YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF COMMERCE

FACTORS INFLUENCING THE RESIDENT BEHAVIOR OF HEALTH CARE UTILIZATION

(A Case Study of Nyaunggyo Village Group, Ayeyarwaddy Region)

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NOVEMBER, 2018

FACTORS INFLUENCING THE RESIDENT BEHAVIOR OF HEALTH CARE UTILIZATION

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This Thesis is submitted to the Board of Examiners in Partial Fulfillment of the Requirements for Degree of Master of Commerce (M.Com)

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ABSTRACT

The objective of the study is to examine the factors influencing the behavior of health care utilization of residents in Nyaunggyo Village Group, Ingapu Township, Ayeyarwaddy Region. The study is a population-based survey identified the geographically undiverse seven small villages in Nyaunggyo Village group and a sample of 200 household respondents aged 18 years and over, had lived for a minimum of 5 years, was selected from the population by means of Simple Random Sampling Method. Descriptive statistics and Chi-square test are used to analyze the collected data. Suchman's Theory of Illness and Medical Care and Anderson's Behavioral Model of Health Care Utilization are applied in this study. According to the findings, Headache, Body ache, Cough, Acute Diarrhea and Common cold are the most common minor health problems and taking informal care such as buying drugs from nearest drug stores and taking rest is the main behavior of health care utilization in occurrence of minor illness. Moreover, common major health problems of Hypertension, Diabetes Mellitus, Heart disease, Tuberculosis, Carcinoma are found in that area and going to private specialist centers that do not locate in the village is the most common behavior of the residents. A few percentage of the residents has still superstitious belief such as drinking enchanted water and consulting with monk. Moreover, the findings also indicate that lower community and family resources, lower level of education and some wrong beliefs are significantly associated with the health care utilization of the residents. The research will be useful for better health care service improvements in the community and also suggests that the health sector of the whole Village should be improved by increasing living standards and community resource for the residents.

DEDICATION

This thesis is dedicated to my grandparents, parents, and brother for their moral support and endurance during my academic studies.

ACKNOWLEDGEMENTS

This research would not have been possible without the assistance of many people. Firstly, I would like to express my gratitude to Prof. Dr. Tin Win, Rector of Yangon University of Economics for his kind permission and providing me with the opportunity to undertake the Academic Thesis for the Degree of Master of Commerce.

I would like to acknowledge my gratitude to Prof. Dr. Soe Thu, Head of the Department of Commerce, Yangon University of Economics for her encouragement, constructive suggestion and for all her guidance to complete this thesis by giving her precious time.

After that, I would also like to express my special thanks to my thesis supervisor, Daw Chaw Su Aung, Lecturer of the Department of Commerce, Yangon University of Economics for her deep supervision, patience, valuable guidance, constructive suggestions and special support to my academic thesis throughout the preparation and making efforts to this thesis.

I also would like to make appreciation and recognition to all the participants; Community's Office Administer, Head of the Community's Government Hospital and Nurses, and the residents from Nyaunggyo Villages Group who provided invaluable assistance and participation to accomplish this thesis.

Finally, I wish to give my heartfelt thanks to all my friends who gave suggestions and assistance in various ways and encouraged moral support throughout academic thesis.

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LIST OF ABBREVIATIONS

B.E.H.S	Basic Education High School
B.E.M.S	Basic Education Middle School
B.E.P.S	Basic Education Primary School
IOM	International Organization for Migration
SRHC	Sub-rural Health Centers
TB	Tuberculosis
UHC	Universal Health Coverage
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity, health is a fundamental human right and that the attainment of the highest possible level of health is an important worldwide social goal (Declaration of Alma Ata, 1978).

Better health is central to human happiness and wellbeing. It also makes an important contribution to economic progress, as healthy populations live longer, are more productive and save more. Good health means a determinant of economic group and a component of the well-being of the population. Many factors influence health status and a country's ability to provide quality health care for its people. Besides factors, Ministries of health are important actors, so are other government departments, donor organizations, civil society groups and communities themselves. in particular, it aims to build support across government for higher levels of investment in health and to ensure that health is prioritized within overall economic and development plans.

WHO provides that many factors combine together to affect the health of individuals and of any community. Whether people are health or not, is determined by their circumstances and geographical environment and culture. To a large extent, factors such as where people live, the state of the environment, income and educational level, interaction with friends and family and personal or individual characteristics, insufficient health workers and personal behavioral characteristics as defined by the communities all have considerable impacts on health, whereas the more commonly considered factors such as access to and utilization of health care and health information.

Human behaviors are the responses of individuals or groups of humans to internal or external stimuli. Healthy behaviors contribute to the overall health of individuals or communities and unhealthy behaviors adversely affect the quality of life people at different levels. People in rural, remote or in any other communities can be affected by their daily or rooted action, practices and behaviors, lifestyles and customs, traditions and culture.

The health status of people in rural areas is generally worse than in urban areas. Low health status and high burden of disease in rural areas, there is a need to focus specifically on improving the health of residents in rural areas. The WHO International Development Programme has highlighted with specific objectives for policies and actions which promote sustainable livelihoods, including access for people to and resources and markets as well as better education, health and opportunities for rural people, and better management of the natural and physical environment.

Access to healthcare and health information is critical to health care utilization, yet rural residents face a variety of access barriers because of poor transportation, lack of health knowledge, distance from healthcare center, travel time, poor communication. Rural people often experience with barriers to healthcare that limit their ability to obtain the care they need and necessary and appropriate services must be available and obtainable in timely manner.

The health seeking behavior of a community determines how people utilize the health care (David Musoke, Petra Boynton, 2014). There are many factors influencing the health and health care seeking. Although the factors are similar across populations, their interaction and influence on people's actions are unique to a population based on the environment they live in (Prosser, 2007). Rural people rely on local pharmacies to get pharmacy and clinical care coordination. The absences of pharmacy are disproportionately felt by the rural elderly, who often have greater needs for access to medication. Increased distance to nearest pharmacy results in decreased accessibility for the rural populations. People in rural areas prefer to be cared for in their nearest local environment.

Utilization of health care refers to the use of health services and information by people. Therefore, physical accessibility to a facility, its ability to provide required health care and people's ability to pay are all essential factors of seeking behavior on health care utilization. Designing health-care policies and programmes require knowledge about health-care seeking behaviors, so that possible difficulties with early diagnosis and effective treatments can be identified. Utilization of health and medical care is important in planning for health resource allocation to different levels of the health system and monitoring the achievement of Universal Health Coverage (UHC).

The World Health Organization (WHO) in 1948 advocates as a means to ensuring equity in the use of health and medical care. Furthermore, knowledge of

barriers to health care utilization among poor populations is essential in informing the design of interventions aimed at increasing coverage of health care. Attribution of ill-health to ageing, low economic status and socio-demographic characteristics are the factors associated with delay in seeking behaviors on utilization of health care. (Dewa Adhikari, 2014).

Therefore, this study investigates the factors influencing the behavior of health care utilization of residents in Nyaunggyo village Group, Ingapu Township, Ayeyarwaddy Region.

1.1 Rationale of the Study

The health care needs of individuals living in rural areas are different from those in urban areas. Rural areas often suffer from a lack of access to health. Rural dwellers have significant health care needs but commonly experience obstacles to health care that limit their ability to obtain the care they need. The differences are the results of geographic, demographic, socioeconomic, environmental and health behavioral factors. Inequalities in arrival of health care and health information affects the health of residents in rural areas.

Rural areas often have insufficient health specialists and hard to get any care from them. Most people are reluctant to rely upon Sub-rural health Centers (SRHC) and they prefer traditional and folk medicines. Rural is orderly poorer, less insured, has a higher level of morbidity for a number of conditions. Due to a variety of access barriers, township medical officials are unable to come to the rural areas frequently.

Rural people have the equal right to expect the healthy life and access as do urban people but their health needs are unmet due to poor transportation, lack of health knowledge, lower income levels, emphasis on work rather than health, less arrivals of health education workers and time taken to go healthcare centers. Furthermore, they have a number of poor conditions associated with health and need much interaction with environments and to change their wrong cultural beliefs on health because most of various ethnic groups live in rural area and have different beliefs on health.

Despite the public facilities offering at minimized costs, there is still a large number of residents who do not seek health care from professional providers in case

of ill-health. Therefore, there is a need to establish the reasons that cause people not to seek health care from a qualified health personnel in occurrence of illness.

The importance of the study focuses on the contextual issues that influence the behavior of health care utilization and to ask participants whether they believe their needs are being met or not. This study is to better target health and medical, preventive and curative care for rural populations.

1.2 Objectives of the Study

The two main objectives of the study are:

(1) To identify the resident behavior of health care utilization in Nyaunggyo Village Group

(2) To examine the factors influencing the resident behavior of health care utilization in Nyaunggyo Village Group.

