REPRODUCTIVE HEALTH COMMODITY SECURITY TO ADDRESS UNMET NEED FOR FAMILY PLANNING IN MYANMAR

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MYANMAR

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A thesis submitted in partial fulfillment of the requirement for the degree of Master of Public Health

by
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Myanmar

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ABSTRACT

Reproductive Health Commodity Security (RHCS) is an integral part of Sexual and Reproductive Health and Rights. Without securing the contraceptive commodities, unmet need for family planning cannot be reduced.

Background:

Although there is high demand for family planning, the high burden of induced abortions, low CPR, and high unmet need for family planning shows insufficient supply to clients' demand. When demand increases, there is increased pressure on existing service capacity, establishing and maintaining contraceptive security in Myanmar.

Objective:

To review and analyze factors influencing RHCS and to identify ways to improve RHCS aiming to increase contraceptive use and reduce unmet need for family planning in Myanmar.

Study method:

The methodology was literature review of published articles and unpublished documents related to RHCS and family planning in Myanmar. The SPARHCS (Strategic Pathway to RHCS) framework was used for conceptual model and all constraints related to Myanmar context were analyzed.

Findings:

In general, RHCS has not been well addressed, and poor financial commitment, limited knowledge and inaccessibility of underserved populations, unavailability of many methods especially implants, the inefficient supply chain, the lack of nationwide LMIS and proper LMU, poor coordination among sectors, and limited capacity and shortage of providers have been recognized. All are leading to distribution by a "push" system; inadequate or oversupply of commodities at service delivery points in public sectors; and financial inaccessibility in private sectors.

Conclusions and recommendations:

Clients cannot choose, obtain, and use contraceptives when they want and RHCS has not been reached in Myanmar. Therefore, RHCS should be given higher priority and appropriate actions are recommended in order to achieve its objectives.

Key words: RHCS, contraception, security, unmet need, Myanmar

Word count: (12,988) words

LISTS OF ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
BCC	Behaviour Change Communication
BS	Birth Spacing
CBD	Community Based Distributions
CCM	Coordination Committee Meeting
CIP	Cost Implementation Plan
CMSD	Central Medical Store Depot
CPR	Contraceptive Prevalence Rate
CYP	Couple Years Protection
DMS	Department of Medical Services
DOH	Department of Health
DPH	Department of Public Health
ECP	Emergency Contraceptive Pills
FP	Family Planning
FRHS	Fertility and Reproductive Health Survey
FY	Fiscal Year
GDP	Gross Domestic Product
GPRHCS	Global Programme to enhance Reproductive Health Commodity Security
GGHE	General Government Health Expenditure
GGE	General Government Expenditure
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
ICPD PoA	International Conference on Population and Development Programme of Action
IEC	Information, Education and Communication
IHLCA	Integrated Household Living Conditions Survey
INGOs	International Non-Governmental Organizations
IPPF	International Planned Parenthood Federation
IUD	Intrauterine Device
JSI	John Snow, Inc.
LAM	Lactational Amenorrhea Method
LaoPDR	Lao People Democratic Republic
LARCs	Long Acting Reversible Contraceptives
LMIS	Logistic Management Information System
LMU	Logistic Management Unit

MDG	Millennium Development Goal
MHSCC	Myanmar Health Sector Coordination Committee
MICS	Multiple Indicator Cluster Survey
MMR	Maternal Mortality Ratio
MNCH	Maternal, Newborn and Child Health
MOH	Ministry of Health
MRH	Maternal and Reproductive Health
MSI	Marie Stopes International
NGO	Non-Governmental Organization
NHP	National Health Plan
PLHIV	People Living with Human Immunodeficiency Virus
PM	Permanent Methods
PPP	Public Private Partnership
PSI	Population Services International
RH	Reproductive Health
RHCs	Rural Health Centers
RHCS	Reproductive Health Commodity Security
RHC-LS	Reproductive Health Commodity Logistic System
RHSP	Reproductive Health Strategic Plan
RMNCH	Reproductive, Maternal, Newborn and Child Health
SEA	South East Asia
SOP	Standard Operating Procedures
SPARHCS	Strategic Pathway to Reproductive Health Commodity Security
SRH	Sexual and Reproductive Health
sub-RHCs	Sub Rural Health Centers
TSG	Technical and Strategic Group
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
U.S.	United States
USAID	United States Agency for International Development
WHO	World Health Organization

GLOSSARY

Birth spacing

Birth Spacing is the practice of waiting between pregnancies. A woman's body needs to rest following pregnancy. In Myanmar, it is recommended to wait at least two years before getting pregnant again to maintain the best health for her body and her children.

Contraceptive Prevalence Rate

Contraceptive prevalence rate is the percentage of women who are currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of the method used. It is usually reported for married or in-union women aged 15 to 49.[62]

Contraceptive Security

It exists when every person is able to choose, obtain, and use quality contraceptives including condoms whenever s/he needs them for family planning and prevention of sexually transmitted infections.[25]

Consumption

The quantity of stock dispensed to users or used during a particular time period.[42]

Couple Year Protection (CYP)

The estimated protection provided by family planning (FP) services during a one-year period, based upon the volume of all contraceptives sold or distributed free of charge to clients during that period. The CYP is calculated by multiplying the quantity of each method distributed to clients by a conversion factor, to yield an estimate of the duration of contraceptive protection provided per unit of that method.[63]

Family planning

It allows individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. It is achieved through use of contraceptive methods and the treatment of involuntary infertility. A woman's ability to space and limit her pregnancies has a direct

impact on her health and well-being as well as on the outcome of each pregnancy.[62]

Family Planning 2020 (FP2020)

It is a global partnership that supports the rights of women and girls to decide, freely, and for themselves, whether, when, and how many children they want to have. FP2020 works with governments, civil society, multi-lateral organizations, donors, the private sector, and the research and development community to enable 120 million more women and girls to use contraceptives by 2020. FP2020 is an outcome of the 2012 London Summit on Family Planning where more than 20 governments made commitments to address the policy, financing, delivery and socio-cultural barriers to women accessing contraceptive information, services and supplies.FP2020 is based on the principle that all women, no matter where they live should have access to lifesaving contraceptives. FP2020 is in support of the UN Secretary-General's global effort for women and children's health, Every Woman Every Child.[49]

GPRHCS

UNFPA launched the Global Programme to enhance Reproductive Health Commodity Security (GPRHCS) in 2007 with the goal of increasing the availability, access and use of reproductive health commodities for voluntary family planning, HIV/STI prevention and maternal health services. GPRHCS is an instrument to guarantee predictable, planned and sustainable country-driven approaches for securing essential supplies and ensuring their use. The Programme supports the procurement of essential supplies and works closely with governments to develop capacities to improve planning and logistics management, including monitoring supplies and forecasting needs.[32, 33]

Losses and Adjustments

Losses are the quantity of stock removed from the pipeline for any reason other than consumption by clients or use at the service delivery point (due to expiration, theft, damage, etc.).[42]

Adjustments are the quantities of stock issued to or received from other facilities at the same level of the pipeline.[42]

LMIS

A logistics management information system (LMIS) collects, organizes, and reports data that enables people to make logistics system decisions.[42]

MMR

The maternal mortality ratio (MMR) is the ratio of the number of maternal deaths during a given time period per 100,000 live births during the same time-period. A maternal death refers to a female death from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy.[65]

Modern Contraceptive Prevalence Rate

Modern contraceptive prevalence rate is the percentage of women who are currently using, or whose sexual partner is currently using, at least one modern method of contraception, regardless of the method used. It is usually reported for married or in-union women aged 15 to 49.[62]

Push System

The push system delivers commodities based on the forecasted demand made by the supply side. Disadvantages of the push system are that forecasts are often inaccurate as consumption can be unpredictable and vary from one year to the next. Another problem with push inventory control systems is that if too much product is left in inventory it causes storage problems. An advantage of the push system is that the supply side does not require much information regarding updated stock balance and can be distributed based on estimated consumption.

Pull System

The pull system delivers commodities based on actual demand from the clients' side. With this strategy, commodities can be supplied according to clients' needs and there will be no excess of inventory, extra transport costs or storage problems. However, disadvantages to the pull system are found when the supply side is unable to deliver on time; unable to fulfill their demands, and contributes to clients' dissatisfaction.

RHCS

Reproductive Health Commodity Security (RHCS) exists when every person is able to **choose**, **obtain**, and **use** quality contraceptives and other essential reproductive health products whenever s/he needs them.[25]

Six Right characters

Six Rights characters of a logistics system are right product, to the right place, at the right time, in the right quantity, in the right condition, for the right price.[25]

Stock on hand

The quantity of usable stock that is available. Items that are unusable are not considered part of stock on hand; they are considered losses to the system.[42]

Total fertility rate

The average number of children that would be born alive to a woman (or group of women) during her lifetime if she were to pass through her childbearing years conforming to the age-specific fertility rates of a given year.[64]

Unmet need for family planning

Women with unmet need are those who are fecund and sexually active but are not using any method of contraception, and report not wanting any more children or wanting to delay the next child. The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behaviour.[62]

INTRODUCTION

I am an Assistant Director of the Maternal and Reproductive Health Unit in the Department of Public Health under the Ministry of Health (MOH) in Myanmar. I have been actively devoting my time there for about five years with the responsibility for almost all tasks that aspire to improve maternal and reproductive health in Myanmar.

According to my working experience, although Myanmar has been trying to increase access to family planning (FP) methods through awareness raising activities, training of public providers, distribution of commodities and supervision and monitoring in coordination with related stakeholders, low contraceptive prevalence rates and high unmet needs remain. Clients' demands have increased and the supply side cannot provide their needs. The quality of services is uncertain and the clients are unable to use their choice due to limited availability of commodities and unbalancing of stocks. Even though financial resources are invested by both government and UNFPA, there is still insecurity of contraceptive caused by poor supply chain management including limited logistic information.

As a person from MOH responsible for forecasting the national contraceptive needs, products selection, procurement, and distribution planning to all public facilities, I encounter contraceptive insecurity problems reported across the country daily. Therefore, I was very curious to know the reasons for contraceptive insecurity in Myanmar and was fascinated to learn how to tackle these problems through other countries' experiences and evidence based applicable solutions.

After realizing it is impossible to reduce unmet need for family planning and exercise the full rights of sexual and reproductive health (SRH) without contraceptive commodities security, I aspired to study it in order to identify the challenges and forced me to find the ways to improve Reproductive Health Commodity Security (RHCS) in our context. In addition, since RHCS is a relatively evolving issue and has not well addressed yet in Myanmar, this study's findings and recommendations will hopefully be useful in future decision making, planning implementation, advocacy, and as a policy brief reference document.

CHAPTER 1. BACKGROUND INFORMATION

1.1 Geography and Socio demography

The Republic of the Union of Myanmar is the largest among the mainland Southeast Asian countries with land area of 676,578 square kilometers.[1] It is bordered by Bangladesh, India, China, Laos, and Thailand on the landward side and 1,760 miles of the coast line is bounded on the west by the Bay of Bengal and on the south by the Andaman Sea.[1]

Figure (1) Map of Myanmar

Source: Myanmar Information Management Unit, 2013

Administratively, the country is divided into Nay Pyi Taw Council Territory and 14 States and Regions. It consists of 74 Districts, 330 Townships, 398 Towns, 3,065 Wards, 13,619 Village Tracts and 64,134 Villages. Myanmar is made up of 135 races speaking over 100 languages and dialects.[1]

According to the 2014 census[2], the population is 51.48 million with an annual growth rate of 0.89%. While the country's population density is the lowest at 76.1 persons/km^2 among the South East Asia (SEA), this has a wide variation with 70% of the population living in rural areas and the larger urban populations concentrated in the big cities, Yangon and Mandalay.[2] Women of reproductive age constitute about 27% of the population and total fertility rate (TFR) is 2.3.[2,3] About 89.4% of the population are Buddhists and the rest are Christians (4.9%), Muslims (3.9%), Hindus (0.5%) and Animists (1.2%).[1]

1.2 Socioeconomic situation

With abundant natural resources, a strategic location in SEA, and large population of productive age groups (67% of total population), the new government has been endeavoring to sustain macroeconomic stability and develop a democratic nation.[1,2] However, according to the Human Development Index (HDI)[4], Myanmar was ranked at 150 out of 187 countries in 2013. The Integrated Household Living Conditions Survey (IHLCA) indicated that one in every four citizens of Myanmar is considered poor and 84% of poverty is found in rural areas.[5]

In 2014, Myanmar's Gross Domestic Product (GDP) was 64.33 billion USD. The GDP per capita PPP was 1,324.61 US dollars. The GDP annual growth rate was 7.7%.[6] Although expenditures for health and education have risen considerably, total health expenditure, 2.0–2.4% of GDP between 2001 and 2011, is still the lowest in the SEA Region.[7] Government expenditure on general health was about 5.7% of its total government expenditure and less than 1% of its GDP in 2012-2013 fiscal years.[7] Union literacy rate is 89.5%; the male rate is 92.6% and the female rate is 86.9%. There is a variation between urban (95.2%) and rural (87.0%) literacy rates for both sexes.[2]

1.3 Myanmar Health System

The Ministry of Health is taking main responsibility of providing comprehensive health care services according to the National Health Plan

(NHP) (2011-2016) under the guidance of the National Health Committee.[1] It has a pluralistic mix of public and private systems both in financing and service provision.[1] The NHP was formulated within the framework of Myanmar Health Vision 2030 and the National Health Policy of 1993 with the ultimate goal of achieving Health for All as well as the Millennium Development Goals (MDGs).[1]

There are six departments under the MOH shown in the newly established organogram in 2015; attached in Annex (1).[9] Department of Public Health is mainly responsible for public health services including maternal and reproductive health.[1,9]

The Township Health System is the backbone of Myanmar Health System and provides primary and secondary health care services down to the grassroots level, usually covering 100,000 to 200,000 populations. Under the Township Health Department, there are one Township Hospital, Urban Health Center, and Maternal and Child Health Team, one to three Station Health Units and four to five Rural Health Centers (RHCs) with four sub-RHCs under each RHCs, which all provide maternal and reproductive health including family planning services.[10,11]

1.4 Myanmar Reproductive Health Programme

In Myanmar, maternal, newborn and child health (MNCH) has been accorded as a priority issue in the NHP, aiming to reduce maternal, newborn and child morbidity and mortality according to MDG targets.[1,8,10]

Myanmar has made considerable progress in coverage and quality of the elements of reproductive health (RH), particularly for MNCH and birth spacing services.[10] Reproductive health care is implemented by Maternal and Reproductive Health (MRH) Unit under the Department of Public Health in accordance with the overall goals and within the framework of National Health Policy (1993), National Population Policy (draft, 1992) (Annex 2), and National Health Plans (2011-2016).[10]

In order to achieve the ICPD goals and MDGs, Myanmar has been endeavoring the quality RH programme according to RH policy (2002)(Annex 3) and Five years Reproductive Health Strategic Plans (RHSP) through the coordination with the private sector, UN agencies, INGOs, NGOs and donor agencies.[10]

In Myanmar, although contraceptive services have long been provided by the private sector, family planning programme has started in 1991 in the public sector as a "Birth Spacing" programme with assistance from a number of international agencies.[12,13,14] It started in one pilot Township and then progressively extended to 163 townships in 2014 aiming to increase access the quality birth spacing services through advocacy, community awareness, capacity building of providers, and distribution of supplies and equipment. The RH commodities including contraceptives were supplied only in project townships with UNFPA support up to 2012. Then, as government increased the health budget and invested more in family planning programme, more contraceptives were supplied to the whole country to increase access to quality reproductive health services and to achieve the FP 2020 commitment.[14,15]

CHAPTER 2. PROBLEM STATEMENT, JUSTIFICATION, OBJECTIVES, METHODOLOGY AND CONCEPTUAL FRAMEWORK

2.1 Reproductive Health Situation in Myanmar: Reproductive Health Commodity Insecurity - the major bottlenecks

Maternal Mortality Ratio

In terms of maternal mortality ratio (MMR), Myanmar is one of the slow progress countries among the SEA region.[16] According to UN interagency estimates (2013)[17], it shows a reducing trend; 580 and 200 maternal deaths per 100,000 live births in 1990 and 2013, respectively, however, it is still far from the MDG target of 145/100,000 live births in 2015.

