YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF APPLIED ECONOMICS
MASTER OF PUBLIC ADMINISTRATION PROGRAMME

A STUDY OF MOTHERS' KNOWLEDGE AND PRACTICE ON MATERNAL, NEWBORN AND CHILD HEALTH (MNCH) CARE SERVICES IN THANATPIN TOWNSHIP, BAGO REGION, MYANMAR

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EMPA - 82 (17th BATCH)

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A thesis submitted as a partial fulfillment towards the requirement for the degree of Master of Public Administration (MPA)

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This is to certify that this thesis entitled **"A STUDY OF MOTHERS' KNOWLEDGE AND PRACTICE ON MATERNAL, NEWBORN AND CHILD HEALTH (MNCH) CARE SERVICES IN THANATPIN TOWNSHIP, BAGO REGION, MYANMAR"**, submitted as a partial fulfillment towards the requirements for the degree of Master of Public Administration has been accepted by the Board of Examiners.

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ABSTRACT

The study aims at mothers' knowledge and practice on Maternal, Newborn, and Child Health (MNCH) care services in Thanatpin Township, Bago Region, Myanmar. The objective is to examine the knowledge and practice of mothers on Maternal, Newborn, and Child Health (MNCH) Care Services in Thanatpin Township and to identify the influencing factors for mothers' utilization. The study is carried out on 200 respondents randomly selected from five villages. The study found that 28.5% of mothers knew to take ANC within 4 months and there was a delay in going to MNCH center. In practice of taking ANC, there was low frequency and low coverage of taking ANC. More than 91% of respondents knew to take immunization. More than 50% of mothers practised home delivery. Some mothers had unsatisfied with difficulty in communication and long waiting time in MNCH health center. Most of the mothers knew danger signs and symptoms during pregnancy, delivery and after delivery and they went MNCH center if they need. Fifty-six percent of mothers took exclusive breast feeding up to 2 years and beyond, and 56.5% of mothers introduced supplementary food to their babies at the age of six months. 75% of mothers used only breast feeding. It is recommended that health education programs should be conducted to improve women's awareness of ANC and ultimately improve women's health status. The effectiveness and efficiency of rural health care centers and public hospitals is important, especially for populations that target vulnerable groups.

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LIST OF ABBREVIATIONS

AMW	Auxiliary Midwife
ANC	Antenatal Care
CBO	Community Build Organizations
CHVs	Community Health Volunteers
CHW	Community Health Workers
CSO	Community Society Organization
HA	Health Assistant
KAP	Knowledge, Attitude and Practice
MCVHS	Maternal and Child Health Voucher Scheme
MCH	Maternal and Child Health
MMR	Maternal Mortality Rate
MOH	Ministry of Health
MNCH	Maternal, Newborn, and Child Health
NGO	Non-governmental Organization
NHP	National Health Plan
PNC	Postnatal Care
RHC	Rural Health Centre
SDGs	Sustainable Development Goals
SRHC	Sub-Rural Health Centre
TV	Television
UHC	Universal Health Coverage
UN	United Nation
WHO	World Health Organization

CHAPTER I
INTRODUCTION

1.1 Rationale of the Study

The National Health Plan (NHP) 2017-2021 of the Ministry of Health, Mother, it aims to achieve Universal Health Coverage (UHC) through necessary health services based on newborn and child health conditions, mother, Townships are prioritized for investment based on infant and child health conditions. and death rate.

According to WHO's 2020 report, about 5.3 million under-five deaths worldwide; There are 2.5 million infant deaths and a maternal mortality rate of 211 per 100,000. Every day, an estimated 810 women die from complications related to pregnancy and childbirth, most of which are preventable or treatable, such as infectious diseases and complications during pregnancy and childbirth (WHO, 2020).

Improving maternal health and child health services is a key priority of Myanmar's National Health Plan (NHP). The government has made significant efforts to improve overall reproductive health to reduce maternal mortality and improve the quality and accessibility of reproductive health services (MOH, 2016). The goal of SDGs 3 is women improving the reproductive health status of adolescents and young people is to achieve a better quality of life for people (WHO, 2015). The Ministry of Health and Sports plays a key role in promoting and promoting the health sector. (MOH, 2014).

Currently, Myanmar is facing many challenges regarding the development of its healthcare system. It has insufficient manpower; poor physical infrastructure (eg, inadequate hospitals). This includes lack of healthcare equipment and limited financial resources for this sector.

According to the 2014 census, one of the most prominent health problems for the country is high MMR. The country's MMR is estimated to be the second highest among ASEAN countries, with 282 deaths per 100,000 live births. About 2,800 women die each year during pregnancy or childbirth (MOH, 2016). According to World

Development Indicators 2018, teenage mothers (aged 15-19) account for 6 percent of all pregnant women.

Therefore, the study aim is the mothers' knowledge and practice on maternal, newborn, and child health (MNCH) care services in Thanatpin Township, Bago Region, Myanmar.

1.2 Objectives of the Study

The objectives of this study are (a) to examine the knowledge and practice of mothers on Maternal, Newborn, and Child Health (MNCH) Care Services in Thanatpin Township, Bago Region, Myanmar and (b) to identify the influencing factors of utilization in Maternal, Newborn and Child Health (MNCH) Care Services in Thanatpin Township, Bago Region, Myanmar.

1.3 Method of Study

The study is based on the descriptive method. Both quantitative data and qualitative data are used. The primary data is collected by using structured questionnaire from randomly selected 200 mothers who have under-five children from selected five rural health centers in Thannatpin Township. The secondary data is obtained from reports of the Department of Medical Services, Department of Public Health, Thanatpin Township Health Department, Rural Health Center, and other official publications from the Ministry of Health.

1.4 Scope and Limitations of the study

The study is carried out only to target 200 mothers from selected Rural Health Centers in Thannatpin Township. And this study is mainly focus on mothers' knowledge and practice on Antenatal Care, Delivery Care, and Postnatal Care services which include newborn care services from five Rural Health Centers (RHC) and it could only receive the awareness on Maternal, Newborn and Child Health (MNCH) Care Services of Thanatpin Township, Myanmar. This study is not to other townships in Myanmar due to the varying context between the different regions.

1.5 Organization of the study

The study is composed of five chapters: Chapter 1 is introduction with rationale of the study, objectives of the study, method of study, scopes and limitation of the study and organization of the study. Chapter 2 expresses the literature review on concept of maternal, newborn and child health (MNCH) care services, importance of maternal, newborn and child health (MNCH) care services, situation of mothers' utilization on MNCH services, and mothers' utilization of MNCH services in worldwide. Chapter 3 presents the background of the Maternal, Newborn, and Child Health (MNCH) Care Services in Myanmar and health care conditions of Thanatpin Township Health Department under the Ministry of Health. Chapter 4 shows an analysis of the utilization of Maternal, Newborn, and Child Health (MNCH) Care Services in the rural areas of Thanatpin Township. Chapter 5 explores the conclusion with findings and suggestions.

CHAPTER II
LITERATURE REVIEW

2.1 Concept of Maternal, Newborn and Child Health Care Services

According to the World Health Organization (WHO), health is complete physical. It is a state of mental and social well-being and not merely the absence of disease or weakness. Enjoying the highest attainable standard of health is independent of race. Religion political beliefs; It is one of the fundamental rights of every human being, regardless of economic or social status.

Human health is fundamental to achieving peace and security and depends on the full cooperation of individuals and groups. The success of any group or individual in health promotion and prevention has value for all. Unequal development in different countries in health promotion and disease control, particularly non-communicable disease, is also a frequent cause of maternal and child mortality.

A child's healthy development is of fundamental importance. The ability to live harmoniously in a changing total environment is essential for such development. Health Extending the benefits of psychosocial knowledge to all human beings is essential to attaining full health. Public health awareness and active cooperation are the most important for improving people's health. Governments are responsible for the health of their people only if they are complemented by adequate health and social measures.

Maternal health means the period of pregnancy; It refers to women's health during childbirth and the postpartum period. Each step should be a positive experience for women and their babies to reach their full potential for health and well-being. An infant or newborn child is a child under 28 years of age. During this first 28 days of life, the baby is at the highest risk of death.

Maternal, newborn and child health (MNCH) refers to the continuum of integrated care that provides tools and treatments in critical settings for mothers and their newborns and children in their first five years (Machira and Palamuleni, 2018).

Health care is the maintenance or improvement of health via the prevention, diagnosis, treatment, amelioration, or cure of disease, illness, injury, and other physical

and mental impairments in people. Health care is delivered by health professionals and allied health fields. Medicine, dentistry, pharmacy, midwifery, nursing, optometry, audiology, psychology, occupational therapy, physical therapy, athletic training, and other health professions are all part of health care. It includes work done in providing primary care, secondary care, and tertiary care, as well as in public health.

Access to health care can vary between communities and individuals. Providing health care services is "the timely and appropriate use of personal health services to achieve the best possible health outcomes." Health care systems are organizations organized to meet the health needs of target populations. According to the World Health Organization (WHO, 2015), a well-functioning health care system financing mechanism; a well-trained and adequately paid workforce; reliable information on which to base decisions and policies; and requires well-maintained health facilities. Deliver quality medicines and technologies.

An effective health care system is essential to a country's economy. It can contribute an important part of development and industrialization. Health care is traditionally regarded as an important determinant in promoting the general physical and mental health and well-being of people worldwide. An example is the worldwide eradication of smallpox in 1980, the first disease in human history declared by WHO to be eliminated through deliberate health care.

2.2 Importance of Maternal, Newborn and Child Health Care Services

Health care services during pregnancy and childbirth and after childbirth are important for the health of both mother and child. Antenatal care (ANC) can reduce health risks for mothers and their babies through monitoring of pregnancy and screening for complications. Delivery to a health facility with professional medical care and hygienic conditions reduces complications and infections during labor and delivery. Timely postpartum care treats complications arising from childbirth and teaches the mother how to care for herself and her newborn (Kaddour, Hafez & Zurayk, 2005).

Direct causes of maternal injury and death include excessive bleeding; infection high blood pressure Anemia, in addition to unsafe abortion and obstructing factors. Indirect causes such as malaria and heart disease. Most maternal deaths are preventable with timely management by a skilled health professional working in a supportive environment. Ending preventable maternal mortality must be at the top of the global agenda. At the same time, Simply surviving pregnancy and delivery may not be the

hallmark of successful maternal health care. It is important to expand efforts to reduce maternal injury and disability. Every pregnancy and birth is unique. Addressing inequities, particularly those affecting sexual and reproductive health and rights and gender-related health outcomes, is fundamental to ensuring that all women have access to dignified and high-quality maternity care.

Most infant deaths occur in developing countries with low access to health care. Improving newborn survival requires building strong health services to ensure every birth is attended by skilled personnel and hospital care for emergencies. Providing essential early newborn care, including immediate and prolonged skin-to-skin contact and early and exclusive breastfeeding, is essential to improve survival and lay the foundation for a healthy life.

Protecting and promoting children's health is of fundamental importance. Over the past several decades, we have seen significant progress in improving health and reducing child mortality. Among other encouraging statistics, the number of children dying before the age of 5 halved from 2000 to 2017, and more mothers and children are working together today than ever before (WHO, 2020). However, much work remains to further improve health outcomes for children.