1.3 Scope and Limitations

There are many relevant factors dependent on human good health status, such as demographic, geographic, socioeconomic, environmental, and human behavioral factors influencing the health and level of accessibility to and utilization of health care in rural area. This study specializes only one area of behavior of health care utilization of residents in Nyaunggyo Village Group due to time limitation and financial constraints. Data collection was conducted from 200 households who are 18 years old and over, had lived in the villages for a minimum of five years and consented. The questionnaire utilized is developed specifically for this study to obtain the demographic data and behavioral related information that is needed to carry out the research. The questionnaire is designed to be completed during a person-to-person interview in local language.

1.4 Method of the Study

Primary and secondary data are used in this thesis. Primary data are collected from rural residents and secondary data are obtained from internet websites or journals or previous research studies. 200 respondents among population are selected by using Simple Random Sampling Method. Descriptive research is used with quantitative and qualitative methods and the respondents are given to choose multiple

answers, Yes/No questions and the opportunity to provide comments for health care available in the study area. Collected data are analyzed by using Statistical Package for Social Science (SPSS 20).

1.5 Organization of the Study

This paper is organized by five chapters. Chapter (1) is made up of Introduction, Rationale of the Study, Objectives of the Study, Scope and Limitation of the Study and Method of the Study. Chapter (2) includes Literature Review of the Study and Chapter (3) consists of Background of Nyaunggyo Village Group and Behavior of Health Care Utilization. Chapter (4) is Research Methodology including the analyses of the factors influencing the behavior of health care utilization of the residents. Chapter (5) is conducted with the findings, suggestions, recommendation and the needs for further studies.

CHAPTER 2

LITERATURE REVIEW OF THE STUDY

This study relates to the factors influencing the people behavior of health care utilization. This chapter consists of eight sections; definition of health, Role of health care organizations, theories and determinant models of health care, Suchman theory of health care utilization, Anderson's Behavioral Model of health care utilization, detailed concepts of the factors influencing the behavior of health care utilization, previous conceptual framework and conceptual framework of the study.

Generally, there are many distinct areas influencing the health status of people and many determinants influencing the health care seeking by people. Among them, utilization of health care by people is the most activity-related problem, being consumer-oriented with diverse dimensions in needs, perceptions and knowledge. To the extent that utilization entails the cooperation and invitation of people outside the health system crystallizes the magnitude of the problem. Utilization is a major factor in planning health care delivery system is validated by past and contemporary situations around the world. (Makerere University Medical School, 2007). This review provides an outline of the literature on the behavior of health care utilization and details the concept of the determinants. They reflect two different aspects of health-care utilization: the socio-demographic characteristics and the people's ability to access health care. This study investigates the characteristics that affect the behavior of health care utilization; these are gender, literacy, education, regular income and age. The other part of this study investigates the issues of access as they affect health care seeking and these are communications, transportation, closet facility, and distance or travel time. The use of health and medical care are commonly divided into formal or informal use of health care, and taking care from private or public health center.

2.1 Importance of Health

The World Health Organization (WHO) defined human health in a broader sense in its 1948 constitution as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Health is the ability of a

biological system to acquire, convert, allocate, distribute, and utilize energy with maximum efficiency.

2.2 Role of Heath Care Organizations and Myanmar Health Care System

Health care organizations must use research, evaluation, and enhanced management and communication strategies to effectively provide high quality care for special populations. Activities that focus on provider education, enhanced data applications, and consensus building inside and outside the organization are only some of the means by which health plans can achieve improved outcomes for persons with special health care needs (Manaq Care Q, 1996).

The World Health Organization (WHO) also plays an essential role in the global governance of health and disease due to its core global functions of establishing, monitoring and enforcing international norms and standards and coordinating multiple actors toward common goals. Global health governance requires WHO leadership and effective implementation of WHO's core global functions to ensure better effectiveness of all health actors but achieving this global mission could be hampered by narrowing activities and budget reallocations from core global functions. Prospects for health improvement are enhanced by the transfer of medical and public health knowledge and technology from one part of the globe to another, through sharing of best practices, health promotion and prevention strategies and medical treatments. Improving health and addressing health inequalities and externalities require effective international action on health that entails essential global health functions beyond what individual nation-states can accomplish, even with external assistance (World Health Organization, 2014).

Myanmar Health Care System is also operating under the World Health Organization's global health system. Myanmar health care system evolves with changing political and administrative system and relative roles played by the key providers are also changing although the Ministry of Health remains the major provider of comprehensive health care. It has a pluralistic mix of public and private system. In implementing the social objective laid down by the State and the National Health policy, the Ministry of Health is taking the responsibility to implement holistic health care consisting of providing promotive, preventive, curative, and rehabilitative

services to raise the health status of the population. Department of Health which is one of the seven departments under Ministry of Health plays a major role in providing comprehensive health care throughout the country including remote and hard to reach border areas. Some Ministries are providing health care, mainly curative for their employees and families. They include Ministries of Defense, Railways, Mines, Industries, Energy, Home and Transport. Ministry of Labor, Employment and Social Security established Social Security Board with three general hospitals and 93 clinics across the country to take care of insured workers under Social Security Scheme. The private, both for profit and for not-profit, sectors are mainly providing ambulatory care. Funding and provision of care are fragmented. One more unique feature of Myanmar Health System is the existence of traditional medicine along with allopathic medicine. There are a total of 14 traditional hospitals run by the State in the country. As in the allopathic medicine there are a quite number of private traditional practitioners and they are licensed and regulated in accordance with the provision of related laws Myanmar Pharmaceutical Industry under the Ministry of Industry produces medicines and supplies therapeutic agents to meet domestic needs. Moreover, in line with the National Health Policy NGOs such as Maternal and Child Welfare Association, Red Cross Society and international donors are also taking some share of service provision to fill up the needs of domestic health care (Ministry of Health, 2011).

2.3 Theories and Determinant Models of Health Care Utilization

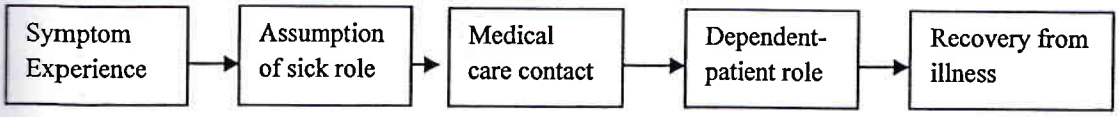
Researchers have identified three general models and three theories of health care that states all over the world tend to adopt :(1) the Health Belief Model as represented by Sheeran and Abraham (1995), (2) Anderson's Model of health care utilization and (3) Yong's Choice-Making Model. Three theories are (1) Parson's theory of the sick-role, (2) Mechanic General theory of health seeking and (3) Suchman's Theory regarding the stages of illness and medical care utilization. All of these theories explain how individuals approach the decision to seek medical assistance (Rebhan, n.d). The existing models seek to explain the steps taken by people to act in the interest of their health and the determinants or factors that affect these pathways and lead to actual health care use.

This study is based on the Suchman's Theory of health care utilization and Anderson's behavioral Model of Health Care Utilization, which is the determinant model of utilization theory.

2.4 Suchman's Theory

Suchman's stages of illness and medical care (1995) indicates five stages of the individual decision process in determining whether or not to utilize health care;(1) the individual's symptom experience, including pain, emotion, recognition of experience as symptomatic of experience; (2) the individuals' assumption of the sick role. During this second stage, the individuals also explore lay referral system for validation of the sick role and for exploration of treatment options; (3) health care contact. During this stage, the individuals seek a professional health care. However, the space at which the person enters this stage is determined by their memberships within parochial and cosmopolitan social networks. If a person's social network is parochial, they will tend to delay medical care contact by continuing the first two stages for longer than a person who is a member of a cosmopolitan network; (4) the assumption of the dependent- patient role via acceptance of professional health care treatment. It is possible for this stage to be disrupted by the individual and the professional health care providers have differing opinions of the illness; (5) the individual's recovery illness. The individual recovers upon relinquishing their role as patient. However, the illness is not curable, a person assume a chronically ill role (Wolinsky, 1988).

Figure 2.1 Suchman's Stages of Illness and Medical Care

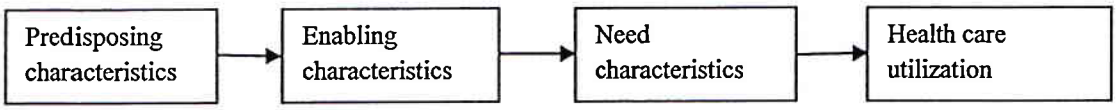


There has long been interest in what influences people's behavior in relation to their health (Suchman, 1965) and what prompts people to use health services. There exists a substantial body of literature examining multiple aspects of health or health care seeking.