Abortion related complications

Among the causes of maternal deaths, abortion related complication is third leading cause after Postpartum Haemorrhage and pre-eclampsia.[18,19] Although abortion is illegal in Myanmar, both married and unmarried women widely practice it and it is almost always unsafe, and it contributed to 12% of maternal deaths in 2013, highest among the countries of SEA Region.[19,20] At least half of maternal deaths in hospitals and one fifth of all hospital admissions are attributed to complications from unsafe abortion.[21] According to a 2007 survey[3], nearly 5% of all pregnancies ended in abortions; most were induced and unsafe, with the highest rate among 15-19 year olds.

Contraceptive Prevalence Rate (CPR)

As the legal environment does not allow for safe abortion, unsafe abortion can only be prevented by using contraception in Myanmar; however, the modern contraceptive prevalence rate (CPR) is still low.[5]

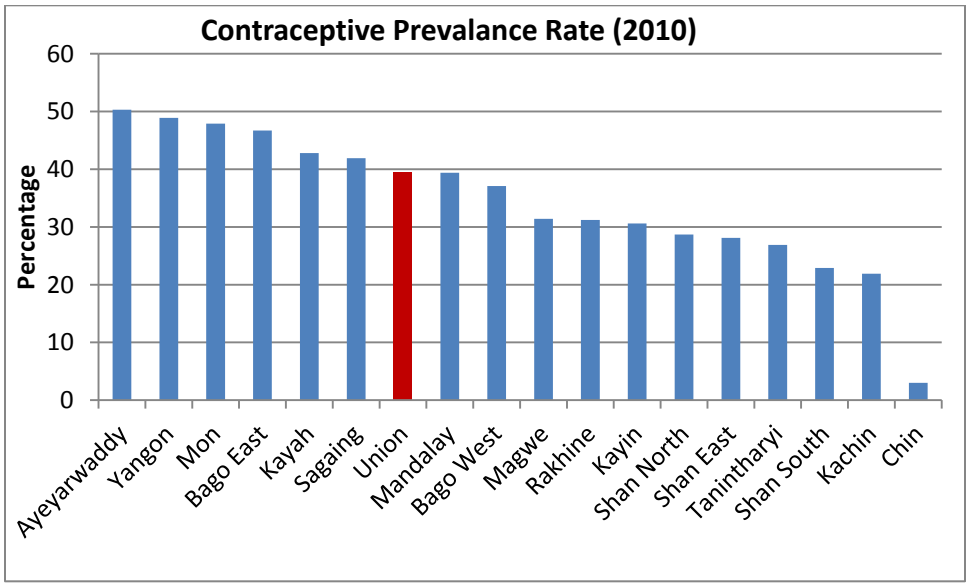
Three successive Fertility and Reproductive Health Surveys (FRHS)[3] reveal an increasing trend in modern CPR among married women: 28% in 1997 to 33% in 2001 and 38% in 2007 and 39.5% from IHLCA[5], however, it is still lower than the regional average of 59%.[16] CPR differs considerably in terms of poverty status and residence and also varies across states and regions.[5] However, it has been found that CPR is high in small scale studies in big cities, ranging from 53.4%, to 73.3% and 74.7%.[22,23,24]

Table (1) Contraceptive Prevalence Rate by Poverty Status and Strata, 2010

	Poverty Status		Strata		Total
	Poor	Non Poor	Urban	Rural	
2010	32.0	41.9	46.5	37.2	39.5

Source: IHLCA Survey (2009-2010)[5]

Figure (2) Contraceptive Prevalence Rate by State and Region (2010)



Source: IHLCA survey (2009-2010)[5]

Unmet need for family planning

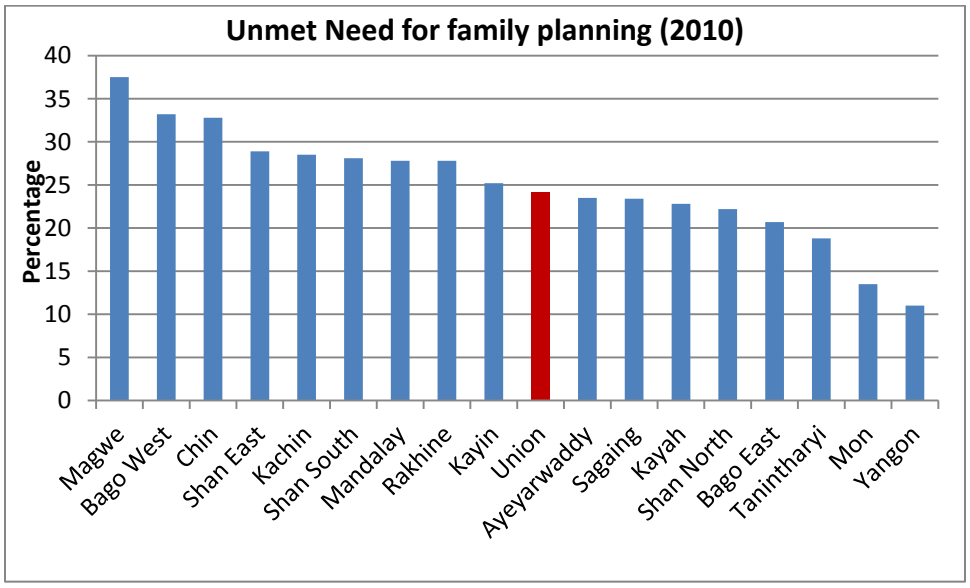
In addition to low CPR, high unmet need for family planning has been remarkably recognized among all currently married women of reproductive age in Myanmar.[3,5] While FRHS surveys[3] show decreasing trends from 20.6% in 1991, 19.1% in 1997 and 17.7% in 2007; it increased to 24.2% in the IHLCA survey in 2010.[5] The reason for increased unmet needs has not been documented but it might be due to increased clients' demands through increased awareness and positive attitude on FP.[3]

Table (2) Unmet Need for Family Planning by Poverty Status and Strata, 2005

	Poverty Status		Strata		Total
	Poor	Non Poor	Urban	Rural	
2010	28.3	22.9	14.8	27.3	24.2

Source: IHLCA survey (2009-2010)[5]

Figure (3) Unmet need for Family Planning by State/Region (2010)



Source: IHLCA survey (2009-2010)[5]

Fertility Rate and Fertility Preference

There has been a reducing trend of the total fertility rate of women aged 15-49 years from 4.7 in 1983 to 2.3 in 2014 children per woman.[2,13] The TFR differs between urban (1.8) and rural (2.5) and also differs by states and regions with the highest in Chin (4.4), and lowest in Yangon (1.7).[2]

According to the 2007 FRHS[3], the mean desired ideal family size is 3.2 children. About half of currently married women of 15-49 and 21% of currently married youth do not desire to have any more children and 15% would like to space their next child for two years.[3]

Reproductive health commodity insecurity in Myanmar

According to the trends of total fertility rate and fertility preference, there is reasonable demand for family planning methods, however, the high burden of induced abortions, low CPR, and high unmet need for family planning show insufficient supply to the client's demand.

As the demand for reproductive health services increases there is increased pressure to establish and maintain the secure systems for procuring and managing delivery of reproductive health commodities in Myanmar.[25,26] Reproductive Health Commodity Security (RHCS) exists when every person is able to **choose**, **obtain**, and **use** quality contraceptives and other essential reproductive health products whenever s/he needs them.[25] Reproductive health commodity/contraceptive security emphasizes three important areas: (1) Clients' demand, (2) Service provision including commodities and, (3) Sustainability (long term assurance).[27]

While the reproductive health programme has been implemented through strategic approaches as advocacy, awareness raising to improve clients' behaviour, training of health staff to provide the quality service with standard guidelines and provision of supplies and equipment by the health system strengthening associated with human resources and infrastructure, there is remaining insecurity of RH commodities due to various reasons.[10,26,28]

In Myanmar, logistic supplies of family planning commodities relied on UNFPA support up to 2012 and they could provide only the project townships and often had stockout problems.[14,28] After 2012, government expenditure on health was raised four-fold and two types of contraception, injection Depo-Provera and oral contraceptive pills could be supplied through government budget to the whole country.[14,15,29] There has emerged another problem with overstock of pills and stockout of injection Depo-Provera as clients preferred injection, indicating insufficient provisions according to their needs because of the existing "push system".[26,28,30]

According to a 2013 survey[26], more than 90% of health facilities provided three modern contraceptives including the most preferred method. However, only 58% were offering five modern contraceptives at the time of assessment and the rate was 38% in primary level health facilities. The urban rural difference for offering five modern contraceptives was significant

(73% vs. 38%).[26] The majority (80% and above) of health facilities at all levels were found to have experienced stockout for at least one contraceptive method within last six months.[26] Recent stockout situations would affect contraceptive security. Thus the low utilization of contraception might be partly due to unmet need for preferred methods in health facilities.[26]

Although many inputs from both government and UNFPA support have flooded to increase access to quality family planning services, there has been unsatisfactory achievement in commodities security.[26] There have been many challenges in the whole supply chain system: forecasting, procurement, distribution and storage of family planning commodities.[26,28,29] Also the Six Rights characters of logistics system to achieve RHCS are not fulfilled: right product, to the right place, at the right time, in the right quantity, in the right condition, for the right price.[25,28] As the commodities are distributed through the "push system" based on the forecasted demand, they cannot be provided according to the client's choice and this leads to poor quality RH services.[25]

2.2 Justification

Since the use of contraception is influenced by three main areas: client demands, quality services provision and availability of commodities, it is imperative to tackle the problem associated with all three areas to reduce unmet need for contraception.[27]

In Myanmar, as various strategies have been conducted to increase contraceptive use through improving clients' demands, there has been increased demand for contraceptive methods as well as increased pressure in adequate provision of supplies to meet those increased clients' demands.[10,14,25]

Moreover, unmet needs cannot be reduced without securing reproductive health commodities.[32,33] In order to meet the clients' demand, the supplies should be secured whatever and whenever they want.[25] Without secured supplies, people cannot exercise their reproductive rights; everyone has rights to access the information and services of family planning methods according to their choice.[32,33]

Regarding clients' demands and service provision for contraceptive use in Myanmar, many studies have been conducted and their recommendations

have been already taken into account in the Reproductive Health Strategic Plan. However, there have not been studies yet for how to secure contraceptive commodities in order to meet clients' demand.

Although it is worth studying all factors affecting contraceptive use in Myanmar, clients' demand and service provision are quite well known, therefore, this study will focus more on factors affecting on availability and security of contraceptive commodities. The results and recommendations will be benefit the reproductive health programme by analyzing challenges and identifying ways to overcome those barriers in order to achieve RHCS aiming to increase use of contraception and reduce unmet need for family planning.

2.3 Objectives

General objectives

To review and analyze the factors influencing Reproductive Health Commodity Security and to identify ways to improve the RHCS in Myanmar

Specific Objectives

1. To review and analyze factors affecting the security of reproductive health commodity in Myanmar
2. To review the evidence on applicable strategies for tackling reproductive health commodity insecurity
3. To provide recommendations to improve Reproductive Health Commodity Security in Myanmar

2.4 Methodology

The methodology used was literature review through searching relevant articles and presenting secondary data of literatures. Literature review of publications as well as unpublished documents from USAID, JSI and UNFPA related to RH commodities/contraceptive security was done. SPARHCS (Strategic Pathway to Reproductive Health Commodity Security) was used for key concepts and conceptual framework of this study. Published documents and unpublished reports from Ministry of Health and other related reports/surveys/assessments/articles from Myanmar were reviewed to identify the situation of family planning and challenges for RHCS in Myanmar. RHCS strategies and studies related to RHCS from countries with similar context were reviewed to identify the experiences and applicable

strategies in order to apply and give recommendations to overcome the country's challenges and to achieve RHCS in Myanmar.

2.4.1 Literature Search

The literature search was done by using Google, PubMed, and Google Scholar with the help of key words in various combinations. Other organizational websites like the MOH of Myanmar, WHO, UNFPA, UNICEF, JSI and USAID websites and the KIT Library were also used to find relevant references. Personal communication by email and phone to focal persons from MOH, JSI/USAID and UNFPA was also made to get the related documents or information.

Table (3) Search strategy

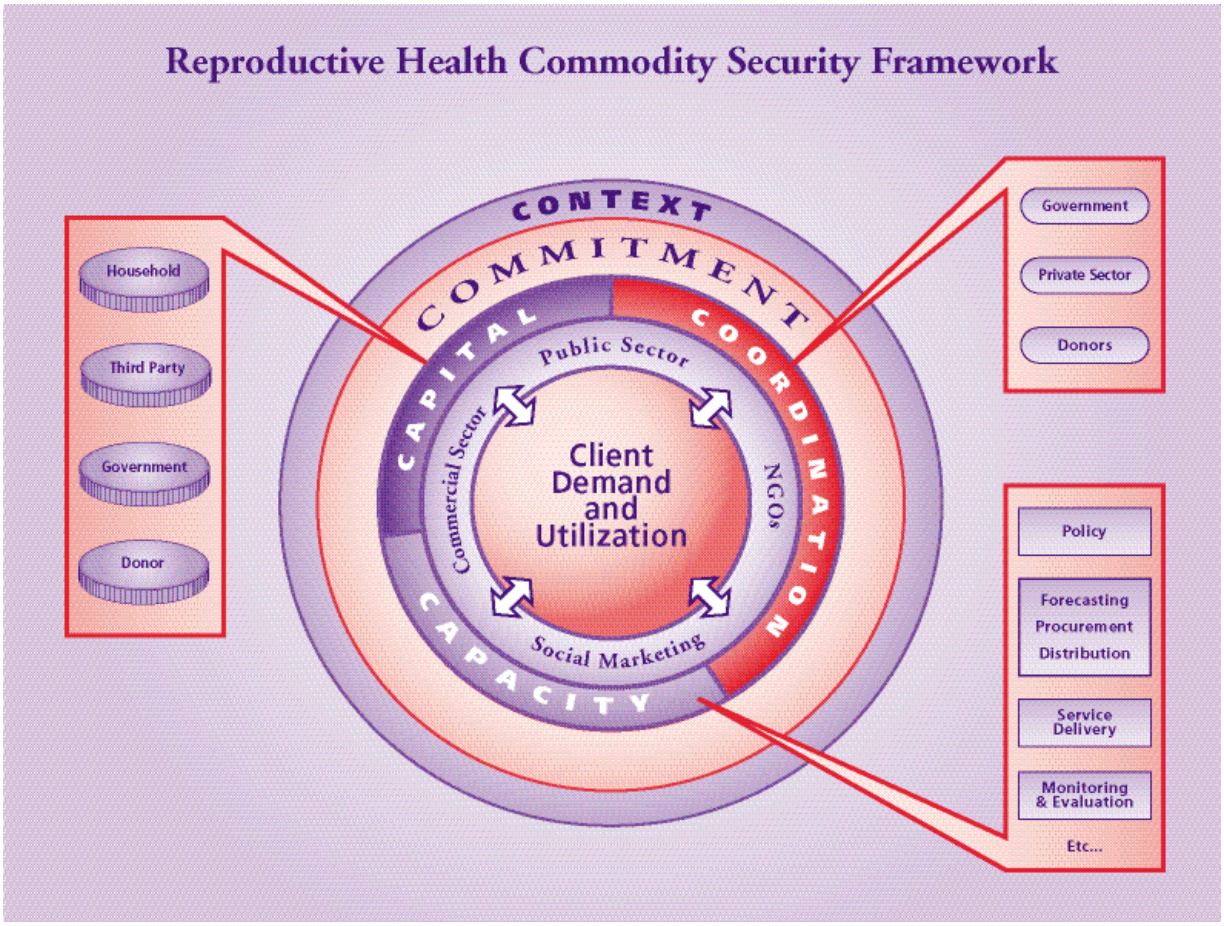
Type	Source	Key words	
		Objective 1	**Objective 2**
Electronic journal's /articles/ publications	PubMed, Google scholar, KIT library	RHCS, contraceptive security, contraceptive use, factors influencing, family planning, birth spacing, GPRHCS, quality strategy, unmet need, CPR, supply chain, Myanmar, capacity building	RHCS, contraceptive security, strategy, Good practices, Experiences, indicators, LMIS, supply chain, CPR, unmet need, family planning
Published and unpublished reports related to Myanmar information	Google	Reproductive Health, Census, CPR, TFR, Unmet Need, Economic, policy, Development, Population, Penal code, Survey, MDG, assessment, health, budget, Workforce, HIV/AIDS, Strategic plan	Best practices, experiences, Myanmar, family planning, contraceptive use
Website information	MOH, WHO, UNFPA, UNICEF, USAID, JSI	National Health Plan, organogram, MMR, abortion, family planning, Myanmar, Health, contraceptive, use, Security, RHCS	supply chain, LMIS, RHCS
MOH information and RHCS documents	Key Informants from MOH,USAID, JSI,UNFPA	RH strategic plan, Budget used for contraception, supply chain system, RHCS assessment, Plan for FP 2020	RHCS, contraceptive security, strategy, best practices, experiences, pilot LMIS system