The world is facing a double mandate. More than half of child deaths are due to easily preventable or treatable conditions that could have improved health care and their quality of life. At the same time, children are given good health and nutrition; It must provide a stable environment to thrive, including protection from threats and opportunities to learn and grow. Investing in children is one of the most important things a society can do to build a better future.

Factors to consider in terms of accessing health care include financial constraints (such as insurance coverage); Geographic barriers (likely to be charged by work to use services, such as additional transportation costs) and personal limitations (lack of ability to communicate with health care providers, poor health literacy, low income). Restrictions on health care services include the use of medical services; It negatively affects the effectiveness of treatments and overall outcomes (well-being, mortality).

2.3 Mothers' Utilization on Maternal, Newborn and Child Health Care Services

The consistent and effective use of maternal, newborn and child health (MNCH) services is essential to prevent maternal and child morbidity and mortality. Sustainable Development Goal (SDG) 3 and Goal 1, if the MNCH strategy is effectively implemented and applied; 2 and 7 to facilitate access. SDG 3; Goal 1 states that maternal deaths should be reduced to below 70 per 100,000. Target 2 states that preventable deaths of infants and children under 5 should end. Each country aims to reduce the infant mortality rate to 12 per 1,000 live births and the under-5 mortality rate to 25 per 1,000 live births. Goal 3.7 Ensure universal access to sexual and reproductive health care services, including family planning information and education, and national strategies and programs on reproductive health (WHO, 2015). Mother from WHO WHO recommends skilled attendance as a strategy to reduce infant and under-5 mortality (WHO, 2015).

Barriers to accessing MNCH services are structural, rooted in sociocultural norms. Individual and community level factors. Designed and implemented an intervention package in Garissa sub-county aimed at creating demand for services. Community health volunteers (CHVs) are trained to create and facilitate demand for access to MNCH care in communities, and health care providers are trained to provide culturally acceptable and sensitive services. Minor structural improvements were made to the control areas of the two buildings to absorb the demand created. Community leaders and other social actors acted as influencers to create demand and hold service providers accountable.

Determinants for low MNCH utilization are related factors from both user and health system factors. User factors include distance to health facility; cultural beliefs and practices; Economic factors and many other factors operating within the community and consumer's household are often involved. Health system factors include the performance of health workers; attitude of caregivers; It can include infrastructure and other forms of interaction between consumers and the healthcare system.

2.4 Investing in Maternal, Newborn and Child Health Care Services

In 2007, 9.2 million children in the world died before their fifth birthday, and more than half a million pregnant women died (Loazia, Wardlaw & Salama, 2018). The situation is particularly dire in Asia and the Pacific, where children under five account

for nearly 41% of the global total. More than 44% of mothers and 56% of infants (Hill, 2019). In addition, of all the people in the world who need family planning services but do not have access to them, 55% live in Asia and the Pacific (Lule, Singh & Chowdhury, 2019).

There are four reasons why governments in both developed and developing countries should invest more in the health of mothers and their children (WHO, 2009).

(I) Mother and Child Health

This obvious truth is one of the fundamental principles behind development work and is recognized in many United Nations conventions (Campbell and Graham, 2017). Two of the eight MDGs, MDGs 4 and 5, have child and maternal health as their focus. These supplements are nutritional, water and sanitation; Tuberculosis It interacts with other MDGs that address malaria and HIV and AIDS and women's empowerment. As with other MDGs, 4 and 5 are interdependent: saving a pregnant woman's life often means saving her unborn child. Saving a mother's life also helps other children; Because without her, they are three to ten times more likely to die.

(II) An Affordable Ways of Saving Lives of Mothers and Children

Many women and children in low-income countries have been saved by reliable measures. This intervention accounts for about two-thirds of child deaths; Half to two-thirds of infant deaths and many maternal deaths are preventable. The number of lives that could be saved globally each year is enormous: at least six million children, including two million children, and many of the half a million mothers who currently die (Bryce, 2016). Every pregnant woman wants to save costs and mother and child health. It brings concrete benefits to poverty reduction and gender equality. Spacing between births increases infant and child survival.

(III) Investing in Maternal, Newborn and Child Health

Improved maternal, newborn and child health saves money in many ways and benefits individuals, families, communities and society (Borghi, 2017). For instance, with healthier and better-nourished mothers and children spend less on health care. Reducing unexpectedly large and catastrophic out-of-pocket costs for women and children is especially important for the poor; That's because they can hold on to their

savings and are less likely to sell their assets in both major trouble spots in Asia and the Pacific.

The World Health Organization (WHO, 2018) estimates that improved sanitation and hygiene could save US$7 billion in healthcare costs per year. In many places, every dollar spent on family planning saves four or more pregnancies (Moreland and Talbird, 2016). When people are healthy and well-nourished, they spend less on health care. However, the benefits of good health outweigh the costs. Because they generate huge economic profits. This is because healthy people are more productive with the skills they learn through training (Victora, 2018).

This helps them improve their own lives and positively contribute to the wider economy. Conversely, poor health can seriously hamper economic growth. for example, USAID estimates that maternal and infant deaths lead to a potential $15 billion in lost productivity worldwide annually (USAID, 2019).

(IV) Investing in Maternal, Newborn and Child Health Makes Better Health System

In fact, throughout the care continuum from pre-pregnancy to childhood, mothers, Investment in newborn and child health, whether public or private, will strengthen a country's health system (Gottret and Schieber, 2019). reproduction mother Infant and child health access and outcome indicators are sensitive measures of the health system. If a country can provide quality 24-hour emergency care to women experiencing problems during childbirth, it is a sign that its health system has the necessary physical and human resources.

2.5 Multi-level Collaboration for Maternal, Newborn and Child Health Services

Multilevel collaboration and care delivery among health systems actors as key to achieving the Sustainable Development Goals (SDGs), maternal, reducing mortality by ending preventable infant and child deaths, particularly maternal; Collaboration is key to effective governance; knowledge sharing; It can be seen as a core competency of service coordination and joint problem solving (Torfing, Peters, Pierre & Sørensen, 2012).

Successful collaboration is built on the recognition that all actors are part of identifying and solving problems and requires the following: communication skills;

building trust; coaching and mentoring skills; Promoting participatory decision-making processes that ensure accountability and sustainability; and fair practices (Melo, 2018). The essence of collaborative networks lies in bringing different groups together and coordinating effectively.

By enabling collaborative relationships embedded in formal and informal social networks in the work setting, or professional power; It can be affected by differences in skill level and professional and organizational culture (Steihaug, Johannessen, Ådnnes, Paulsen, & Mannion, 2016). A recent systematic review found that quality improvement partnerships between frontline providers and managers, their knowledge, problem-solving skills and a collaborative attitude; It improves teamwork and shared leadership (Zamboni, Baker, Schellenberg & Hanson, 2020).

By enabling synergies among actors involved collaboration facilitates collective learning, sharing of experiences and implementation of changes for improved quality of maternal and child healthcare (Waiswa, Manzi & Mbaruku, 2017). Through cooperation, actors can freely express their opinions and share a common purpose in a safe and open environment where diverse views are encouraged and fairly protected.

Collaboration is particularly important for frontline providers and managers who need to coordinate their activities across various interfaces, including: (i) professional interfaces: health practitioners; Team collaboration between nurses and other professionals; (ii) between levels-- district hospitals; Collaboration across levels of care in the health system, including public health care centers and community-based services. (iii) the patient; Family and Community Communication: Between Health Professionals and Communities (Schneider, George, Mukinda & Tabana, 2020).

Cooperative relationships range from actors simply knowing other relevant people in the network to whether there is a prerequisite for other forms of cooperation. to varying degrees of communication between actors; to areas of cooperation such as professional support mechanisms; Opportunities to innovate and share new ideas. By increasing the relationship; Professional support mechanisms help health workers cope with personal or work-related challenges and improve outcomes of health service delivery (Mikkola, Suutala, & Parviainen, 2018).

2.6 Review on Previous Studies

Hala K. Ibrahim, Mohamed D. El Borgy and Huda O. Mohammed (2014) conducted a cross-sectional study of knowledge, attitude, and practices of pregnant women towards antenatal care in primary healthcare centers in Benghazi, Libya. This study was conducted on a sample of 300 pregnant women, selected from the three health care centers with the highest attendance rates for pregnant women in Benghazi city was collected. Most of the study participants had high levels of knowledge and practice. In addition, most have positive attitudes toward prenatal care. These findings can be used to plan a personalized health intervention program aimed at improving maternal health practices and ultimately improving the health status of Libyan women.

Khant Soe (2019) shown that most of the mothers got their children vaccinated by the MNCH center and RHC and the main reason for not vaccinating their children was that the mothers were too busy to vaccinate their children. There is a need to strengthen the functions of MNCH center and RHC and staff. In addition, there is a need to encourage the development of mobile clinics and a better level of immunization coverage. However, Health care providers should pay more attention to low-educated groups to meet their special needs. It is also important to improve economic conditions for most families in low economic conditions.

Hlaing Wai Aung (2019) conducted the descriptive study on knowledge, attitude and practices of community on maternal, newborn and child health (MNCH) in Saw township, Magway region, Myanmar. The study indicates that the knowledge and attitude of community on danger signs and symptoms of Antenatal, Intra-natal, Postnatal period, Newborn and Under-five children is strongly related to health awareness activities, active participation and engagement of the community and stakeholders.

CHAPTER III
MATERNAL, NEWBORN AND CHILD HEALTH CARE SERVICES IN MYANMAR

3.1 Public Health Care Services in Myanmar

The Ministry of Health is taking the sole responsibility for providing comprehensive range of promotive, preventive, curative and rehabilitative health care services to the people, The Ministry has been given priority on strengthening and scaling up health resources along its path of movement towards the Universal Health Coverage.

There are 15 medical and allied universities and 50 nursing and midwifery colleges across the country. In addition to undergraduate courses, 54 Master and 18 Diploma courses; Ph. 14 D and 43 PhD programs were launched in medical and allied universities under the Department of Health and Human Resources.

Specialists have been appointed in district hospitals since 1997 and specialist health services have been available in district hospitals since then. The advanced secondary and tertiary care services are provided at the state and regional hospitals, central and teaching hospitals. Modern diagnostic and therapeutic facilities have been installed in the central and teaching hospitals, state/regional and district hospitals.

Those who need special care are referred to Station Hospital, Township Hospital, District Hospital and to Specialist Hospital successively. Most districts have 2-6 townships and have a 100-bed (in some cases 200-bed) district hospital that provides the same secondary care services as township hospitals and also specialized services in general medicine, surgery, obstetrics and gynecology, pediatrics, anesthesia, orthopedics, ophthalmology, dentistry and pathology.

Table (3.1) Types of Hospitals and Health Centers (2020-2021) in Myanmar

Particular	Number
Specialist Hospitals	32
General Hospitals	53
150 Bedded Hospitals	2
100 Bedded Hospitals	42
50 Bedded Hospitals	115
25 Bedded Hospitals	161
16 Bedded Hospitals	19
Station Hospitals	710
Indigenous Hospitals	44
Indigenous Medical Centers	260
Public Health Centers including RHC and Sub-RHC	1942
Maternal and Child Health Centers	348

Source: Department of Public Health, 2022

In order to provide adequate coverage of hospital services in various states and regions, the Ministry of Health is continuously establishing new hospitals and upgrading existing hospitals. By the end of 2020, a total of 55,395 beds are available in government hospitals. Government medical institutions in Myanmar have an average of 105 hospital beds per 100,000 population (MOH, 2021). The following Table (3.3) shows the health personnel in Myanmar.