2.5 Anderson's Behavioral Model of Health Care Utilization

Anderson (1968) developed a model of health care utilization which looks at three categories of determinants: (1) predisposing characteristics. This category represents the proclivity to utilize health care services. According to Anderson, an individual is more or less likely to use health care services based on sex, age, occupation and education. (2) Enabling characteristics, income and other resources found within the family and the community. Family resources include economic status and the location of resources. The community resource incorporates access to health care and availability of people for assistance, (3) Need characteristics include the perception of needs for health care services. (Wolinsky, 1988).

Figure 2.2 Anderson's Behavioral Model of Health Care Utilization



In this study they are investigated separately and a brief literature review for each variable and its role in terms of health are presented. For clarity, these variables are grouped into predisposing factors and enabling factors related to accessibility and perception of needs for health care. This model is used to obtain the statistical data for evaluation the different factors influencing behavior of health care utilization.

2.6 Factors Influencing the Behavior of Health Care Utilization

The determinants of health that are reviewed have been conducted in previous studies for their influence on health care use. These variables in this study have been investigated in combination with one another. In this thesis, they are investigated separately and they are grouped into predisposing factors (socio-economic characteristics, enabling factors (factors related to accessibility) and need factor (perception of needs for health care).

2.6.1 Predisposing Factors

Socio-demographic characteristics are investigated as predisposing factors-age, gender, literacy and education to determine the health care use.

(i) Age

Age is a factor associated with health. Age can be considered a factor of greater vulnerability, as with children under five years or the elderly, or greater robustness, or because the age group 18 to 25 years is more likely to be engaging in higher risk behaviors such as sexual activity, and alcohol, tobacco and other drug use (Warner-Smith, 2002). The elderly are unable to access adequate health care which can contribute to their poor health status. They use informal health care, home and folk remedies, traditional healers and medicine because of habit, traditions and personal beliefs (Waweru, 2003).

(ii) Gender

Gender' has been used interchangeably with 'sex'. Gender is a social construct that refers not only to the biological 'sex' differences between men and women, but to the different roles and expectations, behaviors and constraints that are placed upon an individual by culture and society, by virtue of their sex. Women's biology is so obviously different; it was treated from a reproductive health perspective, as almost a separate entity from the woman, with little to no consideration of the other factors which may influence health (Broom, 1991). In general, Women have a higher utilization rate of health and medical care than men. Men are unwilling and lack the motivation to engage with health-related information. (Annette AM, Gerritsen and Walter L Deville, 2009).

(iii) Literacy

The direct effects of low literacy levels are the inability to access health information presented in print form, to read labels and instructions for medications, or even safety advice. Low levels of literacy are just a phenomenon. Low literacy skills correlate with low quality housing, living in unsafe areas with higher rates of pollution and environmental hazards, and that those with low levels of literacy are to request care on in their illness (Perrin, 1998).

(iv) Education

A key socio-cultural determinant of health is education (Kickbusch, 2001). It is difficult to separate education from literacy and other indicators that are regularly used as convenient markers of socio-economic status. Occurrence of illness is

significantly lower in groups with higher education, but there is no difference between occupational and economic groups (Giang & Allebeck, 2003). Buor (2003) finds that higher education results in higher utilization of health facilities. Secondary or higher education consistently correlates with modern family planning practices. Level of education is viewed as important in the creation and maintenance of health inequalities through socio-economic differences in the labor market (Cooper, 2002). Education increases the possibility of health education and health literacy (Tomlinson, 2003).

2.6.2 Enabling Factors

Enabling factors include income and factors related to accessibility such as communication, transportation, closet facility and travel time or distance as the determinants of behavior of health care utilization.

(i) Income

Income is a limiting factor to seek the health care and it is socio-economic status that is often used as an indicator of health. The major reason given for self-treatment is that people do not have enough money to seek health care and this includes not only the cost of the treatment from hospital outpatient departments, but the fact that people have to travel there one time to make the appointment and return for the actual appointment at another time hence incurring the costs of transport and loss of income.(Atkinson et al., 1999). The ability to pay determines the use of health care facilities and a lack of finances seriously affects health care seeking (Taffa & Chepngeno, 2005).

(ii) Factors Related to Accessibility

Access to health care means having "the timely use of personal health services to achieve the best health outcomes" (IOM, 1993). Attaining good access to care requires three discrete steps:

- Gaining entry into the health care system.
- Getting access to sites of care where patients can receive needed services.
- Finding providers who meet the needs of individual patients and with whom patients can develop a relationship based on mutual communication and trust.

This accessibility issues include communication, transportation, closet facility and travel time or distance to reach nearest facility.

(a) Communication

Ownership and access to a radio, television or telephone is considered as an asset calculation for the measurement of socio-economic status (Gwatkin, Rustein, Johnson, Pande, & Wag staff, 2000). However, with more focus on technology and what can be done with this technology from a public health perspective, this is a narrow view of the information that can be gained from the ownership or access to such items. Communication is tied to the notion of accessibility to a great many things. Communication is considered to have an impact on the health of populations (World Health Organization, 2003).

(b) Transportation

Hjortsberg (2003) asserts individuals that is sick and given the option of seeking health care or self-medicating will make a decision based on the cost of accessing health care and the perceived benefit of receiving health care. Individuals are influenced by income, insurance, type of illness and access variables such as distance and owning a vehicle. Access to transport, particularly more efficient transport, costs and condition of roads use it, especially to access a health or medical facility if they or a member of their household, are ill.

(c) Closet Facility

This determinant is concerned with which type of health facility is more available to prospective users. There are few options for residents of the area, and with limited choices they are bound to use any health facility, over taking no action at all. Physical accessibility, along with cost and perception of the health service provider are reasons for use. The largest assumption made to accommodate this determinant of health care seeking is that people have a choice. These choices are greatly limited due to geographical region, personal material resources (such as payment) and the resources of the medical or health facility. There can be a lack of essential drugs supplied to the public facilities in rural areas, a growth in the informal retail drug sectors and subsequent proliferation of self-treatment and the continuation of traditional medicine, which remains the most widely available form of health treatment in rural regions (Agwanda, Kwamanga & Kiugu, 1996).

(d) **Travel Time or Distance**

The determinant 'travel time' seeks to include a number of issues addressing access to health and medical services. Actual distance in kilometers or miles is an easier measure, but is an accurate representation of what logistical barriers are involved. The assumption is that the longer the travel time to a health care facility, the least likely individuals are to use it. Travel time shows the greatest correlation with distance and utilization behavior. Therefore, improved geographic access can increase the overall use of PHC (primary health care) centers (Witter & Osiga, 2004). People in rural areas have greater distances to travel to reach the health care facility where the availability of transport is limited and therefore, they are disadvantaged in term of emergency care(Bulatao & Ross, 2002).

2.6.3 Need Factor

This factor relies on participants' perception of needs for health care. Health care use is influenced by perceptions of efficacy and quality of services. People's perception of need balance the uneasiness of solely relying upon person-oriented perceptions, as many studies found that people would not seek treatment as they didn't perceive the illness to be serious enough, and they have some reasons about delaying in treatments and going without any treatment. (Danso-Appiah et al, 2004).

(i) **Perception of Needs for Health Care**

To operationalize unmet or met health need is difficult as it is likely based upon the perception of need by the individual and not just the evaluation of a medical professional about what this need may be. If it is accepted that unmet health needs are tied into people's perceptions about what they need, then unmet needs are likely to reflect the influence of a multitude of factors. The perceptions lend themselves to the discussion of barriers to accessing health care. This section relies on participants' perceptions about receiving treatment. People's perceptions of need balance the uneasiness of solely relying upon person-oriented perceptions. A criticism of using subjective reports to detect unmet health needs, is that this is likely to be a "biased measure of access because socially vulnerable individuals will be less likely to perceive a need" (Mayer, 2005). This type of information is relevant to the improvement of health and medical services. Consumer opinion and satisfaction are after all the original premise of a health care 'service'.

2.6.4 Utilization of Health and Medical Care

Utilization of health and medical care is defined as the ways in which individuals respond to ill health and disease. Many factors influence this response, including characteristics of the individual and their ability to access the resources they need in their quest to deal with their ill health. (Makian, Bedri, & Lovel, 2004). University of Manitobo asserts that utilization and health status of the population are used to examine how efficiently a health care system produces health in a population.

Behaviors of utilization of health and medical care are health seeking behaviors of care. Health or care seeking behavior has been defined as any action undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding appropriate treatment. (Ward, Mertens, and Thomas, 2003). The pattern of care-seeking indicates that public providers are most commonly consulted in any illness episode, followed by private providers, but informal care still exists in a visible proportion, even after controlling for income and rural/urban status (Pokhrel & Sauer born, 2004).

(i) Formal or Informal Health Care

Formal health care and treatment is defined in terms of what is considered conventional medicine in official or registered settings such as government or private hospitals, health centers, authorized clinics and dispensaries (Birungi et al., 2001). Informal health care relates to self-treatment, self-medication, traditional healers and remedies, and other non-sanctioned health services (Msiska et al., 1997). In many arenas, the use of formal and informal health care is related to socioeconomic status.