2.4.2 Inclusion and exclusion criteria

Although the most recent Ministerial reports were used in this study, literature was searched with the limitation of publication date from the last 15 years and the English language.

2.5 Conceptual Framework

Figure (4) Reproductive Health Commodities Security Framework[25]



Source: http://www.policyproject.com/pubs/monographs/SPARHCS.pdf

This conceptual framework is captured from SPARHCS (pronounced "sparks")[25] and identifies key elements involved in securing client access to reproductive health supplies and related services. It can be considered during country-level assessment, planning, and implementation for RHCS.

SPARHCS means "Strategic Pathway to Reproductive Health Commodity Security" which is an approach to help countries address and implement strategies for Reproductive Health Commodity Security (RHCS) and SPARHCS provides a framework and diagnostic guide to support assessment, planning and selecting implementation strategies for achieving the goal of RHCS; people are able to choose, obtain and use the reproductive supplies whenever they want.[25]

SPARHCS takes a strategic, long term perspective to help a broad range of stakeholders for understanding their dependence on product availability and their role to ensuring it. SPARHCS embeds and links the traditional focus on "logistic" within the larger picture of what is needed to ensure supplies to clients' needs: policies, commitments, financing, service delivery, coordination, etc.[25]

According to the SPARHCS framework[25], clients' demand is placed as the center of the framework and context, commitment, capacity, capital and coordination are also involved in securing the reproductive health supplies. It is highlighted that all the components must be considered to secure RH commodities rather than focus only on "logistic" system as is done traditionally.[25]

As SPARHCS can be used for either contraceptive or other RH commodities, SPARHCS concepts and framework were used for contraceptives in this study with the aim of ensuring contraceptive security in Myanmar.[25]

According to the framework[25], the outermost circle is context and it moves inward towards the client. There is a **context** in every country that affects the prospects for RHCS; on the one hand, national policies and regulations that bear on family planning/reproductive health and particularly on the availability of RH supplies, and on the other, broader factors like social and economic conditions, political and religious concerns, and competing priorities. Within this context, **commitment**, evidenced in part by supportive policies, government leadership, and focused advocacy, is a fundamental underpinning for RHCS. It is the basis from which stakeholders will invest the necessary **capital** (financing), **coordinate** for RHCS, and develop the necessary **capacities**, the third circle in the figure.[25]

Coordination involves government, the private sector, and donors to ensure more effective allocation of resources. Households, third parties

(e.g., employers and insurers), governments, and donors are all sources of **capital**. And, **capacities** must exist for a range of functions: policy, forecasting, procurement, and distribution; service delivery; and monitoring and evaluation, to name a few.[25]

Moving closer to the client in the figure, capital, coordination, and capacities form the basis for the public sector, NGOs, social marketing, and commercial sector to efficiently supply the needs of the whole market of client demand, from those who need subsidized products to those who are able to pay for commercial products.[25]

Clients (women and men), at the center of the figure, are the ultimate beneficiaries of RHCS as product users and, as shown by double headed arrows, the drivers of the system through their demands.[25]

CHAPTER 3. FACTORS AFFECTING REPRODUCTIVE HEALTH COMMODITY SECURITY IN MYANMAR

This chapter describes the current situation, factors affecting, opportunities and challenges regarding the RHCS in Myanmar.

Reproductive health commodity security (RHCS) is an integral part of sexual and reproductive health and rights (SRHR).[32] RHCS exists when every person is able to **choose**, **obtain**, and **use** quality contraceptives and other essential RH products whenever and whatever they need; therefore, it concerns not only the strong supply chains including logistic information system as traditionally viewed but also requires strong national leadership, sufficient financing, supportive policies and regulations, and active coordination among partners.[25] Also, clients' demand and service provision are involved under the broader concepts of RHCS.[25]

In order to ensure RHCS (implying contraceptive security in this study) in Myanmar, the current situation, obstacles, and strengths regarding the Myanmar setting are assessed according to the elements involved in the SPARHCS framework: client demand and utilization, capacity, capital, coordination, commitment and context. Each component of the SPARHCS framework will be discussed starting with the center of framework which is Clients and ending with the outermost one, Contextual concerns that affect RHCS in Myanmar.

3.1 Clients Demand and Utilization

As clients (women and men) are the ultimate beneficiaries and drivers of the system through their demand, it is essential to know about the clients' demand and choice. In fact, the supply and services should be matched with the clients' demand to secure the contraceptive commodities.[25]

In Myanmar, client's demand and utilization of contraception are associated with socioeconomic factors: age, income, education, number of living children, and marital duration.[22,23,24] Moreover, knowledge, attitude towards family planning practice, exposure to mass media, norms and motivations of peers, spousal communication, service availability and support from providers all influencing contraceptive use.[24,34,35]

According to MICS 2010[36], CPR is the highest (55.3%) among women aged 25-29. Education level and number of children are well associated with contraceptive use. The higher the education, the more the contraceptive use among the women was found as 31.5%, 44.3% and 52.5% in no education, primary education and secondary and higher education, respectively. Contraceptive use by married women increased with the number of children as 29.3% with no children and maximized at 53.3% with two children, however, declined at 29.3% with four or more children. CPR varies with economic status; 38.3% in the poorest wealth quintile and 51.7% among the richest women.[36]

In 2007 FRHS[3], while there is high (>95%) level of knowledge on at least three contraceptive methods, women aged 15-19 had the lowest scores for knowledge of methods as well as source of supplies. The increased knowledge is one of the contributing factors leading to increased clients' demand and CPR.[3] It has been recognized that "Lack of knowledge" is mentioned by only (6.8%) among the reasons of currently not using contraception in currently married women.[3] Also, as there are strong cultural values against premarital sex in Myanmar, it is one of the barriers for young and unmarried women to access RH information and services.[13] They have to rely on private and commercial sectors for birth spacing methods especially emergency pills and condoms without getting proper counseling.[14]

Table (4) Percentage of currently married women not currently using contraception by reasons, 2007 (Details are in Annex: 4)

Reasons	Age group		
	15-29	30-49	15-49
Lack of knowledge	5.7	7.2	6.8
Opposition to use	9.3	15.4	13.7
Fertility related reasons	35.3	28.4	30.3
Method related reasons	11.7	21.7	18.9
Other	16.0	20.2	19.0
Pregnant	22.0	7.2	11.4
Total	100.0	100.0	100.0

Source: FRHS (2007)[3]

Among the fertility related reasons, "desire to get pregnant" is the main reason 17.2% and followed by "postpartum" 6.6%.[3] Regarding the opposition to use of contraception, majority is "opposition by respondents" 9.7%) and only few percentages are found as opposition by husband and mother in law, 2.6% and 0.2% respectively.[3] Since religious reason is only 1%, the religious factor does not appear to be an important barrier of contraceptive use in Myanmar except some specific areas in Northern Rakhine State.[3,13]

In Myanmar, approximately 50% of current users seek family planning services at public sector facilties.[3] Although birth spacing services are free in public facilities, access to and utilization of services still remains a challenge especially in underserved population in terms of both geographic and financial factors.[13] Geographical inaccessibility is a major barrier to use of contraceptives in rural Myanmar.[12] Previously, contraceptive users paid a user charge as part of a cost recovery scheme and the user charge represented a barrier to use for a significant number of women.[13] Currently, even though contraceptives can be freely provided in public facilities, clients have to pay for commodities when there is stockout or when their preferred method is unavailable or sometimes they cannot afford indirect costs such as transportation.[26]

The most preferred methods of contraception were three-monthly injections and oral pills, which is consistent both in nationwide surveys[36] and small studies.[22,23,24] Nearly one in three (27.5%) of ever married women use hormonal injection, followed by daily pill (11.5%), female sterilization (3.6%) and IUD (2.1%). Less than 1% of couples use male condoms, male sterilization, lactational amenorrhea method (LAM), abstinence, implants, or withdrawal. The female condom is not preferred or requested by clients.[36]

According to FRHS (2007)[3], among currently married women not currently using any contraception but intending to use in future, 61% preferred to use in the future three-monthly injections, 26% daily pills, 4% female sterilization, and 2% for IUD. Therefore it appears that most Myanmar women demand and use short term hormonal methods; only few percent demand long term methods or male methods.

Total demand for family planning: sum of contraceptive prevalence and unmet need, is 58.6%, of which 69.8% have satisfied their demands.[3]

However, in a 2013 national wide RH commodities and services assessment[26], the level of client satisfaction on public health facilities was high (>95%).

In order to create demand for family planning services, development of Information, Education and Communication (IEC) materials and conduct of Behavioural Change Communications (BCC) campaigns are carried out by public sectors, INGOs and NGOs to increase access to information and counselling on SRH. Positive outcomes are more apparent after translation of IEC materials into Chin and Shan indigenous languages. However, low awareness among certain populations: remote area and ethnic minorities, due to language barriers and limited IEC materials still exist as bottlenecks to contraceptive use.[10,14]

Misconception and myths on family planning methods perceived by clients and the community are acknowledged to be a barrier to use of modern contraceptives, particularly IUDs.[14] While many women would prefer to use long-acting reversible contraception, the implant is not easily accessible within the community and misperceptions on IUDs persist.[14,26] Although married couples have quite high knowledge on family planning methods, knowledge among adolescents is still low and often incorrect due to culturally sensitive reasons.[3,13,14] Therefore, while demand has been raised, family planning service availability should be matched with increased demand in order to increase use and ensure contraceptive security.

3.2 Capacity

Capacity in a number of factors: structures (organizations and policies), staff, infrastructure, skills, and tools as well as critical functions of health systems directly affect contraceptive security.[25,37]

3.2.1 Policy

The political environment that effects on RHCS will be described under the Context portions. (3.7)

3.2.2 Service delivery- Quality services provision

Capacity in service provision is also related to contraceptive security.[25] Without qualified in service provision, the clients are unable to choose, obtain and use appropriate contraceptives of their choice. According to the

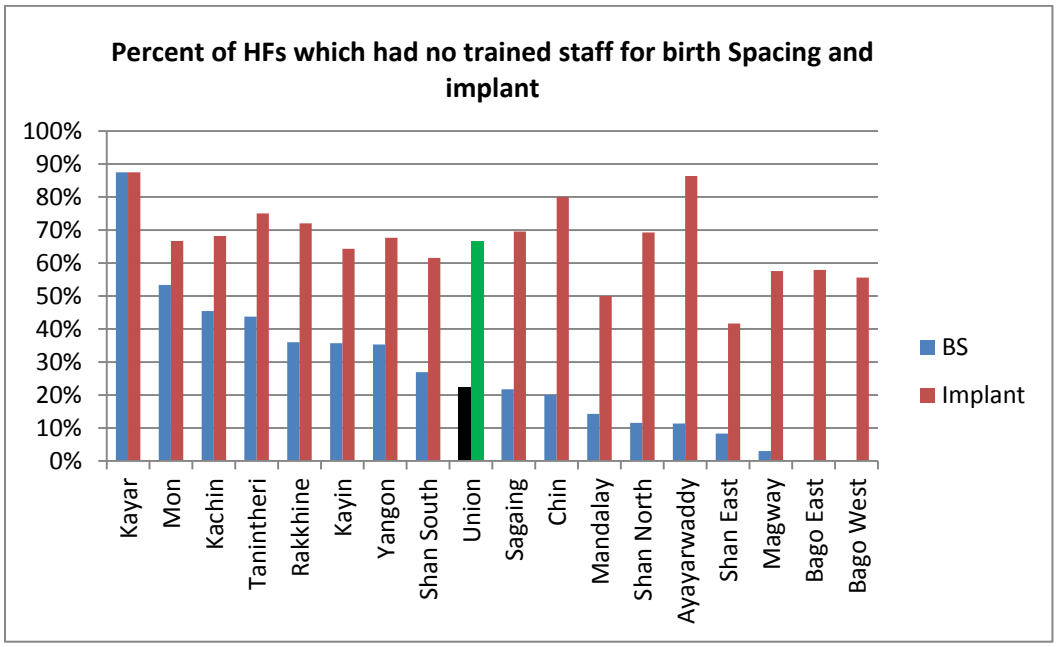
Bruce framework[38], quality of care in family planning programme includes choice of contraceptive methods, information given to patients, technical competence, interpersonal relationships, continuity and follow-up and appropriate constellation of services. Also, it depends on providers' capacity: knowledge, attitudes, skills; availability of resources; human resources, commodities, guidelines/protocols and facilities etc.; information and counseling skills, clients' satisfaction, and supportive supervision from higher levels.[38]

Capacity of Service Providers

In order to build the capacity of service providers in public sectors, "Quality Reproductive Health Trainings" which focus mainly on birth spacing methods and counseling have been provided to only 163 UNFPA supported townships out of all 330.[10,14,26] IUD insertion and implant trainings were provided to selected staff in some townships.[26] The knowledge level between the staff who received training and who did not is considerably different and this effects the quality of services especially in information and counseling.[26] While quality of care seems to be better in programme townships where counselling is a formal part of the service provision, the public providers in non-programme townships have only superficial knowledge of contraception, which inevitably affects their information and counseling services.[14, 26]