Table (3.2) Health Personnel in Myanmar

Particular	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Doctor	8936	10479	17845	12371	11993
Dental Surgeon	498	760	861	870	914
Health Assistant	2156	2156	2500	2518	2604
Nurse	21596	20881	20842	22340	24292
Midwife	13881	13651	14280	14305	13913
Lady Health Visitor	2329	1897	2033	1974	1992

Source: Department of Public Health, 2022

According to Table (3.2), the number of doctors and midwifes decreased from previous year to current year. Although, the number of dental surgeons, health assistants, nurses and lady health visitors increased in current year compared with previous year.

The distribution of doctors in states and regions varies from 53 per 100,000 population in Yangon Region to 27 in Rakhine State. Yangon Region Major regions such as Mandalay region and Nay Pyi Taw region are mostly teaching hospitals and super hospitals. Therefore, the attention of doctors is high. Due to the low population density compared to the topography, Kayah State and Chin State have a higher ratio of medical doctors to population than the rest of the states and regions as shown in Table (3.3).

Table (3.3) Distribution of Medical Doctors (2020-2021) by State and Region

State/Region	**No. of Medical Doctors Per 100,000 Population**
Kachin	23
Kayah	30
Kayin	21
Chin	20
Mon	27
Rakhine	27
Shan	29
Ayeyarwady	39
Bago	31
Mandalay	45
Magway	37
Sagaing	43
Tanintharyi	25
Yangon	53
Nay Pyi Taw	43

Source: Department of Public Health, 2022

The number of medical doctors is current running condition in states and regions. If more doctor's appointment in states and regions, public will get a health benefit.

Ladies Health Visitors and Midwives are the main frontline health care providers in Myanmar. The number of two health care providers per 100,000 rural population is highest in Chin State with 28, Kayah State with 38 and Rakhine State with the lowest with 33.

Health assistants, public health supervisors and other basic health service professionals play an important role in providing basic health care services, especially to the rural population. The highest number of public health professionals per 100,000 rural population is 65 in Yangon region. 57 in Mandalay 28 minimum in Chin State. The following Table (3.4) shows the distribution of ladies and health visitor and midwives by state and region.

Table (3.4) Distribution of Ladies Health Visitor and Midwives (2020-2021)

State / Region	Ladies Health Visitor and Midwives Per 100,000 Population
Kachin	48
Kayah	38
Kayin	37
Chin	28
Mon	42
Rakhine	33
Shan	34
Ayeyarwady	39
Bago	41
Mandalay	57
Magway	47
Sagaing	42
Tanintharyi	40
Yangon	65
Nay Pyi Taw	37

Source: Department of Public Health, 2022

The number of lady health visitor and midwives are current running condition in states and regions. If more lady health visitor and midwives' appointment in states and regions, public will get a health benefit.

The distribution of Nurses among states and regions were also related to the distribution of population density and major hospitals. The distribution of Dental Surgeons ranges from one to eight per 100,000 population. (Table 3.5)

Table (3.5) Distribution of Nurses and Dental Surgeons (2020-2021)

State / Region	Nurses Per 100,000 Population	Dental Surgeon Per 100,000 Population
Kachin	56	2
Kayah	35	3
Kayin	39	2
Chin	36	3
Mon	40	3
Rakhine	26	3
Shan	68	3
Ayeyarwady	57	4
Bago	61	3
Mandalay	79	4
Magway	65	3
Sagaing	48	3
Tanitharyi	42	2
Yangon	93	6
Nay Pyi Taw	84	8

Source: Department of Public Health, 2022

The number of nurses and dental surgeons are current running condition in states and regions. If more nurses and dental surgeons' appointment in states and regions, public will get a health benefit.

The Distribution of State and Region of taking of primary health care attendance percentage of population are shown in table (3.6).

Table (3.6) Primary Health Care Attendance (2020-2021)

State/Region	Primary Health Care Attendance Percentage of Population
Kachin	32
Kayah	34
Kayin	39
Chin	29
Mon	48
Rakhine	42
Shan	51
Ayeyarwady	53
Bago	52
Mandalay	57
Magway	49
Sagaing	31
Tanintharyi	32
Yangon	51
Nay Pyi Taw	34

Source: Department of Public Health, 2022

The following Table (3.7) shows the outpatients attendance and admission in public hospital in states and regions.

Table (3.7) Outpatients Attendance and Admission in Public Hospitals

State / Region	Outpatients Attendance (2020-2021)	Admission (2020-2021)
Kachin	1247	1929
Kayah	364	637
Kayin	927	1287
Chin	409	689
Mon	1356	1545
Rakhine	1237	951
Shan	2720	5439
Ayeyarwady	3971	2807
Bago	3284	3205
Mandalay	6942	6443
Magway	2702	2308
Sagaing	3357	4514
Tanitharyi	990	1208
Yangon	10252	12243
Nay Pyi Taw	1275	2451

Source: Department of Public Health, 2022

3.2 Maternal, Newborn and Child Health Care Services in Myanmar

For the sake of ensuring Maternal, Newborn and Child Health, the basic health staff have been down to the grassroots level to provide preventive, curative and rehabilitative services through Primary Health Care approach. The basic health workers were deployed at lower levels to provide treatment and rehabilitation services. Primary health workers are frontline health workers responsible for providing primary health care at the community level.

In order to develop better strategies to reach the goal of ending preventable maternal mortality by 2030, the current state of maternal and reproductive health service coverage should first be assessed. Services are provided by primary health care providers at the township level and below, from specialist doctors. Districts in Myanmar Obstetricians and gynecologists at the state and regional levels; Midwives provide births in rural areas; Key personnel in the provision of maternity and paternity services.

The following table shows the human resource of maternal and child health centers in Myanmar.

Table (3.8) Human Resource of Maternal and Child Health Centers (2020-2021)

Particular	Number
Maternal and Child Health Centers	348
Doctors	152
Health Supervisor I	440
Health Supervisor II	705
Lady Health Visitors	407
Midwives	1315

Source: Department of Public Health, 2022

For the Delivery and Postnatal Care, over one-third of births are delivered in a health facility. This means that 63% of births take place at home. Most women in urban areas deliver at a health facility, while only 28 percent of women in rural areas deliver at a health facility (MOH, 2021).

More than 72 percent of postpartum women received a health checkup within two days of giving birth, preventing postpartum health problems. Almost a quarter of women did not have a postpartum check-up within 41 days of giving birth. As recommended, 37% of newborns receive antenatal care within 2 days of birth (MOHS, 2021).

A large proportion of maternal and infant deaths occur within 48 hours of birth. Therefore, immediate postpartum care (PNC) for both mother and baby is important to treat complications arising from childbirth and to give the mother advice on how to care for herself and her baby. Safe motherhood programs recommend that all women undergo a health check-up within 2 days of delivery. The proportion of women within 2 days of giving birth is higher in urban than rural areas, with increasing education and wealth.

Breastfeeding is sufficient and beneficial for the first 6 months of a child's life. Breastfeeding immediately after birth also helps the uterus contract, thus reducing the mother's postpartum blood loss. Giving other food and water (besides breast milk) before the baby is 6 months old can inhibit breastfeeding and make the newborn sick. Babies over 6 months need other food and drink while breastfeeding continues until

age 2 and beyond. Mother's milk is energy, It is an important source of protein and other nutrients such as vitamin A and iron. Food includes peeled and cooked vegetables; grains, pulses and fruits; some oil and meat; egg, It should include a variety of options such as chicken and dairy products.

The nutrition promotion program focuses on the nutritional status of children and pregnant women. Nutritional status of children under 5 years of age low birth weight; breastfeeding Anesthetized infants; Vitamin A supplementation; Worm and Mother Vitamin A; Vitamin B1; iron supplements; during pregnancy Hemoglobin test during and after delivery;

The Maternal and Child Health Voucher Program (MCVHS) was launched in 2013 to increase women's access to health care services in Myanmar to improve maternal and child health. Despite these initiatives, maternal health care services are still underutilized in Myanmar.

Providing care in the process of care; use of evidence-based practices in routine and emergency care; systems that allow review and audit of record keeping; and include referral systems between different levels of care. The care experience provided to women and their families; This includes effective communication about their expectations and their rights. maintaining dignity; Get social and emotional support. Providers should be aware of the rights of women receiving maternity care services.

Providers should use basic communication techniques when talking to a woman about her pregnancy or complications. These techniques ensure that the service provider is honest with the woman. It helps to establish caring and trusting relationships. A woman is more likely to return to the facility if she trusts her providers and feels they have her best interests at heart.

To ensure health and well-being for all women; It is important to identify what has worked in the past and use what we learn to overcome current and emerging challenges. regularly recording data to understand how far the Sustainable Development Goals (SDG) on maternal health are being achieved; Reporting and interpretation are important. The current state of maternal and reproductive health service coverage should be assessed to develop better strategies for reaching the goal of ending preventable maternal mortality by 2030.

The following table shows the average number of antenatal care and postanal care services by midwives in Myanmar.

Table (3.9) Average Number of Antenatal Care and Postanal Care of Services basic per time by Midwives (2020-2021)

State / Region	Antenatal Care Service	Postanal Care Service
Kachin	4.6	5.3
Kayah	5.3	3.5
Kayin	4.0	7.2
Chin	4.2	4.6
Mon	4.7	9.5
Rakhine	4.0	8.2
Shan	4.0	9.7
Ayeyarwady	5.5	8.6
Bago	4.4	9.1
Mandalay	4.8	9.8
Magway	3.0	8.6
Sagaing	4.3	8.5
Tanitharyi	3.9	6.5
Yangon	4.0	9.5
Nay Pyi Taw	5.0	9.6

Source: Department of Public Health, 2022

3.3 Antenatal Care and Postnatal Care Services

The aim of Antenatal Care (ANC) is to prevent complications for mothers and babies through access to high-quality care before pregnancy and during childbirth and the postpartum period. This study identified some factors and patient population characteristics that influence the frequency and timing of access to ANC by women in Myanmar.

Maternal and child health promoters; community health workers; Quality delivery of ANC providers such as community support groups should support providers by acting as coordinators between providers and communities and educating women on the importance of ANC. Equity of service delivery is critical to ensure that all women receive quality and timely ANC. Evidence shows that women living in poor and less educated rural areas have lower ANC coverage and worse pregnancy outcomes than

more advantaged women in the same countries (WHO, 2015). It has the potential to reduce health disparities between different groups of women. Ensuring quality of care must be an inherent and essential part of all services to improve maternal and unborn child health.

Obstetric care should discuss and promote important health issues at every visit. The service provider is pregnant; Providers should ensure that the woman and her family have the information they need to make healthy decisions during childbirth and the postpartum/delivery period, and that the woman and her family have adequate guidance to apply that information to their specific situation. This includes eating healthy during and after pregnancy; exercise counseling about exclusive breastfeeding; Includes healthy timing and spacing of pregnancies and postpartum family planning methods.

Postpartum care is a woman's pregnancy, there should be a continuum of care through labor and birth, taking into account each woman's needs and preferences. Families should aim to create a supportive environment in which professionals guide them in caring for their baby and themselves, and recognize any deviations from normality.