(ii) Private or Public Health Care Center

Private and public is not so simple as to say one is not-for profit and one is for-profit. The public sector is generally viewed as health care under the auspices of the state or government (Birungi et al., 2001), while it is that everything outside that category can be viewed as private. The private health care sector includes accredited outlets and hospitals, but also many unregulated hospitals, medical general practitioners, homeopaths, traditional/spiritual healers, herbalists, bonesetters and quacks. (Shaikh & Rabbani, 2004).

2.7 Previous Studies

There are many previous research studies concerning with the people's behaviors of health care utilization. These studies identified many factors influencing the behavior of health care use in different areas from different perspectives.

Kalin (2011) found that gender affects significantly health care utilization and has different perspective to seek treatment. Moreover, high utilization roles of unqualified practitioners, insufficient quality of care are made by men rather than women and they have no protection against catastrophic health expenditures.

Prosser (2007) proved that it is predominantly women that are the greater users of formal health care services, despite their lower literacy and educational status as compared with the males. People with higher education levels use informal services, such as self-medication, and seeking treatments from a pharmacy shop while illiterate use a hospital or health center or some other formal care services. The costs associated with seeking treatment, distance and time taken to travel to health care facility affect the health care use pattern even though they prefer the types of formal care.

Martinez et.al (2005) also found that general communications such as electricity access, scarce public telecommunication, limited facility, great distance and few well-trained people in rural regions significantly have strong limits to seek treatments from qualified health organizations.

Moreover, previous study investigated that age, education, race, wealth, environmental factors and individual behaviors are some of the contributors to differences in health status. Knowledge is one of the powerful factors to know about their options for receiving effective, reliable health care services and to be able to access and utilize them with relative ease (Crockett, 2006).

Amegbor (2014) revealed that the predominant health care practice is self-treatment and the use of drugstores, this health care option affords the patients' access and usage of modern biomedical drugs and traditional medical drugs without needing physician's prescription to purchase as a result of financial constraints and time in accessibility and usage.

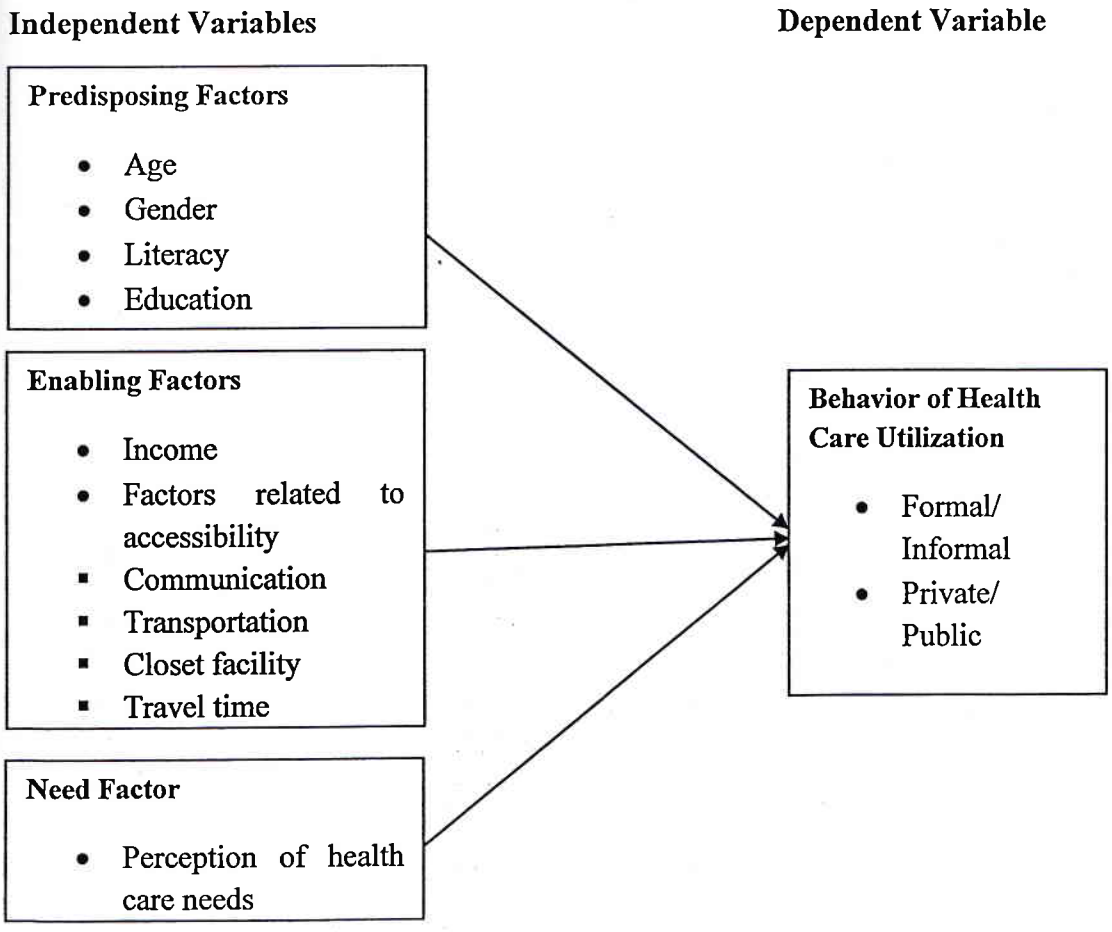
Muriithi (2013) also found that service quality, information about this quality, wealth, user fees and gender are the main factors of patients' choice among alternative medical treatments and change their patterns of taking health care significantly.

Finally, Adhikari & Rijal (2001) found that the factors influencing health care use are significantly associated with type of response of family members, source of income and economic status of the family, decision maker, cost of treatment, source of information, availability and types of health facilities, distance of nearest facility, ignorance of disease due to old-aged people are lack of taking treatments of formal health institutions.

2.8 Conceptual Framework for the Study

The conceptual framework in Figure 2.3 is organized of dependent and independent variables to identify the behavior of health care utilization and its influential factors and applied to present the synopsis of the development of the literature on health care use and to highlight the research that has gone into exploring the behavior of taking treatment in its many aspects.

Figure 2.3 Conceptual Framework



Source: Own Compilation (2018)

In this study, independent variables-influential factors are grouped into three: predisposing factors such as age, gender, literacy, education and occupation; enabling factors such as income and factors related to accessibility and need factor such as perception of health care needs while the dependent variable is behavior of health care utilization. The factors are considered in conformity with the situations in Nyaunggyo Village Group to design the questionnaire for the information from residents. Health care use, as a field of study, is dynamic and influenced by the interaction of many factors. In current study, these factors are to be investigated in the context of a rural region setting with a view to improve the provision of health care service for this population.

CHAPTER 3

BEHAVIOR OF HEALTH CARE UTILIZATION

This chapter is organized ofsix parts: background of Nyaunggyo Village Group, predisposing factors, enabling factors, need factors, behavior of health care utilization and most common health problems in Nyaunggyo Village Group.

3.1 Background of Nyaunggyo Village Group

3.1.1 Location

Nyaunggyo village Group, located in Ayeyarwaddy Region was founded in Myanmar year, 1130 and expands two miles from East to West and 2.5 miles from North to South, is five square miles in the area. It is organized of seven small villages, Nyaunggyo, Lat Kyar, Ngat Tha Aue, Nyaung Tone Lae, East Nyaung Pin Thar, West Nyaung Pin Thar and Pan Doe. Nyaunggyo Village Group is bordered by the village groups: Sit Kone and Thet Kei Taing to its East, Lu Taw Su to its South, Pa Toke to its West and Wet La Har and Oe Kwe to its North. It elevates 37 feet above sea level and exists in the West of Nga Won River, branch of the Ayeyarwady River. Map of Nyaunggyo Village Group is attached to Appendix III.

3.1.2 Community Adminstration Office

One community administer and its clerk are to be appointed in the office for the development of the Nyaunggyo Villages Group.

Other Committees under the Village Group are:

(1) Administration Committee
(2) Ancillary Development Committee
(3) Committee of Farmyard Administration
(4) Mother and Child Care Committee
(5) Women Affair Committee
(6) Community Fire Brigade
(7) Constabulary
(8) Army of Red Cross

3.1.3 Population

The following Table is the data shown the population in each village in Nyaunggyo village group.

Population of Each Village

No.	Sub-rural Name	No. of Houses	No. of House-holds	Above 18 years Old			Less than 18 years old		
				Male	Female	Total	Male	Female	Total
1	Nyaunggyo	237	239	204	239	443	219	256	475
2	Lat Kyar	232	235	136	137	273	129	149	278
3	Ngat Tha Aue	103	107	114	119	233	121	118	239
4	Nyaung Tone Lae	143	143	129	139	268	114	109	223
5	Nyaung Pin Thar (East)	124	124	127	138	265	124	132	256
6	Nyaung Pin Thar (West)	94	94	97	102	199	107	113	220
7	Pan Doe	86	86	96	101	197	103	109	212
	Total	**1019**	**1028**	**903**	**975**	**1878**	**917**	**986**	**1903**

Source: Community Administration Office, 2018

3.1.4 Occupation, Average Income, Number of Employment and Poverty

Farming and Fishing are the main occupations of the residents of Nyaunggyo Village Group. Land and River Routines are used to transit the local products to the City of Yangon and the town of Hinthada.