Moreover, trained staffs are insufficient in all level of health facilities even in UNFPA supported townships due to turnover, attrition, and retirement, etc. No trained staff were found at one-fourth (24%) and two-thirds (67%) of health facilities at all levels for birth spacing and implants, respectively. The percentage of health facilities without trained staff for birth spacing was higher in primary level (27%) than that of tertiary level (19%) facilities. There are no trained staffs for implants in almost any primary health facilities, and only at about one-third of both tertiary and secondary level facilities. It can be recognized that there is variation among states/regions as Figure (5).[26]

Figure (5) Percentage of health facilities which had no trained staff for birth spacing and implant



Source: 2013 Facility assessment for reproductive health commodities and services (2014)[26]

With regards to no trained staff for birth spacing and implants, there was a difference between urban and rural as 19% vs. 31% for birth spacing whereas, 44% vs. 99% for implant.[26]

Attitudes of providers

Regarding attitudes towards the family planning, all providers in public sectors have positive attitudes except for serving adolescent groups. Only about half of providers agreed to provide RH information to adolescents hoping that it could prevent the adolescent RH problems. However, some worried that providing RH knowledge might lead adolescents to promiscuity. About half stated that it should not be provided to adolescents under 15 years of age. Most providers were reluctant to give contraceptive knowledge to unmarried adolescents. Some providers are still reluctant to provide RH

information and contraceptive services to all adolescents regardless of their age and marital status.[13, 39]

Availability of human resources, guidelines/ protocols

In Myanmar, the 2013 health workforce - doctors, nurses and midwives - to population ratio was 1.23/1,000, which is lower than WHO standard, 2.28/1,000.[40] There is an inequitable distribution of key categories of health workers between urban and rural especially in hard-to-reach areas.[11,40]

As there are shortages of health workforce, there is a lack of time for counselling due to over workload and inadequate counseling skills which leads to negative effect on demand for family planning services.[26] On the other hand, where demand has been created, not all health staff have skills to provide family planning methods especially long term methods: IUD and implants that require a certain level of clinical skills.[26] This is in turn related to budget allocation for capacity strengthening as not all midwives have attended the trainings.[26] Although voluntary health workers are allowed to provide oral pills and condoms to the community, quality of information and counseling services is not ensured.[14]

Regarding the availability of guidelines and protocols for birth spacing methods, training manuals (Annex 5) of Quality RH services, Decision Making Tools, and the WHO Medical Eligibility Criteria Wheel in Myanmar language have been distributed to all 163 RH programme townships, however, these cannot be provided to non-programme townships.[14,26]

Availability of commodities

It will be discussed in "Commodities" as separate paragraph. (3.2.3)

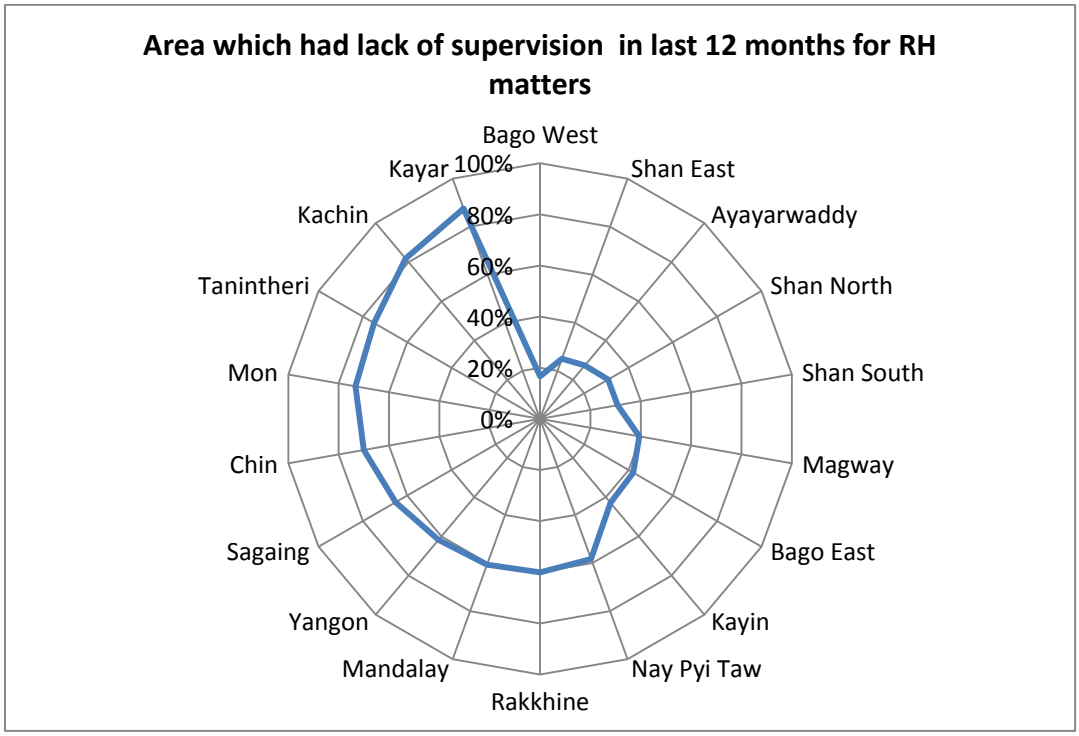
Clients' satisfaction

According to an RH commodities and services assessment in public facilities[26], 85% of clients responded that they received necessary information. Most clients (>90%) were satisfied with the waiting time, cleanliness, privacy, and consultation time, as well as staffs' personal communication with clients in terms of giving services and also regarding the outcome aspect of services. These satisfactory levels were same in all levels of health facilities, in both urban and rural across all regions.[26]

Supportive Supervision

Regarding supervision, 50% of health facilities reported that there was no supervision related to RH within last 12 months. This proportion was higher among tertiary level and secondary level health facilities, 69% and 60% respectively, compared to primary level health facilities, 38%. It also varies among the states and regions as shown in Figure (6).[26]

Figure (6) States/Regions which had lack of supervision in last 12 months for RH matters



Source: 2013 Facility assessment for reproductive health commodities and services (2014)[26]

More than 60% of health facilities which had lack of supervision for RH related activities were found in Kayar, Kachin, Tanintheri, Mon, Chin, Sagaing and Yangon, however, the reasons for lack of supervision have not explored in this assessment.[26] It might be due to hard-to-reach in some areas like Kayar, Kachin and Chin, lack of transportation allowances, human resource shortage and other administrative issues. Among areas of supervision, about 70% was supervision for logistic and there was no obvious difference between urban and rural.[26]

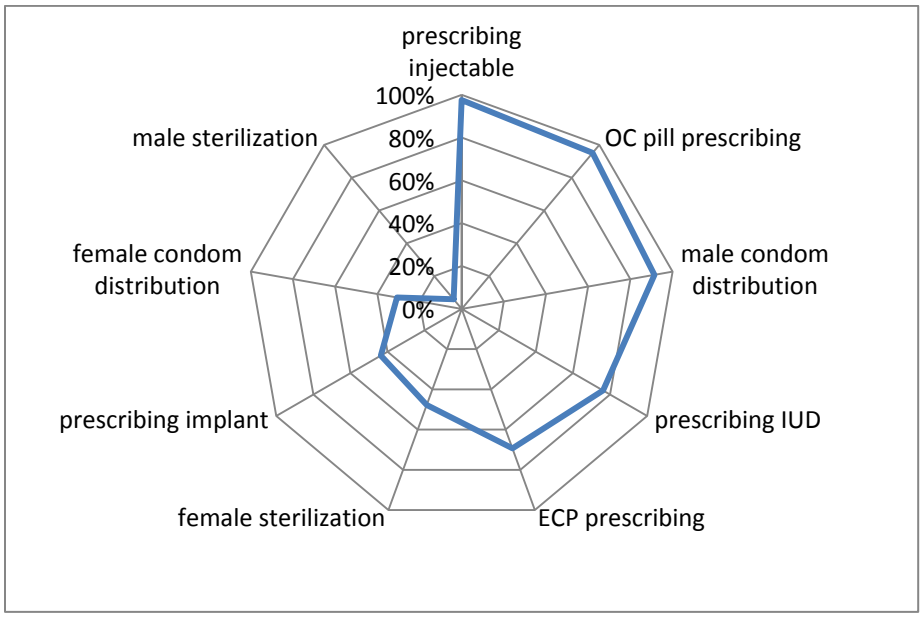
3.2.3 Commodities: Availability and Choice of Methods

In Myanmar, five methods of contraceptives: injectable Depo-Provera, oral pills, IUD, condoms, and emergency contraceptive pills are mainly provided by public sectors of UNFPA supported 163 townships up to 2012.[26] After 2012, government expenditure on health was raised four fold, two types of contraception: injectable Depo-Provera and oral pills could be supplied through government budget to the whole country.[14] Small amounts of implants could be provided to selected areas through Public Private Partnerships (PPP).[14] More recently, the multi-donor 3MDG Fund has made provisions for contraceptives through the Essential MNCH service package in the pre-pregnancy and postpartum components.[14] The National HIV/AIDS Programme also distributed condoms to the whole country along with the 100% Targeted Condom Promotion programme.[44] Imbalanced stock of condoms at service delivery point has been found frequently due to poor integration among programmes.[28]

In addition to public sectors, contraceptives (injections, pills, IUDs and condoms) are provided by private sectors: INGOs, NGOs and private clinics through different mechanisms.[13,14] About 132 townships receive additional support for family planning commodities from INGOs/NGOs.[14] INGOs/NGOs collaborate with private general practitioners for family planning services at clinics in urban and peri-urban areas, through social franchising and social marketing; and through fixed clinics and outreach activities.[45,46] These commodities can also be purchased at most drug stores by health staff as well as clients without any prescription.[13] However, the quality and availability of clients' preferred brands are often uncertain and drug sellers are not able to provide accurate information on contraceptive methods, including use, continuing use, and side effects.[13,14] IUDs and implants are allowed in conditions of safe and clean facilities by skilled providers.[26]

According to a 2013 survey[26], most available birth spacing (BS) services in public facilities were injections, OC pills and male condoms. Female condoms and hormonal implants were least provided. While female sterilization can be provided at least in township hospitals with adequate facilities and skilled health staff, male sterilization is not available due to legal constraints.[26]

Figure (7) Availability of family planning methods in public facilities



Source: 2013 Facility assessment for reproductive health commodities and services (2014)[26]

The unavailability of family planning services is recognized to be related to the poor supply-chain system, limited human resource capacity and facilities, and insufficient supportive legal framework and commitments.[25,47]

More than 90% of health facilities provided three modern contraceptives including the most preferred method. However, only 58% offered five modern contraceptives and the rate was 38% in primary health facilities. Urban-rural difference for offering five modern contraceptives was significantly obvious (73% vs. 38%).[26]

Unavailability of medicines was mainly due to delays in supply (58%). The majority (80% and above) of health facilities at all levels were found to have experienced stockouts for at least one contraceptive method within the last six months in all states/regions and it was not much different between urban and rural settings. The previous and recent stockout situation was not associated with distance of health facilities to the nearest medical depot.[26]

More than half (58%) of health facilities had no regular interval between order and receipt of commodities. Only 23% of tertiary level health facilities received stock within the shortest interval (<2 weeks) but the secondary level and primary health facilities are lower than tertiary level, 11% and

15% respectively. Having irregular intervals was not different between urban and rural.[26]

Similarly, more than half (52%) of health facilities had irregular frequency of medical supply. Irregularity in frequency of supply was not much different among levels of health facilities (48% in the tertiary level, 44% in the secondary level and 59% in primary level) as well as urban and rural areas (48% vs. 56%).[26]

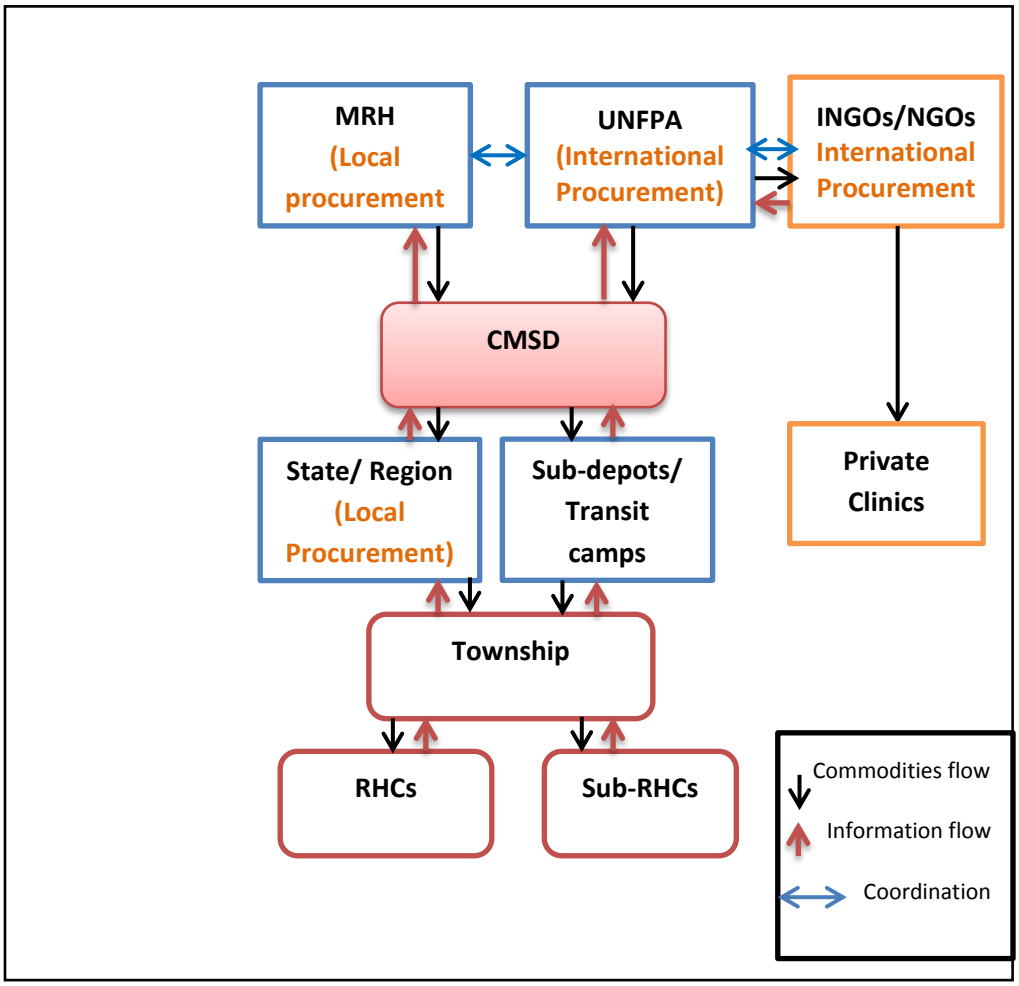
Recent stockout situation and irregular supply would definitely effect on contraceptive security. Without available commodities in right quantities, it will not meet the client's demands. Therefore, low utilization of contraception might be due to unmet need for preferred methods in health facilities.[26,47,48]

3.2.4 Supply chain (selection, forecasting, procurement, storage & distribution)

In order to ensure the availability of commodities according to the six rights principles, a well-functioning supply chain system is needed, which in turn requires a policy for supply chain, capacity: facilities, infrastructure, trained staff and financial resources, proper organizational management and a strong logistic information system.[25,32,33,41]

In Myanmar, the Central Medical Store Depot (CMSD) and Maternal Reproductive Health (MRH) section are the main responsible sectors for RH commodities from government supply. While MRH are mainly responsible for forecasting, selecting qualified products in tendering and distribution plan, CMSD are responsible for local procurement, storage and distribution of products. For UNFPA supplies to the public sectors, UNFPA, CMSD and MRH have joint responsibility. All RH commodities are stored and distributed through CMSD's arrangement according to distribution plan made by MRH.[28] The procurement, flow of RH commodities and information are as shown in figure (7).