Maternity care may cover all or part of the postpartum period. physical mental It is expected that women will be discharged from the health visitor center 10-14 days after delivery if there are no social or psychological risks or concerns. Care is planned according to the individual needs of the woman and her baby, and these plans are communicated to relevant professional groups who may be involved in maternal and child health care.

Table (3.10) Coverage of Antenatal Care and Postnatal Care (2020-2021)

State / Region	Antenatal Care (%)	Postnatal Care (%)
Kachin	82.8	67.8
Kayah	85.3	63.9
Kayin	89.9	65.1
Chin	86.2	65.6
Mon	84.5	81.5
Rakhine	85.8	69.5
Shan	86.4	66.8
Ayeyarwady	83.3	75.3
Bago	89.4	68.5
Mandalay	82.2	77.6
Magway	89.4	66.4
Sagaing	80.7	65.6
Tanitharyi	89.5	63.8
Yangon	78.1	43.8
Nay Pyi Taw	81.1	43.5

Source: Department of Public Health, 2022

According to Table (3.10), the coverage of antenatal care is higher than postnatal care because the quality delivery of antenatal care service providers and mothers about the importance of antenatal care to prevent complications for mothers and babies through high-quality care during and after pregnancy.

Should be a continuation of the care a woman receives through pregnancy. This care is planned according to the individual needs of the woman and her baby, and it is important that these plans are communicated to all relevant professional groups involved in maternal and child health care.

All staff at the clinic should understand how to make women and their partners feel welcome and treat them with kindness and respect. Providers should speak the local language or have a translator and use terms that women can understand. Throughout the visit, the woman should be given opportunities to ask questions (and have her questions answered). Providers should explain why they must obtain permission from the woman before performing exams and tests (informed consent). A woman has the

right to refuse treatment and the right to fully understand the risks and benefits of accepting or refusing care.

To provide efficient services; Providers at all levels of the health system should be resourced to ensure they are ready to meet the needs of the women they care for. to perform rapid tests for prioritizing care; It is important to effectively organize and manage services, including maintaining proper customer flow and creating appropriate referral mechanisms.

3.4 Public Health Care Service of Thanatpin Township

The public health care service in Thanatpin Township is implementing the plan to access the target of reducing maternal, neonatal and under five child mortalities, extension and expansion of health facilities are needed. The place of providing antenatal care, delivery care and postnatal care such as health centres and hospitals, the skilful health personal and the number of people who give the maternal and child health care and the materials used in the delivery of child are crucial components.

Table (3.11) shows the health care facilities in Thanatpin Township.

Table (3.11) Health Care Facilities in Thanatpin Township (2021)

Particular	Number
Township General Hospital (25 Bedded)	1
Public Station Hospital (16 Bedded)	4
Private Clinic	9
Rural Health Centre	7
Sub-Rural Health Centre	31
Maternal and Child Health Centre	1
Malaria Team	1
Tuberculosis Team	1

Source: Thanatpin Township Health Department, 2022

Regarding from Thanatpin Township Health Department (2022), one township general hospital (25 bedded), four public station hospitals (16 bedded), nine private clinics, seven rural health centres, thirty-one sub-rural health centres, one maternal and child health centre, one malaria team and one tuberculosis team. The health facilities are supporting health care services and needed to extend infrastructures. Table (3.12) presents a health personnel in Thanatpin Township.

Table (3.12) Health Personnel in Thanatpin Township

Particular	Number
Doctor	6
Nurse	21
Heath Assistant	6
Lady Health Visitor	4
Midwives	34
Health Supervisor I	4
Health Supervisor II	42

Source: Thanatpin Township Health Department, 2022

The manpower of health care providers in Thanatpin Township are 117 including 6 doctors and 21 nurses. The health personnel are also needed continuous professional development program. The following table shows the basic health staffs were provided during the visits to villages in Thanatpin Township

Table (3.13) Frequencies of Visiting of Provider to Villages in Thanatpin Twonship

Particular	Number
Antenatal Care	35
Postnatal Care	32
Under Five Care	10
Newborn Care	45
Health Education	15
Immunization	27
Others	20

Source: Thanatpin Township Health Department, 2022

Table (3.14) shows the training related to maternal, newborn, child health care (MNCH) in Thanatpin Township.

Table (3.14) Training Related to MNCH in Thanatpin Township

Particular	Number
Essential Newborn Care	15
Emergency Obstetric Care	5
Community based Newborn Care	26
Infant and Young Child Feeding	13
Others	15

Source: Thanatpin Township Health Department, 2022

Report of Thanatpin Township Health Department (2022), 15 number of trainings for essential newborn care, 5 number of trainings for emergency obstetric care, 26 number of trainings for community based newborn care, 13 number of trainings for infant and young child feeding and 15 number for other health training.

Therefore, capacity building of Thanatpin Township MNCH health care providers through continuous professional development program through training from health trainers to reduce the infant mortality rate, under-five child mortality rate and maternal mortality rate.

CHAPTER IV
SURVEY ANALYSIS

4.1 Survey Profile

The survey area is Thanatpin Township and it is one of township in Bago Region, Myanmar. Thanatpin Township is located between North Latitude 17 degree 7 minutes - 17 degree 22 minutes and East Longitude 96 degree 30 minutes - 96 degree 55 minutes. The township area is East to West 35 miles and South to North 11 miles with 872.248385 square miles.

Thanatpin Township is borderd with Kyaik Hto and Belin Townships in the East, War Township in the North, Bago Township in the West, Kawa Township in the South. This township is 18 feet above sea level and it is a low-lying valley plain area with abundant deep-water fields. 75 percent of the townships are deep water fields and less cultivated acres.

According to the Thanatpin Township General Administration Department report (2022), the township population is 304289, the majority of the people 274785 (90.3%) live in rural areas with only 29504 (9.7%) living in urban areas. This township is comprised on 261 villages, 60 village tracts, 6 wards, 65571 houses and 68003 households. Most of people are Buddhist religious.

4.2 Survey Design

The survey design was generated a wide range of information on knowledge, attitude and practice of mothers on utilization of maternal, newborn and child health care services within Thanatpin Township. The survey is conducted on 200 mothers of five rural health centers. This study is quantitative in nature through a survey based on a questionnaire. The data collection method used simple sampling method with structure questionnaire.

The survey questionnaire had multiple choice questions and respondents were asked to select one or more of the alternatives and dichotomous questions that had only

two response alternatives, Yes or No. The survey was based on the voluntary cooperation and interviewed between February and March, 2023 for this study. Copies of the survey questionnaire is attached in Appendix.

Table (4.1) Sample of Study

No.	Rural Health Center Name	No. of Respondents	%
1.	Kayin Village	25	12.5
2.	Min Village	50	25.0
3.	Kyaung Gyi Village	50	25.0
4.	Ka Hlaing Village	50	25.0
5.	Ye Kyaw Village	25	12.5

Source: Survey data, 2023

4.3 Survey Results

The survey finding is divided by five parts: (i) characteristics of respondents, (ii) knowledge on maternal, newborn and child health care services, (ii) practice on maternal, newborn and child health care services and (iii) knowledge and practices on nutrition on infant and young child feeding.

4.3.1 Characteristics of Respondents

Table (4.2) shows the characteristics of respondents in the survey area such as age, education level, marital status, number of pregnancies, history of abortion/miscarriage, year of marriage, age at marriage, religious, number of household members, income per month and job status.

Table (4.2) Characteristics of Respondents

Particular	No. of Respondents	%
Age (Years)		
(a) 21 - 24	47	23.5
(b) 25 – 29	46	23.0
(c) 30 – 34	56	28.0
(d) 35 - 45	51	25.5
Total	**200**	**100**

Table (4.2) Characteristics of Respondents (Continued)

Particular	No. of Respondents	%
Education level		
(a) Read and Write	32	16.0
(b) Primary school	31	15.5
(c) Middle school	32	16.0
(d) High school	29	14.5
(b) University/College	38	19.0
(c) Graduated	38	19.0
Total	**200**	**100**
Marital status		
(a) Married	160	80.0
(b) Divorced	25	12.5
(c) Widowed	15	7.5
Total	**200**	**100**
Number of pregnancies		
(a) One	44	22.0
(b) Two	37	18.5
(c) Three	35	17.5
(d) Four	52	26.0
(e) More than four	32	16.0
Total	**200**	**100**
History of Abortion/miscarriage		
(a) Yes	36	18
(b) No	164	82
Total	**200**	**100**
Year of marriage		
(a) More than 1 year	60	30.0
(b) Between 2 year to 5 years	65	32.5
(c) More than 5 years	75	37.5
Total	**200**	**100**

Table (4.2) Characteristics of Respondents (Continued)

Particular	No. of Respondents	%
Age at marriage		
(a) Less than or equal 20 years	50	25.0
(b) 21 years to 25 years	56	28.0
(c) 26 years to 30 years	46	23.0
(d) 31 years to 35 years	48	24.0
Total	**200**	**100**
Religious		
(a) Buddhist	156	75.0
(b) Christian	25	12.5
(c) Islam	10	5.0
(d) Hinduism	9	7.5
Total	**200**	**100**
Number of household members		
(a) Less than 5 members	103	51.5
(b) More than 5 members	97	48.5
Total	**200**	**100**
Income per month		
(a) Less than 50,000 Kyat	54	27.0
(b) Between 50,000 Kyat to 150,000 Kyat	75	37.5
(c) More than 150,000 Kyat	71	35.5
Total	**200**	**100**
Job status		
(a) Farmer	44	22.0
(b) Housewife	37	18.5
(c) Daily worker	42	21.0
(d) Merchant	38	19.0
(e) Office worker	39	19.5
Total	**200**	**100**

Regarding from 200 mothers, the mostly respondents have between 21 years to 34 years. In the study of education level, the most of respondents have university/college and graduated level. Within 200 respondents, 160 respondents (80%) are married, 25 respondents (12.5%) are divorced and 15 respondents (7.5%) are widowed. The majority of respondents are four times of pregnancies and 36 respondents (18%) have abortion or miscarriage.

Among 200 mothers, 60 respondents (30.0%) have more than one year of marriage, 65 respondents (32.5%) have between two years to five years and 75 respondents (37.5%) have more than five years. The most of respondents said that they got married between 21 years to 25 years. The majority of respondents are Buddhist followed by Christian, Islam and Hinduism. And also, mostly respondents are living with five family members. The most of respondents have got between 50,000 kyat to 150,000 kyat per month and farmer.

4.3.2 Knowledge on Maternal, Newborn and Child Health Care Services

Table (4.3) shows the knowledge on taking health care services place in the survey area.

Table (4.3) Maternal, Newborn and Child Health Care Services Place

Particular	**No. of Respondents**	**%**
Township Hospital	34	17.0
Station Hospital	29	14.5
Rural Health Center	32	16.0
Sub-rural Health Center	27	13.5
Private Clinic/Hospital	45	22.5
No Health Knowledge	33	16.5
Total	**200**	**100**

Source: Survey data, 2023

Above from table (4.3), 34 respondents (17.0%) said that they got from township hospital, 29 respondents (14.5%) got from station hospital, 32 respondents (16.0%) got rural health center, 27 respondents (13.5%) got sub-rural health center and 45 respondents (22.5%) got private clinic/hospital respectively. The majority of respondents said that they have information from health professionals as shown in the below table (4.4).