Average Individual income of residents from Nyaunggyo Villages Group is increasing yearly. The average income for the year 2014-2015 was 3,000 kyats, for the year 2015-2016 was 3,500 kyats and for the year 2016-2017 was 4,000 kyats. The individual income for average in the current year 2018 is 5,000kyats.

Among total population of 3781, the number of people who can work is 2,903. According to the periodically report of the Office, the actual number of employment

is 2,783 of the population and the number of unemployment is 120 among the amount of who can work. Therefore, the unemployment rate of Nyaunggyo Village Group is 4.13% for the year.

Povertyis about not having enough money to meet basic needs including food, clothing and shelter. In the villages Group, the number of poverty is about half (1890) of total population of residents and the poverty rate is exactly 50%(Community Administration Office, 2018).

3.1.5 Communication and Transportation

The communication system in the Village is post office system and available to telephone communication and internet.

River Routines of Nyaunggyo-Ingabu (15miles) and Nyaunggyo-Hinthada(20 miles), Land Routines of Nyaunggyo-Ingabu-Hinthada-Yangon are the main transportations of Nyaunggyo Village.

3.1.6Health

Health care in the Village Group is in the form of public hospital, clinic and community dispensary, there is no any private hospitals, professional care centers and educated health knowledge programs for residents are once in seven or eight years.

The data related to the health of the whole Village are shown in the following Table, classifying into Public hospital, Community health care center, Community Dispensary and Traditional health care center.

Health Care Organizations

No.	Name	Location	Number of Doctors	Number of Nurses	Number of Beds
1	Nyaunggyo Public Hospital	Nyaunggyo	1	4	46
2	Nyaunggyo Health Care Center	Nyaunggyo	-	2	1
3	Nyaunggyo Dispensary	Nyaunggyo	-	1	1
4	Traditional Health Care Center	-	-	-	-

Source: Community Government Hospital, 2018

3.1.7 Literacy and Education

According to the report, 3,700 of the whole population (3,781) are the number of residents who literate and the rest number of 81 of that population are those who illiterate. The literacy rate of Nyaunggyo Village Group is 97.86%. (Community Administration Office, 2018).

The following Table shows the data related to the basic education of the whole Village. In this section, educational organizations of the whole Village Group are described with following Table as High school, Middle schools, Primary schools, Pre –primary school and Monastery education.

Educational Organizations

No.	Particular	School Name	Number of Teachers	Number of Students	Ratio
1	High School	B.E.H.S-Nyaunggyo	10	654	1:65
2	Middle Schools	B.E.M.S-Nyaunggyo	21	481	1:24
		B.E.M.S-Nyaung Pin Thar	5	130	1:26
3	Primary Schools	B.E.P.S-Nyaunggyo	5	132	1:26
		B.E.P.S-Nyaung Pin Thar	6	112	1:19
		B.E.P.S-Lat Kyar	5	78	1:16
		B.E.P.S-Mya Kwat Thit	6	192	1:21
		B.E.P.S-Pan Doe	5	67	1:13
4	Pre-Primary Schools	School of Mother and Child Care	1	20	1:20
5	Monastery Education	Nijyawdaryon Monastery	8	166	1:21

Source: Community Administration Office, 2018

3.1.8 Most Common Diseases

According to the report of the government hospital of the Village, the most common diseases often occurred in the Village are as follows:

(1) Malaria
(2) Diarrhea
(3) Tuberculosis (TB)
(4) Dysentery
(5) Liver disease

These data related to the Nyaunggyo Village Group mentioned above are briefly presented based on the data and periodical reports received from some the community's government organizations and the public health care center of the Village.

3.2 Predisposing Factors

In this study, predisposing factors are organized of demographic characteristics of the respondents, number of family members and children of the households.

3.2.1 Demographic Characteristics

Demographic characteristics of the respondents are analyzed by age, religion, marital status, gender, education and occupation as shown in Table (3.1).

Table (3.1) Demographic Characteristics of the Respondents (n=200)

No.	Variables		Respondents	Percentage %
1	Age (Years)	18-25	39	19.50
		26-35	41	20.50
		36-45	42	21.00
		46-55	44	22.00
		Above 56	34	17.00
2	Religion	Buddhist	197	98.50
		Christian	1	0.50
		Hinduism	1	0.50
		Islam	1	0.50
3	Marital Status	Single	69	34.50
		Married	131	65.50
4	Gender	Male	99	49.50
		Female	101	50.50
5	Education	Illiterate	2	1.00
		Can Read and Write	1	0.50
		Primary School Level	42	21.00
		Middle School Level	52	26.00
		High School Level	50	25.00
		University Graduated	53	26.50
6	Occupation	Company Employee	0	0.00
		Government Employee	20	10.00
		Worker	26	13.00
		Owner/ Own Business	88	44.00
		Dependent	66	33.00
		Unemployment	0	0.00

Source: Survey Data (August, 2018)

The age level is divided into five groups: 18-25years, 26-35 years, 36-45years, 46-55years and above 56 years as shown in the Table. Among 200 respondents, a large amount of sample respondents (22.00%) are in age group between 46-55 years,

21.00% of respondents are between 36-45 years, 20.50% are between 26-35 years, 19.50% are between 18-25 years but only 17.00% of the household respondents are between 56 years and above.

There are four kinds of religions in this study such as Buddhism, Christian, Hinduism, and Islam as shown in the Table. According to the 200 household respondents' religions, 98.50% of the respondents are pious in Buddhism, each of 0.50% respondents are in Christian, Hinduism and Islam.

Marital status is classified into two groups, such as single and married. According to the study, 65.50% of household respondents have married status and 34.50% have single status.

Gender of the respondents includes two kinds: male and female. According to surveyed data, it is found that 50.50% of respondents are females and 49.50% of respondents are males.

Education level is grouped into six, consists of illiterate, can read and write, primary school level, secondary school level, high school level, and university graduated. Among 200 household respondents' educational levels, 26.50% of respondents are university graduates, 26.00% are middle school pass. The respondents (25.00%) passed high school level, (21.00%) passed the primary school level and then 1.00% of respondents are illiterates and only 0.50% are the people who can read and write informally.

Occupation is divided into six groups in this study as company employee, government employee, worker, business owner, dependent and unemployment as shown in Table (3.1). With regard to the analyzed data on occupations of 200 household respondents, 44% are owners or own businesses such as farming, retailing and fishing, 33.00% are dependents, 13.00% are workers for wages, and 10.00% are government employees. There is no any number of company employees and unemployment under the sample respondents.

3.2.2 Number of Family Members and Children

Table (3.2) stands for the numbers of family members including the respondent and number of children of the households.

Table (3.2) Number of Family Members and Children of the Households (n=200)

No.	Variables		Respondents	Percentage %
1	Number of Family	1-3 Members	68	34.00
		4-6 Members	123	61.50
		≥7 Members	9	4.50
2	Number of Children	None	71	35.50
		1Child	42	21.00
		2 Children	46	23.00
		3 Children	33	16.50
		4 Children	7	3.50
		5 Children	1	0.50

Source: Survey Data (August, 2018)

As shown in the Table, numbers of family members of the respondents are presented with three groups, 1-3 members, 4-6 member and 7 and above 7 members. According to the surveyed data, the households having family members between one and three are over half- 65.50%, between 4 and 6 family member are 34.00% of household respondents and the rest respondents (4.50%) have ≥ 7 members in their families.

The number of children of the households is classified into six as shown in the Table (3.2). Among 200 sample respondents, the highest amount of 35.50% of the respondents have no child, the second 23.00% have two children, 21.00% have only one child, 16.50% have three children and then 3.50% of families have four children while only 0.50% have five children.

3.3 Enabling Factors

In this study, enabling factors are analyzed by income of the respondents, communication, transportation, closet facility, travelling time or distance and other related variables with these variables.

3.3.1 Monthly Family Income and Expenditures

Table (3.3) shows monthly family income, health expenditure and food cost of the respondents and sources of cost for health care that can be available in occurrence of illness.

