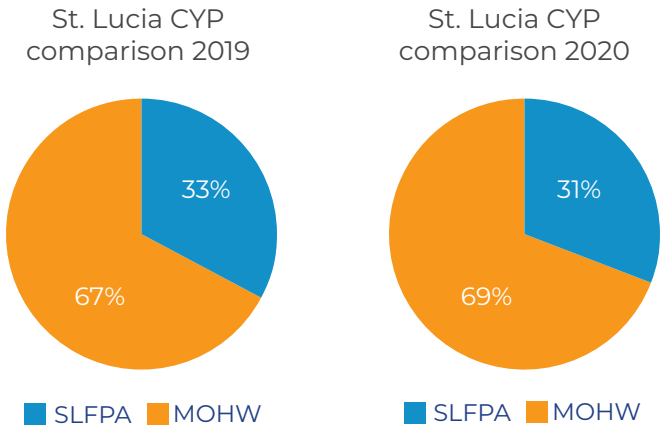
At the secondary and tertiary levels, 5 facilities were in the sample, of which 60% had 7 of 12 tracer commodities. The table below summarizes availability by commodity:

Contraceptives	Present in 5 secondary and tertiary facilities
Male condoms	60%
Oral contraceptives	80%
Emergency contraceptions	20%
Injectables	80%
IUDs	40%
Oxytocin	80%
Misoprostol	40%
Magnesium sulfate	80%
Ampicillin injectable	60%
Gentamicin injectable	60%
Self-inflating neonatal resuscitation bags with masks	60%
Antenatal corticosteroids (ANCs) – Dexamethasone or Betamethasone injection	40%

Note: Although not part of the tracer commodities analysis, it is important to highlight that 18% of the secondary and tertiary facilities sampled had a stock of female condoms.

Couple-years of protection

According to distribution data from the CMS, MOHW generated 5,558 couple-years of protection (CYPs)[54] (See methodology for further details) in 2019, and SLFPA generated 2,727 CYPs, which represents coverage of 67% and 33% respectively. Total CYPs generated by both service providers in 2019 are 8,285. In contrast, in 2020 (projected and assuming a similar trend through December 2020) MOHW generated 5,376 CYP which reflects a reduction in FP coverage of 3%, and SLFPA generated 2,417 CYP with a reduction of 11% compared to 2019. Together MOHW and SLFPA generated 7,793 CYP, contributing 69% and 31% respectively. The graphs below summarize the comparative CYP contribution:



IMPACT OF COVID-19

According to the informants of MOHW, the distribution of commodities continued in the areas that kept providing services during lockdowns in March 2020. Supply shortage of Depo-Provera 3-month injectable) occurred; not directly caused by COVID-19, but due to a delayed shipment from 2019. Depo-Provera was available in the central warehouse at the time of this assessment. On the other hand, during interviews informants reported that people's fear of the virus probably deterred them from visiting wellness centres or hospitals. In 2020, the distribution patterns both decreased and increased. For instance, magnesium sulfate, ampicillin and ANCs average distribution reduced approximately 50% with respect to 2019 while female condoms and injectables increased (17 and 38% respectively).

Stocks and average distribution reported in 2020 plus orders in transit were analyzed to report Months of Stock available. When estimating future trends of stock status of the MOHW, it is anticipated that 3-month injectables and 2-month injectables will be out of stock in April 2021 and emergency contraception in May 2021, so there is a need to place new orders as soon as possible to avoid foreseen stock-outs. In contrast, male condoms will still have 17 months of stock on hand (MOS), and female condoms will have 12 months of stock in July 2021. The impact of not meeting the need of women

54 Couple-years of protection is adefined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

using contraceptives will potentially cause the following negative results between April and July 2021 (See methodology section for further information):

Expected Impact of Stockouts	
Total of CYPs lost	663
Number of unintended pregnancies	563
Number of abortions	88
Number of maternal deaths	0
Number of neonatal deaths	4

RHCS MATURITY

The following table captures the maturity of the system in 6 RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The MOHW of Saint Lucia

overall RHCS score is 3.19, where RHCS planning, monitoring and evaluation has the lowest score of 2.33 while improved access and availability obtained 3.57.

Output	Concept	RHCS Score
1	Enabling Environment for Reproductive Health Commodity Security	3.38
2	Demand Satisfaction for Family PlanningX	3.00
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	3.50
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	3.57
5	Strengthened Capacity for Supply Chain Management	3.33
6	Improved RHCS Planning, Monitoring and Reporting	2.33
	Overall Score	3.19

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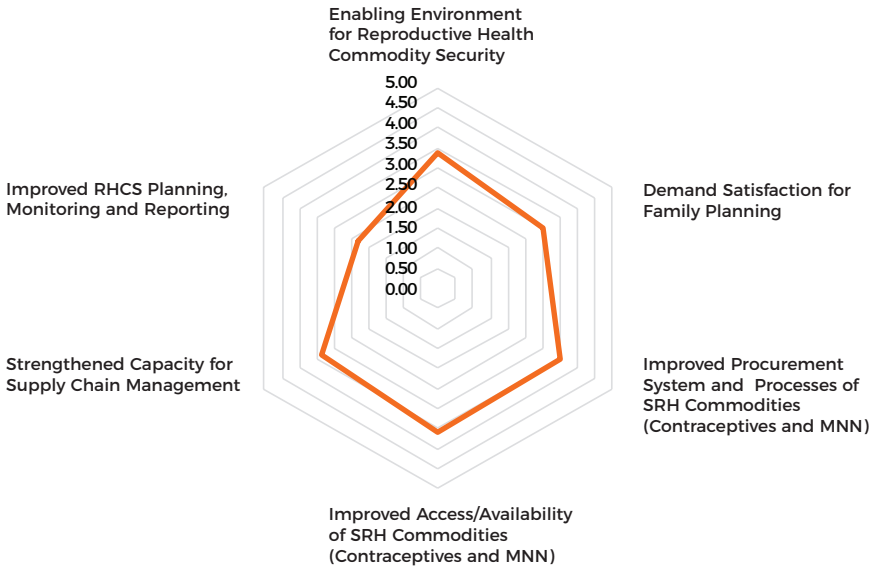

STRENGTHS AND WEAKNESSES

The current situation represents 63% of the total score, and there are important strengths and weaknesses to highlight within each output: weaknesses to highlight within each output:

Output	Strengths	Weaknesses
Enabling environment for reproductive health commodity security	Between 60-80% of government resources cover the procurement of contraceptives.	Lack of formulary or a national Essential Medicines List.
	Maternal and neonatal commodities are funded 100% with government resources.	There is no national RHCS coordinating committee.
	SRH is one of the priorities in the national strategic health plan currently being written.	The country's current policy on parental consent requirement is a barrier for adolescents to access SRH services.
	All medicines, including contraceptives, are VAT tax exempted.	The COVID-19 preparedness plan does not include policies on SRH services during the pandemic.
	Oxytocin is offered in the three levels of care.	
Demand satisfaction for family planning	MICS indicates that 52% of women married or in a union were using modern contraceptives in 2012.	Based on central warehouse data, 22% of WRA were covered by MOHW in 2019, and SLFPA only covered 11% of WRA based on FP services provided. There are no recent surveys, but already in 2012, the MICS indicated that 17% of women of reproductive age had an unmet need for family planning (22% are in urban areas and 16% are in rural areas).
		Stock outs often cause women to switch to other contraceptives, affecting their FP method choice. Female condom use is extremely low (0.08% of CYPs equivalent to 2,140 units distributed in 2019).
	MOHW offers 8 contraceptives, while SLFPA offers 4 types of condoms, 3 injectables, 5 orals, and IUDs.	The IUD offer is limited due to lack of trained staff and tools. Only 2 of 11 sampled facilities had IUDs, and Central warehouse had zero stock and zero distribution in 2019 and 2020.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	The pooled procurement through OECS guarantee economies of scale.	COVID-19 has created substantive increases in freight charges, causing budget constraints and delays.
	Quantification is done based on automated LMIS.	During the interview, the MOHW indicated they have not procured IUDs in a long time.

Output	Strengths	Weaknesses
Improved access/ Availability of SRH commodities (contraceptives and MNN)	At the lower level, services are free of charge. At the hospital level, some hospitals charge a subsidized fee, but if users do not have money, they are not rejected.	If medicines are not available at MOHW, users go to private pharmacies with the prescription and pay out of pocket.
	WHO medical eligibility criteria are used for counselling and training.	33% of health facilities had 4 of the 5 contraceptives. 60% of secondary and tertiary facilities had at least 7 of the 12 tracer commodities: - No implants are offered in MOHW or SLFPA. - All 5 primary facilities sampled had zero female condoms (informants indicated that demand is low). - ECP is part of the MOHW offer but was only available in 2 of the sampled facilities.
	MOW offers all 7 MNN commodities.	
	As of December 2019, 13 of 16 commodities were present in the central warehouse.	IUDs and self-inflating neonatal bags with mask were not present as of December 2019, in the CMS.
Strengthened capacity for supply chain management	MOHW HIS includes a module for LMIS, that monitors central warehouse inventory. Health facilities logistics data is seen at the central warehouse and is used for forecasting. Expiration dates are also registered. Both HIS and LMIS were funded by MOHW.	LMIS automated module keeps historic data only at the HMIS office, limiting CMS ability to access and analyse information in a timely manner.
	Oxytocin is stored in cold chain according to the WHO recommendations.	Inventory control system is not fully in place, as facilities are not required to reach a maximum level, just maintain a minimum. There is nsufficient warehouse space.
	Distribution is scheduled monthly based on requisitions from facilities, at the end of the month.	The central level does not distribute to secondary and tertiary levels. Polyclinic and hospitals pick up from the central warehouse which might suffer delays.
Improved RHCS planning, monitoring and reporting	MOHW conducts regular monitoring of budget and procurement needs	No monitoring plan for RHCS is in place. Oversupply of male and female condoms indicates a lack of monitoring of stock and demand trends.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings and weaknesses identified, the synthesis of conclusions and recommendations for Saint Lucia is as follows:

Output	Conclusions	Recommendations
Enabling environment for reproductive health commodity security	Needs support to financing and procurement of contraceptives to ensure their availability is not 100%.	Facilitate support to develop a substantive SRH strategy that includes RHCS, especially in relation to securing availability of current method options and access to services by adolescents. As part of the strategy, include the formation of a RHCS committee that will promote coordination amongst governmental, international cooperating partners, and NGOs to monitor progress, over time, of every RHCS element to achieve and maintain MNN and RHCS.
	Policy framework includes SRH as a priority, however, the National Health Plan in progress does not include RHCS.	Accelerate the inclusion of RHCS in the national health plan currently being prepared.
		Develop a regional RHCS strategy for the Caribbean, with a chapter of OECS member states informed by these assessment results, and define a road map for improved and increased visibility of RHCS in times of health emergencies and natural disasters.
	Contraceptives are still not fully funded by the Government.	Advocate to increase and protect financing for contraceptives aiming to avoid the effects of COVID-19 caused by reduced fiscal resources. Using the evidence of the cost-benefit of investing in FP can help governments to prioritize FP in resource allocation. For example, in LAC countries, studies show that for every dollar invested in FP55, governments save about $14 in MCH and MNN services56.
		Develop and approve a National Essential Drug list, in accordance with OECS formulary.
		Include RHCS elements in the next version of COVID-19 preparedness plan, with special consideration to supplying patients' additional amounts of condoms and cycles of pills, and design community outreach strategies in coordination with NGOs like SLFPA.
Demand satisfaction for family planning	IUDs are offered but have had a stock-out in 2019 and 2020.	Place orders of IUDs urgently to revert stock-out situations. Promote increased demand of IUDs by increasing the tools and the staff needed to reposition this method at the primary level.
	Implants are not part of the FP offer.	Develop a plan to introduce implants to improve access to a wider variety of contraceptive options, securing the allocation of enough financial resources by MOHW to maintain offering of current options and new ones.
	Unmet need of women in urban areas (22% of total unmet need) is higher than in rural areas (16%), and both require immediate attention	Identify collaboration efforts between SLPPA and MOHW to look for targeted interventions to reduce unmet needs.

55 Health Policy Plus Project, Dollars and sense article by Jay Gribble http://www.healthpolicyplus.com/DollarsSenseBlog.cfm#:~:text=More%20than%20a%20decade%20ago,many%20countries%2C%20it%20saved%20much

56 Cost-benefit analysis of investing in family planning in Guatemala, 2008, Valladares, Jaramillo, University Research Corporation

Output	Conclusions	Recommendations
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	OECS pooled procurement offers economies of scale and quality products.	Strengthen OECS procurement mechanism by exploring new suppliers in Latin America, like Mexico and Brazil, aiming to reduce freight costs and expanding their base of registered and certified suppliers.
Improved access/ Availability of SRH commodities (contraceptives and MNN)	Services for adolescents are only offered to those that have become mothers.	Identify venues to help MOHW to offer SRH services responsive to the needs of the adolescents, in alliance with SLFPA, the Ministry of Education and other key stakeholders.
	ECP is offered in the three levels of care but was only available in 2 of the sampled facilities.	Procure as soon as possible the next order to avoid stock-out in May 2021, making sure that all facilities are adequately stock in the future.
	Low demand/use of female condoms is an area for further analysis.	Identify the demand barriers to using this method through focus group discussions to generate demand creation options for female condoms amongst women.
Strengthened capacity for supply chain management	Lack of inventory control system causes both stock-out and oversupply.	Design inventory control system, including maximum and minimum levels, and train staff at all levels.
	LMIS is within the HIS, but information is not readily available for historic analysis of LMIS data.	Ensure that CMS is connected with HIS to generate historic reports for timely analysis and decision making.
Improved RHCS planning, monitoring and reporting	RHCS elements are not monitored as a strategic priority.	Include RHCS as part of the current National Health Plan recently drafted and the SRH Strategy to improve monitoring of all RHCS aspects, especially to monitor availability in times of emergency and health crisis like the COVID-19 pandemic.