Table (4.4) Knowing on Source of Information to Take MNCH Services

Particular	No. of Respondents	%
Friends	32	16.0
Health Education	36	18.0
Media (Radio/TV/Facebook)	38	19.0
Families	42	21.0
Health Professionals	52	26.0
Total	**200**	**100**

Source: Survey data, 2023

Antenatal care (ANC) is a way to identify high-risk pregnancies and educate women to achieve a health birth and outcome. There is a lack of evidence on whether the adoption of ANC is an effective strategy to keep women in the system, and particularly for poor women, participating in other maternal and child interventions.

Table (4.5) shows the knowledge on frequency of ANC visiting time during pregnancy of 200 female respondents.

Table (4.5) Knowledge on Frequency of ANC Visiting Time During Pregnancy

Particular	No. of Respondents	%
Within 4 months	57	28.5
Between 6 to 7 months	46	23.0
Within 8 months	46	23.0
9 months and until delivery	51	25.5
Total	**200**	**100**

Source: Survey data, 2023

According to result of table (4.5), 57 respondents (28.5%) have within 4 months, 46 respondents (23.0%) have between 6 to 7 months, 46 respondents (23.0%) have within 8 months, 51 respondents (25.5%) have 9 months and until delivery. It was found that there was delay and low frequency taking ANC services from MNCH centers and reducing in quality of ANC.

Table (4.6) Knowing Taking Immunization During Pregnancy

Particular	No. of Respondents	%
Anti-Tetanus Vaccine	190	95.0
No Immunization	10	5.0
Total	**200**	**100**

Source: Survey data, 2023

From Table (4.6), 95% of mothers knew to take immunization to prevent tetanus disease during pregnancy. To reduce maternal mortality and newborn death with tetanus disease, immunization during pregnancy must be done. The following Table (4.7) shows the knowing on danger signs during pregnancy indicating the need to seek health care.

Table (4.7) Knowing on Danger Signs During Pregnancy Indicating Need to Seek Health Care

Particular	No. of Respondents	%
Vaginal Bleeding	11	5.5
Fit or loss of conscious	16	8.0
Severe headache with blurred vision	13	6.5
Chest or abdominal pain in under right rib	14	7.0
Continuous intense abdominal pain	14	7.0
Weak (can't wake up from bed due to fever)	15	7.5
Fast breathing/ Difficult in breathing	13	6.5
Swelling in legs, arms and face (Edema)	11	5.5
Less urine output (Oliguria)	14	7.0
Severe continuous vomiting	12	6.0
Fever/illness	14	7.0
Abdominal pain (not like uterine contraction)	15	7.5
Decrease the times of fetal movement	20	10.0
No Health Knowledge	18	9.0
Total	**200**	**100**

According to result of 200 respondents (Table 4.7), 11 respondents (5.5%) have vaginal bleeding, 16 respondents (8%) have fit or loss of conscious, 13 respondents (6.5%) have severe headache with blurred vision, 14 respondents (7%) have chest or abdominal pain in under right rib, 14 respondents (7%) have continuous intense abdominal pain, 15 respondents (7.5%) have weak, 13 respondents (6.5%) have fast breathed or difficulty in breathing, 11 respondents (5.5%) have swelling in legs, arms and face (Edema), 14 respondents (7%) have less urine output (Oliguria), 12 respondents (6%) have severe continuous vomiting, 14 respondents (7%) have fever or illness, 15 respondents (7.5%) have abdominal pain (not like uterine contraction) and 20 respondents (10%) have decrease the times of fetal movement respectively.

The knowing on danger signs during pregnancy indicating the need to seek health care, 10% of mothers knew decrease in times of fetal movement that was very important for newborn survival, 13.5% of mothers knew bleeding and fit or loss of conscious that were also very important danger signs and symptoms. 91% of mothers knew these signs and symptoms but 9% of mothers had no knowledge on these signs and symptoms.

The following Table (4.8) shows knowing on ever taking ANC during pregnancy.

Table (4.8) Knowing on Ever Taking ANC During Pregnancy

Particular	No. of Respondents	%
Yes	164	82.0
No	36	18.0
Total	**200**	**100**

Source: Survey data, 2023

From Table (4.8), 164 respondents (82%) had to receive ANC to maintain pregnancy for newborn survival but 36 respondents (18%) had no knowledge on taking ANC. Most of the mother knowledge were received ANC during pregnancy for their safe delivery.

Table (4.9) Knowledge on Place of Safe for Child Delivery

Particular	No. of Respondents	%
Health Facility	93	46.5
Home Delivery	107	53.5
Total	**200**	**100**

Source: Survey data, 2023

From Table (4.9), 46.5% of mothers knew place of save for child delivery but more than 50% knew safe in-home delivery because home deliveries were traditional cultural and the health providers of MNCH centers are coming to home for child delivery in the rural area.

Table (4.10) Knowing of Providers for Safe Delivery

Particular	No. of Respondents	%
Health Assistant	33	16.5
LHV/MW	29	14.5
AMW	32	16.0
CHW	28	14.0
Traditional Birth Attendance	14	7.0
Relatives	33	16.5
Don’t know	31	15.5
Total	**200**	**100**

Source: Survey data, 2023

Regarding from 200 respondents (Table 4.10), about 61% of mothers knew providers for safe delivery were from MNCH but 23.5% of mothers knew providers for safe delivery were traditional birth attendance and their relatives. 15.5% of mothers had no knowledge on providers for safe delivery. The health providers are giving services in MNCH centers and taking others medical treatment for mothers. So, most of the mothers should take health facility delivery.

Table (4.11) Knowing of Any Danger Signs and Symptoms During Delivery and Immediate After Delivery

Particular	No. of Respondents	%
No labor pain until 6 hours after rupture of amniotic membrane	39	19.5
Not deliver until 12 hours after labor pain	30	15.0
Heavy vaginal bleeding after delivery	38	24.0
Not deliver of placenta until 1 hour after delivery	40	20.0
No Health Knowledge	43	21.5
Total	**200**	**100**

Source: Survey data, 2023

Regarding from 200 respondents (Table 4.11), 39 respondents (19.5%) have not labor pain until 6 hours after rupture of amniotic membrane, 30 respondents (15%) have not delivered until 12 hours after labor pain, 38 respondents (24%) got heavy vaginal bleeding after delivery, and 40 respondents (20%) have not delivered of placenta until 1 hour after delivery.

About 78.5% of mothers knew any danger signs and symptoms during delivery and immediate after delivery but 21.5% of mothers had no knowledge on these signs and symptoms. So that, it was very danger situation and 21.5% of mothers should go to hospital in obstetric emergency and delay in going to hospital can increase maternal mortality rate.

Table (4.12) Knowledge on Importance of Postnatal Care

Particular	No. of Respondents	%
Yes	170	85.0
No	30	15.0
Total	200	100

Source: Survey data, 2023

According to result of 200 respondents, most of respondents knew on importance of postnatal care. Therefore, the health providers of MNCH centers must be supported in home visit.

Table (4.13) Knowing Any Danger Signs and Symptoms After Delivery 48 Hours

Particular	No. of Respondents	%
Heavy bleeding	13	6.5
Headache with blur vision	30	15.0
Fit or loss of conscious	12	6.0
Fast breathing/ Difficult breathing	24	12.0
Weak that can't wake up from bed due to fever	22	11.0
Red streaks on your breasts	24	12.0
Dribbling or leaking urine	20	10.0
Excessive swelling and pain of vulva or perineum	20	10.0
Discharge that smells bad	16	8.0
No Health Knowledge	19	9.5
Total	**200**	**100**

Source: Survey data, 2023

According to result of 200 respondents (Table 4.13), 13 respondents (6.5%) got heavy vaginal bleeding, 30 respondents (15%) got headache with blur vision, 12 respondents (6%) have fit or loss of conscious, 24 respondents have fast breathed or difficult breathing, 22 respondents (11%) have weak that can't wake up from bed due to fever, 24 respondents (12%) have red streaks on their breasts, 20 respondents (10%) have dribbling or leaking urine, 20 respondents (10%) have excessive swelling and pain of vulva or perineum, and 16 respondents (8%) have vaginal discharge that smells bad.

Among 200 mothers, 95% of total mothers knew any danger signs and symptoms after delivery 48 hours but 9.5% of mothers have no knowledge. If mothers are awareness of danger signs and symptoms after delivery 48 hours the maternal mortality rates and under-five mortality rates will be decreased.

Table (4.14) Knowing the Facts Every Mother Who Delivered

Particular	No. of Respondents	%
Taking care for your hygiene	32	16
Clean your private area and wash with water after using toilet	16	8.0
Don't avoid for your nutrition and eat more than since during pregnancy	17	8.5
Take the medicine according to the health professionals' instruction	12	6.0
Continue to take Iron/Folic Acid/Vitamin B-1	17	8.5
Take Vitamin A at once after delivery	20	10.0
Don't make any traditional ways	19	9.5
Take family planning (contraception) with counselling with health professional at 42 days after delivery	17	8.5
Birth spacing at least 2 years	15	7.5
No Health Knowledge	35	17.5
Total	**200**	**100**

Source: Survey data, 2023

According to result of 200 respondents (Table 4.14), 13 respondents (6.5%) are taking care for their hygiene, 19 respondents (9.5%) have used pad or clean clothes due to vaginal discharge, 16 respondents (8%) are cleaning and wash with water after using toilet, 17 respondents (8.5%) have eaten more than since during pregnancy, 12 respondents (6%) have taken the medicine according to the health professionals' instruction, 17 respondents (8.5%) have continued to take Iron/Folic Acid/Vitamin B-1 tablet, 20 respondents (10%) have taken Vitamin A at once after delivery, 17 respondents (8.5%) have taken family planning (contraception) with counselling with health professional at 42 days after delivery and 15 respondents (7.5%) have birth spacing at least 2 years.

Within 200 mothers, 82.5% of mothers knew the facts every mother who delivered and 17.5% of mothers did not know. Taking a vitamin A at once after delivery and continue to take Iron/Folic Acid/Vitamin B-1 tablet are required for every pregnancy. Therefore, every pregnancy should be taken Vitamin A, Iron/ Folic Acid/Vitamin B-1/Vitamin B1.

Table (4.15) Knowing of Danger Signs and Symptoms of Newborns Taken Immediately to Health Facility

Particular	No. of Respondents	%
Fast or difficult breathing	19	9.5
Chest indrawing	10	5.0
Fits/ Convulsion	12	6.0
Poor suck breastmilk	11	5.5
Not suck breastmilk	6	3.0
High or low body temperature	16	8.0
Small baby (less than 2.2 kg)	16	8.0
Pus wound on the skin of baby	21	10.5
Redness/pus on umbilical cord	16	8.0
Leaking the pus from the eyes	24	12.0
Yellowish skin color	21	10.5
Pale (Cyanosis)	14	7.0
No Health Knowledge	14	7.0
Total	**200**	**100**

Source: Survey data, 2023

Regarding from 200 respondents (Table 4.15), 19 respondents (9.5%) have fast or difficult breathing, 10 respondents (5%) have chest indrawing, 12 respondents (6%) have fits or convulsion, 11 respondents (5.5%) have poor suck breastmilk, 6 respondents (3%) have not suck breastmilk, 16 respondents (8%) have high or low body temperature, 16 respondents (8%) have small baby (less than 2.2 kg), 21 respondents (10.5%) have pus wound on the skin of baby, 16 respondents (8%) have redness/pus on umbilical cord, 24 respondents (12%) have leaking the pus from the eyes, 21 respondents (10.5%) have yellowish skin color, and 14 respondents (7%) have pale (cyanosis).