Table (3.3) Monthly Family Income and Expenditures of the Respondents (n=200)

No.	Variables		Respondents	Percentage %
1	Monthly Family Income (Kyat)	≤ 100,000	30	15.00
		100,001-200,000	90	45.00
		200,001-300,000	57	28.50
		300,001-400,000	1	0.50
		400,001-500,000	11	5.50
		500,001-600,000	5	2.50
		Above 600,001	6	3.00
2	Monthly Health Expenditure (Kyat)	≤ 10,000	123	61.50
		10,001-20,000	57	28.50
		20,001-30,000	15	7.50
		30,001-40,000	2	1.00
		Above 40,001	3	1.50
3	Monthly Food Cost (Kyat)	≤ 100,000	107	53.50
		100,001-200,000	85	42.50
		200,001-300,000	5	2.50
		300,001-400,000	1	0.50
		400,001-500,000	0	0.00
		500,001-600,000	1	0.50
		Above 600,001	1	0.50
4	Sources of Cost for Health Care	Food Costs	41	20.50
		Paid by Husband	64	32.00
		Relatives	5	2.50
		Saving Money	76	38.00
		Small Loan	14	7.00

Source: Survey Data (August, 2018)

Monthly income of the households (family income) is classified into seven groups in kyats, consisting of ≤1lakh, 1-2lakhs, 2-3 lakhs, 3-4lakhs, 4-5lakhs, 5-6lakhs and more than 6 lakhs. According to the surveyed data, the largest amount of sample respondents (45.00%) is the level of family income between 100,001 and 200,000 kyats, the family income between 200,001 and 300,000 kyats is 28.50%, kyats 100,000 and less than 100,000 is 15.00%, between 400,001 and 500,000 kyats is 5.50%, more than 600,000 kyats is 3.00%, between 500,001 and 600,000 kyats is 2.50% and between 300,001 and 400,000 kyats is 0.50% of the sample respondents.

The average health expenditure per month of the households is classified into five groups as shown in Table (3.3). According to the surveyed data, the majority respondents (61.50%) spend the health expenditures at kyats 10,000 and less than 10,000, the second (28.50%) usually uses between 10,001 and 20,000 kyats per month. 7.50% of the respondents are able to cost between 20,001 and 30,000 kyats, 1.50% spend more than 40,000 kyats per month while only 1.00% of sample respondents incur the monthly expenditures for health care between 30,001 and 40,000 kyats.

Food cost is the average cost for the kitchen per month. This monthly food cost is shown by seven groups in Kyat as ≤ 1lakh, 1-2 lakhs, 2-3 lakhs, 3-4 lakhs, 4-5 lakhs, 5-6 lakhs and more than 6 lakhs in Table (3.3). According to the responses of the sample population, 53.50% of the respondents use for monthly food cost at less than 100,000 and 100,000 kyats while 42.50% use between 100,000 and 200, 000 kyats. Then, 2.50% of the sample population cost at between 200,001 and 300,000 kyats and the rest of each 0.50% of the respondents have to incur respectively between 300,001 and 400,000 kyats, 500,001 and 600,000 kyats, and above 600,000 kyats for daily food per month. It is found that no percentage of the sample respondents have no the level of the monthly food cost between 400,001 and 500, 000 kyats.

Sources of cost for health care are the sources that can be available for required health costs in emergency ways. These sources are shown in the Table. According to the analyzed data from 200 household respondents, the most (38.00%) of respondents usually use saving money for the expenditures of health care, 32.00% use from the money paid by the head of the household, 20.50% take from food costs, 7.00% from small loans and 2.50% cover the health care expenditures by the money from their relatives' support.

3.3.2 Most Common Uses of Family Income

Ranging priority from number in order 1 to 5 for food, clothing, living, health, education and others that the respondents most commonly use their family income is shown in the following Table.

Table (3.4) Most Common Uses of Family Income

Particular	1		2		3		4		5		6	
	Fq	%	Fq	%	Fq	%	Fq	%	Fq	%	Fq	%
Food	112	**56.0**	37	18.0	25	12.5	19	9.5	5	2.5	2	1.0
Clothing	4	2.0	10	5.0	17	8.5	46	23.0	74	**37.0**	49	24.5
Shelter	34	17.0	49	24.5	53	**26.5**	45	22.5	17	8.5	2	1.0
Health	28	14.0	79	**39.5**	54	27.0	26	13.0	10	5.0	3	1.5
Education	20	10.0	25	12.5	45	**22.5**	45	22.5	33	16.5	32	16.0
Other	1	0.50	2	1.0	5	2.5	18	9.0	62	31.0	112	**56.0**

Source: Survey Data (August, 2018)

According to Table (3.4), it is found that the respondents usually use most of their family income for food and other housing matters, the second major use of their income is for health, third is for clothing, fourth is for shelter and the last is for education.

3.3.3 Communication

Communication of the respondents are analyzed by the communicable items owned by the respondents, reading newspapers or journal and visiting health education programs available to the study area and other related variables as shown in Table (3.5).

Table (3.5) Communication of the Respondents (n=200)

No.	Variables		Respondents	Percentage %
1	Types of House	Hut	0	0.00
		Bamboo	57	28.50
		Wood House	131	65.50
		Apartment	12	6.00
		Other	0	0.00
2	Sources of Drinking Water	Covered Source	194	97.00
		Uncovered Source	6	3.00
3	Items Owned	Radio	106	53.00
		Television	134	67.00
		Telephone	187	93.00
		Electricity	109	54.50
		Refrigerator	50	25.50
4	Reading Newspaper or Journal	No	140	70.00
		Yes	60	30.00
5	Types of Newspaper or Journal Usually Read	Daily Newspaper	15	7.50
		Health Related Articles	27	13.50
		Weekly Journal	24	12.00
		Sport Journal	16	8.00
		Magazine	29	14.50
		Other	19	9.50
6	Visiting Health Education Program	No	82	41.00
		Yes	118	59.00

Source: Survey Data (August, 2018)

Types of houses refer to the kinds of shelter the respondents are currently used for living. The Table shows the percentages of house types of the respondents under

the study area. According to the surveyed data, 65.50% of the household respondents own wood houses, 28.50% own bamboo houses and 6.00% stay at apartments. There are no owners of hut or other house type under the sample population.

Sources of drinking water are divided into two groups as shown in the Table, covered source and uncovered source. Covered source refers to well, piped, tap, and/or roof catchments and uncovered source includes river, spring, stream, lake and pond. According to the surveyed data, 97.00% of sample respondents' main source of drinking water is covered source (well/ piped/ tap/ roof catchments) while only 3.00% of the respondents take from uncovered source (river/ spring/ stream/ lake/ pond).

Five major common items are included in the study – Radio, Television, Telephone, Electricity and Refrigerator. According to the surveyed data from 200 sample population, telephone (93.50%), television (67.00%), electricity (54.50%), radio (53.00%) and refrigerator (25.00%) are owned by the sample household respondents of the population.

As a kind of communication for health care, whether the respondents usually read newspapers or journals or articles or not is shown in percentage forms in the Table. Among sample population, 70.00% of respondents represented to households said that they usually read daily newspaper or journals but the rest 30.00% responded that they don't usually read them.

Six types of items were included in the study such as daily newspaper, health related newspaper, weekly journal, sport journal, magazine and other. According to the surveyed data, magazine (14.50%), health related articles (13.50%), weekly journal (12.00%), others (9.50%), sport journal (8.00%) and daily newspaper (7.50%) could be assessed in the study population. It is found that magazine is the item they most commonly read and daily newspaper is the least commonly kind of item they usually read.

Health education program includes health related speeches or actions given by health professionals, township health workers, community doctors, etc. The frequency of whether they go or not is described in the Table as percentage. Analyzing the data, 59.00% of the sample respondents under the study answered that they usually go the health education programs in the area but 41.00% said that they don't usually get there.

3.3.4 Transportation

Transport used to reach the health care facility and the vehicles owned by the respondents in their families are shown in Table (3.6) as transportation of the respondents.

Table (3.6) Transportation of the Respondents (n=200)

No.	Variables		Respondents	Percentage %
1	Going to the Facility	Foot	47	23.50
		Motorcycle	68	34.00
		Bicycle	19	9.50
		Trishaw	66	33.00
		Boat/Ship	0	0.00
		Cart/Carriage	0	0.00
		Car	0	0.00
		Other	0	0.00
2	Vehicles Owned	Motorcycle	111	55.50
		Bicycle	116	58.00
		Trishaw	7	3.50
		Boat/Ship	22	11.00
		Cart/Carriage	4	2.00
		Car	6	3.00
		Other	0	0.00

Source: Survey Data (August, 2018)

As shown in the Table, the data related how to go the health care center are represented with the items the respondents usually utilized i.e., on foot or by any other vehicle. According to the surveyed data, 34.00% of respondents usually go to the health care center by motorcycle, 33.00% go by trishaw,23.50% usually go on foot and 9.50% use bicycle to get there. It is found that they don't usually go the health care center they utilize by boat/ ship, cart or carriage, car or any other vehicles.

To analyze the types of vehicles owned by the respondents such as motorcycle, bicycle, trishaw, boat/ ship, cart/ carriage, car and other types of vehicles are included. By analyzing the data surveyed from sample population, among many types of vehicles, bicycle (58.00%), motorcycle (55.50%), boat/ ship (11.00%), trishaw (3.5%), car (3.00%) and cart/ carriage (2.00%) could be assessed in the study

population. It is found that the bicycle is the most common vehicle type they own and the second is motorcycle.