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Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

SAINT VINCENT AND THE GRENADINES

COUNTRY PROFILE

Saint Vincent and the Grenadines is part of the British commonwealth and have to the north, St Lucia, to the east, Barbados, and Grenada lies to the south. Saint Vincent and the Grenadines is a multi-island state within the Eastern Caribbean with approximately 110,696 inhabitants (WorldOMeter, October 2020). Kingstown is the capital and main port. The country extends for 389 km^2: Saint Vincent is the largest island, at 344 km^2 [57]; the Grenadines include 7 inhabited islands and 23 uninhabited cays and islets. All islands are linked by sea transport and there are airport facilities on three islands. Saint Vincent and the Grenadines is a member of the Caribbean Community (CARICOM) and the Organization of the Eastern Caribbean States (OECS). Its annual GDP Total ($US Millions, at constant prices, 2010 base year) $757.81. The total public health expenditure of GDP was 4.1% in 2018 (World Bank).

Saint Vincent and the Grenadines is a low middle-income country. Its economy hinges upon agriculture (mainly bananas, arrowroot, nutmeg), tourism, as well as remittances (indexmundi.com).

Saint Vincent and The Grenadines's main health indicators related to RHCS are summarized on the right:

Description	Data	Source
Population Growth Rate (per 100)	0.3	2019 (World Bank)
Percentage of women of reproductive age (WRA), 15-49 years	13,836	2018 (Statista)
Maternal Mortality Ratio (per 100,000 live births)	115.1	2013 (CARICOM Statistical report, 2015)
Infant Mortality Rate (per 1000 live births)	15	2018 (World Bank)
Neonatal Mortality Rate (per 1,000 live births)	10	2018 (World Bank)
Total Fertility Rate (births per Woman)	1.9	2018 (World Bank)
Adolescent Birth Rate	48	2018 (World Bank)
Contraceptive prevalence rate (modern method) (%)	61.8	2015 (UNDESA)
Unmet Need for family planning, women aged 15- 49 years	14	2015 (United Nations)

PUBLIC HEALTH SYSTEM

Public health services are delivered through forty-one primary health clinics, five secondary level hospitals and one medical research health center that function as a tertiary level health facility. Access to health services is almost universal with minimal user fees at the secondary level. The Ministry of Health, Wellness and the Environment (MOHWE) is responsible for providing primary and secondary level health care services through seven districts in Saint Vincent and two in the Grenadines.

57 Saint Vincent is the largest island, at 344 km^2 (https://www.paho.org/salud-en-las-americas-2017/?p=2522)

The government's policy is to provide universal health care coverage that reflects the principles of equity, affordability, quality, and cultural acceptance for its citizens, which are at the centre of the RHCS efforts. Public health care is financed through the National Consolidated Fund and a minimum fee-for-service system. The National Insurance Service (NIS) provides social security protection for sickness, maternity, invalidity, and employment injury as well as funeral and survivor benefits. As is the case in many other Caribbean countries, some secondary and tertiary care services are accessed out-of-country.

i. Sexual and Reproductive Health Services

Family planning services and the provision of contraceptives are available through the public health sector (under the MOHWE), the Saint Vincent Family Planning Association (SVFPA), and at commercial pharmacies. The SVFPA offers a comprehensive package of RH/FP services that includes contraceptives, HIV testing, pap smear exams, and pre- and post-natal care, among others. The Family Health Manual (Draft Year 2017) includes a focus on reproductive health and adolescent health.

At the MOHWE, contraceptives and maternal and neonatal (MNN) commodities are offered as follows, by level of care:

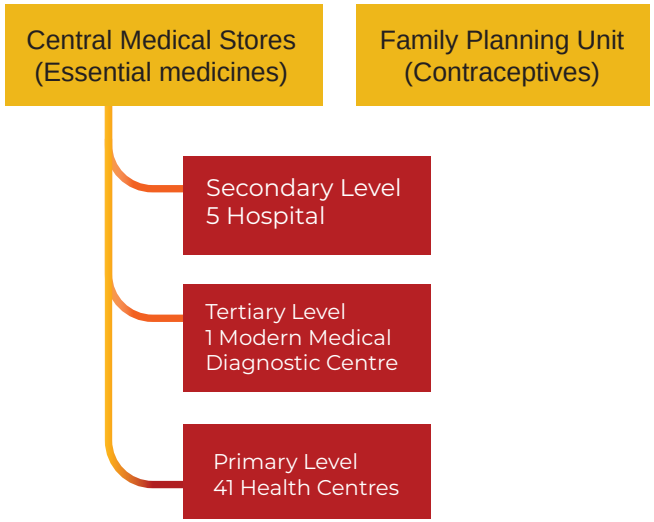
		Primary	Secondary	Tertiary	
	Commodity offered by MOHWE	Health Centres	Hospitals	Diagnostic Centre	Comments
1	Male condoms	Yes	No	No	
2	Female condoms	Yes	No	No	
3	Oral contraceptives	Yes	No	No	
4	Emergency Contraceptive				Not offered
5	Monthly contraceptive injectables	Yes	No	No	
6	Bi-monthly contraceptive injectables	Yes	No	No	
7	3-monthly contraceptive injectables	Yes	No	No	
8	IUDs	Yes	No	No	
9	Implants				Not offered
10	Oxytocin	No	Yes	Yes	
11	Misoprostol	No	No	Yes	
12	Magnesium sulfate	No	Yes	Yes	
13	Ampicillin	No	Yes	Yes	
14	Gentamicin	No	No	Yes	
15	Self-inflating neonatal resuscitation bags with masks	No	No	Yes	
16	Antenatal corticosteroids	No	Yes	Yes	
17	Chlorhexidine	No	Yes	Yes	

Note 1: Implants are not offered in the MOH nor the SVFPA. SVFPA does not offer ECP but sold 1 emergency contraceptive in 2019.
Note 2: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most Caribbean countries, thus it was not included in order to maintain comparability amongst Caribbean countries.
Note 3: This table was validated with the 2019 and 2020 central warehouse and last mile reports provided by MOH. There are cases where a contraceptive is in the EML but was not found in 2019 or 2020 logistics data at central level or last mile.

ii. The Public Health Supply Chain System

Drug procurement for the public sector is handled through the Pharmaceutical Procurement Services of the OECS. Quantifications are based on past distribution and applying a buffer stock. Both Central Medical Stores (CMS) and the Family Planning Unit (FPU) receive orders directly from suppliers. CMS distribute medicines and the FPU distribute contraceptives to 41 primary care facilities. Distributions are planned monthly based on consumption data.

When vehicles capacity is not sufficient, lower-level facilities go and pick up their commodities. The FP unit analyzes requisitions and does not supply if the health facilities are overstocked.



FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse

The RHCS Assessment included collecting availability data on 16 commodities at the MOHWE central warehouse, in two instances: as of December 31, 2019, in order to assess the availability without the impact of the COVID-19 pandemic; and as of October 2020, to assess the availability considering the potential impact of COVID-19.

There are several situations to highlight, as follows:

a. As of December 2019, the central warehouse showed availability of 11 out of the 16 commodities. Commodities not available were – emergency contraception and implants (which are not offered in the country), while commodities out of stock were – IUDs, monthly injectables and resuscitation bags.

b. The table below summarizes the stock status as of October 2020 (expressed in months of stock on hand - MOS), with the following highlights:

- Ampicillin, Gentamycin and Magnesium Sulfate are at high risk of stock-out.
- Monthly injectables were introduced in 2019, in lieu of 3-month injectable, that is why it shows 38 months of stock.
- In the case of IUDs, the central warehouse has 23 months of stock while health clinics ("last mile") are out of stock.

Level of Risk	High 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply >18
Male condoms			6	
Female condoms			7	
Oral contraceptives			12	
Emergency contraception	not offered			
Monthly injectables				38
Bi-monthly injectables	stock out			
3-monthly injectables		7		
IUDs				23
Implants	not offered			
Oxytocin		4		
Misoprostol			11	
Magnesium sulfate	1			
Ampicillin	2			
Gentamicin	(1)			
Resuscitation bags	not offered			
Antenatal corticosteroids		5		

ii. Availability of Contraceptives and MNN Commodities at the Last Mile

Availability of tracer commodities was measured at both primary and secondary/tertiary levels as of October 2020, as follows:

a. At the primary level, the indicator measures availability of 5 tracer contraceptives: condoms, ECP, orals, injectables, and IUDs. The criteria at this level consist of facilities having at least 4 out of 5 contraceptives to achieve the highest score in the RHCS scale.

b. At the secondary/tertiary levels (hospitals in the case of Saint Vincent and the Grenadines), the indicator measures availability of 12 tracer commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUDs, Oxytocin, Misoprostol, Magnesium sulfate, Ampicillin injectable, Gentamicin injectable, self-inflating neonatal resuscitation bags with masks, and ANCs – Dexamethasone or Betamethasone injection. The criteria at this level consist of facilities having at least 7 of the 12 tracer commodities to achieve the highest score in the RHCS scale.

At the primary health care level, 7 clinics were in the sample, of which only 14% had 4 of the 5 tracer contraceptives. The table below summarizes availability by method:

Contraceptives	% of availability in 7 primary facilities
Male condoms	43%
Oral contraceptives	86%
Emergency contraception	0%
Injectables	86%
IUDs	29%

At the secondary and tertiary levels, 5 facilities were in the sample, of which 0% had 7 of the 12 tracer commodities. The table belowon the right summarizes availability by commodity:

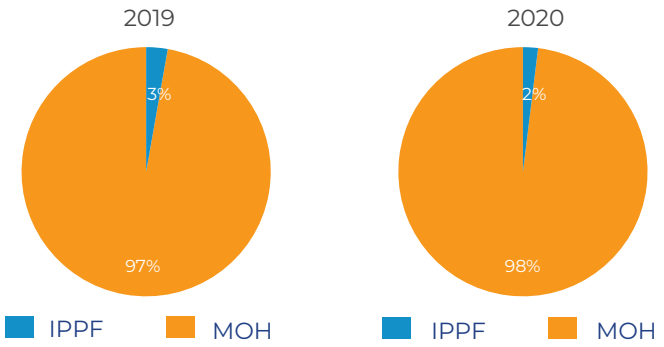
Contraceptives	Present in 5 secondary and tertiary facilities
Male condoms	0%
Oral contraceptives	0%
Emergency contraceptions	0%
Injectables	0%
IUDs	0%
Oxytocin	100%
Misoprostol	80%
Magnesium sulfate	80%
Ampicillin injectable	80%
Gentamicin injectable	20%
Self-inflating neonatal resuscitation bags with masks	80%
ANCs – Dexamethasone or Betamethasone injection	60%

Couple-years of protection

According to distribution data from the FP Unit, MOHWE produced 4,167 couple-years of protection (CYPs) [58] (see methodology for further detail) and SVFPA 131 in 2019. Projection for 2020 (assuming a similar trend through December 2020) indicates MOHWE will generate 4,422 CYPs and SVPA 83 which reflects a total increase of 5% in FP coverage.

In the graph below, we can see a comparison of FP coverage of SVFPA and the MOHWE in the years 2019 and 2020. These graphs show that MOHWE is covering the demand of WRA almost entirely, in terms of couple-years of protection (CYP).

58 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishek and Chen, 1973; Stover, Bertrand, and Shelton, 2000)



IMPACT OF COVID-19

According to the informants of MOH, health centres did not close during COVID-19. Only 64 COVID-19 cases were detected. All of them recovered. The distribution of commodities continued to the health facilities, and all of them continued providing services. However, when analyzing the distribution trends between 2019 and 2020, data reveals that distribution decreased for 54% of the commodities in 2020, and IUDs were not found in 66% of the health facilities sampled.

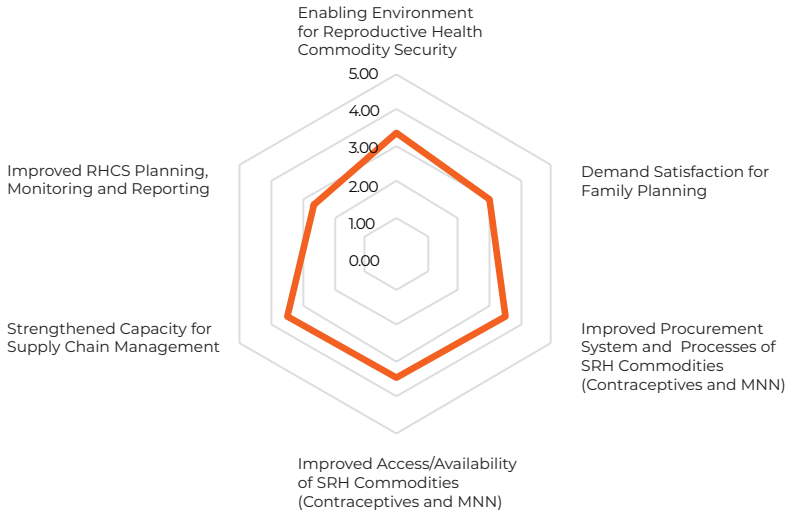
Stocks and average distribution reported in 2020, plus orders in transit, were analyzed to report Months of Stock available. When the MOHWE stock status situation during next nine months (November 2020-July 2021) is analyzed, it is anticipated that male condoms will be stock-out by May 2021 while female condoms and 3-month injectables will be stock-out by July 2021. The impact of not meeting the need of women using contraceptives will potentially cause the following negative results if they do not receive new shipments of condoms and 3-monthly injectables soon (See methodology section for further information):

Expected Impact of Stockouts	
Total of CYPs lost	648
Number of unintended pregnancies	551
Number of abortions	86
Number of maternal deaths	0
Number of neonatal deaths	4

RHCS MATURITY

The following table captures the maturity of the system in 6 RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The MOH of Saint Vincent and The Grenadines overall RHCS score is 3.25, where capacity for supply chain management and procurement system have the highest score (3.50), while improved monitoring has the lowest score (2.67).