Figure (8) Procurement and flow of RH commodities and Information



Source: Adapted from Standard Operating Procedure of RHC-LS[31]

CMSD and MRH were conducted through coordinated efforts under the same department, Department of Health (DOH).[28] Recently, DOH was divided into two departments: Department of Medical Services (DMS) and Department of Public Health (DPH) as shown in new organizational structure (Annex 1).[9] At this time, CMSD is under DMS and MRH is under DPH, therefore RH commodity supplies will be the responsibility of MRH and the newly established procurement section under the DPH in future.[9] The implications of this reform on contraceptives supply may be one of two scenarios: it might be either worse than before due to lack of capacity and experience in the new organizational system or better because it can be well established according to previous lessons learnt.

However, since the new system will take time and is not ready yet, the previous mechanism of collaboration between CMSD and MRH continues. Therefore, this study will review the previous mechanisms to support the ideas for setting up the new system.

To identify the current situation, challenges and opportunities, Myanmar's supply system in terms of RH commodities will be analyzed according to components of supply chain as follows:

Selection of products

While government supplied products can only be selected among the products which are proposed at tender board by local pharmaceutical companies, UNFPA supplies can be selected from UNFPA and international catalogues including electronic catalogues like UN Web Buy.[28,29]

Forecasting

The MRH programme is responsible for forecasting of contraceptive needs for both government and UNFPA supplies which are intended for distribution to public facilities. For private sectors, INGOs and NGOs, there has been forecasted according to their project areas, target population and available funding by respective organizations.[14,28]

The Myanmar RH supply chain assessment (2013)[28] revealed that estimation of national RH commodities needs with lack of unified efforts are made by a diverse project-based focus in Myanmar rather than a cohesive programme based focus. Various donors and the Government Procurement Committee as well as state/regional procurement committees operate independently, and in parallel, to determine quantities and specifications of commodities that are then procured independently resulting in inadequate allocations of supplies and of unverified quality.[28,29,30] The lack of a single, integrated national forecast that takes into account the supplies needed and provided from all sources, including government purchase, donations, and social marketing programme, results in several challenges: inadequate stocks at health facilities, oversupply of some commodities and lack of consistency of presentations of commodities.[28]

As a result of this assessment and agenda of Global Programme to enhance Reproductive Health Commodity Security (GPRHCS), integrated forecasting for national contraceptive needs has been made since 2014 through the

collaborative efforts among government, UNFPA and INGOs which supply contraceptives like PSI, MSI and IPPF.[14] Moreover, national contraceptive needs by methods mix for 2015 to 2020 and estimated cost has been projected as a Cost Implementation Plan (CIP), 2015 through integration of all key stakeholders aiming to achieve the FP 2020 commitment. (Annex 6)[14]. Nevertheless, it is only for national needs and required to collaborate with state/regional level as well as private sectors for detail quantifications in actual practice.

Procurement

Public procurement in Myanmar is highly decentralized. States, regions and hospitals with more than 200 beds hold their own budgets for procurement of medicines and medical supplies including contraceptives as well as undertaking their own procurement. Therefore, procurement implemented at each level without coordination leads to duplication and unbalanced stocks of contraceptives.[29]

The public procurement environment is not highly regulated as there is no national public procurement regulatory body, procurement law, or policy or national regulations and guidelines in place to regulate the function of procurement. This situation has resulted in inconsistent and sub-optimal procurement at all levels as procurement processes are mostly informal and inconsistent and operating on systems that are manual.[28,29]

Public procurement in the health sector is fragile and fragmented. One of the major challenges is the lack of unified efforts to coordinate procurement and supplies management and to develop a single national procurement plan for the country. There are no qualified trained procurement staffs and procurement is not yet regarded as a profession. Contract management for procurement is weak partly due to the lack of robust supplier contracts and poor experience and technical skills. The lack of modern IT infrastructure in public procurement has resulted in limited coordination and information sharing among supply chain members across the sector. The practice of single annual procurements for all commodities with set delivery timeframes and payment schedules puts undue pressure on the supply chain as this practice is not fully aligned with other logistical considerations such as warehousing space, physical handling and processing capacity. These consequences lead to poor availability of contraceptives according to clients' needs.[28,29]

The absence of international competitive bidding in contraceptives procurement has limited Myanmar's access to international competitive prices and products which could lead to purchase of locally available unqualified products from private pharmaceutical companies and limited quantities with high costs.[28,29]

For UNFPA supplies, the procurement process is undertaken by UNFPA and the Department of Public Health has to certify for customs clearance, product registration, and licensing procedures.[30]

Storage and Distribution

Both government and UNFPA supplied contraceptives are stored at the CMSD and distributed according to the distribution plan of the MRH. The flow of RH commodities including contraceptives is simplified as shown in figure (8).[31]

Recently, CMSD has received a significant increase in government funding for procurement of health commodities, including RH commodities. This has not yet been accompanied by an increase in matching resources to warehouse, manage, or distribute these commodities. Limited space for storage, delays in paperwork and transportation are major challenges regarding storage and distribution of contraception.[29,30] In addition, the lack of a nationwide Logistic Management Information System (LMIS), poor inventory control system and limited stock balance information, using the "push" system of distribution, which is based on method mixed CPR and women of reproductive age, all prevent contraceptives from being supplied according to the six rights principles and cannot meet clients' needs.[28,29,30]

Transportation processes vary on the level of health facilities and areas. CMSD is responsible for transportation to sub depots, states and regions, transit camps, and some easily accessible townships.[26,28] For government supplied products, there is contract for door to door transport with pharmaceutical companies; therefore, these are transported directly to township levels.[29] Under the township level, primary health facilities, RHCs and sub-RHCs, are responsible for transportation through their own arrangement without reimbursement.[26] Therefore, basic health staff usually come and collect the commodities once per month when they withdraw their salaries. Also, CMSD transport as per schedules; twice per year, therefore, government supplies can be distributed twice per year.[26,28,29] In these situations, contraceptive security is not sure at the service delivery point.

Table (5) National Supply chain baseline assessment Results

Functional Area	CMM Scores
Selection of products	51%
Forecasting & Supply Planning	40%
Procurement	46%
Warehousing and Inventory management	37%
Transportation	38%
Dispensing	37%
Waste Management	45%
Lab issuing	35%
Management information	36%
Human Resources	43%

Source: National Supply Chain Baseline Assessment, MOH, 2014 [29]

According to the baseline assessment, a functioning supply chain needs to be performing up to a level of 60%. In Myanmar, the scores from all supply chain functional areas are found to be below this benchmark, indicating serious problems across the complete supply chain.[29]

3.2.5 Monitoring and Evaluation/LMIS

In order to secure commodities when clients demand, a functional logistic information system is crucial for monitoring, evaluation, decision making, and future planning for RHCS.[42,43] A logistics management information system (LMIS) collects, organizes, and reports data that enables people to make logistics system decisions.[42]

As there is no nationwide LMIS or even paper based system for RH commodities as well as other supplies, there has been major challenges in forecasting and distribution of contraception.[28] There have been experiences with incorrect quantification, storage problems, overstock, expired and stockout of clients' preferred methods.[28,29] There is no information for programme planners, as well as service providers regarding essential logistic data: stock on hand, consumption, losses and adjustments, results to inefficient management of RH supplies system and ineffective use of scared resources.[26,28] Moreover, there has not been any established proper central Logistic Management Unit (LMU) for RH commodities at MOH to monitor the contraceptive security status for whole country.

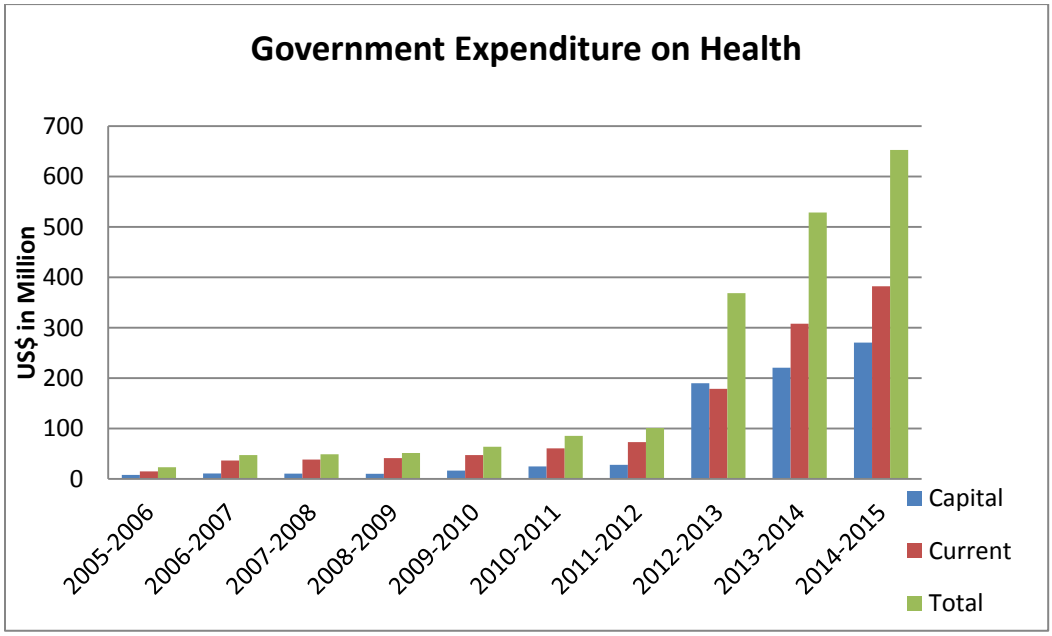
3.3 Capital

In order to secure contraceptive use according to client's demand, aiming to reduce unmet need for family planning and achieve FP 2020 commitment, adequate financial investment from all sources is crucial.[14,33,47]

In Myanmar, total health expenditure was very low, around 2% of GDP during 2003 to 2011, the lowest among countries in WHO South-East Asia and Western Pacific Regions. General Government Health Expenditure (GGHE) as a percentage of General Government Expenditure (GGE) was for a long period very low standing at 1% during 2003 to 2011. GGHE as percentage of GDP amounted to 0.2–0.3% over the same period.[11]

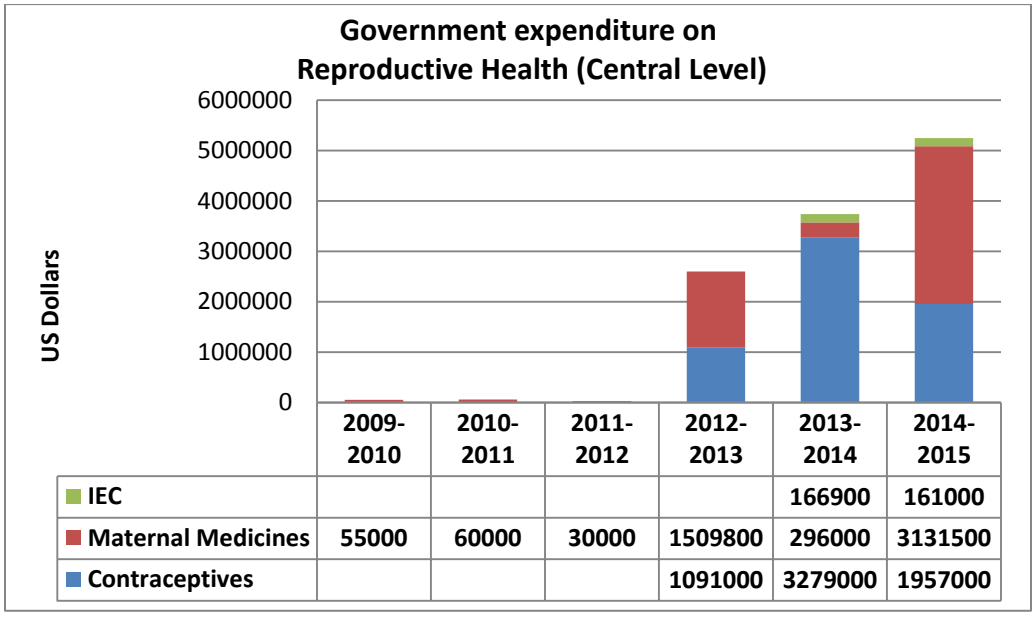
However, there have recently been dramatic increases in health spending in Myanmar starting from the 2012-2013 fiscal year (FY).[7] GGHE as a percentage of GDP and of GGE in 2012–2013, increased significantly to 0.76% and 5.7%, respectively; however, this level of health investment is still low compared to the demand for health care.[7] The dramatically increased government budget on health by years is shown in following figure. It is allocated up to more than 652.74 million in US $ for FY 2014-15.[15]

Figure (9) Government expenditure on health



Source: Ministry of Health, 2014[15]

Figure (10) Government expenditure on Reproductive health (Central level)



Source: Ministry of Health, 2014[15]

When there has been increases the government expenditure on health, there is also increased allocation for reproductive health especially for local procurement of commodities such as maternal medicines, injectable Depo-Provera and pills.[15] It is anticipated that the health budget will be increased to cover more couples and secure contraceptive use.

Table (6) Government expenditure on health, RH commodities and contraceptives

Fiscal Year	Total health budget	Total budget for RH commodities	budget for contraceptives	% of total budget for RH commodities	% of total health budget
2012-2013	368,661,500	2600800	1,091,000	41.95	0.3
2013-2014	528,573,900	3741900	3,279,000	87.63	0.62
2014-2015	652,744,600	5249500	1,957,000	37.28	0.3

Source: Ministry of Health, 2015[15]

In FY 2012-2013, the Government of Myanmar used US$ 1.09 million for purchasing of contraceptives: injection Depo-Provera and pills. And it also increased use of US$ 3.279 million for contraceptives in FY 2013-2014.

However, only US$1.95 million was used for contraception in FY 2014-2015 even though the budget for RH was increased to US$ 5.259 million. Less purchasing for contraceptives in FY 2014-2015 than previous year is due to purchasing of only injection Depo-Provera due to stockpiling of oral pills from the previous year. Although the budget has increased for contraceptives, there was still a gap to achieve contraceptive security.[14,15]

As Myanmar has been included in the list of 46 focus countries of GPRHCS, contraceptives are supported in both government and private sectors: INGOs and NGOs by GPRHCS fund through UNFPA. The GPRHCS budget used for contraception in 2014 was US$ 1.27 million.[14]

In order to achieve FP 2020 commitments, contraceptive costs are estimated for the period from 2015 to 2020. The total cost for the implementation plan will be about US$ 261,871,113 and over US$ 182 million (70%) of total costs are allocated for commodities, including contraceptives and consumables.[14] In 2015, there will be a US$ 22 million needed for contraceptives commodities and consumables[14], therefore, if government and GPRHCS fund allocate the same amount of 2014 regardless of other small sources, it will assure only 18% of the national needs and the funding gap will be about US$18 million for 2015. In order to secure the contraceptive commodities according to clients' demand, the required budgets are needed to mobilize from all different resources and implement through integrated efforts.

While government budget are used for purchasing commodities, there is no budget line and financial allocation for transportation costs of commodities, supervision to all levels, monitoring system, organizational arrangement, trainings for service providers, or other necessary functions to ensure RHCS.