Among 200 mothers, 93% of mothers knew danger signs and symptoms of newborns but 7% of mothers did not know about these danger signs and symptoms. Fast or difficult breathing, chest indrawing, fits/convulsion and yellowish skin color are most dangerous signs and symptoms.

Table (4.16) Children Emergency Health Care

Particular	No. of Respondents	%
Township Hospital	33	16.5
Station Hospital	27	13.5
Rural Health Center	35	17.5
Sub-rural Health Center	35	17.5
Private Clinic/Hospital	35	17.5
None	35	17.5
Total	**200**	**100**

Source: Survey data, 2023

According to result of 200 respondents (Table 4.16), 33 respondents (16.5%) went to township hospital, 27 respondents (13.5%) went to station hospital, 35 respondents (17.5%) went to rural health center, 35 respondents (17.5%) went to sub-rural health center and 35 respondents (17.5%) went to private clinic/hospital.

4.3.3 Practice on Maternal, Newborn and Child Health Care Services

Table (4.17) shows the number of antenatal care visits of 200 respondents.

Table (4.17) Practice on Taking Antenatal Care Visits

Particular	No. of Respondents	%
None	52	26.0
One	50	25.0
Two to Three	48	24.0
Four and above	50	25.0
Total	**200**	**100**

Source: Survey data, 2023

From Table (4.17), 50 respondents (25%) said that they have one time of antenatal care visits, 48 respondents (24%) have two to three times and 50 respondents (25%) have four and above. Therefore, ANC visit is required and health education to mothers. By taking ANC to monitor the pregnancy and can be estimated date of delivery that is important to get survival of newborn baby.

According to result of 200 respondents place of delivery, 110 respondents (55%) were home and 90 respondents (45%) were health facility as shown in Table (4.18).

Table (4.18) Place of Delivery

Particular	No. of Respondents	%
Home	110	55.0
Health Facility	90	45.0
Total	**200**	**100**

Source: Survey data, 2023

Regarding from Table (4.18), 55% of mothers took home delivery behavior habit and available providers from MNCH such as midwifes, lady health visitor and health assistant. If these providers could not delivery, this patient were referred to secondary and tertiary hospitals. Timely referral system can reduce newborn deaths and maternal mortality rate. So that, mothers must be taken health facility from hospitals for safe delivery.

The following Table (4.19) shows the delivery assisted by health facility.

Table (4.19) Delivery Assisted by Health Facility

Particular	No. of Respondents	%
Doctor	23	26.4
Health Assistant	20	22.2
Lady Health Visitor	22	24.4
Midwife	25	27
Total	**90**	**100**

Source: Survey data, 2023

From Table (4.19), 23 respondents (26.4%) said that they have delivery assisted by doctor, 20 respondents (22.2%) said that they have delivery assisted by health assistant, 22 respondents (24.4%) said that they have delivery assisted by lady health visitor and 25 respondents (27%) said that they have delivery assisted by midwife.

Table (4.20) Home Delivery Assisted

Particular	No. of Respondents	%
Health Assistant	14	12.7
Lady Health Visitor	32	29
Midwife	54	49
CHW	10	9.3
Total	**110**	**100**

Source: Survey data, 2023

Above From Table (4.20), 14 respondents (12.7%) said that they have home delivery assisted by health assistant, 32 respondents (29%) said that they have home delivery assisted by lady health visitor, 54 respondents (49%) said that they have home delivery assisted by midwife, and 10 respondents (9.3%) said that they have home delivery assisted by CHW.

Most of the mothers want to take home delivery care by providers of MNCH including CHW because they did not go to hospitals and these providers are coming to home for their delivery. If emergency condition occurs during delivery, mothers were referred to secondary and tertiary hospitals. Therefore, mothers must be taken health facility from hospitals for safe delivery.

Table (4.21) Constraint on Going to MNCH Centers to Take Health Care Services

Particular	No. of Respondents	%
Too far	50	25.0
Financial constraint	35	17.5
Time constraint	52	26.0
Difficult communication with staff	47	23.5
Staff are not available all time	16	8.0
Total	**200**	**100**

Source: Survey data, 2023

From Table (4.20), 50 respondents (25%) said that the health facilities are too far, 35 respondents (17.5%) said that they have financial constraint, 52 respondents (26%) have time constraint, 47 respondents (23.5%) said that they have difficult

communication with staff and 16 respondents (8.0%) said that staff are not available all time.

These factors are decreasing of mothers' utilization to take health care services in MNCH in the rural area. The community leader, AMW and CHW are very important to coordinate with public and health providers.

Table (4.22) Practice on Taking Time Duration to Reach MNCH Centers

Particular	No. of Respondents	%
Less than 30 minutes	60	30.0
30 minutes to 1 hour	76	38.0
More than 1 hour	64	32.0
Total	**200**	**100**

Source: Survey data, 2023

From Table (4.21), 60 respondents (30%) said that they have taken less than 30 minutes from their home to health facilities, 76 respondents (38%) have taken 30 minutes to 1 hour and 64 respondents (32%) have more than 1 hour.

Most of the mothers want to take health care services from MNCH centers. 68% of mothers have easy to go MNCH centers but 32% of mothers took more than one hour to reach MNCH centers. This condition is decreased of mothers' utilization on the health care services from MNCH centers. The community leader will help taking long time duration to reach MNCH centers and to extend MNCH centers in the Thanatpin Township.

Table (4.23) Practice on Mode of Transport to MNCH centers

Particular	No. of Respondents	%
Walk	38	19.0
Bicycle	39	19.5
Motorbike	40	20.0
Three-wheel Motorbike	24	12.0
Car	59	29.5
Total	**200**	**100**

Source: Survey data, 2023

From Table (4.22), 38 respondents (19%) were walking to MNCH centers, 39 respondents (19.5%) used bicycle, 40 respondents (20%) used motorbike, 24 respondents (12%) used three-wheel motorbike and 59 respondents (29%) used car.

Most of the mothers were easy to go but some mothers were not easy to reach MNCH centers because they used three-wheel motorbike and car. By using three-wheel motorbike and car are one of the decreasing mothers' utilizations on health care services of MNCH centers.

Table (4.24) Practice on Waiting Time of Medical Staff at MNCH Centers

Particular	No. of Respondents	%
Less than 30 minutes	63	31.5
30 minutes to 1 hour	73	36.5
More than 1 hour	64	32.0
Total	**200**	**100**

Source: Survey data, 2023

From Table (4.23), 63 respondent (31.5%) have wait less than 30 minutes, 73 respondents (36.5%) have wait 30 minutes to 1 hour and 64 respondents (32%) have more than 1 hour.

Waiting time more than one hour is decreasing of mothers' utilizations of health care services at MNCH centers. Therefore, this problem is needed to correct by responsible person.

Table (4.25) Practice on Frequency of Visiting to MNCH Center for Taking Postnatal Care After Delivery

Particular	No. of Respondents	%
One	14	7.0
Two	59	29.5
Three	43	21.5
Four	48	24.0
Five	36	18.0
Total	**200**	**100**

Source: Survey data, 2023

Regarding from 200 respondents (Table 4.24), 14 respondents (7%) have one time visit the clinic related to postanal care after delivery, 59 respondents (29.5%) have two times, 43 respondents (21.5%) have three times, 48 respondents (24%) have four times and 36 respondents (18%) have five times. Most of the respondent have attended postnatal care from health facility for last pregnancy. Every mother went to MNCH centers at least one time of getting health care service in postnatal period. More than three times taking of postnatal care were suitable for mothers and child.

Table (4.26) Practice on Services Received from MNCH Centers After Delivery

Particular	No. of Respondents	%
Physical Examination	96	48.0
Counseling breastfeeding	37	18.5
Nutrition supplement	57	28.5
Others	10	5.0
Total	**200**	**100**

Source: Survey data, 2022

According to result of 200 respondents, 96 respondents (48%) have received physical examination service from clinic, 37 respondents (18.5%) have received counseling breastfeeding and 57 respondents (28.5%) have received nutrition supplement.

Most of the mothers received physical examination, counseling breastfeeding and nutrition supplement form MNCH centers after delivery to postanal period.

Most of the respondents have not experienced of obstetric problem in last pregnancy and not received a referral to a secondary and tertiary hospital.

Table (4.27) Amount of Cost in Taking Maternal Services

Particular	No. of Respondents	%
Less than 10,000 Kyat	70	35.0
Between 10,000 Kyat to 50,000 Kyat	74	37.0
More than 50,000 Kyat	56	28.0
Total	**200**	**100**

Source: Survey data, 2023

From Table (4.27), 70 respondents (35%) said that they have spent less than 10,000 Kyat for maternal services, 74 respondents (37%) spend between 10,000 Kyat to 50,000 Kyat and 56 respondents (28%) spend more than 50,000 Kyat.

In MNCH centers, some medicines are free of charges. Some delivery cases took vacuum extraction and some cases are only surgical intervention. Although, the respondents said that they have paid charges for some medicines and others.

Table (4.28) Satisfied Level on Maternal Health Services

Particular	No. of Respondents	%
Very Unsatisfied	19	9.5
Unsatisfied	32	16
Neutral	39	19.5
Satisfied	77	38.5
Very satisfied	33	16.5
Total	**200**	**100**

Source: Survey data, 2023

From Table (4.28), most of the respondents have satisfied on maternal health services. Although, 25.5% of mothers have unsatisfied on difficult communication, cost for some medicines, waiting time and away from their houses.

So that, the providers of MNCH centers will be tried to give health care services on time and good relationship with the patients. The patients unsatisfied level is decreasing of mothers' utilization on MNCH services.

4.3.4 Knowledge and Practice on Nutrition of Infant and Young Child Feeding

Table (4.29) shows the 200 respondents' knowledge and practices on initiate breastfeeding for the first time after birth.

Table (4.29) Knowledge and Practice on Initiate Breastfeeding for First Time After Birth

Particular	No. of Respondents	%
As soon as early possible	49	24.5
Within 30 minutes	60	30.0
Within 1 hour	46	23.0
Don't know	45	22.5
Total	**200**	**100**

Source: Survey data, 2023

Regarding from 200 respondents, 49 respondents (24.5%) answered that they have as soon as possible, 60 respondents (30%) have within 30 minutes, 46 respondents (23%) have within 1 hour and 45 respondents (22.5%) have not known to initiate breastfeeding for first time after birth.

Among 200 mothers, 77.5% of mothers knew and fed breast milk but 22.5% of mothers have no knowledge and practice on breastfeeding, that can cause reducing neonatal survival. 25% of mothers knew and fed breast milk as soon as early possible that was good because skin to skin contact is very important for successful breastfeeding.

The following Table (4.30) shows the knowledge and practice on exclusive breastfeeding of 200 mothers.