Output	Concept	RHCS Score
1	Enabling Environment for Reproductive Health Commodity Security	3.38
2	Demand Satisfaction for Family Planning	3.00
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	3.50
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	3.43
5	Strengthened Capacity for Supply Chain Management	3.50
6	Improved RHCS Planning, Monitoring and Reporting	2.67
	Overall Score	3.25



STRENGTHS AND WEAKNESSES

The current situation represents 65% of the total score, and there are important strengths and weaknesses to highlight:

Output	Strengths	Weaknesses
Enabling environment for reproductive health commodity security	More than 80% of contraceptives and MNN commodities procured with governmental funds. Some condoms are donated by the Global Fund to the HIV unit.	Contraceptives are not part of the essential drug list nor is the NN resuscitation bag.
	SVFPA can get import exemptions if requested.	There is no platform of dialogue to improve access to SRH commodities.
		There is no SRH nor RHCS plan.
Demand satisfaction for family planning	31.75% of WRA are receiving contraceptives from the MOH.	Access by adolescents is limited (minimum age of access to SRH services without parental consent is 16).
	Contraceptives are available at commercial pharmacies, SVFPA and public health facilities (MOHWE).	
	MOHWE provides four contraceptives at the primary level.	
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	OECS is the procurement agent with the benefit of economy of scale and quality assurance.	Delays or accumulated debt to suppliers might cause hold shipments for other countries.
		Quantification is based on past distributions and applying a buffer stock.
Improved access/ availability of SRH commodities (contraceptives and MNN)	MOHWE does not charge fees for FP commodities.	National Insurance Services (NIS) does not cover SRH supplies expenses.
	Counselling is supported with IEC material and includes adolescents and people living with disabilities.	IUDs are available only at the primary level.
	WHO FP handbook is used to train on FP with PAHO collaboration.	14% of primary facilities had 4 of the 5 tracer contraceptives, and 0% of secondary/tertiary facilities had 7 of the 12 tracer commodities.
		Implants and ECP are not provided at all in the country.
Strengthened capacity for supply chain management	Logistics essential data is collected.	Transport to health facilities depends on vehicle availability.
	Resupply requisitions are based on past consumption and are checked by the FP unit.	A max-min inventory control system is not in place.
	Training is being conducted every year to ensure proper reporting and requests.	There is insufficient space for storage, and police stations serve as storage facilities for clinics.
	Cold chain is used when storing Oxytocin, and police stations have air conditioning.	MOHWE received products from OECS close to the expiry date.
Improved RHCS planning, monitoring and reporting	FP unit independently monitors clinics in terms of their BOH, twice yearly.	There are no RHCS assessments or monitoring processes in place, nor national demographic health surveys or similar (i.e., MICS) to identify the gaps.
		The monitoring of stock levels and proper financial allocation to procure commodities are weak and lead to stock-outs.

CONCLUSIONS AND RECOMMENDATIONS

After analyzing the findings, the following interventions are proposed to improve the MOH's performance, ranging from the enabling environment to more resilient supply chain system, resulting in a better response to the public health needs.

Output	Conclusions	Recommendations
Enabling environment for reproductive health commodity security	Commodities are procured with governmental funds.	Continue protecting and allocating financial resources to assure fulfilment of real demand.
		Develop a national SRH strategy that includes RHCS elements, including supply chain in times of emergency.
		Contraceptives and NN resuscitation bags should be included in the EML.
		As part of the strategy, include the formation of a RHCS committee or working group that will promote coordination to monitor progress over time of every RHCS element in order to achieve and maintain RHCS.
Demand satisfaction for family planning		Determine a strategy to expand access to IUDs by also offering it at the secondary and tertiary levels
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	Shipment delays of 3-month injectable caused stock outs at national level and forced the introduction of monthly injectable	Analyse together with OECS other supplier options (Brazil, Mexico). Improve lead times between countries in the OECs and suppliers for shipping commodities. Secure timely payments to suppliers to avoid potential shipment delays to other countries.
	In transit condoms order will not be sufficient.	MOHWE needs to place another order for male condoms.
	IUDs were stocked out whole year 2019.	Reinforce quantification methodology to consider lead time in order to avoid shortfalls and rationing periods that impact on CYPs reduction.
Improved access/ Availability of SRH commodities (contraceptives and MNN)	Even though in 2020 there are enough quantities of IUDs at the central warehouse, 71% of primary level facilities reported stock-out.	Improve supply management with a sense of urgency when there is stock-out of products. IUDs from central warehouse need to be delivered to primary level facilities as soon as possible.
	Lifesaving MNN commodities are only available at secondary and tertiary level facilities, which represents 13% of total facilities in country.	Increase access of MNN commodities, especially if some primary facilities have the conditions that can be upgraded to deliver MNN health services.
	Implants and ECP are not provided at all in the country.	Expand the FP offer in the country by analyzing if the MOH has enough funding to cover the cost of introducing and maintaining implants. Also include ECP and expand the provision of IUDs to secondary and tertiary level facilities.
Strengthened capacity for supply chain management	LMIS59 is in place but not properly used as a tool for an effective inventory control system.	Implement an inventory control system that will improve availability of products in the right quantities and in the right place. Adjust current LMIS according to the inventory control system, including maximum and minimum levels, and train human resources for proper application.
Improved RHCS planning, monitoring and reporting	Information at central level is not monitored enough to make corrective actions to avoid shortfalls or stock-outs.	Use the LMIS that is in place to monitor and avoid stock-outs and oversupply.
		Commodity security should be monitored to adjust policies that can assure better access of both SRH and MNN commodities, especially in times of emergency like the COVID-19 pandemic.

59 A logistics management information system (LMIS) is a set of records and reports used to collect essential data (i.e., consumption, stock) to facilitate analysis and decision making through the logistics system. It is the base to implement an inventory control system that allows to schedule periodic resupply to avoid stock imbalances.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

SURINAME

COUNTRY PROFILE

Suriname is located in the northern part of South America. The capital city is Paramaribo, and its borders are, French Guyana to the east, Guyana to the west, and Brazil to the south. Its territory covers 163,820 km^2. The projection of its population for 2020 (WorldOmeter) is 590,100 inhabitants.[60] inhabitants. Suriname is geopolitically divided into 10 districts. The economy is based on mining and agriculture and its annual GDP Total ($US Millions, at constant prices, 2010 base year) $4,631.61. The total health expenditure decreased from 6% of GDP in 2014 to 2.7% in 2018. (World Bank)

The main health indicators related to Sexual and Reproductive Health are summarized below:

Suriname		
Description	Data	Source
Population Growth Rate (per 100)	0.9	2019 (World Bank)
Percentage of women of reproductive age (WRA), 15-49 years	25.52	2018 (Statista)
Maternal Mortality Ratio (per 100,000 live births)	61.17	2018 (Demographic Data 2015-2018, General Bureau of Statistics, 2019)
Infant Mortality Rate (per 1000 live births)	17	Suriname MICS 2018 (2019)
Neo-natal Mortality Rate (per 1,000 live births)	12	Suriname MICS 2018 (2019)
Total Fertility Rate (births per Woman)	2.8	Suriname MICS 2018 (2019)
Adolescent Birth Rate x 1,000 girls aged 15-19	64	Suriname MICS 2018 (2019)
Contraceptive prevalence rate (modern methods)	39.2	Suriname MICS 2018 (2019)
Unmet Need for family planning (rate), women aged 15-49 years	28.4	Suriname MICS 2018 (2019)

PUBLIC HEALTH SYSTEM

The Bureau of Public Health (known as the BOG, for its Dutch acronym) is responsible for the public health programs, including environmental health and sanitation, and also operates a public health laboratory.

The government created the Regional Health Service (RGD), a state-owned foundation to manage its 46 facilities located in 8 coastal regions. Meanwhile, in the hinterland, the more vast and unpopulated territory, the MOH outsourced health services via 51 facilities operated by the Medical Mission Primary Health Care Suriname (MZPCHS), a faith-based organization, and is the only health care provider in the hinterland. The MOH directly appoints the governing bodies of 6 of the 8 hospitals, located in the coastal area. The MOH procures and provides health commodities to these 2 entities and both (RGD and MZPCHS) are subsidized by and report to the MOH. While RGD is 100% subsided by the MOH, only part of the operational costs of MZPCHS is financed by the MOH. The MZPCHS trains and hires their own staff, and all other costs are covered by projects and donations from other organizations including international development and faith-based organizations.

In 2014 a Basic Insurance Scheme (BIS) was implemented by law. The employee pays 50% and the employer the other 50%. This BIS covers people under 16, above 60, and pregnant for free. Low-income people can also apply to the BIS and can get a prescription to receice service and medicines at any private health clinic/pharmacy or NGO, making it mandatory that every inhabitant of Suriname has health insurance. However, because of lack of finances , service providers, insurance companies and the State Health Foundation SZF, do not uphold the law.

60 Mid-year estimate: General Bureau of Statistics Publication Demographic Data 2015-2018, August 2019

i. Sexual and Reproductive Health Services

The main SRH providers in Suriname are the MOH, RGD, MZPCHS, Lobi Health Centre Foundation (LHCF), and the IPPF affiliates.

The LHCF is recognized by the government and insurance agencies allowing clients to utilize LHCF services and commodities under the Health insurance schemes. However, not all commodities and services are covered. Some must be paid for out of pocket including, sterilization and IUDs. Based on the decline in indicators such as CPR and the increase in the unmet need, we may conclude that the Basic Insurance Scheme does not appear to be improving SRH/FP services for the population. The LHCF has been an Accredited Association of the IPPF since 2006 and secured the 3rd accreditation in November 2020. The accreditation takes place every five years.

In recent years the MOH has gone through financial constraints and the central procurement agency of Suriname (BGVS) was not able to procure the full list of drugs. For instance, in the case of contraceptives, only oral contraceptives and a small number of male condoms for vulnerable groups were procured. The MOH also received donations from bilateral partners in Brazil, the USA, and others, but this did not compensate for the reduction of procurement by the MOH. MZPCHS, due to its location in the hinterland, must leverage additional resources, to be able to cover their needs because their users have no other providers in the hinterland. Due to the widespread and hard-to-reach locations of the 51 MZPCHS clinics, MZPCHS has to make sure it has a 2-month stock at the clinics.

Even though some contraceptives are in the basic healthcare package, some insurance only cover one cycle per visit, resulting in a bureaucratic process and creating logistical barriers (especially for those living in the districts) to get resupplied. Permanent methods such as sterilization and certain brands of IUD are not covered and must be paid for out of pocket.

A change in the penal law of 2009 facilitates the provision of sexual education and the provision of contraceptive services to youth younger than 16 years. Based on this change, the LHCF Foundation now more openly promotes the CSE education and SRH-services to youth.

The National Sexual and Reproductive Health and Rights Policy of Suriname (NSRHRPS) 2020 – 2030 was approved in March 2020. It is worth noting that it clearly states that contraceptives should be accessible to everyone including adolescents, people living with disabilities and LGTBI population and commits to the expansion of contraceptives choice including IUDs and implants.

The table below summarizes the contraceptives and maternal and neonatal commodities offered by MOH, by level of care:

		Primary	Secondary	Tertiary
	Commodity	Clinic, health center	Hospitals	Hospitals
1	Male condoms	Yes	Yes	Yes
2	Female condoms	No	No	No
3	Oral contraceptives	Yes	Yes	Yes
4	Emergency contraceptive	Yes	Yes	Yes
5	Monthly contraceptive injectables	Yes	Yes	Yes
6	Bi-monthly contraceptive injectables	No	No	No
7	3-monthly contraceptive injectables	Yes	Yes	Yes
8	IUDs	No	No	No
9	Implants	No	No	No
10	Oxytocin	Yes	Yes	Yes
11	Misoprostol	No	No	Yes
12	Magnesium sulfate	Yes	Yes	Yes
13	Ampicillin	Yes	Yes	Yes
14	Gentamicin	Yes	Yes	Yes
15	Self-inflating neonatal resuscitation bags with masks	Yes	Yes	Yes
16	Antenatal corticosteroids	Yes	Yes	Yes

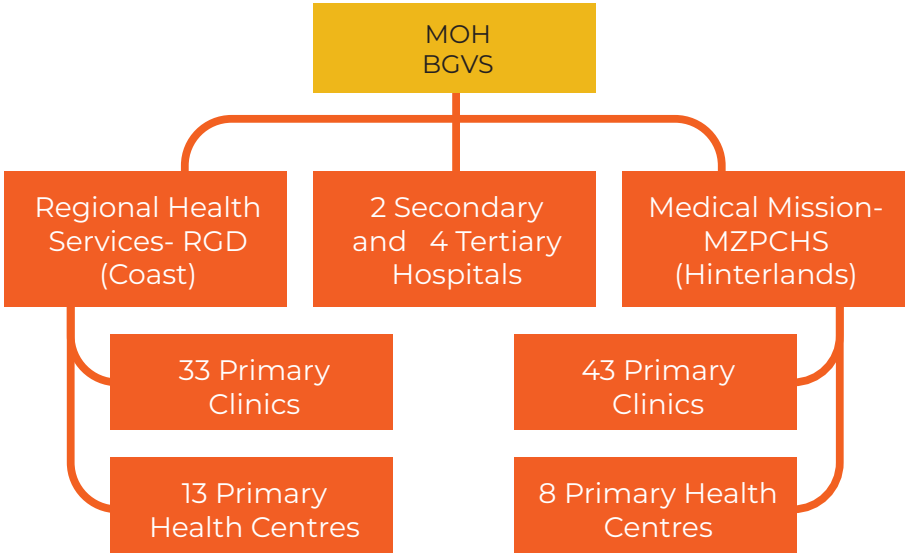
Note 1: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by MOH. There are cases where a contraceptive is in the EML but was not found in 2019 or 2020 logistics data at central level or last mile.

ii. The Public Health Supply Chain System

There is a central procurement agency, BGVS, which is a state-owned autonomous agency. The public sector procurement in Suriname is centralized and decentralized because public pharmacies can also buy from private distributors. The public sector tenders bids and awards are publicly available.