3.4 Coordination

As Reproductive Health Commodity Security is based upon collaboration and integrated action planning, strong and effective coordination is required at multiple levels and between different stakeholders, among donors (internationally and in-country), different players within the government, and across all sectors involved in RHCS.[25,47]

In order to coordinate effectively, which helps avoid duplication of efforts and increases information sharing amongst the parties involved, the

Myanmar Health Sector Coordinating Committee (MHSCC) was established as broadening of Myanmar Coordination Committee Meeting (CCM) in 2012. The MHSCC also supports coordination among implementing partners on specific health issues including Reproductive, Maternal, Newborn and Child Health (RMNCH) via Technical and Strategic Groups (TSG). Under the guidance of MHSCC, the RMNCH TSG is supported by three working groups: Lead RH Working Group, Lead Child Health Working Group and Lead Family Planning Working Group.[14]

From the author's experience in the regular RMNCH-TSG meeting, RHCS; mainly contraceptive commodities security, is discussed based on the outputs of Lead Family Planning Working Group meeting especially for integrated procurement plan of GPRHCS supports among different stakeholders: donors, UN agencies, INGOs and NGOs, academia and related ministries. Also, there are discussions about the improvement of RH information systems and strengthening RHC-LS for effective forecasting, procurement, supply, storage, and distribution of contraceptive commodities.

However, in actual practice, coordination for forecasting, quantification, procurement and distribution planning is still weak among different partners: government, UNFPA and INGOs/NGOs as well as central level and state/regional health departments. This leads to inaccurate forecasting and procurement, stockouts or overstocks of commodities, problems in storage and distribution, and finally negative impact in use of clients' preferred method.[14,28,29,30]

Distribution of government supplies is the responsibility of MRH unit and CMSD, however, it has been recognition that there is a need to improve coordination to supply the right quantities of the right products in the right conditions at the right times. Inadequate coordination between the central health department and the regional governments for a strong commitment for increased access to family planning services and commodities in their respective states/regions has been found. Poor integration between RH and National HIV/AIDS Programme leads to imbalance stock of condoms.[14,28,29]

3.5 Commitment

To ensure the RHCS, there needs strong commitments and leadership, particularly from governments, programme planners and key stakeholders through budget increases, political improvements, leadership of coordination, and the enabling environment.[25,47]

Commitments to reproductive health

Myanmar has also made a strong commitment to achieve the goals of Programme of Action of International Conference on Population and Development (ICPD PoA), MDGs, as well as other international treaties and agreements. In the UN Secretary-General's Global Strategy for Women and Children's Health (2010), increased contraceptive prevalence and reduced unmet need for contraception is included as one of the commitments.[10]

Commitments to FP2020

Moreover, Myanmar has pledged to the global partnership initiative - the Family Planning 2020 in November 2013 at Addis Ababa in Ethiopia and has made the strong commitments to FP2020 with the following enthusiastic aims. (Annex 7)[49]

- Increase CPR from 41 per cent to 50 per cent by 2015 and above 60 per cent by 2020
- Reduce unmet need to less than 10 per cent by 2015 (from 12 per cent in 2013)
- Increase demand satisfaction from 67 per cent to 80 per cent by 2015
- Improve method mix with increased use of long acting permanent methods (LAPMs) and decentralization to districts

Source: http://www.familyplanning2020.org/entities/82[49]

Commitments for Reproductive Health Commodity Security

Myanmar has also been attempting to achieve RHCS and FP 2020 commitment involving all stakeholders under the leadership and guidance of MOH. Government has been trying to increase contraceptive security by increasing the budget for family planning.[14]

Since 2014, Myanmar has been included in the list of 46 focus countries of GPRHCS. Through GPRHCS, UNFPA aims to support RH commodity for the

public sector via MOH and to the social marketing sector via three major NGOs. More recently, the 3MDG Fund has provided for contraceptives through the Essential Maternal, Newborn and Child Health (MNCH) service package.[14]

The central health department has conducted advocacy meetings at the state/regional level to get more collaboration with state/regional health departments and commitments for family planning from state/regional governments.[14]

All the sectors are attempting to achieve RHCS, but none are coming up with an official commitment for financial contribution to contraceptive security in order to achieve FP 2020. There is no official or earmarked policy of financial allocation for contraception by MOH and also limited commitment by state/regional government has been realized as well. In addition, there are limited prioritization, commitment and financial allocation for follow up actions, organization arrangements, human resource allocation, coordinating mechanisms, and other necessary functions to ensure RHCS.

3.6 Context

The success of RHCS strategy depends on a range of contextual factors affecting individuals' ability to choose, obtain and use of RH supplies, therefore, the political, social, economic and religious environment responding to contraceptive security should be favorable in Myanmar.[25,47] As discussed in "Clients" parts, sociocultural and religious factors are not important obstacles in contraceptive use.[3] Although the national political situation and economic policies indirectly influence on RHCS, these are not explicitly found as hindering factors to achieve RHCS.[10,11,50] Therefore, some health related policies that directly affect contraceptive security will be discussed further.

Since the new civilian government took office in 2011, Myanmar has begun a political and economic transition and also political opening which attracts more donors to invest health sectors including RMNCH.[11,29] The government has reformed ambitiously to promote social and economic development including improved access and quality of health services by increasing the government health budget.[1,11,29] Improved access to health services especially in MNCH has also been initiated as one of the rural development strategies for poverty alleviation in Myanmar.[51]

Improving RMNCH has been accorded as priority issue in the National Policy agenda as well as the National Health Plan (2011-2016). As a response to ICPD PoA, MDGs and UN Global Strategy, the RH programme has been implemented according to the RH Policy (2002) underlined with the National Population Policy, which has been shifted from a pro-natalist policy to a health-orientated approach.[10,13]

Specific policy directions including strategies and the core package of priority interventions are provided in the RH Policy and Five Year RH Strategic Plan (RHSP) for operating RH programmes for all stakeholders. Birth spacing/family planning is one of the core elements of RH interventions in RHSP. This includes promotion of birth spacing to improve the health status of women and children and for the right of eligible couples to decide on their number of children. However, male involvement is not included which has a strong effect on decision making of contraceptive choice and use among couples.[10]

Although strategic planning is the reliable road map for RH service implementation for all stakeholders, RHCS has not been identified as a priority issue and is not well addressed. Although contraceptive security or availability of contraceptives and consumables in the right quantities according to client choice is crucial to meet the clients' demands whenever they need, it is not included in core strategies, key activities, and the essential package of RH interventions.

However, in the newly developed Cost Implementation Plan for achieving FP 2020 commitment (2014)[14], RHCS through strengthening of LMIS is mentioned as one of the operational strategies. It is one of the strengths to achieve contraceptive security to meet the increasing clients' demand through strong collaboration and integrated efforts among all stakeholders.

Regarding the policy for sterilization methods, according to the Myanmar Penal Code: section 312 A and 312 B[20], both female sterilization and vasectomy are not allowed without getting approval from Sterilization Board. Clients have to submit the approval form and get approval only if they fulfil the criteria. (Annex 8) Vasectomy is legally available only to those whose wives cannot undergo female sterilization because of possible adverse health consequences.[26]

Among the contraceptive methods, only two methods: injection Depo-Provera and oral pills are included in the national essential drug lists. Therefore, the government budget for family planning can be used for only purchasing of injection and pills. As free services policy for family planning in all public health facilities in Myanmar, these two methods are available free of charge, however, the others methods cannot be provided for clients' need and demand.[14,26]

In Myanmar, there are no specific procurement policies, laws, regulations, regulatory body, or guidelines.[29] Moreover, international procurement for government supplies is not allowed due to limitations in financial management.[28,29] Although there has been increased government budget for family planning, there is no specific earmarked policy so far in financial allocation.

According to the author's working experience, although Midwives are not allowed to injection except in case of life saving, they are allowed to injection Depo-Provera. Auxiliary Midwives are allowed to provide only health information, condoms and oral pills distribution to communities.

Significantly contraceptive security has not been addressed among PLHIV in the National HIV Policy and Strategic Plan.

Regarding the logistic information for contraceptives, the Standard Operating Procedure (SOP) for Reproductive Health Commodity-Logistic System (RHC-LS) was developed in 2014.[31,52] Apart from this SOP; there is no other Strategic Plan, SOP or guidelines for RHCS in Myanmar.

CHAPTER 4: REVIEWING THE EVIDENCE ON APPLICABLE STRATEGIES FOR TACKLING RH CMMODITY INSECURITY

According to the findings of the previous chapter, many gaps/challenges have been identified related to RHCS in Myanmar. Therefore, this chapter will review good practices, experiences, applicable solutions, and strategies which have been tackled to achieve contraceptive security in the Myanmar situation as well as in the similar contexts of other countries. The most applicable solutions are identified among the tackling interventions which have successful evidence, can solve the current problems of Myanmar, and can be applied in the Myanmar context.

4.1 Prioritization of RHCS strategy

In Myanmar, RHCS has been neither well addressed in RH strategic planning nor developed as separate RHCS strategic plan, therefore, it can be learnt from Nepal's experiences that how they struggled to achieve RHCS through their experiences of setting separate strategic plan.

Nepal is in the same WHO SEA region and is also one of the 46 GPRHCS countries like Myanmar. It has been endeavoring to achieve RHCS by developing a National RHCS Strategic Plan. The long-term goal of the National RHCS Strategy created a positive environment to meet national RHCS goals for the period of 2007- 2011, thereby aiming to achieve ICPD's goal of universal access to reproductive health by 2015. The technical part of this strategy is based on the SPARHCS Conceptual Framework and Diagnostic Guide; similar framework of this study, which is jointly developed by international agencies.[53]

It analyses the situation according to the SPARHCS Framework and identifies issues and challenges, and key strategies are proposed as of each component of the SPARHCS framework for implementations to achieve RHCS.[53] Therefore, it shows an inevitable evidence of strong political commitment through prioritization of RHCS strategy in national policy to achieve contraceptive security.

4.2 Impacts after investing on supply chain and commodities

According to the Impact brief by USAID: DELIVER project, positive impacts after investing in the supply chain and commodities are found in many countries.[54,55]

In Nepal, the unmet need for family planning was 20.9% of all women (1.7 million) in 2011. From FY 2009 to 2013, the U.S. Government spent over $3.7 million to purchase contraceptive commodities to meet the needs of more than 895,000 Nepali couples. These contraceptives prevented approximately 313,000 unintended pregnancies, 54,000 induced abortions, 9,300 infant deaths, 2,900 under five child deaths due to improved birth spacing and 300 maternal deaths. During this time, by avoiding the direct costs of unintended pregnancy and delivery care, and of treating complications from unsafe abortions, an estimated US $17 million in direct healthcare spending was saved.[54]

In Bangladesh, from FY 2009-2012, US$20 million for commodities was invested to meet the contraceptive needs of 5.5 million couples. It prevented 1.7 million unintended pregnancies, 291,000 induced abortions, 58,000 infant deaths, 15,000 child deaths due to improved birth spacing and 2,300 maternal deaths and saved an estimated US$107 million in direct healthcare spending.[55]

Therefore, these positive impacts from major investment in supply chain systems and commodities inspire more investment and supply chain strengthening which are mainly challenging in Myanmar for improving contraceptive accessibility and reducing unmet need for family planning.

4.3 Opening doors to family planning in remote, ethnic households

The practice that increased accessibility and availability of contraceptive methods among remote ethnic populations in Lao People's Democratic Republic (Lao PDR) can be learned for Myanmar as there are similar issues of limited accessibility for family planning services in hard-to-reach, mountainous, remote and ethnic populations in Myanmar.

Lao PDR is the one GPRHCS programmes initiated since 2008, is bordering with the eastern Shan State of Myanmar and has a similar socio demographic situation. There are 80% of the populations residing in rural areas, mostly dispersed in small villages that often have difficulty accessing

health services. The unmet need for family planning is high in hard-to-reach, remote areas especially in ethnic communities.[41]

In 2006, a "community based distribution agents" initiative was launched to provide culturally appropriate and client friendly family planning services in remote communities, with support from UNFPA. Villages in three southern provinces with both poor geographical and financial accessibility were selected and community-based distribution (CBD) agents were trained. CBD agents visited every household once a month to provide counseling and deliver outreach family planning services (condoms, oral contraceptives and injections) free of charge, including to adolescents, and those married or unmarried. They spoke the same ethnic language, belonged to the same community, and shared the same social norms.[41]

This model demonstrated positive results. Overall, family planning uptake in CBD catchment areas increased from 12% in 2007 to 45.42% in 2011. CPR has increased to 60% in 2012 from a baseline of 13.2% in 2006. It is now scaling up in Laos as a model for community-based distribution within the Integrated MNCH package.[41]

Therefore, it can be adapted for Myanmar as community oriented task shifting approach to increase accessibility in underserved population especially in adolescent groups and remote areas.

4.4 Decentralization Model for Contraceptive Security

To ensure RHCS and proper commitment by state/regional authorities, proper decentralization is needed. Although decentralized to local governments in Myanmar, there have been challenges of poor commitment and limited capacity to ensure the contraceptive commodities at state/regional levels. Besides, the decentralization approach is one of the objectives in FP 2020 commitment.[49] Hence, experiences, achievements and lessons from this decentralization model in Indonesia can be learned for Myanmar.