3.3.5 Travelling Time and Cost to Visit Facility

Table (3.7) are composed of travelling time, travelling cost to reach health care facility and health expenditure per visiting time in occurrence of illness.

Table (3.7) Travelling Time and Cost to Reach Health Care Facility (n=200)

No.	Variables		Respondents	Percentage %
1	Travelling Time	Within 15 Minutes	117	58.50
		About Half Hour	82	41.00
		Within One Hour	1	0.50
2	Travelling Cost (Kyat)	None (On Foot)	130	65.00
		500	4	2.00
		1,000	36	18.00
		1,500	27	13.50
		2,000	2	1.00
		3,000	1	0.50
3	Health Care Cost Per Visiting Time (Kyat)	Free	0	0.00
		1,000-5,000	190	95.00
		5,001-10,000	9	4.50
		10,001-15,000	1	0.50
		15,001-20,000	0	0.00
		Above 20,000	0	0.00

Source: Survey Data (August, 2018)

Travelling time is the time taken depending on the distance between the location of the respondents' homes and the health care center or facility. Travelling time are analyzed by three group as shown in Table. According to the responses of sample population, 58.50% of the respondents said that they need about within 15 minutes to get the health care center, 41% of respondents need about half-hour and the time taken within one hour to reach the health facility is only for 0.50% of that respondents.

Travelling cost to the health care center is the service fee paid depending on the distance between their homes and the health care center they utilize. And it also

depends on how to go the center, i.e., on foot or by any vehicle. Travelling costs are grouped into six as shown in Table. Among 200 household respondents, 65.00% of respondents could reach the health care center at no cost, 18.00% could get at 1,000 kyats, 13.50% could reach at 1,500 kyats, 2.00% incur at 500 kyats, 1.00% of that respondents had to pay travelling cost to the center at 2,000 kyats and then the least (0.50%) of respondents charge the cost at 3,000 kyats to get the health care center per visiting time.

Health expenditure refers to the cost paid for the health care they utilized from the health care center or health worker per visiting time. The expenditure is classified into six groups, free cost, 1,000-5,000 kyats, 5,001-10,000 kyats, 10,001-15,000kyats, 15,001-20,000 kyats and more than 20,000 kyats. Regarding the responses of 200 sample population, 95.00% of the respondents said that they have to use the health care cost between 1,000 and 5,000 kyats while 0.50% answered that they usually have to pay for health care expenditure between 10,001 and 15,000 kyats if they visit there per time. It is found that there may not be free-cost care or they may not probably go to the center at free- cost.

3.3.6 Closet Facility

Closet facility refers to any health care center located nearest to the respondents' houses. In this study, the kinds of closet facility that can be available in the study area are specifically shown in the Table (3.8).

Table (3.8) Closet Facility (n=200)

No.	Variable		Respondents	Percentage %
1	Closet Facility	Public Hospital	82	41.00
		Community Health Care Center	118	59.00
		Private Hospital	0	0.00
		Community Dispensary	71	35.50
		Traditional Clinic	0	0.00
		Other	1	0.50

Source: Survey Data (August, 2018)

According to the analyzed data, 35.50% of the respondents are near the community dispensary, 34.00% of households are near the public hospital, 30.00% are close to the community health care center and only 0.50% responded that they are

nearest to the other informal health care center. As shown in the Table, there are no any private hospital or clinic and traditional health care center nearest to respondents in the study area.

3.4 Need Factor

In this study, need factor is analyzed by the perception of needs for health care of the respondents as shown in Table (3.9) including the perception on health care expenditure, making sales of assets for health care costs, needs for health care and the availability of sufficient health care in the study area.

Table (3.9) Perception of Needs for Health Care

No.	Variables		Respondents	Percentage %
1	Health Cost is Expensive or Not	No	88	44.00
		Yes	112	56.00
2	Making Sale of Assets	No	154	77.00
		Yes	46	23.00
3	Needs for Health Care	Free Service	23	11.50
		Doctor	73	36.50
		Nurse	26	13.00
		Modern Medicines	56	28.00
		Hospital	10	5.00
		Clinics	13	6.50
		Tools and Technology	38	19.00
		Health Education Program	18	9.00
		Other	23	11.50
4	Necessary Care for Minor Illness can be Available	No	10	5.00
		Yes	190	95.00
5	Sufficient Car for Major Illness can be Available	No	173	86.50
		Yes	27	13.50

Source: Survey Data (August, 2018)

According to the analyzed data related to the perception of sample respondents whether the health care cost in the study area is expensive or not, the highest amount of 56.00% of household respondents answered that the health care costs are expensive and make a burden for them but 44.00% of them said that they don't think it is expensive for them per visiting time.

With regard to the summarized data related to whether sales of assets for the required costs of health care were made or not by the respondents, the most 77.00% of sample respondents said that they didn't need to make sale of assets to take the necessary health care while 33.00% of them responded that they made their some of assets to get for the needed health care.

In this study, needs for health care are classified into nine as shown in the Table. According to the summarized data, the respondents responded that doctor (36.50%), modern medicines (28.00%), tools and technology (19.00%), nurses (13.00%), free services or other needs (11.50%), health education programs (9.00%), clinic (6.50%) and hospital (5.00%) are more needed for health and medical cares for themselves.

Whether the necessary health cares for minor illness episode can be given by the local health care centers or not is described as analyzed data in the Table. Among 200 sample respondents, 95.00% of respondents said that the community health care centers can give the necessary cares when they visit but 5.00% of them responded that they cannot give the needed cares to them for minor illness episode.

According to the responses of the respondents whether the local health care centers can give sufficient cares for major illness episode or not, 86.50% of respondents didn't get the sufficient health care from community health care centers but 13.50% got the sufficient cares from them for major illness episode.

3.4.1 The Person Consulted First and Key Decision Maker of the Households

The following Table (3.10) is presented to show the person usually consulted with first to take the health care when the respondents are suffering illness and the key decision maker of the household usually given some advice or force to take health care from any health workers when a family member is in illness.

Table (3.10) The Person Consulted First and Key Decision Maker of the Households

No.	Variables		Respondents	Percentage %
1	Have Ever Been in Illness	No	2	1.00
		Yes	198	99.00
2	The Person Consulted First	Doctor	22	11.00
		Husband/Wife	103	51.50
		Neighborhood/Friend	5	2.50
		Relatives	70	35.00
		Other	0	0.00
3	Key Decision Maker of the Household	Self	110	55.00
		Parents	46	23.00
		Husband/Wife	37	18.50
		Your Generations	6	3.00
		Other	1	0.50

Source: Survey Data (August, 2018)

According to the responses of the respondents whether they have ever been in illness or not, , 99.00% of 200 sample respondents said that they have ever been ill while 1.00% answered that they have never ill.

The analyzed data related to the person in their households consulted first to take health care with the respondents in occurrence of illness is typed into five as shown in the Table. Among 200 respondents under the study, the majority 51.50% of the respondents said that they usually consult with their husbands/ wives, 35.00% usually consult with relatives, 11.00% take an advice from doctors and 2.50% discuss their health with neighborhoods or friends when they suffer from illness but it is found that they don't usually consult with other partners during illness of respondents in the sample population in this area.

The key decision maker of the household to take treatment in occurrence of illness is divided into five kinds such as self, parents, husband/wife, generation and other person of the households. According to analyzed data, 55.00% of sample respondents usually make self-decision to take the health care. The second majority respondents (23.00%) follow the decision of their parents, 18.50% take the decision from their husbands/ wives, 3.00% usually go to the health care center by the decision

of their generations (sons or daughters) and 0.50% ask for the decisions of other special people to utilize the health care services.

3.5 Behavior of Health Care Utilization

To study the behavior of health care utilization, the first part includes the minor and major illness episode suffered by the respondents and the second part consists of behaviors of taking treatment from health care organization in occurrence of minor or major illness episode.

3.5.1 Minor and Major Illness Episodes

Table (3.11) shows minor illness episode and major illness episode the respondents have ever been suffered.

Table (3.11) Minor and Major Illness Episode of the Respondents

No.	Variables		Respondents		Percentage %	
			Yes	No	Yes	No
1	Minor Illness Episode	Headache	184	16	92.00	8.00
		Body Ache	172	28	86.00	14.00
		Common Cold	184	16	92.00	8.00
		Cough	147	53	73.50	26.50
		Acute Diarrhea	47	153	23.50	76.50
2	Major Illness Episode	Tuberculosis	19	181	9.50	90.50
		Carcinoma	10	190	5	95.00
		Heart Disease	45	155	22.50	77.50
		Diabetes Mellitus	26	174	13.00	87.00
		Hypertension	54	146	27.00	73.00
		Major Surgery	39	161	19.50	80.50
		Other	9	191	4.50	95.50

Source: Survey Data (August, 2018)

Minor illness episode includes Headache, Body ache, Common Cold, Cough and Acute Diarrhea. Among minor health problems, Headache and Common Cold (92.00%), Body ache (86.00%), Cough (73.50%), and Acute diarrhea (23.50%) can be assessed in the study population. Headache and Common cold is the most common health problems and the second is Body Ache.