The government supply system department in Suriname has a national Central Medical Store at the BGVS. There are 2 warehouses in the secondary tier of the public sector distribution: one warehouse run by the MZPCHS and another run by the RGD. Both warehouses are located in the capital from where commodities are distributed to their clinics. They procure from BGVS and other sources. Transportation is subsidized by the MOH and both RGD and MZPCHS deliver health commodities from their warehouses to the last mile. It is important to note that for the MZPCHS transportation (air, or water) is not subsidized by MOH.

The supply chain system is a two-tier system, and the following diagram describes the flow of commodities :



FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse.

The RHCS Assessment included collecting availability data at the central warehouse of 16 commodities in two instances: as of December 31, 2019, in order to assess the availability without the impact of the COVID-19 pandemic; and as of October 2020, to assess the availability considering the potential impact of COVID-19.

There are several situations to highlight, as follows:

- As of December 2019, the central warehouse showed availability of 12 out of the 16 commodities. Commodities not available were IUDs and implants, female condoms, and bi-monthly injectables (which are not offered in the country). All MNN commodities were present.

The table below summarizes the stock status as of October 2020 (expressed in months of stock on hand - MOS), with the following highlights:

- Male condoms, monthly injectables, Misoprostol and Gentamicin will be out of stock by January 2021, or earlier.
- Self-inflating resuscitation bags appear to be dramatically oversupplied. MZPCHS had 30 resuscitation bags by December 2019 but delivered only one in 2020 and none in 2019. MZPCHS needs to urgently deliver it to some of their 51 clinics and health centres, to solve the oversupply.

Level of Stock-out risk, by commodity, at central warehouse				
Level of Risk	High < 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply > 18
Male condoms	1			
Female condoms	Not offered			
Oral contraceptives	1			
Emergency contraception		6		
Monthly injectables	0.5			
Bi-monthly injectables	Not offered			
3-monthly injectables	1			
IUDs	Not offered			
Implants	Not offered			
Oxytocin		5		
Misoprostol	0.5			
Magnesium sulfate			11	
Ampicillin		4		
Gentamicin	2			
Resuscitation bags				290
Antenatal corticosteroids		4		

ii. Availability of Contraceptives and MNN Commodities at the Last Mile

Availability of 12 tracer commodities was measured at both primary and secondary/tertiary levels as of October 2020, as follows:

a. At the primary level, the indicator measures availability of 5 tracer contraceptives: condoms, ECP, orals, injectables, and IUDs. The criteria at this level consist of facilities having at least 4 of 5 contraceptives to achieve the highest score in the RHCS scale.

b. At the secondary/tertiary levels, the indicator measures availability of 12 tracer commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUD, Oxytocin, Misoprostol, Magnesium sulfate, Ampicillin injectable, Gentamicin injectable, self-inflating neonatal resuscitation bags with masks, and ANCs – Dexamethasone or Betamethasone injection. The criteria at this level consist of facilities having at least 7 of 12 tracer commodities to achieve the highest score in the RHCS scale.

At the primary health care level, 6 clinics and health centres were in the sample, of which 17% had 4 of the 5 tracer contraceptives. The table below summarizes availability by method:

Contraceptives	% of availability in 7 primary facilities
Male condoms	100%
Oral contraceptives	100%
Emergency contraception	17%
Injectables	83%
IUDs	0%

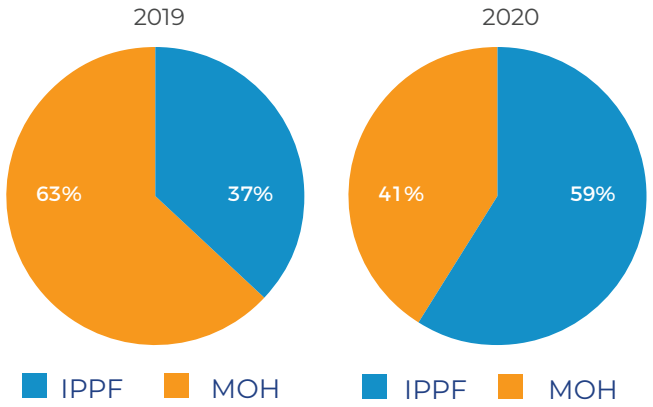
At the secondary and tertiary levels, 4 hospitals were in the sample, of which 75% had 7 of the 12 tracer commodities. The table below summarizes availability by commodity:

Commodities	Present in 4 secondary/ tertiary facilities
Male condoms	50%
Oral contraceptives	100%
Emergency contraceptions	25%
Injectables	75%
IUDs	0%
Oxytocin	75%
Misoprostol	50%
Magnesium sulfate	75%
Ampicillin injectable	75%
Gentamicin injectable	100%
Self-inflating neonatal resuscitation bags with masks	25%
ANCs – Dexamethasone or Betamethasone injection	50%

Couple-years of protection

According to distribution data from the BGVS, RGD, and MZPCHS, the MOH produced 8,009 couple-years of protection (CYPs)[61] (see methodology for further details) in 2019. The same year the LHCF produced 4,687 CYPs. In contrast, in 2020 (projected and assuming a similar trend through December 2020) both MOH and LHCF estimations reveal a significant reduction (59%) of the CYPs to be generated by the MOH in 2020 with 3,268 CYPs, while LHCF maintains almost the same level of CYPs as that of 2019 with 4,789. Overall, in 2019 both institutions generated 12,696 CPYs in 2019 and 8,057 in 2020, which is an indication that COVID-19 negatively impacted the offering of family planning services, reducing total CYPs by 36%.

The graphic below shows how the picture changed in terms of both institutions' coverage.



IMPACT OF COVID-19

According to the key informants, COVID-19 did not affect procurement, nor delivery of commodities to last mile facilities. Although with limited hours, services were opened, and no human resources were shifted from SRH services to other health services during lockdown. However, the close down of public transportation from March to October 2020, was the biggest barrier to accessing services.
The LHCF initiated the delivery of remote services and alternative ways to deliver contraceptives to their clients. Demand decreased but is recovering progressively.

When RGD and MZPCHS warehouse data are analysed, 67% of the commodities' distribution decreased but this is mainly due to the fact that in 2020, the MOH is only procuring male condoms, and RGD and MZPCHS procure the rest with their own funding. Limited by MOH financial constraints, both RGD and MZPCHS are only procuring minor quantities of contraceptives, not meeting the real needs; therefore, serious stock-outs are imminent.

When estimating future trends of stock status of MOH, based on stocks and average distribution reported in 2020, male condoms will be out of stock by February 2021, emergency pills by June 2021, oral contraceptives, by May 2021, monthly injectables by December 2020, and 3-month injectables by June 2021. The impact of not meeting the need of women using contraceptives between November 2020 and July 2021 will potentially cause the following negative results (See methodology section for further information):

Expected Impact of Stockouts	
Total of CYPs lost	5,154
Number of unintended pregnancies	4,381
Number of abortions	687
Number of maternal deaths	3
Number of neonatal deaths	34

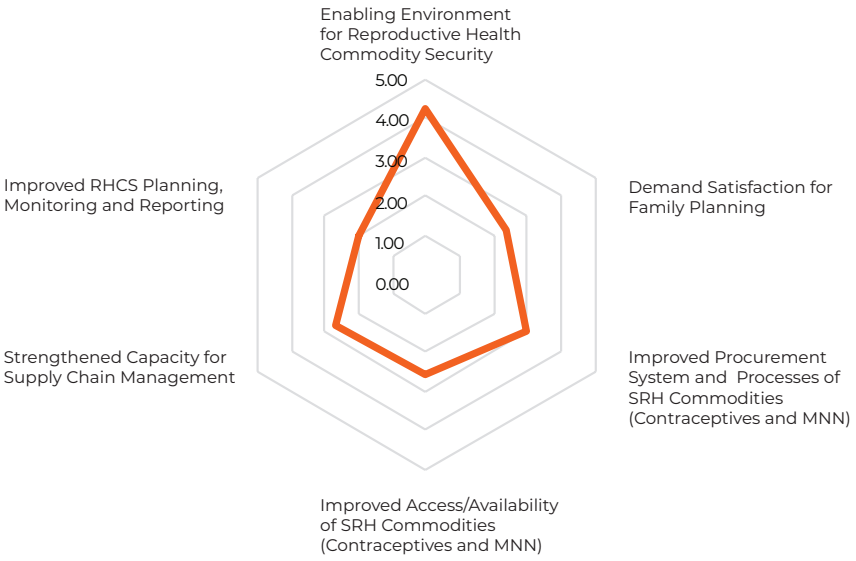
RHCS MATURITY

The following table captures the maturity of the system in 6 RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. MOH's overall RHCS score is 2.80, where improved RHCS planning monitoring and reporting has the lowest score of 2 while enabling environment for reproductive health

61 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

commodity security obtained 4.25, as shown in table below:

Output	Concept	RHCS Score
1	Present in 4 secondary/tertiary facilities	4.25
2	Demand Satisfaction for Family Planning	2.33
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	3.00
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	2.57
5	Strengthened Capacity for Supply Chain Management	2.67
6	Improved RHCS Planning, Monitoring and Reporting	2.00
	Overall Score	2.80



STRENGTHS AND WEAKNESSES

The current situation represents 56% of the total score, and there are important strengths and weaknesses to highlight:

Output	Strengths	Weaknesses
Enabling environment for reproductive health commodity security	There is a National Sexual and Reproductive Health and Rights Policy 2020-2030	The policy has no bi-annual workplans, indicators have not been finalized, and budget has not yet been allocated.
	100% of condoms are procured with government funds.	Financial constraints decreased procurement of contraceptives to be provided by MZPCHS and RGD. Only condoms were procured by the MOH in 2019.
	MNN commodities are procured with government funds.	According to key informants, antenatal corticosteroids are not offered.
	Contraceptives are included in the Essential Drug List (EDL), 2012.	Implants and resuscitation bags are not included in the EDL.
	All contraceptives are free of sales taxes and import taxes to MOH, NGOs and IPPF affiliates.	
Demand satisfaction for familiy planning	MOH, NGOs, IPPF affiliates, and commercial pharmacies provide contraceptives and the Basic Health Care Insurance also covers contraceptives.	MOH, RGD, and MZPCHS aggregate data only covered 11% of WRA in 2019.
		Many users cannot get their contraceptives due to RGD and MZPCHS reported stock-outs.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	BGVS has abilities to conduct international bidding and assure good prices.	MOH is procuring only male condoms. RGD and MZPCHS have been stocked-out of contraceptives most of 2019 and 2020.
		According to informants, MOH quantification is based on historical consumption, however consumption from RGD and MZPCHS is not available at BGVS. There are no standardized quantification procedures.
		RGD and MZPCHS procure commodities locally at higher prices.
Improved access/ Availability of SRH commodities (contraceptives and MNN)	MOH does not charge for contraceptives nor consultations.	Only 17% of sampled primary facilities had 4 of the 5 tracer contraceptives.
	Last mile for MOH-run sampled hospitals showed 75% had at least 7 of the 12 tracer commodities.	Basic Insurance Scheme covers only 1 oral cycle per visit. IUDs are not covered.
	MNN commodities are offered at all levels of care with the exception of antenatal corticosteroids and Misoprostol.	MZPCHS had to apply for red cross and faith-based organizations' financial support to be able to procure part of their needs.
	After aggregating stock from MOH, RGD, and MZPCHS 12 of the 16 commodities had stock at the end of December 2019. Female condoms, IUDs, implants, and bi-monthly injectables were not available.	Counselling is not provided to adolescents nor people with disabilities. They are referred to RGD with the prescription.
	There was a recent training course on contraceptive technology with emphasis in the introduction of contraceptive implants in Suriname, fully supported by UNFPA [62] (Q4 2020).	The MOH financial constraints generated RGD and MZPCHS stock-outs as they need to buy on the local market at higher prices, therefore covering only a part of their real demand.
Strengthen capacity for supply chain management	Distributions are not scheduled, but respond to lower-level requisitions.	The only information available was stock and movements at the central warehouse (BGVS). Essential LMIS data (consumption, stocks) is not readily available.
	All transportation costs are covered by the MOH. RGD and MZPCHS deliver to the last mile.	A max-min inventory control system is not in place.
	Storage space is sufficient. Air conditioning is available and cold chain is used when storing Oxytocin. Instructions to follow FEFO have been disseminated.	There are no short term plans to improve any logistics area evident.
Improved RHCS planning, monitoring and reporting		There is no monitoring plan in place nor assessments of SRH and/or RHCS.
		Procurement is not monitored.

62 It reviewed theoretical principles and practical issues on contraceptive counseling, updated information on all modern reversible contraceptive methods (with emphasis on medical eligibility criteria of the WHO) main interventions to maintain continuity of SRH services during the COVID-19 pandemic and a complete review of technical aspects on the use of contraceptive implants and on key issues on how to introduce contraceptive implants in FP services.