In Indonesia, decentralization regarding the contraceptive security to local governments was devolved in 2004. For the first two years, local governments faced challenges due to limited capacity, poor integration between central and local governments and limited support from the central level in cases of stockout situations and providing trainings; by doing so, CPR did not increase during that period.[56]

Therefore, the National Family Planning Coordinating Board developed a process and tools that helped local governments bring together key public and private sector stakeholders at the district level. The Indonesian contraceptive security approach built on an international framework (SPARHCS) and a tool that was adapted to a decentralized environment. This tool: *"District Planning Tool for Contraceptive Security"* has two parts: "Assessing Contraceptive Security" and "Developing Contraceptive Security Strategy" with a bottom-up approach.[56] This approach brought together public and private sector stakeholders at the district level. The commitment of local governments developed to the contraceptive security and increased capacity buildings and increased access to contraceptives at district levels has been found.[56]

4.5 Long Acting Reversible Contraceptives and Permanent Methods

In almost all of the countries including Myanmar, the majorities of married women in reproductive age who have demand to space or delay a birth, however, their use of long acting reversible contraceptives (LARCs): IUDs and implants, and permanent methods (PM) are minimal. LARCs and PM are the most efficient family planning methods. Although they seem to be high in initial costs, these methods are cost effective in terms of costs per couple year protection (CYP).[57] As contraceptive security is incomplete without LARCs and PM; it is needed to strengthen availability of all methods of choice for family planning. When each additional contraceptive method becomes available to most of the population, overall modern contraceptive use will be increased.[58]

4.6 Public Private Partnership (PPP)

Addressing the resource shortfall and meeting the goals of contraceptive security requires that countries mobilize the full and active participation of private and commercial sectors as the total market approach.[45,59] Private sector involvement will not only increase the resource available for contraceptives and ensure equity in contraceptive, it can also free up scarce donor and government resources.[59] In Myanmar, as nearly half of clients seek family planning services from private sector facilities, contraceptive security requires effective public private partnership through a favorable policy environment as well as jointly defined target populations and agreements on appropriate roles and responsibilities for contraceptive security.[59] Use of commercial channels as well as standard private sector

marketing and advertising techniques to sell contraceptives at subsidized prices; which have been successfully implemented by PSI/Myanmar as a social marketing and franchising approach, make them more accessible and affordable to those who rely on private and commercial sectors.[45,46,59]

4.7 LMIS system for monitoring, evaluation, decision making and future planning of RHCS

Although a functional LMIS system is essential to achieve RHCS, no nationwide LMIS system has been established in Myanmar.[26,28] Therefore, RHC-LS (Reproductive Health Commodity- Logistic System) was piloted in 2014 at 12 townships which is a paper based system through support of UNFPA and JSI. The national SOP for RHC-LS, training manuals and systematic, practical and user friendly records and registers were developed. Also, an automating logistics information management was piloted in one township.[52]

It has been found that significantly increased data recording, reporting, information exchange, and ordering has good results in evaluation reports. Routine reporting rates as high as 95%, strong "Pull system" at primary care level, improved RH supplies management and data quality has been found after evaluation. Also, the providers have increased motivation and are more concerned about contraceptive security and the commodities can be supplied according to six rights principles with the relevant information.[52] Accordingly, this RHC-LS system has allowed to strengthen in all townships and all national supplies by the MOH.[52] However, financial, technical and human resources supports, strong coordination, proper organizational arrangement and system management should be in place.[43]

4.8 Monitoring contraceptive security status with contraceptive security indicators

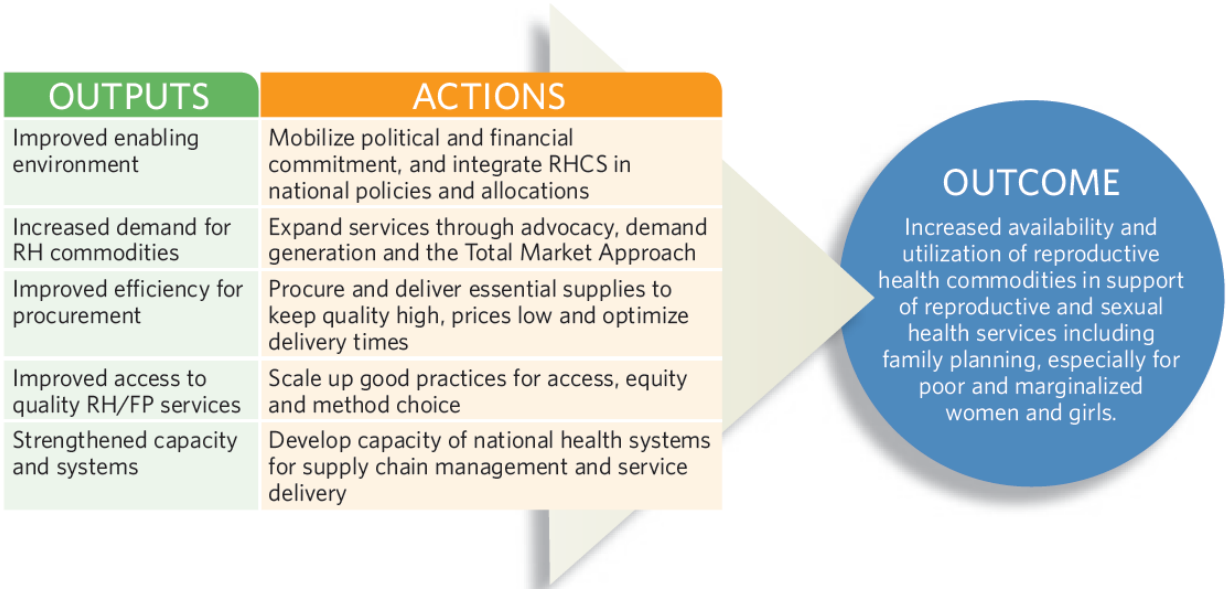
The systematic monitoring of contraceptive security should be done with contraceptive security indicators, attached in Annex (9)[60], which are related to the five component areas measured: leadership and coordination, finance and procurement, commodities, policies, and supply chain. It can be an effective way to regularly monitor contraceptive security status to inform decision making, advocacy, and programme planning in order to achieve contraceptive security.[60,61]

CHAPTER 5. DISCUSSION

5.1 Discussion of the study

This chapter discusses the major issues and challenges to achieve contraceptive security in Myanmar; based on this study findings and five years working experiences regarding national RH commodities supply in Maternal and Reproductive Health Programme of MOH. It is organized along the five main strategic results (outputs) of RHCS and key issues, challenges and suggested actions to accomplish these outputs are discussed under each.

Figure (11) Five Strategic Outputs of Global Programme for RHCS



Source: GPRHCS Annual Report (2013)[32]

Improved enabling environment

Reproductive Health Commodity Security has not been identified as a priority issue and is neither well addressed in the RH Strategic Plan nor developed as a separate Strategic Plan. As Myanmar is one of GPRHCS countries, the RHCS strategic plan should be developed like other GPRHCS countries such as Nepal.[53] It also has not been addressed in National HIV/AIDS strategic planning to access the family planning services in PLHIV as their rights. Therefore, it should be integrated and well addressed in national policies and strategic plans.

All the stakeholders have been attempting to achieve RHCS; however, there is no official or earmarked policy of financial allocation for contraception by MOH or by state/regional government and donors. Although the government budget has increased for contraceptives, there is still gap to achieve contraceptive security. Government has invested about US$1.97 million and GPRHCS fund has used US$1.27 million for contraceptives commodities in 2014.[15] According to estimated costs of the Cost Implementation Plan, US$ 22 million will be needed for contraceptives commodities and consumables in 2015.[14] Therefore, if the government and GPRHCS fund allocate the same amount of 2014 regardless of other small sources, it will assure only 18% of the national needs and the funding gap will be about US$18 million for 2015. In addition, government is used only for purchasing commodities but there is no budget line and financial allocation for commodity distribution costs, supervisory visits at all levels, monitoring systems, organizational arrangements, trainings for service providers, and other necessary functions to ensure RHCS. Therefore, there should be more invested to get greater impacts like the Nepal[54] and Bangladesh experiences[55] and should be mobilized from different stakeholders through proper commitments and allocations.

As both female sterilization and vasectomy are not legally permitted without official approval, there is a need to consider more flexible criteria to increase accessibility and men's participation. Currently, only injection Depo-Provera and pills are included in essential drug lists and are supplied to the whole country with government budget. Therefore, other methods should be included to increase availability aiming to increase use and security of contraceptive methods when clients demand.

Increased demand for contraception

Although knowledge about family planning is almost universal in married women, limited knowledge has been recognized in young age groups. In Myanmar, as premarital sex is culturally stigmatized and discouraged as well as facing the negative attitude of providers, this leads to inaccessible information and services of contraceptive methods, early pregnancy and high abortion rates in adolescent groups. Limited knowledge and accessibility of family planning services in underserved populations especially in remote, hard-to-reach areas and ethnic groups due to language, geographical and financial barriers was also found. IECs could be translated into only two

languages; therefore, translation of IECs to local languages should be strengthened.

The "Community based distribution agents" model should be adopted like Laos PDR through task shifting to community volunteers and distribution of contraceptives especially in underserved groups: hard-to-reach ethnic populations, unmarried people, adolescents, and those living in urban slums in order to improve access to contraceptives.[41]

Improved efficiency for procurement

Central as well as state/regional government procurement committees and private sectors operate independently to forecast the contraceptive needs then procure independently. The lack of unified efforts to quantify the national needs and coordinate to procure results in several challenges: inadequate or oversupply of some commodities and lack of consistency of presentations of commodities. Thus, good and practical coordination among stakeholders including state/regional committees through strengthening of the existing RMNCH TSG approach at the central as well as in state and regional levels is needed. Proper decentralization and capacity building of state/regional committees through learning Indonesian's experiences are desirable.[56]

Improved access to quality family planning services

While approximately 50% of current users seek family planning services at public facilities and receive free services, the rest depend on private sectors, private clinics, social marketing and purchasing at drug shops, therefore, financial barrier are high among those groups. Even in public facilities, clients have financial barriers due to indirect costs and commodity costs if clients' preferred methods are unavailable. Due to the cultural constraints, unmarried people and adolescents have limited accessibility in public facilities; they have to rely on public and commercial sectors especially for EC pills and condoms without proper counseling. In order to meet the goals of contraceptive security and address this resource shortfall, full and active participation of private sectors including commercial sectors as total market approach for contraceptives through strengthening of existing social marketing and new innovative mechanisms should be piloted according to own context.

In Myanmar, most women demand and use the short term methods; therefore, careful monitoring and resupply of commodities and consumables are essential. Even though many women would prefer to use LARCs (Long Acting Reversible Methods), implants are not easily accessible and available in public facilities and misconception about IUDs is common. As LARCs are most efficient and cost effective among reversible methods, it is necessary to strengthen the use of LARCs; this is one of the aims of FP 2020 commitment, through adding in Essential Drugs lists and distribution as government supplies.

Strengthened capacity and systems

Regarding the supply chain system in Myanmar, a number of gaps exist in the regulatory framework on procurement such as the absence of procurement legislation, guidelines and standard bidding documents. Insufficient capacity of staff for supply chain system, facilities, infrastructure, and technology has been identified. Also, it has been noticed that inadequate financial investment for supply chain management, poor inventory control and waste management system and poor coordination between governments and donors are pitfalls. Absence of procurement policy and international procurement results in purchasing locally available unqualified products in limited amounts with high costs. In addition to limited space for storage, delays in paperwork and transportation problems, lack of nationwide LMIS systems and stock balance information, commodities are distributed by the "push system" which cannot secure the contraception according to the "six rights" and clients' demand.

Therefore, investment in the whole supply system to get greater impacts like the Nepal experiences should be strenghened.[54] Scaling up RHC-LS to nationwide LMIS system for RH commodities and mainstreaming and harmonization of National Supply Chain Management System should be done.[52] Tracking of contraceptive security status with indicators are also required for effective monitoring, decision making and advocacy, and programme planning of RHCS.[60, 61]

Shortages of human resources and insufficient trained staff lead to limited counseling in family planning services. Knowledge of family planning methods is superficial among providers in RH programme townships as they have not received training or guidelines. Only half of health facilities received supportive supervision. These all contribute to poor quality services,

therefore, the capacity of providers should be strengthened through proper financial and resource allocation as well as organizational arrangement.

5.2 Limitation of study

Since this topic has not been extensively addressed in studies and the information and researches regarding RHCS as well as contraceptive security are limited in Myanmar, there was little literature that could be used for this study. This study was based on only the information reviewed from published, unpublished and grey literatures (that are accessible from online sources and through authors' self-networking), and authors' experiences. In addition, a review without individual in-depth interviews may not provide detailed information about the complex interaction among multi stakeholders and hidden, undocumented information. The study only emphasizes public sectors and overlooks private and commercial sectors due to inaccessibility of information. Since there is no logistic information system, the information related to contraceptive use profile may be inadequate to express the complete picture.

CHAPTER 6. CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

In order to attain the RHCS, all the constraints related to each component of the SPARHCS framework in Myanmar situation have been analyzed in this study. Mainly, RHCS has not been well addressed, poor financial commitment to fill the funding gaps, limited knowledge and inaccessibility in underserved populations including adolescents, unavailability of all methods as clients' demand especially implants, inefficient supply system, no nationwide LMIS system and proper LMU, poor coordination among stakeholders, limited capacity and shortage of providers have been recognized. Therefore, challenges are found in all components of SPARHCS framework and all are leading to distribution by a "push" system; inadequate or oversupply of commodities at service delivery points in public sectors and financial inaccessibility in private sectors. Accordingly, clients cannot choose, obtain and use of contraception when they want and RHCS has not been existed yet.

RHCS is an integral part of SRH and reproductive rights. Sustainability in contraceptive security is crucial to reduce unmet need for family planning and it supports sustainability in SRHR, which is a cornerstone of sustainable human development. Therefore, it is necessary to take into account the RHCS as a priority issue, and should be endeavored to achieve its objectives through consideration of all SPARHCS components and overcoming the issues and challenges that have been identified in this study with appropriate recommended actions.

6.2 Recommendations

Policy Maker level

1. Improving enabling environment through:

- Setting and integration of RHCS strategy into national policies and plans as a priority issue and mobilizing and reinforcing the political and financial commitments for contraceptive security from all stakeholders.
- Establishment of a national contraceptive security committee with all stakeholders and meet regularly to monitor the contraceptive security status.
- Strengthening partnership, coordination and collaboration between public and private sectors to be active involvement of private including commercial sectors through strengthening of existing social marketing as well as establishing new effective innovative mechanism according to Myanmar's context to increase accessibility in those who depend on private and commercial sectors.
- Including long acting reversible contraceptives (LARCs) and other methods in the National Essential Drug Lists and supplying to all public facilities with free or cost subsidies to increase accessibility and availability of different contraceptive methods when clients' demand.
- Developing an explicit procurement policy and capacity building of national as well as state/regional procurement committees with standard guidelines and proper decentralization to state/regional level.
- Allowing international bidding and procurement for Reproductive Health Commodities to ensure the high quality and sufficient quantities with international competitive prices.
- Fostering all dimensions of the supply chain system strengthening with sufficient funding and human resource allocation, updated technologies and collaboration of international agencies.
- Establishing Logistic Management Unit (LMU) for RH commodities at the central level and enhancing the scaling up of the Reproductive Health Commodity Logistic System (RHC-LS) to the whole country with systematic phase by phase based on the evidence of pilot areas, and mainstreaming and harmonization into National Supply Chain Management System is required to get and monitor the logistic information to make planning, decision making and distribution of commodities as "Pull System".

- Revising and reforming the sterilization law and criteria for both female and male methods with more flexibility to increase accessibility of different methods and men's participation.
- Equitably distributing the health staff in hard-to-reach areas and to improve the population to health staff ratio and to create measures with effective retention and motivation strategies to avoid shortages and rapid turnover of staff especially in remote areas.
- Ensuring specific budget line and financial allocation for all necessary functions to support the contraceptive commodities security such as trainings, supervision, monitoring and organizational arrangement rather than only purchasing commodities.

Programme level

1. Organizing to increase knowledge and awareness of information on contraceptive use, continuing use and side effects and social benefits of RH/BS; contraception for healthy timing and spacing of pregnancy; and on how to access services should be provided especially in underserved population: young, unmarried, peri urban, hard-to-reach and ethnic groups through fixed sites or outreach mobile clinics. Translation of IEC materials to major ethnic languages should be strengthened.
2. Enhancing community based distribution of contraception through task shifting to AMWs and recruiting community volunteers and distribution of contraceptives especially in underserved groups in order to improve access to contraceptives.
3. Conducting the supportive supervision to all levels of health facilities along with the system strengthening to provide both-way feedback between higher and lower level health facilities.
4. Strengthening capacity of service providers through the effective trainings, refresher trainings and post training assessments regarding the family planning methods and skill-based trainings of IUD and implant insertion/removal.
5. More coordinating and collaborating with the CMSD or procurement units, National HIV/AIDS programme, state/regional health departments, and private sectors: donors, UNFPA, INGOs and NGOs including private clinics and commercial sectors for integrated forecasting of national needs, procurement, storage and distribution of

contraception in order to avoid unbalancing stocks to secure the contraceptives when clients demand.

6. Monitoring the current contraceptive security status regularly with Contraceptive Security Indicators to track the progress, measure the success and inform decision making, advocacy, and programme planning.
7. Conducting further research to explore the possible reasons for RH commodities insecurity with primary data collection and to evaluate role of RHCS in reducing unmet need for family planning after piloting the system are crucially needed.