Table (4.30) Knowledge and Practice on Exclusive Breastfeeding

Particular	No. of Respondents	%
Breast milk only	150	75.0
Breast milk + medicine prescribed by a health care provider + ORS	40	20.0
Breast milk + traditional medicine	10	5.0
Total	**200**	**100**

Source: Survey data, 2023

Within 200 respondents (Table 4.30), 150 respondents (75.0%) have breast milk only, 40 respondents (20.0%) have breast milk with medicine prescribed by a health care provider and 10 respondents (5.0%) have breast milk with tradition medicine.

Among 200 mothers, 75% of mothers have knowledge on fed breast milk only that was right and good condition but 25% of mothers have no knowledge on breastfeeding. The breastfeeding is important for mothers and child. So that, the health providers of MNCH centers are training for mothers' utilization of antenatal care and postnatal care services with successful breastfeeding for mothers.

Table (4.31) Knowledge and Practice of Continuous of Breastfeeding to Recommend Ages of Baby

Particular	No. of Respondents	%
Up to 6 months	14	7
Up to 18 months	15	7.5
Up to 2 years	55	27.5
Up to 2 years and beyond	57	28.5
As long as mother and baby want	31	15.5
Don't know	28	14.0
Total	**200**	**100**

Source: Survey data, 2023

Regarding from 200 mothers, 56% of mothers have known and breastfeeding up to two years and beyond. It is good and successful breastfeeding. 14% of mothers have no knowledge and practice is very dangerous for infant mortality rate. Therefore, the health providers of MNCH centers should promote to receive successful exclusive breastfeeding and promote mothers' utilization of health education on breastfeeding at MNCH centers.

Table (4.32) Knowledge and Practice of Introduce Supplementary Food to Child for First Time

Particular	No. of Respondents	%
Five Months	25	12.5
Six Months	113	56.5
Seven Months	10	5.0
Eight Months	30	15.0
Nine Months	22	11.0
Total	**200**	**100**

Source: Survey data, 2023

According to result of 200 mothers, 56.5% of mothers knew and fed supplementary food to their child at the age of six months and 43.5% of mothers started supplementary food feeding at various ages of their child. This child did not get-well digestion and could get growth retardation.

So that, the health providers to explain the age of supplementary food for child and mothers to get regular utilization of MNCH services.

The following Table (4.33) shows mothers knowledge and practice on getting general information or advice on health or nutrition or personal hygiene.

Table (4.33) Knowledge and Practice on Getting General Information or Advice on Health or Nutrition or Personal Hygiene

Particular	No. of Respondents	%
Township/Station Hospital	29	14.5
RHC/Sub Center	30	15.0
Private clinic/hospital	16	8.0
CHW	21	10.5
AMW	12	6.0
Traditional healers	11	5.5
Pharmacy/shopkeeper	9	4.5
Religious leader	12	6.0
Friend/neighbor	7	3.5
Relatives	6	3.0
TV/Radio	7	3.5
Newspapers/Journals	8	4.0
Mothers/youth groups	5	2.5
CBO/CSO	9	4.5
NGO	7	3.5
Don’t know	3	1.5
Total	**200**	**100**

Source: Survey data, 2023

From Table (4.33), most of the respondents have knowledge and practice on getting general information or advice on health or nutrition or personal hygiene from various sector.

CHAPTER V
CONCLUSION

5.1 Findings

The Ministry of Health is taking the sole responsibility for providing comprehensive range of promotive, preventive, curative and rehabilitative health care services to the people. By the end of 2020, a total of 55395 hospitals beds are available in public hospitals. On an average there are 105 hospital beds per 100,000 population in government medical institutions in Myanmar (MOH, 2021).

The basic health staff are major frontline health workers responsible for providing primary health care services at the community level. The current situation of maternal and reproductive health service coverage should be evaluated first to develop better strategies for reaching the goal of ending preventable maternal deaths in 2030. Midwives are the key persons in providing antenatal, delivery and postnatal services in rural areas and specialist obstetric and gynecologists at district, state and regional level, central and teaching hospitals.

The aim of Antenatal Care (ANC) is to prevent complications for mothers and babies through accessible high-quality care before and during pregnancy, childbirth and the postnatal period. Postnatal care should be a continuation of the care the woman has received through her pregnancy, labor and birth and take into account the woman's individual needs and preferences.

The public health care service in Thanatpin Township is implementing the plan to access the target of reducing maternal, neonatal and under five child mortalities, extension and expansion of health facilities are needed. The number of total health facilities are 55 including 4 hospitals. The health facilities are supporting health care services and needed to extend infrastructures. The manpower of health care providers in Thanatpin Township are 117 including 6 doctors and 21 nurses. The health personnel are performing capacity building with the continuous professional development program.

This study is examined on mothers' knowledge and practice of maternal, newborn and child health care services (MNCH) care services in Thanatpin Township, Bago Region. According to the result of 200 mothers, 74.5% of mothers were 21 years to 34 years old that was the reproductive age. The education levels were so varied from read and write condition to graduated. In marital status, 80% of mothers were married and the others were divorced and widowed. 84% of mothers took more than 4 times of pregnancy, 18% of mothers were suffered from abortion or miscarriage so that the providers of MNCH should be tried to reduce abortion rate.

According to result of 200 respondents, 61% of mothers knew to take health care services at MNCH center and 22.5 % of mothers knew to take health care services from private clinic or hospital but 16.5 % of mothers didn't know MNCH services. 28% of mothers got sources of information to go MNCH centers mostly from health professionals so that the providers of MNCH should promote MNCH services to public. Regarding from 200 mothers, 28.5% of mothers knew to take ANC within 4 months of pregnancy and 74.5% of mothers knew to take ANC above 4 months of pregnancy to until delivery. It was found that there was a delay and low frequency taking ANC services from MNCH centers.

In knowledge of taking immunization during pregnancy, 95% of mothers took immunization during pregnancy to prevent tetanus disease for mother and baby. To reduce maternal mortality and newborn death immunization during pregnancy must be done. And also 91% of mothers had the knowledge of danger signs and symptoms during pregnancy indicating need to seek health care center. This knowledge is very important for reduction of newborn death and maternal mortality rate.

Regarding the result of 200 mothers of the knowledge of places and providers of delivery, more than 50% of mothers took home delivery and only more than 40% of mothers took health facility delivery but the common providers of delivery were health professionals from MNCH. Home delivery is traditional culture habit and the health providers of MNCH to be used referral system to secondary and tertiary hospitals if necessary and they promote to mothers utilize for health facilities.

About 78.5% of mothers knew any danger signs and symptoms during delivery and immediate after delivery but 21.5% of mothers had no knowledge on these signs and symptoms. So that, it was very danger situation and 21.5% of mothers should go to hospital in obstetric emergency and delay in going to hospital can increase maternal mortality rate.

All pregnant women were delivered with skill personal with available hospital emergency. The health providers form MNCH should be supplied Vitamin A, Iron/Folic Acid/Vitamin B-1 to every pregnancy.

In practice on taking ANC services, most of the mothers received ANC services from the health providers of MNCH centers. By taking ANC to monitor the pregnancy and can be estimated date of delivery that is important to get survival of newborn baby. In practice on place of delivery, 55% of mothers took home delivery behavior habit and available providers from MNCH such as midwifes, lady health visitor and health assistant. If these providers could not delivery, this patient were referred to secondary and tertiary hospitals. Timely referral system can reduce newborn deaths and maternal mortality rate. So that, mothers must be taken health facility from hospitals for safe delivery.

Most of the respondent have attended postnatal care from health facility for last pregnancy. Every mother went to MNCH centers at least one time of getting health care service in postnatal period. More than three times taking of postnatal care were suitable for mothers and child. Most of the mothers received physical examination, counseling breastfeeding and nutrition supplement form MNCH centers after delivery to postanal period.

Among 200 mothers, 77.5% of mothers knew and fed breast milk within one hour after delivery but 22.5% of mothers have no knowledge and practice on breastfeeding, that can cause reducing neonatal survival. 25% of mothers knew and fed breast milk as soon as early possible that was good because skin to skin contact is very important for successful breastfeeding. The breastfeeding is important for mothers and child. So that, the health providers of MNCH centers are training for mothers' utilization of antenatal care and postnatal care services with successful breastfeeding for mothers.

Regarding from 200 mothers, 56% of mothers have known and breastfeeding up to two years and beyond. It is good and successful breastfeeding. 56.5% of mothers knew and fed supplementary food to their child at the age of six months and 43.5% of mothers started supplementary food feeding at various ages of their child. This child did not get-well digestion and could get growth retardation.

The health providers from MNCH centers should promote to mothers' utilization in health facilities of MNCH centers by giving safe delivery will increase mothers and newborn survival. If mothers have awareness of danger signs and

symptoms after delivery 48 hours, the maternal mortality rates and under-five mortality rates will be decreased.

The constraint factors are decreasing of mothers' utilization to take health care services in MNCH in the rural area such as too far, financial, time, difficult communicate with staff. So that, the community help to increase of mothers' utilization on health care services of MNCH centers.

Waiting time more than one hour is decreasing of mothers' utilizations of health care services at MNCH centers. Therefore, this problem is needed to correct by responsible person. In MNCH centers, mostly medicines are free of charges. The providers of MNCH centers will be tried to give health care services on time and good relationship with the patients. The patients unsatisfied level is decreasing of mothers' utilization on MNCH services.

Decreasing utilization of MNCH services means that most of the mothers want to take home delivery for their traditional habit from the parents and the relatives. So that, the health providers to promote the health education for the outcomes of health facilities delivery in Thanatpin Township.

A little percentage of mothers have no knowledge and practice is many problems in breastfeeding and they are going to take MNCH services. Therefore, the health providers of MNCH will promote to mothers' utilization on health education before antenatal care service.

5.2 Recommendations

Based on these findings, it is recommended that health education programs be conducted to improve women's awareness of ANC and ultimately improve women's health status. Knowledge about healthy behavior during pregnancy should be disseminated through mass media. This should reinforce the message given by health workers about the importance of pregnancy and antenatal follow-up visits.

The maternal, newborn and child health (MNCH) care services are important in public and private health sectors for pregnancy to childhood and beyond will strengthen a nation's health system. So that, the MNCH care services are to support in public and private health sectors and to promote awareness raising to vulnerable group. Taking of immunization during pregnancy should be promoted to get 100% of coverage. The providers form MNCH should be supplied Vitamin A, Iron/Folic Acid/Vitamin B-1 to every pregnancy.

A mother in a rural area is to improve newborn and child health care; maternal health; awareness sessions on newborn health and under five years old children; greater partnership with communities to support infant and under five years old children feeding practices and support; and health care services should be considered as a priority sector in the mechanisms of the Ministry of Health. In addition to capacity building of existing health service providers, a new capacity building strategy and capacity building plan for health care providers should also be considered in the Ministry of Health mechanism.

Technical training should be provided to health assistant, lady health visitor, midwives, auxiliary midwives and traditional midwives as professional midwives, with special consideration for rural and peri-urban area. Other useful emergencies; health care recommendations and behavior change promotion training. The effectiveness and efficiency of rural health care centers and public hospitals is important, especially for populations that target vulnerable groups.

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SURVEY QUESTIONNAIRE

I am studying Master of Public Administration in Yangon University of Economics. I have designed the following questionnaire for the study on **"A STUDY OF MOTHERS' KNOWLEDGE AND PRACTICE ON MATERNAL, NEWBORN AND CHILD HEALTH (MNCH) CARE SERVICES IN THANATPIN TOWNSHIP, BAGO REGION, MYANMAR"** which requires for my thesis work as an integral part of the study to completer the Master Program.