CONCLUSIONS AND RECOMMENDATIONS

Suriname obtained 4.25 out of 5 for output enabling environment for RHCS, demonstrating commitment at the policy level; however, it did not result in better availability. The National SRH and Rights Policy brings a paramount opportunity as the framework to resolve the weaknesses and use the strengths identified in this assessment to improve the path towards RHCS. Based on the weaknesses identified, the following conclusions and recommendations aim to serve that purpose:

Output	Conclusions	Recommendations
Enabling environment for reproductive health commodity security	There is a solid commitment to SRH/FP in the National SRH and Rights Policy passed in 2020. However, current RHCS situation is worrisome while the country moves from policy to action.	Develop the National SRH and Rights Policy implementation plan ensuring a solid FP repositioning strategy and ensuring that financial and human resources for its implementation are fully covered by State budget.
	In LAC countries, studies show that for every dollar invested in FP, governments save about $14 in MCH and MNN services)63	While the above is achieved, it is urgent to advocate at the policy level (including the Ministry of Finance) and leverage enough resources to procure contraceptives urgently. Otherwise, stock-out will result in decreasing modern CPR and increasing unmet need for family planning. When meeting with MOH and MOF use key advocacy messages based on the cost-benefit analysis of providing a comprehensive package of FP services and commodities.
	Even though all contraceptives except implants are included in the EML, the MOH only procures male condoms.	The FP basket should include at the minimum: 1 oral, 1 injectable, ECP, male and female condoms, IUDs, and implants.
	The current legal framework facilitates sexuality education and the provision of contraceptives to adolescents under 16 years.	Plan a meeting with stakeholders (UNFPA, PAHO, NGOs, Ministry of Education, Ministry of Finance etc.) to establish an RHCS committee under the leadership of the MOH with the aim to develop an RHCS strategy and plan with a robust M&E framework.
		RHCS committee conducts a Total Market Approach landscape analysis to identify every FP provider and identify comparative advantages to serve each segment of the population that demands these services.
Demand satisfaction for family planning	Modern CPR is low, and unmet need for family planning is among the highest of the 16 countries analyzed.	
	IUDs are only available at LHCF.	Develop a repositioning strategy of the IUDs, and facilitate LHCF to conduct training to RGD and MZPCHS staff to insert IUDs.
	The Basic Insurance Scheme introduced in 2014 does not seem to have contributed an increase in modern contraceptive use. CPR decreased from 47% in 2010 to 39% in 2018, and unmet need increased from 16.9% in 2010 to 28.4% in 2018.	Invite BIS to the RHCS to jointly analyze the aspects of the BIS that need to improve to revert the lack of access to RH/FP services. For example, providing all contraceptives and not only one oral cycle per woman, but criteria also need definitely to change to ensure the continuation of its use.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	RGD and MZPCHS indicated that they had stock-outs during most of 2019, and MZPCHS's quantification of several commodities are astonishingly higher than 2019 distribution with no possibilities to evaluate accuracy.	Improve cost-efficiency to do international pull procurement that includes RGD and MZPCHS real needs, to avoid procuring at higher prices in the local market.
		Improve quantification methodologies by analyzing real needs, not based on past consumption when stock-out periods took place.
Improved access/ availability of SRH commodities (contraceptives and MNN)	Despite political commitment to advance access to SRH services by adolescents, they still are not getting the SRH/FP services that they need.	Awareness raising targeting policy makers, providers and gatekeepers to enable the environment for adolescents SHRH.
	The MOH transferred its role of providing health services to MZPCHS and RGD but it is not improving access to RH/FP services.	Reinforce the availability of commodities at RGD and MZPCHS facilities and expand partnerships with LHCF to provide FP training across the country.
	It is of note that LHCF reported that private physicians did not administer injectables during COVID-19, thus, LHCF increased their sales.	
Strengthen capacity for supply chain management	The MOH has delegated the SCM to MZPCHS and RGD, both do not have a strong SCM nor inventory control systems in place.	Implement an LMIS64 that can collect essential data to use a max-min inventory control system, and train human resources for its proper application.
	Consumption data is not used for responsible decision making to maintain adequate stock levels.	Schedule distributions according to an inventory control system. This is independent of whether the supply chain is outsourced or not.
		LMIS and inventory control system training nationwide need to be implemented to reinforce the importance of collecting and using essential logistics data, collecting it first in paper and later in an automated LMIS. There is a need to ensure a comprehensive understanding that a functioning logistics system is centred on patient needs, and each actor in the system needs to accomplish its role to better fulfil population real demand.

63 Health Policy Plus Project, Dollars and sense article by Jay Gribble http://www.healthpolicyplus.com/DollarsSenseBlog.cfm#:~:text=More%20than%20a%20decade%20ago,many%20 countries%2C%20it%20saved%20much | Cost-benefit analysis of investing in family planning in Guatemala, 2008, Valladares, Jaramillo, University Research Corporation

64 A logistics management information system (LMIS) is a set of records and reports used to collect essential data (i.e., consumption, stock) to facilitate analysis and decision making through the logistics system. It is the basis for implementing an inventory control system that allows for scheduling periodic resupply to avoid stock imbalances.

Anguilla

Antigua and Barbuda

The Bahamas

Barbados

Belize

British Virgin Islands

Dominica

Grenada

Guyana

Jamaica

Montserrat

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and The Grenadines

Suriname

Trinidad and Tobago

TRINIDAD AND TOBAGO

Improved RHCS planning, monitoring and reporting	There is no RHCS monitoring in place.	Emphasize the urgent need to develop an RHCS monitoring plan to be able to implement and monitor progress towards increased FP services and improve CPR and unmet need.

COUNTRY PROFILE

The Republic of Trinidad and Tobago is a twin-island state at the southern end of the Caribbean. Trinidad and Tobago's landmass covers 5,127 km^2. Since its independence from Great Britain in 1962, the country has evolved into a well-developed, multicultural society. Abundant reserves of natural gas and oil drive its economic wealth, making it a country with a relatively high gross domestic product (GDP) for the Caribbean and recognized by the World Bank as a higher-income economy. Annual GDP Total $21,071.23 ($US Millions, at constant prices, 2010 base year). The population is estimated as of October 2020 at 1,401,070 people according to Worldometer.[65]

Trinidad and Tobago's main reproductive health indicators are shown below:

Trinidad and Tobago		
Description	Data	Source
Population Growth Rate (per 100)	0.4	Calculated 2019
% of women of reproductive age (WRA), 15-49 years	26.67	2018 (Statista)
Maternal Mortality Ratio (per 100,000 live births)	67[66]	(for 2010) NSO, 2019
Infant Mortality Rate (per 1000 live births)	16	2018 (World Bank)
Neonatal Mortality Rate (per 1,000 live births)	12	2018 (World Bank)
Total Fertility Rate per woman	1.7	(for 2012) NSO, 2019; T&T MICS 2011 (2017)
Adolescent Birth Rate (10 to 19 years)	32	T&T MICS 2011 (2017)
Contraceptive prevalence rate (modern method)	37.6	T&T MICS 2011 (2017)
Unmet Need for family planning rate, women aged 15 to 49 years	24.3	T&T MICS 2011 (2017)

PUBLIC HEALTH SYSTEM

Trinidad and Tobago's health system includes public and private sectors and non-governmental organizations (NGOs); the public sector is dominant. All public sector health services are free, funded by the government. The public health system operates along two tiers. At the first level is the Ministry of Health, which oversees the system, and is responsible for financing, regulation, governance, and for setting any necessary policies and enacting legislation. The second tier is composed of five semi-autonomous Regional Health Authorities (RHAs): 4 in Trinidad and 1 in Tobago. Health care services are delivered through a network of 115 health facilities, including 12 hospitals and 5 district health centres. Each RHA in Trinidad has at least one district health facility and a referral hospital. Approximately two-thirds of the health centres are located in Trinidad's western half, where most of the population lives.

i. Sexual and Reproductive Health Services

The FP/RH services are offered by the Ministry of Health Trinidad and Tobago (MOTT), the Family Planning Association (TTFPA), private OB-GYN practitioners, and private commercial pharmacies. Access to SRH services, including family planning, are restricted for adolescents. The Population Programme Unit (PPU) within the Directorate of Women's Health was established in 1969 to facilitate the delivery

65 https://www.worldometers.info/population/latin-america-and-the-caribbean/
66 Trends in maternal mortality 2000 to 2017: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Geneva: World Health Organization; 2019.

of contraception services to citizens. Family Planning Services are offered at all primary care facilities, secondary level facilities, and at the hospital level. Adolescents under 18 years of age can't have access to health services without parental consent. If adolescents (under18 years old) come to the health facility, counselling is given and informed principles are covered, but do not provide contraceptives. According to the 2011 MICS, the total modern CPR is 37.6%, and unmet need for modern contraceptive methods is 24.3%, which is considered high.[67]

The Family Planning Association of Trinidad and Tobago (FPATT) is a 54-year-old NGO with the mandate to advance sexual reproductive health and rights through advocacy and the provision of quality services to men, women and young people in Trinidad and Tobago. The Association's core focus is on ensuring a healthy sexual lifestyle among citizens within the reproductive age by providing access to the services and information they need. FPATT is a Member Association of the International Planned Parenthood Federation (IPPF).

In August 2020, a National Sexual and Reproductive Health Policy was approved, where the integration of HIV and AIDS services into SRH services is an important component. This policy aims to cover all men and women to access SRH services as a health right. Health personnel provide sexual and reproductive health counselling to all users, including youth that have had children, who sometimes come with a guardian/parent.

Table on the right summarizes the contraceptives and maternal and neonatal (MNN) commodities offered by MOHTT, by level of care:

		Primary	Secondary	Tertiary	Comments
	Commodity offered by the MoHTT	Health centre	Enhanced health centres, district health centre	Hospitals	
1	Male condoms	Yes	Yes	Yes	
2	Female condoms	Yes	Yes	Yes	
3	Oral contraceptives	Yes	Yes	Yes	
4	Emergency Contraceptives	No	No	No	
5	Monthly contraceptive injectables	Yes	No	No	
6	Bi-monthly contraceptive injectables	No	No	No	
7	3-monthly contraceptive injectables	Yes	No	No	
8	IUD copper T	Yes	Yes	Yes	Hormonal IUDs are available in the secondary and tertiary levels – no longer at primary care.
9	Implants	No	No	No	Recently introduced with support from UNFPA in selected health facilities.
10	Oxytocin	No	Yes	Yes	
11	Misoprostol	No	Yes	Yes	
12	Magnesium sulfate	No	Yes	Yes	
13	Ampicillin	No	Yes	Yes	
14	Gentamicin	No	Yes	Yes	
15	Self-inflating neonatal resuscitation bags with masks	No	Yes	Yes	
16	Antenatal corticosteroids	No	Yes	Yes	

67 2011 MICS Trinidad and Tobago (2017)

Note 1: Implants are not offered in the MOHTT nationwide. A donation was received from UNFPA for an introductory study (ongoing) to analyze acceptability and inform the scale-up.

Note 2: As part of neonatal commodities, chlorhexidine digluconate 7.1% in cream or gel was originally included, but this commodity is not used for newborn cord care in most of the Caribbean countries, thus it was not included in order to maintain comparability amongst countries.

Note 3: This table was validated with the 2019 and 2020 central warehouse and last-mile reports provided by MOHTT. There are cases where a contraceptive is in the EML but was not found in 2019 or 2020 logistics data at central level or last mile.

ii. The Public Health Supply Chain System

Public sector procurement in Trinidad and Tobago is centralized and under the responsibility of a procurement agency (NIPDEC) which is semi-autonomous. Public sector requests for tender documents are publicly available, and public sector tender awards are also publicly available. Procurement is based on the prequalification of suppliers, and there is a written public sector procurement policy. This policy was approved in 1998. Legal provisions do not exist to give priority to locally produced goods in public procurement. The government supply system department in Trinidad and Tobago has a Central Medical Store (CMS) at the national level (The NIPDEC) which integrates, in one location and at different levels, the different types of commodities: vaccines, contraceptives, essential medicines, and consumables. Improvements to the supply chain system are underway, for instance, the Logistics Management Information System (LMIS[68]) called SALMI, is recently being designed and implemented with support from UNFPA, which will be used to manage and improve the logistic management information of all medicines (including non-pharms) at all levels.

Through a network of 115 health facilities, the MOH of Trinidad and Tobago supply chain system is a 3-tier system, where the Central Medical Store of the Procurement Agency distributes to the RHA, which in turn distribute to the network of health centres on a monthly basis, according to consumption, stock levels, and expiration dates – as shown in this diagram:

(*) Total facilities: 115, including 12 hospitals and 5 district health facilities

FINDINGS

i. Availability of Contraceptives and MNN Commodities at the Central Warehouse

The RHCS Assessment included collecting availability data at the central warehouse on 16 commodities in two instances: as of December 31, 2019, in order to assess the availability without the impact of the COVID-19 pandemic; and as of October 2020, to assess the availability considering the potential impact of COVID-19. The information used to determine stock availability includes stock on hand as of December 2019, stock on hand of the latest month in 2020 (usually September or October), distribution in 2019, distribution from January to September 2020, and orders in transit. In the case of MOHTT, the distribution data for Tobago was not provided to the assessment team, which might be part of the reason why some products appear to have an oversupply. However, even taking into consideration this fact, the levels of oversupply are still considered high.

There are several situations to highlight as follows:

- As of December 2019, the central warehouse showed availability of 12 out of the 16 commodities. Commodities not available were ECP, bi-

68 A logistics management information system (LMIS) is a set of records and reports used to collect essential data (i.e., consumption, stock) to facilitate analysis and decision making through the logistics system. It is the base to implement an inventory control system that allows to schedule periodic resupply to avoid stock imbalances.

monthly injectables, and implants (which are not widely offered), and self-inflating neonatal resuscitation bags with masks.