Service Providers level

1. Providing quality family planning services through proper counseling and ensuring the clients' informed choice with the regards of clients' satisfaction.
2. Encouraging provision of RH information and services to all adolescents regardless of age and marital status through improving attitudes.
3. Effective recording and reporting the logistic information and properly keeping commodities according to SOP/guidelines.

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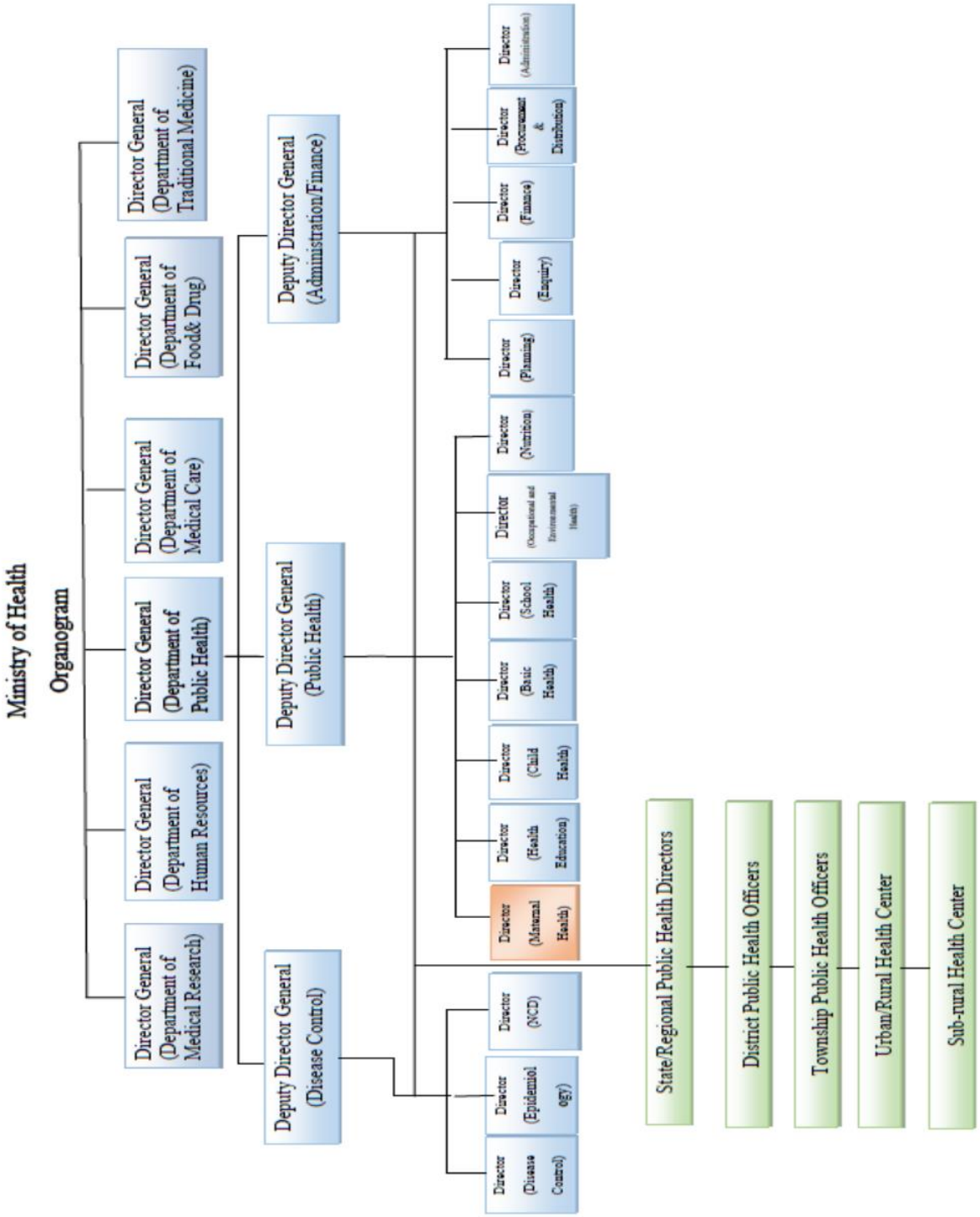
ANNEXES

Annex (1) Organogram of Ministry of Health



Annex (2) Draft National Population Policy (1992)

1. Improve the health status of the Women and Children by ensuring the availability and accessibility of birth spacing services to all married couples voluntarily seeking such services.
2. Provide the Community with information, education and communication measures on birth-spacing in advance as it is important.
3. Encourage Myanmar women to fully participate as equal partners in national development by given the equal status with men.
4. Promote the awareness of the citizens of the nation on the responsibility of the reproductive behaviour and also educate the male population of their responsibility.
5. Utilization of young people international development efforts as the youth population of under 18 constitutes about 50% of the total population.
6. The government is committed to a strategy of providing essential health care using the primary health care approach. Therefore to attain the prevention of diseases and promotion of healthy life-style, the basic facts included in the primary health must be emphasized.
7. Raise the social status of rural community by taking into account the internal and international migration issues. Integration of comprehensive urbanization policy into the overall development planning process while ensuring effective economic interdependence between towns and villages.
8. Raise the awareness of the importance of population information and vital statistics for socio-economic planning.
9. Review and amendment of existing legislation to support the achievement of the objectives of the population policy.

Annex(3) Myanmar Reproductive Health Policy 2002

Goal: To attain a better quality of life by improving reproductive health status of women and men, including adolescents through effective and appropriate reproductive health programmes undertaken in a life-cycle approach.

The National RH Policy states:

1. Political commitment should be sustained to improve reproductive health status in accordance with the National Health Policy and to promote rules, regulations and laws on reproductive health.
2. Reproductive health care services and activities should be conformed to National Population Policy
3. Full respect to laws and religion, ethical and cultural values must be ensured in the implementation of reproductive health services
4. The concept of integrated reproductive health care must be introduced into existing health services and programmes. Quality reproductive health care must be provided in integrated packages at all levels of the public and private health care systems
5. Effective partnerships must be strengthened among and between governmental departments, nongovernmental organizations and the private sector in providing reproductive health
6. Reproductive health services must be accessible, acceptable and affordable to all women and men, especially underserved groups including adolescents and elderly people.
7. Effective referral systems must be developed among and between different levels of services.
8. The development of appropriate information, education and communication [IEC] material must be strengthened and disseminated down to the grass-root level to enhance the community awareness and participation.
9. Appropriate and effective traditional medicines and socio-cultural practices beneficial for reproductive health must be identified and promoted.
10. Adequate resources must be ensured for sustainability of reproductive health programmes.

Annex(4) Percentage of currently married women not currently using contraception by reasons, 2007

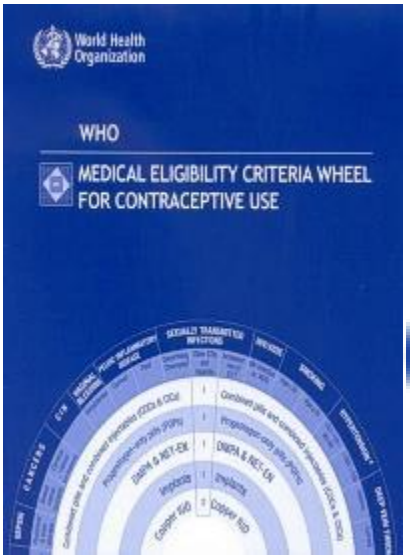
Reasons	Age group		
	15-29	30-49	15-49
Lack of knowledge	**5.7**	**7.2**	**6.8**
Opposition to use	**9.3**	**15.4**	**13.7**
Respondent Opposed	5.4	11.3	9.7
Husband Opposed	2.8	2.6	2.6
Others Opposed	0.1	0.1	0.1
Mother in law Opposed	0.2	0.3	0.2
Religious Prohibition	0.8	1.0	1.0
Fertility related reasons	**35.3**	**28.4**	**30.3**
Menopausal/Sub fecund	0.7	4.2	3.2
Postpartum/Breast Feeding	12.9	4.2	6.6
Infrequent Sex	1.5	4.0	3.3
Desire to get pregnant	20.2	16.0	17.2
Method related reasons	**11.7**	**21.7**	**18.9**
Health concern	9.9	18.3	15.9
Access/Availability	0.5	1.5	1.2
Cost too Much	1.0	0.8	0.8
Inconvenient to Use	0.4	1.2	0.9
Other	**16.0**	**20.2**	**19.0**
Pregnant	**22.0**	**7.2**	**11.4**
Total	**100.0**	**100.0**	**100.0**

Source: FRHS (2007)[3]

Annex (5) Training Manuals of Quality Birth Spacing training

Qulaity RH Training Manual

Decision Making Tool for Birth spacing



WHO medical eligibility criteria wheel for contraceptive use

Annex (6) Method mix to CPR of all women; projected from 2014 to 2020 in Myanmar

Total Method Mix, all women - Method Mix to CPR, Projected 2014 to Objective 2020							
	2014	2015	2016	2017	2018	2019	2020
CPR- all women	**28.51%**	**29.75%**	**31.20%**	**32.84%**	**34.68%**	**36.53%**	**40.25%**
Male sterilization	0.00%	0.00%	0.01%	0.01%	0.02%	0.02%	0.03%
Female sterilization	0.50%	0.53%	0.57%	0.61%	0.66%	0.70%	0.75%
IUDs	0.95%	1.28%	1.67%	2.12%	2.62%	3.13%	3.63%
Implants	0.50%	1.11%	1.83%	2.65%	3.57%	4.50%	5.42%
Injections	15.06%	15.48%	15.97%	16.52%	17.15%	17.78%	18.41%
Pills	5.43%	5.52%	5.61%	5.70%	5.81%	5.91%	7.89%
Male condom	1.08%	1.12%	1.17%	1.22%	1.27%	1.33%	1.39%
Female condom	0.00%	0.04%	0.09%	0.15%	0.22%	0.28%	0.35%
Emergency contraceptive pill	1.99%	1.96%	1.93%	1.90%	1.86%	1.82%	1.79%
Lactational Amenorrhea	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Withdrawal	1.90%	1.70%	1.47%	1.20%	0.90%	0.60%	0.30%
Safe period/ standard days	1.00%	0.91%	0.81%	0.69%	0.56%	0.43%	0.30%
Moon beads	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other traditional (e.g. Massage)	0.10%	0.09%	0.07%	0.06%	0.04%	0.02%	0.00%
Other (unstated)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Annex (7) Myanmar's commitments to FP 2020

The Government of Myanmar views family planning as critical to saving lives, protecting mothers and children from death, ill health, disability, and under development. It views access to family planning information, commodities, and services as a fundamental right for every woman and community if they are to develop to their full potential.

Objectives

- Increase CPR from 41 per cent to 50 per cent by 2015 and above 60 per cent by 2020
- Reduce unmet need to less than 10 per cent by 2015 (from 12 per cent in 2013)
- Increase demand satisfaction from 67 per cent to 80 per cent by 2015
- Improve method mix with increased use of long acting permanent methods (LAPMs) and decentralization to districts

Policy and Political Commitments

Myanmar aims to strengthen the policy of providing clinical contraceptive methods by trained/skilled nurses, midwives and volunteers through better collaboration among multi-stakeholders within the context of Nay Pyi Taw Accord. The government of Myanmar also pledges to implement people-centered policies to address regional disparity and inequity between urban and rural and rich and poor populations. In addition, Myanmar commits to expanding the forum of family planning under the umbrella of the Health Sector Coordinating Committee and to creating an Executive Working Group on Family Planning as a branch of the Maternal Newborn and Child Health Technical Strategic Group.

Financial Commitments

In fiscal year 2011-2012, Myanmar committed USD $1.29 million for the purchase of contraceptives during the 2012-2013 financial period. Myanmar pledges to increase the health budget to cover nearly 30 million couples by 2020. The Myanmar Ministry of Health commits to working toward increasing the resources allocated to family planning in state budgets. The government is also committed to ensuring results-based management through new initiatives for effective fund flow mechanisms and internal auditing.

Programme and Service Delivery Commitments

Myanmar seeks to boost partnership with the private sector, civil society organizations, and other development partners for expanded service delivery. The government of Myanmar will continue to strengthen the logistics management information system to ensure reproductive health commodity security through improved projection, forecasting, procurement, supply, storage, systematic distribution, and inventory control. In addition, Myanmar will implement a monitoring system to strengthen quality of care and ensure women have a full range of contraceptive options.

The Government of Myanmar will review and develop a five-year strategic plan for reproductive health through a consultative process, and Myanmar's family plan will address regional disparities and inequalities. The government also commits to improving the method mix with increased use of long-acting methods.

Myanmar will host a national conference focused on family planning and reproductive health best practices in 2014 and the 8th Asia Pacific Conference on Reproductive and Sexual Health and Rights in 2016.

Source: http://www.familyplanning2020.org/entities/82

Annex (8) Criteria for Authorized Female Sterilization in Myanmar

1. Pregnant women with 2 Lower Segment Caesarean Section scars
2. Previous one classical scars
3. Grand multipara irrespective of age
4. Multipara with 35 completed years with 3 alive children
5. Multipara with 38 completed years with 2 alive children
6. 40 completed years with one alive children
7. Previous child with genetic and chromosomal disorders that have a high risk of recurrence
8. Any medical disorder endorsed by respective specialty (at least consultant level) that contraindicate further pregnancy
9. Gynecological disease that can harm maternal health
10. Obstetric emergencies that can endanger the future pregnancy

Annex (9) Contraceptive Security Indicators

Contraceptive security (CS) exists when every person is able to choose, obtain, and use quality contraceptives and condoms for family planning and the prevention of sexually transmitted infections. After many years of working to improve CS, country stakeholders and other CS advocates increasingly emphasize the importance of monitoring progress at the country level. In response to this need, and in recognition that **what gets measured gets done**, USAID | DELIVER PROJECT developed a set of standard CS indicators in 2010.

The contraceptive security indicators included relevant information that country governments, policymakers, CS committees, and advocates can use to monitor and encourage progress toward CS. Building on the Strategic Pathway to Reproductive Health Commodity Security (SPARHCS) framework, the indicators cover various aspects of CS, including finance for procurement (capital), commodities, policies (commitment), coordination and leadership, and the supply chain.

These indicators have been revised in 2011 include the following topics:

Finance for Procurement (Capital)

• dollar value of estimated need for contraceptives to be procured for the public sector (value of quantification)
• existence of a government budget line item for contraceptives
• amount government allocated for contraceptives
• government expenditures for contraceptive procurement for the public sector
•value of in-kind contraceptive donations and grants used for contraceptives for the public sector
•information on whether there was a funding gap
•information about the government's procurement mechanism.

Commodities

•range of contraceptive methods offered in public facilities
•range of contraceptive methods offered in nongovernmental organization (NGO) facilities
•range of contraceptive methods offered through social marketing
•range of contraceptive methods offered in commercial-sector facilities.

Policies (Commitment)

•existence of a national contraceptive security strategy
•policies limiting or promoting access to family planning
•inclusion of contraceptives on the National Essential Medicines Lists
•inclusion of CS concepts and family planning indicators in the Poverty Reduction Strategy Paper (PRSP).

Coordination and Leadership

•existence of a national committee that works on contraceptive security and organizations represented
•frequency of committee meetings
•legal status of the committee
•existence of a contraceptive security champion

Supply Chain

•central-level stockout data
•whether stockouts are a major problem at the central level
•whether stockouts are a major problem at the SDP level.