I hope that you will participate in this survey and make it a success by providing correct answers to all the questions. The information given by you will be strictly treated as confidential. Read the questions and mark your response to (**X**) in the box provided. Thank you for your participation.

PART (I) CHARACTERISTICS OF RESPONDENT

1. Age (Completed year)
   - _____
2. Education
   - □ Read and Write □ Primary School □ Middle School
   - □ High School □ University/College □ Graduate
   - □ Other (Specify _____)
3. Marital status
   - □ Married □ Divorced □ Widowed
4. Number of pregnancies
   - □ One □ Two □ Three □ Four □ More than 4
5. History of Abortion/miscarriage
   - □ Yes □ No □ If yes, how many times? ----------
6. Years of Marriage
   - ----------
7. Age at Marriage
   - ----------
8. Nationality
   - □ Burmese □ Other (Specify _____)
9. Religious
   - □ Buddhist □ Christian □ Islam □ Hindu

10. Number of household member
    - ----------
11. Income per month

    □ < 50,000 Kyat □ 50,000 Kyat – 150,000 Kyat □ >150,000 Kyat
12. Occupation

    □ Housewife □ Casual Worker □ Merchant □ Private Worker

    □ Government Staff □ Other (Specify __)

PART (II) KNOWLEDGE ON MATERNAL, NEWBORN AND CHILD HEALTH CARE SERVICES

1. Do you know where you can get the Maternal, Newborn and Child Health Care Services?

   □ Yes □ No
2. If "Yes", please tell us the available health services place??

   □ Township Hospital □ Station Hospital □ RHC □ Sub-RHC

   □ Private Clinic/Hospital □Don't Know □ Other (Specify): _____
3. Do you ever hear about delivery services of MNCH centers?

   □ Yes □ No

   If Yes,
4. Source of information about skilled MNCH care services?

   □ Friends □ Health Education □ Media (Radio/TV/Facebook)

   □ Families □ Health Professionals
5. Do you know the frequency of Ante-natal care visiting timing during pregnancy and when? (don't give mark only for frequency)

   □ 4 times (within 4 months, between 6 to 7 months, within 8 month, 9 months and until delivery)
6. Do you receive immunization during your pregnancy? (if "No", skip question-7 and 8)

   □ Yes □ No
7. How many times do you received?

   □ 2 times
8. Which types of disease these immunizations prevent?

   □ Tetanus □ Diphtheria

9. Do you know what the danger signs during pregnancy indicating the need to seek health care are? (RECORD ALL MENTIONED. Do not read answers, just probe to be more specific. Encourage what else until nothing further is mentioned and check all that apply.)

□ Vaginal Bleeding □ Severe headache with blurred vision

□ Fit or loss of conscious □ Chest or abdominal pain in under right rib

□ Continuous intense abdominal pain □ Fast breathing/ Difficult in breathing

□ Weak (can't wake up from bed due to fever) □ Less urine output (Oliguria)

□ Swelling in legs, arms and face (Edema) □ Severe continuous vomiting

□ Fever/illness □ Abdominal pain (not like uterine contraction)

□ Decrease the times of fetal movement (or) no fetal movement inside the uterus

□ Other: (Specify)_____ □ Don't know

10. Do you know every pregnant mother should receive antenatal care?

□ Yes □ No

11. Where is safe for child delivery?

□ Health Facility □ Home Delivery

12. Which provider is more safe for delivery?

□ Health Assistant □ LHV/MW □ AMW □ CHW

□ Traditional Birth Attendance (TBA) □ Relatives □ Others (Specify: -----)

□ Don't know

13. Do you know of any danger signs in labor (during delivery and immediate after delivery) that would indicate the need to seek health care services? (RECORD ALL MENTIONED. Do not read answers, just probe to be more specific. Encourage what else until nothing further is mentioned and check all that apply.)

□ No labor pain until 6 hours after rupture of amniotic membrane

□ Not deliver until 12 hours after labor pain

□ Heavy vaginal bleeding after delivery (or) soaked of blood to under dresses/clothes within 5 mins

□ Not deliver of placenta until 1 hour after delivery

□ Other: (Specify)_____

□ Don't know

14. Do you know postnatal care is important?

□ Yes □ No

15. Do you know of any danger signs after delivery 48 hours that would indicate the need to seek health care services? (RECORD ALL MENTIONED. Do not read answers, just probe to be more specific. Encourage what else until nothing further is mentioned and check all that apply.)

    □ Heavy vaginal bleeding

    □ Headache with blur vision

    □ Fit or loss of conscious

    □ Fast breathing/ Difficult breathing

    □ Weak that can't wake up from bed due to fever

    □ Red streaks on your breasts or lumps in your breast that are new and hurt

    □ Dribbling or leaking urine

    □ Excessive swelling and pain of vulva or perineum

    □ Vaginal discharge that smells bad

    □ Other: (Specify)_____

    □ Don't know

16. Do you know the facts that every mother who delivered, should follow? (If "No", skip question-17)

    □ Yes □ No

17. If "Yes", what are they? (RECORD ALL MENTIONED. Do not read answers, just probe to be more specific. Encourage what else until nothing further is mentioned and check all that apply.)

    □ Taking care for your hygiene

    □ Use pad or clean clothes due to vaginal discharge

    □ Clean your private area and wash with water after using toilet

    □ Don't avoid for your nutrition and eat more than since during pregnancy

    □ Take the medicine according to the health professionals' instruction

    □ Continue to take Iron/Folate/Vitamin B-1 tablet

    □ Take Vitamin A at once after delivery

    □ Don't make any traditional ways (blood separation with hot brick on the womb after delivery)

    □ Don't put anything in your vagina

    □ Avoid intercourse within 42 days after delivery

    □ Take family planning (contraception) with counselling with health professional at 42 days after delivery

□ Birth spacing at least 2 years

□ Other: (Specify)_____

□ Don't know

18. Do you know newborn has severe illnesses that indicate they should be taken immediately to a health facility. What types of danger signs and symptoms would cause you to take your newborn to a health facility? (RECORD ALL MENTIONED. Do not read answers, just probe to be more specific. Encourage what else until nothing further is mentioned and check all that apply.)

□ Fast or difficult breathing □ Chest indrawing

□ Fits/ Convulsion □ Poor suck breastmilk or < 5 times within 24 hours

□ Not suck breastmilk □ High or low body temperature

□ Small baby (less than 2.2 kg) □ Pus wound on the skin of baby

□ Redness/pus on umbilical cord □ Leaking the pus from the eyes

□ Yellowish skin color □ Pale (Cyanosis)

□ Other (specify)_____ □ Don't know

19. Where is the place you always would go or seek for yourself or your child's emergency health care if you or your child had danger signs? (SINGLE ANSWER)

□ Township Hospital □ Station Hospital □ RHC □ Sub-RHC

□ Private Clinic/Hospital □ Other (Specify: _____) □ Don't know

PART (III) PRACTICE ON MATERNAL, NEWBORN AND CHILD HEALTH CARE SERVICES

1. Attend antenatal care for last pregnancy?

□ Yes □ No

2. Number of antenatal care visits

□ 1 □ 2 – 3 □ 4 and above □ No

3. Place of delivery

□ Home □ Health Facility

4. Delivery assisted by (if health facility)

□ Doctor □ Health Assistant □ LHV □ MW

□ I don't remember

5. Home assisted by (if home delivery)

□ Health Assistant □ LHV □ MW □ TBA

□ Neighbors □ Relatives □ CHW

□ Usual experience □ others (Specify: -----)

6. Are you willing to go and seek maternal, newborn and child emergency health care from health facilities?

   □ Yes □ No

7. If NO, why don't you want to go to health facilities?

   □ Too far □ Financial constraint □ Time constraint

   □ Difficult communication with staff □ Staff is not available all time

   □ Others (Specify: ----------)

8. Birth outcome

   □ Live birth □ Still birth

9. How long does it take you to travel to get health facility from government primary health care clinic (Hospital/RHC/SRHC)?

   □ less than 30 minutes □ 30 minutes to 1 hour □ more than 1 hour

10. Which mode of transport do you use to go to the government primary health clinic (Hospital/RHC/SRHC)?

    □ Walk □ Bicycle □ Motor-cycle

    □ Three-wheels motorcycle □ car □ Others (Specify: ----------)

11. What was the average amount of time that you waited to see medical staff when you visited the clinic?

    □ less than 30 minutes □ 30 minutes to 1 hour □ more than 1 hour

12. Did you attend postnatal care from health facility for last pregnancy?

    □ Yes □ No

13. How many times did you visit the clinic which is related to your postnatal care after delivery?

    - ----------

14. What health services did you receive when you visited the clinic after your delivery?

    □ Physical Examination □ Counseling breastfeeding

    □ Nutrition supplement □ Other (Specify: ----------)

15. Did you have experience of obstetric problem in last pregnancy?

    □ Yes □ No

16. Did you receive a referral to a secondary hospital?

    □ Yes □ No

17. In total, how much did your household spend for maternal services during your last pregnancy?

□ Less than 10,000 Kyat □ 10,000 Kyat to 50,000 Kyat □ > 50,000 Kyat

18. Did you pay any bribes (except money) for maternal health services?

□ Yes □ No

19. Was it demanded or did you pay it on your own?

□ Paid on demand □ (No demand)

20. Overall, how satisfied were you with the maternal health services you received?

□ Very Unsatisfied □ Unsatisfied □ Satisfied □ Very satisfied

PART (IV) KNOWLEDGE AND PRACTICES ON NUTRITION OF INFANT AND YOUNG CHILD FEEDING

1. When should you initiate breastfeeding for the first time after birth? (DO NOT READ POSSIBLE ANSWERS. TICK ON ONE RESPONSE.)

□ As soon as possible □ Within 30 minutes □ Within 1 hour

□ Other (Specify: _____) □ Don't know

2. Have you ever heard of the term exclusive breastfeeding'?

□ Yes □ No □ Don't know

3. What does the term 'exclusive breastfeeding' mean? (DO NOT READ POSSIBLE ANSWERS. TICK ON ONE RESPONSE.)

□ Breast milk only □ Breast milk + water

□ Breast milk + medicine prescribed by a health care provider + ORS

□ Breast milk + traditional medicine □ Other (Specify: _____)

□ Don't Know

4. According to recommendations, how long should a baby receive any breast milk (not just exclusive)?

□ Up to 6 months □ Up to 18 months □ Up to 2 years

□ Up to 2 years and beyond □ As long as mother and baby want

□ Other (specify: _____) □ Don't Know

5. Do you know, at what age should you introduce supplementary food to your child for the first time?

- ----------month □ Don't Know

6. Where do you get general information or advice on health or nutrition or personal hygiene? (RECORD ALL MENTIONED.)

- □ Township/Station Hospital
- □ Private clinic/hospital
- □ AMW
- □ Pharmacy/shopkeeper
- □ Friend/neighbor
- □ TV/Radio
- □ Mothers/youth groups
- □ NGO
- □ Don't know / No answer
- □ RHC/Sub Center
- □ CHW
- □ Traditional healers
- □ Religious leader
- □ Relatives
- □ Newspapers/Journals
- □ CBO/CSO
- □ Other (Specify: _____)

THANK YOU!