The table below summarizes the stock status as of October 2020 (expressed in months of stock on hand - MOS), with the following highlights:

- Male condoms have 84 MOS; distribution in 2020 was half the distribution in 2019.
- Female condoms have 58.7 MOS; distribution in 2020 was 3 times less than in 2019.
- For both male and female condoms, this reflects a serious inventory oversupply that will lead to expired products and waste of resources.
- Monthly injectables – 20.1 months of stock.
- 3-Month injectables – 103 months of stock, this includes the arrival of 42,000 vials in May 2020, which reflects a serious inventory oversupply that will lead to expired products. Distribution in 2020 was four times less than in 2019.
- Ampicillin has 43 MOS. Distribution was reduced by 50%.
- In contrast, Magnesium sulfate and ANCs are in the high risk of stock-out category.

Trinidad & Tobago				
Level of Stock-out risk, by commodity, at central warehouse				
Level of Risk in MOS	High < 0 to 2.9	Medium 3 to 5.9	No Risk 6 to 18	Oversupply > 18
Male condoms				84.0
Female condoms				58.7
Oral contraceptives			11.7	
Emergency contraception	Not offered			
Monthly injectables				20.1
Bi-monthly injectables	Not offered			
3-monthly injectables				103.5
IUDs				23.7
Implants	Not offered			
Oxytocin			11.4	
Misoprostol			7.3	
Magnesium sulfate	1.5			
Ampicillin				43.3
Gentamicin				18.5
Self-inflating neonatal Resuscitation bags with masks	Not present in Central Warehouse, 1 in the last mile			
Antenatal corticosteroids	-0.3			

ii. Availability of Contraceptives and MNN Commodities at the Last Mile

Availability of 12 tracer commodities was measured at both primary and secondary/tertiary levels as of October 2020, as follows:

a. At the primary level, the indicator measures availability of 5 tracer contraceptives: condoms, ECP, orals, injectables, and IUDs. The criteria at this level consist of facilities having at least 4 of 5 contraceptives to achieve the highest score in the RHCS scale.

b. At the secondary/tertiary levels (hospitals in the case of Trinidad and Tobago), the indicator measures availability of 12 tracer commodities: male condoms, oral contraceptives, emergency contraception, injectables, IUDs, oxytocin, misoprostol, magnesium sulfate, ampicillin injectables, gentamicin injectables, self-inflating neonatal resuscitation bags with masks, and ANCs – Dexamethasone or Betamethasone injection. The criteria at this level consist of facilities having at least 7 of 12 tracer commodities to achieve the highest score in the RHCS scale.

In MOHTT at the primary health care level, 8 health centres were in the sample, of which 50% had 4 of the 5 tracer contraceptives. The table below shows the availability by method, highlighting that orals were found in all sampled facilities:

Contraceptives	Present in 8 primary facilities
Male condoms	88%
Oral contraceptives	100%
Emergency contraception (not offered)	0%

Injectables	88%
IUDs	50%

At the secondary and tertiary levels, 4 facilities were in the sample, of which 75% had 7 of 12 tracer commodities. The table below summarizes availability, by commodity:

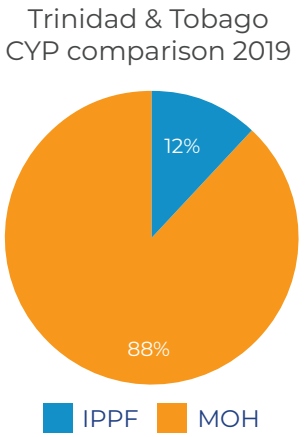
Commodities	Present in 4 secondary/tertiary facilities
Male condoms	50%
Oral contraceptives	75%
Emergency contraceptions	0%
Injectables	75%
IUDs	100%
Oxytocin	100%
Misoprostol	75%
Magnesium sulfate	100%
Ampicillin injectable	100%
Gentamicin injectable	100%
Self-inflating neonatal resuscitation bags with masks	0%
ANCs – Dexamethasone or Betamethasone injection	100%

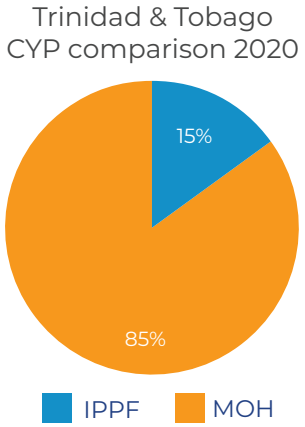
COUPLE-YEARS OF PROTECTION

According to distribution data from the CMS, MOHTT generated 12,158 couple-years of protection (CYPs)[69] (See methodology for further details) in 2019, which represents 88% of the total CYP, and the TTFPA generated a total of 1,700 in 2019, which represents 12% of the total CYPs.

In contrast, in 2020 (projected and assuming a similar trend through December 2020), MOHTT generated 8,776 CYP and the TTFPA 1,534 CYP. In 2020, both organizations' CYP were reduced by 28% and 10% respectively.

This indicates that COVID-19 negatively impacted the offer of and demand for FP services.





IMPACT OF COVID-19

According to the informants of MOHTT, distribution of commodities continued in the areas that kept providing services, and services and distribution of commodities were reorganized to avoid disruption. However, the logistics data shows that the distribution of contraceptives reduced significantly compared to 2019, as explained earlier in this report. For instance, distribution of male condoms reduced 30%, 3-month injectables – 79%, female condom – 66%, IUD – 14%, orals – 19%, and 1-month injectables – 16% compared to 2019. In contrast, for MNN commodities the trend is different. For example, the distribution of Misoprostol increased by 38% compared to 2019, and ampicillin increased by 50%.

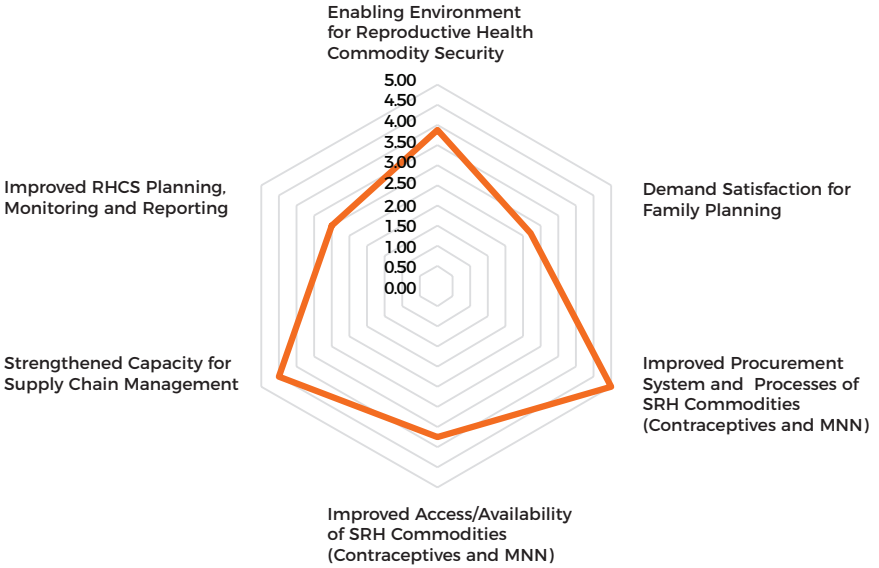
69 Couple-years of protection is defined as the estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed to clients during that period. (Wishik and Chen, 1973; Stover, Bertrand, and Shelton, 2000)

Stocks reported as of October 2020, plus orders in transit, were analysed to report MOS available. When estimating future trends of stock status of MOHW, contraceptives show serious oversupply and will not suffer stock-outs between November 2020 and July 2021. Instead, there will be eventually potential expired products if the distribution and consumption trends are not reverted. Furthermore, the significant decrease in the distribution of contraceptives and the availability found at the sampled facilities in last-mile show that users did not go to the clinics for resupply.

RHCS MATURITY

The following table captures the maturity of the system in six RHCS elements evaluated, using a scale where 1 is the lowest performance and 5 is the best score. The overall RHCS score of the MOHTT is 3.79, where demand satisfaction has the lowest score of 2.67 while procurement system and processes obtained 5 in a scale where 5 is the best score.

Output	Concept	Score in the RHCS Scale
1	Enabling Environment for Reproductive Health Commodity Security	3.88
2	Demand Satisfaction for Family Planning	2.67
3	Improved Procurement System and Processes of SRH Commodities (Contraceptives and MNN)	5.00
4	Improved Access/Availability of SRH Commodities (Contraceptives and MNN)	3.71
5	Strengthened Capacity for Supply Chain Management	4.50
6	Improved RHCS Planning, Monitoring and Reporting	3.00
	Overall Score	3.79



STRENGTHS AND WEAKNESSES

The current situation represents 76% of the total score, and there are important strengths and weaknesses to highlight:

Output	Strengths	Weaknesses
Enabling environment for reproductive health commodity security	MOHTT covers 80% of the contraceptive procurement.	MOHTT does not cover 100% of the contraceptives needs.
	Maternal and neonatal commodities are funded 100% with government resources, except the self-inflating neonatal resuscitation bags with masks.	Current country law does not allow adolescents to access SRH services without parental consent. The Sexual Offences Act requires health care providers to report if adolescents under 18 years of age are sexually active, even though the Children's Act decriminalized sexual activity among minors within the same age group.
	There is a Vital Essential and Necessary Drugs (VEN) list (2018) that includes male condom, orals, injectable, IUDs and IUS[70]; and all MNN commodities except self-inflating neonatal resuscitation bags with masks.	
	There is an ad-hoc steering committee formed by MOHTT, UNFPA, PAHO, and TTFPA, among others that address issues related to SRHR.	The National COVID-19 preparedness plan does not include guidance on ensuring SRH services during the pandemic, including the provision of contraceptives for several months.
	Informants indicated that COVID-19 did not strongly impact the provision of services. MOHTT found other ways to keep services running.	
	MOHTT is exempt from VAT and import tax.	
Demand satisfaction for family planning	MOHTT, TTFPA, private OB-GYN practitioners, and private pharmacies provide FP services.	Only 5% of WRA were covered with FP services by MOHTT in 2019 (based on CYPs distributed in 2019).
		Unmet need of 24% is considered high. Informants indicate that FP services are underutilized highlighting the need more information and IEC.
	Male condoms, female condoms, orals, monthly injectables, 2 types of 3-month injectables, IUDs, IUS are offered.	ECP, bi-monthly injectables and implants are not offered.
Improved procurement system and processes of SRH commodities (contraceptives and MNN)	Open tendering processes consolidate the country needs and bid locally and internationally.	COVID-19 has impacted in substantive increases of freight charges, causing budget constraints and delays.
	Quantification is done, consolidating needs from lower levels.	Quantification does not consider maximum levels, which seriously affects the effectiveness of the analysis for decision making on how much and how many months of stock to procure.

70 Intrauterine system device that releases progestogen hormone

Output	Strengths	Weaknesses
Improved access/ Availability of SRH a commodities (contraceptives and MNN)	MOHTT does not charge for services	50% of sampled primary facilities had 4 of the 5 contraceptives available in October 2020. 75% of the sampled secondary/tertiary facilities had 7 of the 12 commodities (including contraceptives).
	All MNN commodities are offered (exception on the next column).	Self-inflating neonatal resuscitation bags with masks is seldom available.
	WHO eligibility criteria are used for counselling and training; IEC materials are available.	
	Recent training including the latest WHO guidelines for FP has taken place jointly with MOHTT, FPATT, and other NGOs.	
	By December 2019, 12 of the 16 commodities were present at the central warehouse.	
Strengthened capacity for supply chain management	Essential LMIS data is collected and consolidated at the central level.	Based on data provided by MOHTT LMIS, data is not considered for SCM as reflected in central warehouse oversupply as of October 2020. An inventory control system is not fully in place, as maximum levels are not set up, just maintaining a minimum. At the central level, this is causing oversupply, coupled with the reduced distribution in 2020.
	Warehouse space is sufficient, with air conditioning, follow FEFO principles.	Not determining maximum levels makes it difficult to monitor and control expiry dates.
	LMIS[71] "SALMI" is being introduced and is operational in five health facilities and will be implemented at all levels of health care including RHAs, NIPDEC and Central level.	Essential LMIS data like annual consumption is not readily available.
	Distribution plans are in place and done monthly. Transportation is fully funded and outsourced to the private sector. During COVID-19, frequency of distribution was increased to avoid stock-outs.	
Improved RHCS planning, monitoring and reporting	MOHTT conducts regular monitoring of budget and procurement needs.	No monitoring plan for RHCS is in place. Oversupply of male and female condoms, orals, 3-month injectables, ampicillin, and IUDs indicate lack of monitoring of stock and demand trends.

71 A logistics management information system (LMIS) is a set of records and reports used to collect essential data (i.e., consumption, stock) to facilitate analysis and decision making through the logistics system. It is the basis for implementing an inventory control system that allows for scheduling periodic resupply to avoid stock imbalances..

CONCLUSIONS AND RECOMMENDATIONS

Based on the weaknesses identified (especially oversupply), to progress in the path of RHCS and maintain it over time, the following conclusions and recommendations are being made:

Output	Conclusions	Recommendations
Enabling Environment For Reproductive Health Commodity Security	There is a commitment to SRH, which is especially reflected in the SRH policy enacted in 2020.	Continue supporting the implementation of the SRH Policy, especially in relation to securing availability of current method options and access to adolescents. As part of the SRH strategy, include the formation of an RHCS committee that will promote coordination amongst governmental, international cooperating partners, and NGOs to monitor progress over time of every RHCS element to achieve and maintain MNN and RHCS. The participation of stakeholders supporting people living with HIV and AIDS in the country will benefit from stronger coordination and better use of combined technical and financial resources.
		Accelerate the inclusion of RHCS in the implementation of the recently approved SRH policy.
		Develop a regional RHCS strategy for the Caribbean to share these assessment results and define a road map for improvement and increased visibility of RHCS in times of health emergencies and natural disasters.
	Contraceptives are still not fully funded by Government.	Develop a plan so that MOHTT procures 100% of contraceptives needs, including new additions to the FP offer.
	Implants, bi-monthly injections, and ECP are not offered, and not included in the VEN list.	Include these options in the VEN list.
		Include RHCS elements in future emergency preparedness plans, especially supplying users additional amounts of condoms and cycles of pills and activating community outreach strategies in coordination with NGOs like TTFPA.
Demand Satisfaction for Family Planning	Unmet need for WRA is 24% which is considered high.	Work together with all stakeholders that support the implementation of the SRH policy to define an FP repositioning strategy that will urgently increase demand and access to FP services to those women with unmet needs, including adolescents.
		Continue efforts to remove legal barriers in the provision of contraception to sexually active adolescents under 18 years of age.
		Explore the possibility of implementing community outreach activities that may be part of the FP repositioning strategy, accompanied by low-cost IEC actions to increase demand for FP services. This can revert the reduction of distribution in 2020.
	Implants and ECP are not offered.	Continue efforts to secure current contraceptive options, while including at least ECP and implants to the FP offer.
Improved Procurement System And Processes Of SRH Commodities (Contraceptives and MNN)	Procurement processes are in place to achieve economies of scale; however, data provided in 2019 and 2020 show serious oversupply of four commodities, caused in part by quantities procured without considering maximum levels and past consumption.	Strengthen quantification methodology to analyse inventory control levels before placing orders. Include both maximum and minimum levels, to avoid stock-out and to avoid procurement/donations that will lead to oversupply and subsequent waste of limited resources and expired products.

Output	Conclusions	Recommendations
Improved Access/ Availability of SRH Commodities (Contraceptives and MNN)	Services for adolescents are only offered to those that have become mothers.	Identify venues to help MOH to provide SRH services responsive to the needs of adolescents as part of health services, in alliance with TTPPA, the Ministry of Education, and other key stakeholders.
	Lifesaving MNN commodities are only offered in the secondary and tertiary levels.	Strengthening universal health care and primary health care levels may include considering whether MOHTT may upgrade some of these facilities with competent staff and increased financial resources that may improve universal access to these commodities.
	Low use of female condoms is an area for further analysis, before placing new orders.	Identify the demand barriers to using this method through focus groups or any other methodology to generate demand creation options for female condoms amongst women.
Strengthened Capacity For Supply Chain Management	MOHTT conducts ongoing FP training that is carried out with the participation of NGOs and the TTFPA.	Continue training efforts and include RHCS aspects during these sessions. Additionally, maximize the use of digital technology, like the WHO eligibility criteria wheel, in an APP.
	Inventory control system is partially used, as maximum levels are not set nor used.	Improve inventory control system, by formally setting up maximum and minimum levels in every level of the supply chain, taking into consideration frequency of supply and lead times.
	LMIS "SALMI" promises to be an effective management tool to boost SCM performance. However, it will require first establishing a culture of using essential logistics data for decision making.	LMIS training nationwide needs to be implemented to reinforce the importance of collecting and using essential logistics data, collecting it first in paper and later in an automated LMIS. Also, consider linking SALMI to the overall Health Management Information System to secure institutionalization over time.
Improved RHCS Planning, Monitoring and Reporting	RHCS elements are not monitored as a strategic priority.	Include RHCS as part of the implementation of the SRH Policy, to be able to improve monitoring of all RHCS aspects, especially to monitor adequate availability in times of emergency and health crisis like the COVID-19 pandemic. Closely monitor all commodities that show oversupply, particularly 3-month injectables, male condoms, and female condoms which require immediate attention to find ways to increase distribution and avoid serious levels of expired products.

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ANNEX 2: RHCS ASSESSMENT QUESTIONNAIRE

Output	Area of Analysis	#	Question	1	2	3	4	5
Output 1.	ENABLING ENVIRONMENT FOR REPRODUCTIVE HEALTH COMMODITY SECURITY	1	Is there a National Reproductive Health Policy? Is it included in a National Health Plan? Is it included in a long term National Development Plan?	No SRH Plan, it is not included in NH Plan nor social development plan.	There is an annual SRH workplan, there is a project that is more dependent of the international cooperation than from the MoH.	There is a regular SRH programme in the MoH, with Annual Work Plan, goals and Budget.	There is a 5-year SRH Strategy and SRH is included in the National Health Plan.	There is a commitment with Sexual and Reproductive Health Rights and goals as part of a long term national Development Plan.
		2	Are contraceptives (male condoms, female condoms, oral contraceptives, emergency contraception, injectables, IUDs and implants) purchases made with national funds? Which donors are financing contraceptives?	0 - 20% of financial needs are covered with governmental funds. 80% + donated.	21 - 40% of financial needs are covered with governmental funds. 60% + donated.	41 - 60% of financial needs are covered with governmental funds. 40% + donated.	61 - 80% of financial needs are covered with governmental funds 20% + donated.	81 - 100% of contraceptive financial needs are covered with governmental funds.
		3	Are MNN tracer commodities purchased made with governmental funds (Oxytocin, Misoprostol, Magnesium sulfate, ampicillin gentamicin, antenatal corticosteoids, self-inflating neo-natal resuscitation bag)? Which donors are financing MNC tracer commodities?	Only 1 or none of the 7 tracer MNN commodities are purchased with governmental funds.	At least 2 out of 7 tracer MNN commodities are purchased with governmental funds.	At least 4 out of 7 tracer MNN commodities are purchased with governmental funds.	At least 6 out of 7 tracer MNN commodities are purchased with governmental funds.	All 7tracer MNN commodities are purchased with governmental funds.
		4	Are contraceptives listed above included in the essential drugs list?	1 or none contraceptives are included in the essential drug list/no essential drug list has been developed in country.	2 contraceptives are included in the essential drugs list.	3 contraceptives are included in the essential drugs list.	4 contraceptives are included in the essential drugs list.	All contraceptives are included in the essential drugs list.

Output	Area of Analysis	#	Question	1	2	3	4	5
		5	Are MNN tracer commodities (Oxytocin, Misoprostol, Magnesium sulfate, ampicillin gentamicin, antenatal corticosteoids, self-inflating neo-natal resuscitation bag) included in the public health system essential drugs list?	Only 1 or none of the 7 MNN tracer commodities are included in the essential drugs list	At least 2 out of 7 MNN tracer commodities are included in the essential drugs list	At least 4 out of 7 MNN tracer commodities are included in essential drugs list	At least 6 out of 7 MNN tracer commodities are included in the essential drugs list	All 7 MNN tracer commodities are included in the essential drugs list.
		6	Is there a platform of dialogue between government agencies and other entities to improve access to sexual and reproductive health commodities?	No there isn ´t.	There are ad hoc working meetings with UNFPA and MOH authorities.	There is a working group on RMNN between MoH, UNFPA and the IPPF affiliate.	There is a task force or national committee including the MOH, UNFPA, IPPF affiliate and Social Security with ToRs specifying the activities in coordinating RMNN issues but does not monitor accessibility to SRMN commodities.	There is a task force or national committee that includes the MOH, UNFPA, IPPF affiliated, Social Security that monitors accessibility at least once year.
		7	How COVID-19 has threatened RH services?	Contraceptive orders placed in 2019 to arrive in 2020 have not been received. 2020 Orders to arrive in 2021 have not been placed yet.	Contraceptives couldn ´t be distributed from the central level down to regions and health facilities.	Contraceptives were received at health facilities level but many of them were not providing services during the lockdown and/or COVID-19 restrictions of movement.	Contraceptives were received at health facilities level, but human resources for RH care were reduced and users demand decreased.	Users demand decreased due to COVID-19 lockdown/ restrictions of movement but is recovering; and/or RH services were not affected by COVID-19.

Output	Area of Analysis	#	Question	1	2	3	4	5
		8	Are there duties/import taxes/other fees on contraceptives?	All contraceptives are subject to import taxes, including sales tax in MOH, IPPF, NGO and social marketing.	Contraceptives are exempt from import taxes only for MOH.	Contraceptives are exempt from import and sales tax (where applicable) only for MOH.	Contraceptives are exempt from import and sales tax only for MOH. Private sector (NGO, IPPF, social marketing) exempt of import taxes only.	All contraceptives are free of taxes for all providers (MOH, IPPF, social marketing).
Output 2	DEMAND SATISFACTION FOR FAMILY PLANNING	9	What percentage of Women of Reproductive Age are receiving contraceptives from the MOH?	Dispensed MOH´CYPs achieve 10% or less of WRA in country.	Dispensed MOH´CYPs achieve 11 to 20% of WRA.	Dispensed MOH´CYPs achieve 21 to 30% of WRA	Dispensed MOH´CYPs achieve 31 to 40% of WRA.	Dispensed MOH´CYPs achieve 41% of WRA or more.
		10	From your perception how do you think the FP demand is being satisfied?	Many users can´t get their contraceptives due to poor supply and other barriers.	Demand is increasing due to IEC and media campaigns and training of health care providers. Availability at health facility has improved demand, but stock-outs have been reported	Demand is consistently increasing but minor stock-outs due to distribution problems have been reported, even though there are enough quantities at upper levels.	Supply is being improved, however health workers regularly report users' barriers (i.e. spouse disagreement to use FP). There are staff barriers to offer all contraceptives.	All users coming to MOH services get their products and demand has constantly increased. No stock outs have been reported.
		11	Which entities provide FP commodities in country?	Only commercial pharmacists sell contraceptives.	Commercial pharmacies and MOH health facilities.	Commercial pharmacies, MOH health facilities, NGO, and IPPF affiliate provide contraceptives.	Commercial pharmacies, MOH health facilities, NGO, IPPF affiliate and social security provide contraceptives.	Commercial pharmacies, MOH, NGO, IPPF affiliate, social security and Social Marketing program provide contraceptives.
Output 3.	IMPROVED PROCUREMENT SYSTEM AND PROCESSES OF SRH COMMODITIES	12	How are commodities purchased?	Purchases are procured locally, no economies of scale, and quality not always secured. GMP not followed.	Procurement agent (to obtain economies of scale), or suppliers guarantee quality and GMP. However, frequent delays or partial shipments occur.	MOH funds are transferred to a procurement agent/supplier. Shipment delays or partial shipments are minimal.	MOH schedule shipments every year and pay on time. Suppliers send shipments according to schedule.	Procurement is made either using procurement agent or International bidding to assure availability and economies of scale and guarantee quality.

Output	Area of Analysis	#	Question	1	2	3	4	5
Output 4	IMPROVED ACCESS/ AVAILABILITY OF SRH AND MNN COMMODITIES/ FAMILY PLANNING SERVICES	13	Has the program implemented procedures for demand forecasting ? Is forecasting carried out with International Development Partners support or independtly?	There are no standardized procedures.	Central level forecast based on demographic data/ programmatic criteria.	Requisitions are sent from health facilties to Regional level and consolidated at Central Level.	Quantifications are made based on past consumption reported by health facilities and consolidated at regional level.	Central Level validates, independently, regional quantifications based on LMIS that includes consumption; and makes logistics and programmatic adjustments to avoid either over supply or stock outs.
		14	Are SRH and related services provided free-of-charge?	User´s fees for SRH commodities and medical consultation are charged by MoH.	User´s fee for medical consultation of SRH are charged by MoH.	MOH does not charge fees for SRH commodities, and social security scheme do not cover their users	MOH does not charge user fees, but transfer the cost to social security scheme for their users.	MOH does not charge user fees to the poorest, but a subsidized cost is paid by users that can afford it. Social security scheme cover FP for their users.
		15 a	What is the percentage of sampled health facilities (primary level) having at least 4 of 5 tracer contraceptives according to the last report available?	0 - 20% of sampled heatht facilities	21%-40% of sampled health facilities.	41% 60% of sampled health facilities	61% -80% of sampled health facilities.	More than 80% sampled health facilities.
		15 b	What is the percentage of sampled health facilities (secondary and tertiary level) having at least 7 of 12 tracer commodities according to the last report available?	0 - 20% of sampled heatht facilities	21%-40% of sampled health facilities.	41% 60% of sampled health facilities	61% -80% of sampled health facilities.	More than 80% sampled health facilities.

Output	Area of Analysis	#	Question	1	2	3	4	5
		16	According to norms, what type of contraceptive is provided at health facility, and by level of care?	At least male condoms are available at all levels of care.	At least male condoms and oral contraceptives (including emergency contraception pills-ECP) are provided at all levels of care.	At least male and female condoms and oral contraceptives (including ECP), injectables are provided at all levels of care.	At least male and female condoms and oral contraceptives (including ECP), injectables are provided at all levels of care. IUDs are provided at 3rd level of care.	Male and female condoms and oral contraceptives (including ECP), injectables are provided at all levels of care. IUDs and implants are provided at 2nd and 3rd level of care.
		17	How many of MNN (Oxytocin, Misoprostol, Magnesium sulfate, ampicillin, gentamicin, antenatal corticosteoids, self-inflating neo-natal resuscitation bag) tracer commodities should be available at health facilities?	1 or none of the 7 tracer commodities	At least 2 out of 7 tracer commodities.	At least 4 out of 7 tracer commodities.	At least 6 out of 7 tracer commodities.	7 tracer commodities.
		18	Counseling is provided to FP users?, including counseling for adolescents?	Counselling is not always provided and IEC materials are not available	Counseling is provided when trained staff is available. Informed choice principles are covered.	Counseling is provided by trained staff, and IEC materials are used when needed; but counseling does not include all users (ie adolescents, people living with dissabilities, etc).	Counseling is provided by trained staff and IEC materials are used when needed. Adolescent specific counselling is provided.	Counseling is provided by trained staff and IEC materials are used when needed, adolescent and people living with dissabilities are receiving specific counseling.
		19	Has MOH conducted trainings on family planning?	No training has been conducted and no FP training materials are available at central level	Training has been conducted, materials and tools are available at the central level.	Training have been conducted at least during the last 2 years. Materials and tools are available at the central level.	Training have been conducted at least during the last 2 years. New personal is trained before taking position and materials and tools are available at all levels.	Training have been conducted at least during the last 2 years. New personal is trained before taking position and materials are updated according to latest WHO guidelines and available at all levels.

Output	Area of Analysis	#	Question	1	2	3	4	5
Output 5	STRENGTHENED CAPACITY FOR SUPPLY CHAIN MANAGEMENT	20	Is there LMIS in place?	Central warehouse inventory is recorded	Consumption and balance on hand data is collected at health facility level.	Consumption, balance on hand, and losses and adjustments data is collected at health facility level.	Essential LMIS data at health facility level is consolidated at regional level.	Consolidated data at regional level is reported to central level for national consolidation. Computerized LMIS is used nationwide.
		21	How are commodities distributed ?	Distributions depend only on availability at upper levels, no distribution plan in place	Regions and health facilities receive supplies periodically based on inventory at upper level, divided evenly.	Distribution is scheduled based on past distribution quantities. No consumption data or inventory is used to determine accuracy.	Distributions are not scheduled but respond to requisitions from lower levels, no evidence what data is used for calculations.	Distribution plans are in place, and are based on consumption data and buffer stock.
		22	How are SRH commodities transported to the last mile?	No transport costs are budgeted. Serious limitations to distribute commodities to the last mile. Lower facilities go and pick up commodities with their money.	Some deliveries are picked up by personnel with their money, and other times they are delivered by higher level. MOH managed to send commodities in ambulance.	A gap analysis and costing exercise was done to visibilize transportation costs. Bottlenecks continue and lower facilities go and pick up commodities with their money.	All transportation costs are budgeted. Some bottlenecks continue and some lower facilities still go and pick up commodities with their money.	All costs are allocated for transportation of commodities, transportation is secured at all levels. Outsourcing is feasible and used as an option when applicable.
		23	Max-Min inventory control system is applied?	It is not applied	A form to follow max-min system has been disseminated.	Some training has been conducted to use a Max-Min system forms.	All health facilities have been trained to follow max-min system when placing resupply orders.	There is a norm that approves the use of Max-Min system and is consistently followed for resupply.
		24	Are standard warehouse conditions followed?	Leakages of tracer SRH commodities, expired products have been reported in the past year, space is insufficient and/or air conditioning is not available.	Expired products have been reported in the past year, space is insufficient and/or air conditioning is not available.	Space is insufficient, air conditioning is available. Cold chain is used when storing Oxytocin. Some training has been conducted to follow first-expired, first-out rule. Expiry products are still reported in the past year.	Space is sufficient and air conditioning is available. Cold chain is used when storing Oxytocin. All personnell has been trained to follow FEFO. Plans to improve conditions have been approved.	Space is sufficient and air conditioning is available. Cold chain is used when storing Oxytocin. Everyone follows FEFO. No expiry products have been reported in the last year. Warehouse improvement plans are being implemented.

Output	Area of Analysis	#	Question	1	2	3	4	5
		25	Are there allocated government funds to reinforce the supply chain capabilities?	There is a plan to improve some areas of the supply chain but has not been approved.	Government funds have been allocated for LMIS training at health facility level.	Training at health facility level has been conducted to follow standardized LMIS and Max-min system.	Training at health facility level has been conducted to follow standardized LMIS and Max-min system and there is a costed plan to conduct working meetings to standardize the use of consumption data to forecast.	Training at health facility level has been conducted to follow standardized LMIS and Max-min system and some working meetings have been conducted to standardize the use of consumption data to forecast.
Output 6.	IMPROVED RHCS PLANNING,MONITORING AND REPORTING	26	How are RHCS assessments or monitoring processes performed?	There is no monitoring neither assessments of SRH Programme or RHCS.	Monitoring or assessments of SRH programme are externally conducted, but there is not a monitoring model institutionalized.	RHCS assessment is done externally, it includes national health demographic surveys to identify gaps.	RHCS assessment and monitoring is in place, with external support. It includes data on procurement and policies. A plan is developed, but not shared amongst SRH stakeholders.	There is a national RHCS monitoring plan institutionalized, with indicators, targets and goals. With participation of MOH, NGO, social security. Findings and gaps are part of annual and strategic RHCS or SRH plans.
		27	How is the RHCS financing and procurement monitored?	International development partners facilitate a process to monitor finance and procurement of SRH commodities.	MOH conducts independent yearly analysis of financing and procurement processes.	National RHCS working group monitors annual financing and procurement processes against programatic expansion plans.	National RHCS working group monitors financing and procurement process semi-anually against programatic expansion plans and gaps.	RHCS WG invites civil society to participate quarterly of an observatory to analyze gaps and advocate for financial resources if needed.
		28	Is there availability of 16 commodities evaluated, by year´s end 2019?	Yes, it includes at least 3 out of 16 commodities.	Yes, it includes at least 6 out of 16 commodities.	Yes, it includes at least 9 out of 16 commodities.	Yes, it includes at least 12 out of 16 commodities.	Yes, it includes 15 or 16 commodities.

ANNEX 3: COVID-19 IMPACT TOOL

Contraceptives	Factor of usage	@ monthly distribution 2019	Latest stock on hand in 2020	Orders in transit	Distribution Jan-Dec 2019	Level of Stock Available		
						November	December	January
Male condom	120	56,510	26,352	100,000	678,120	1.0	0.0	-1.0
	Quantity of CYPs lost monthly because of stockout						470.9	470.9
Female condom	120	-	-	-	-			
	Quantity of CYPs lost monthly because of stockout							
Oral contraceptive	15	667	1,080	7,000	8,006	1.4	0.4	-0.6
	Quantity of CYPs lost monthly because of stockout						44.5	44.5
Emergency contraception	20	58	312	-	700	5.8	4.8	3.8
	Quantity of CYPs lost monthly because of stockout							
Monthy injectable	13	600	-	-	7,200	0.5	-0.5	-1.5
	Quantity of CYPs lost monthly because of stockout					46.2	46.2	46.2
Bi-monthy injectable	6	-	-	-	-			
	Quantity of CYPs lost monthly because of stockout							
3-monthly injectable	4	269	83	1,500	3,222	0.8	-0.2	-1.2
	Quantity of CYPs lost monthly because of stockout					67.1	67.1	67.1
CYPS TOTAL								

						Inventary Balance to July 2021	2019 CYP distributed	CYPs Lost
February	March	April	May	June	July			
-2.0	-3.0	-4.0	-5.0	-6.0	-7.0	- 382,238.00	5,651	3,767
470.9	470.9	470.9	470.9	470.9	470.9			
-1.6	-2.6	-3.6	-4.6	-5.6	-6.6	2,077.00	534	356
44.5	44.5	44.5	44.5	44.5	44.5			
2.8	1.8	0.8	-0.2	-1.2	-2.2	- 210.00	35	12
		2.9	2.9	2.9	2.9			
-2.5	-3.5	-4.5	-5.5	-6.5	-7.5	- 5,400.00	554	415
46.2	46.2	46.2	46.2	46.2	46.2			
-2.2	-3.2	-4.2	-5.2	-6.2	-7.2	-838.00	806	604
67.1	67.1	67.1	67.1	67.1	67.1			
							7,579.08	5,154.33

Level of Stock Available	Months of Stock	Result
Oversupplied	>18 months	
Properly Stocked	6 to 18 months	
Medium Risk	3 to 5.9	
High Risk	0 to 2.9	

Expected Impact of Stockout	
Total of CYPs lost	5,154
Number of unintended pregnancies	4,381
Number of abortions	687
Number of maternal deaths	3
Number of neonatal deaths	34

ANNEX 4: KEY INFORMANTS

Anguilla	Name		Organization
	Dr. Twyla Bradshaw-Richardson	Director, National Chronic Disease Unit	Ministry of Health
	Janice Hodge	Coordinator Community Nursing	Ministry of Health
	Denise Blackstock	Liaison Officer	UNFPA
Antigua and Barbuda	**Name**		**Organization**
	Yvelle Charles-Jenkins	Central Medical Procurement Unit - Senior Pharmacist	Ministry of Health
Bahamas	**Name**		**Organization**
	Sherry Armbrister	Senior Nursing Officer - MCH coordinator	Ministry of Health
	Delon Brennen	Deputy Minister of Health	Ministry of Health
	Carlyne Smith-McKenzie	National PAHO Consultant -Communicable Diseases and International Health Regulations	PAHO
	Carlyne McKenzie	National Consultant -Communicable Diseases and International Health Regulations	PAHO/WHO Office for The Bahamas and Turks and Caicos Islands
Barbados	**Name**		**Organization**
	Kim Maughan	Senior Health Sister - Nurse	Ministry of Health
	Larone Hyland	Senior Health Sister - Nurse	Ministry of Health
	Maryam Hinds	Chief Barbados Drug Services	Ministry of Health
	Dr Yitades Gebre.	PAHO Representative	Barbados
	Anderson Langdon	Executive Director	Barbados Family Planning Association

Belize	Name		Organization
	Dr. Natalia Beer	Technical Advisor	Ministry of Health
	Dr. Julio Zabido	Maternal and Child Health Advisor	Ministry of Health
	Tisa Grant	Liaison Officer	UNFPA
	Joan Burke-Skeen	Executive Director	BFLA
British Virgin Islands	Name		Organization
	Dr. Idar Potter	Dr. Chief Medical Officer	Ministry of Health
	Marina Bedeau	Expanded Program on Immunization Manager	Ministry of Health
	Yvonne Wilson	Materials Manager	Ministry of Health
	Neil Hawke	BVIHSA Ag. Pharmacy Manager	BVIHSA
	Gracia Wheatley	Senior Chief of Drugs and Pharmaceutical Services	BVIHSA
Dominica	Name		Organization
	Magdalen Poponne Alexander	MCH Coordinator	Ministry of Health
	Yvonette Anatol Carbon	Community Health Nurse	Ministry of Health
	Marilyn Richards	Executive Director	Dominica PPA
Grenada	Name		Organization
	Nester Edwards	Chief Nursing Officer	Ministry of Health
	Corrine Alexis	Procurement Officer Central Medical Stores	Ministry of Health
	Carroll Telesford-Charles	Chief Community Health Nurse	Ministry of Health

Guyana	Name		Organization
	Oneka Scott	Maternal and Child health office	Ministry of Health
	Adler Bynoe	Liaison Officer	UNFPA
	Bhagwandai Persaud-Giddings		IPPF Affiliate
	Padmini Singh	Consultant Maternal Mortality Reduction	PAHO
	Arlene Chaturia	Executive Director	Guyana Responsible Parenthood
Jamaica	**Name**		**Organization**
	Tazhmoye Crawford	Director of Monitoring, Evaluation and Research	National Family Planning Board
	Lovette Byfield	Executive Director FP Board	National Family Planning Board
	Andrea Campbell	Director of Promotion and Prevention	National Family Planning Board
	Dr. Melody Ennis	Director of the Family Health Unit	Ministry of Health and Wellness
	Dr. Carol Lord	Program Development Officer, FHU	Ministry of Health and Wellness
	Denise Chevannes-Vogel	Liaison Officer	UNFPA
	Pilar de la Corte Molina	Sexual and Reproductive Health Advisor	UNFPA
	Vicente Teran		UNICEF
	Casimiro Canha Cavaco Dias	Advisor, Health Systems and Services	PAHO
Montserrat	**Name**		**Organization**
	Faqueeda Watson-Jones		Ministry of Health

OECS	Name		
	Brenda Cox	Program Assistant	OECS Pharmaceutical Procurement Service
	Nadine Felicien, Procurement Assistant	Procurement Assistant	OECS Pharmaceutical Procurement Service
Saint Kitts and Nevis	Contacts		Organization
	Davida Irish	Community Nurse EPI Manager & Coordinator	Community N. – Kitts
	Ermine Jeffers	Coordinator	Community Nursing Services - Nevis
Saint Lucia	Contacts		Organization
	Dr. Gail Gajadhar	Senior Medical Officer	Ministry of Health and Wellness
	Allison Jean	Procurement Officer III Central Procurement Department of Health and Wellness	Ministry of Health and Wellness
	Julietta Frederick	Cassius/Principal Nursing Officer - Community Nursing	Ministry of Health and Wellness
	Geraldo Bray	Executive Director	Saint Lucia PPA
Saint Vincent and the Grenadines	Contacts		Organization
	Arlitha Scott	National FP Coordinator	Ministry of Health
	Nellie Phillips	Executive Director	SVG IPPF Affiliate

Suriname	Contacts		Organization
	Mellenie Kasanredjo	Planning Department	MoH
	Inder Gajadien	Programme Manager - Family & Community Health Bureau	Ministry of Health
	Monique Holtuin	Programme Manager - HIV Program	Ministry of Health
	Leonie Overman	Midwifery Coordinator	Regional Health Service
	Maureen Van Dijk	Program Manager Family and Community Health at Bureau of Public Health	Ministry of Health
	Judith Brielle	Liaison Officer	UNFPA
	Nensy Bandhoe	Executive Director	Lobi Health Center (IPPF Affiliate)
Trinidad and Tobago	Contacts		Organization
	Dr. Adesh Sirjusingh	Director Women´s Health	Ministry of Health
	Anesa Doodnath-Siboo	Principal Pharmacist (Ag.)	Office of the Drug Inspectorate Ministry of Health
	Katlene Harewood	Principal Statistical Officer Population Programme Unit	Ministry of Health
	Haroun Choate	Research Specialist Directorate, Women´s Health	Ministry of Health
	Makeya Cummings-Luke	Clinical Auditor Directorate Women´s Health	Ministry of Health
	Nadira Ramroop	Quality System Auditor Directorate, Women´s Health	Ministry of Health
	Dona Da Costa Martinez	Executive Director	Family Planning Association
	Aurora Noguera-Ramkissoon	Liaison Officer	UNFPA


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