Major illness episode consists of Tuberculosis, Carcinoma, Heart disease, Diabetes Mellitus, Hypertension, Major Surgery and other major diseases as shown in the Table. According to the analyzed data, among major health problems, Heart disease (22.50%), Major surgery (19.50%), Hypertension (27.00%), Diabetes Mellitus (13.00%), Tuberculosis (9.50%), Carcinoma (5.00%), and other major disease(4.50%) could be assessed in the study population. In this study, hypertension is the most common major problem and the second is heart disease but these diseases are not communicable diseases.

3.5.2 Most Common Health Problems

In Table (3.12), it includes Malaria, Dengue Fever, Common Cold, Respiratory Infection, Diarrhea, Stomach disease and Asthmatic Infection for most common health problems of residents under the study area.

Table (3.12) Most Common Health Problems of the Residents

Particular	Respondents		Percentage %	
	Yes	No	Yes	No
Malaria	10	190	5.00	95.00
Dengue Fever	165	35	82.50	17.50
Common Cold	136	64	68.00	32.00
Respiratory Infection	7	193	3.50	96.50
Diarrhea	63	137	31.50	68.50
Stomach Disease	45	155	22.50	77.50
Asthmatic Infection	1	199	0.50	99.50

Source: Survey Data (August, 2018)

According to Table (3.12), the sample respondents answered that Dengue Fever (82.50%), Common Cold (68.00%), Diarrhea (31.50%), Stomach Disease (22.50%), Malaria (5.00%), Respiratory Infection (3.50%) and Asthmatic Infection (0.50%) are occurring in the area under the study.

3.5.2 Behavior of Health Care Utilization

Behavior of health care utilization include distribution of time to visit health care facility and utilization of health care in occurrence of minor or major illness episode as shown in Table (3.13).

Table (3.13) Behavior of Health Care Utilization of the Respondents

No.	Variables		Respondents	Percentage %
1	Distribution of Time	In Time of Illness	103	51.50
		Cannot Do Daily Activity	43	21.50
		Cannot go to Work	17	8.50
		Health Condition Becomes Worse	37	18.50
		Other	0	0.00
2	Behavior of Health Care Utilization for Minor Illness	Taking Rest	23	11.50
		Buying Drugs from Drugstore	85	42.50
		Taking Traditional Healing	17	8.50
		Going to Private Center	21	10.50
		Going to Private Hospital	54	27.00
3	Behavior of Health Care Utilization for Major Illness	Taking No Care	44	22.00
		Taking Rest	7	3.50
		Taking Drugs from Drugstore	16	8.00
		Taking Traditional Healing	27	13.50
		Going to Private Center	77	38.50
		Going to Government Hospital	27	13.50
		Consulting with Monk	2	1.00

Source: Survey Data (August, 2018)

Distribution of time to visit the health care center when the respondents or their family members are suffering from any kind of illness is shown in Table (3.12). According to the responses of sample population, the largest amount of respondents (51.50%) visit health care center in time of being illness, 21.50% go to the health care personnel if they are unable to do daily activities, 18.50% of the respondents seek the care only when their health condition becomes worse while 8.50% usually take the care from the health workers if they cannot go to work as usual.

Behavior of health care utilization are the choices of the respondents related to types of health care centers or formal or informal cares when they are suffering from minor illness. According to the summarized data of the sample population as shown in the Table, buying drugs from nearest drug store is the most health-seeking behavior by 42.50% of respondents. The second most behavior is going to the government hospital by 27.00% of respondents under the study. And then, 11.50% of respondents usually take a rest, 10.50% go to the private clinic located in near towns or cities and 8.50% take a heal from traditional health care personnel when they are suffering from minor illness.

Behavior of health care utilization are the choices of the respondents related to types of health care centers or formal or informal cares when they are suffering from minor illness. According to the analyzed data from 200 sample population as shown in the Table, 23.50% of respondents responded that they usually go to the specialist clinics located in the nearest towns or cities, 22.00% of respondents said that they had never been to any health care center for any major illness in their households, 15.00% usually go to the private hospital, each of 13.50% of the respondents take the traditional healing and go to the government hospital, 8.00% cures themselves by taking medicines from drug stores, 3.50% usually take a rest from major illness depending on the types they are suffering and each of 0.50% of respondents usually consult with monks and go other health care center or take other medical cares if they suffer from these major illnesses.

CHAPTER 4
RESEARCH METHODOLOGY

In this chapter, research design and analysis of survey data are presented. The analysis consists of four parts: association between education level and monthly family income, factors influencing the respondents' behaviors of health care utilization on minor and major illness episodes and association between perception on health care expenditure and making sale of assets.

4.1 Research Design

In this study, descriptive research was conducted with qualitative and quantitative methods. Primary data were collected from the residents of Nyaunggyo Village Group by using structured questionnaire with the way of person-to-person interview in local language. Secondary data were obtained from internet websites, journals or previous research studies.

The questionnaire utilized was specifically formulated based on demographic characteristics, behaviors of health care utilization and influential factors on behavior of health care utilization that is needed to do the research. The sample population for this study was selected 200 households of the whole Village's population by simple random sampling method. It limited the sample households who are 18 years old and over, had lived in the Village for a minimum of 5 years and consented.

To analyze the collected data from the sample respondents, the Statistical Package for Social Science (SPSS 20) was applied. Chi-square test was used to examine the association between two variables. For all analysis of the results, the probability level of less than 0.05 was considered significant.

4.2 Education Level and Monthly Family Income

The association between education level of the respondents divided into University ungraduates and University Graduates and Monthly family income (in Kyat) classified into ≤1lakh , 1-2 Lakhs, 2-3 lakhs and >3 lakhs is shown in the Table (4.1).

Table (4.1) Association between Education Level and Monthly Family Income

Education Level	Monthly Family Income (Kyats)			
	≤100,000	100,001-200,000	200,001-300,000	>300,001
University Ungraduated	15	65	46	21
University Graduated	15	25	11	2
Total	**30**	**90**	**57**	**23**

Source: Survey Data (August, 2018)

In order to analyze the association between education levels and monthly family income, Chi-square test is used. According to Table (4.1), Chi-square value is 13.842 and the probability (P value) is 0.003 which is less than 0.05, indicating that there is statistical significance between education levels of the respondents and monthly family income. It is found that monthly family income of the respondents depends on their education levels. Therefore, there is association between education levels and income of the respondents.

4.3 Factors Influencing the Behavior of Health Care Utilization on Minor Illness Episode

4.3.1 Association between Age and Minor Illness Episode

The association between age levels of the respondents and Minor illness episode- Headache, Body Ache, Common Cold, Cough and Acute Diarrhea is described in the following Table.

Table (4.2) Association between Age and Minor Illness Episode

Age (Years)	Minor Illness Episode	
	Yes	No
18-25	34	5
26-35	33	8
36-45	40	2
46-55	36	8
Above 55	33	1
Total	**176**	**24**

Source: Survey Data (August, 2018)

According to Table (4.2), Chi-square value is 9.534 and the probability (P value) is 0.044 which is less than 0.05, indicating that there is statistical significance between age and minor illness episode. It is found that minor illness episode is depending on the age of the respondents. Therefore, the age and the occurrence of minor illness episode are related.

4.3.2 Association between Age and Behavior of Health Care Utilization

The association between age levels and behavior of health care utilization of the respondents in occurrence of minor illness problems is shown in the following Table.

Table (4.3) Association between Age and Behavior of Health Care Utilization

Age (years)	Behaviors of Health Care Utilization			
	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
18-25	21	2	5	11
26-35	21	4	3	13
36-45	24	5	6	7
46-55	26	4	4	10
Above 55	16	2	3	13
Total	**108**	**17**	**21**	**54**

Source: Survey Data (August, 2018)

According to Table (4.3), Chi-square value is 13.362 and the probability (P value) is 0.004 which is less than 0.05, showing that there is statistical significance between age and behavior of health care utilization on minor illness. It is found that utilization behavior of the respondents for health care are depending on the age levels in occurrence of minor illness episode and there is association between them.

4.3.3 Association between Gender and Behavior of Health Care Utilization

The association between gender of the respondents and behavior of health care utilization in occurrence of minor illness episode is shown in the following Table (4.4).

Table (4.4) Association between Gender and Behavior of Health Care Utilization

Gender	Behavior of Health Care Utilization			
	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
Male	50	10	8	31
Female	58	7	13	23
Total	**108**	**17**	**21**	**54**

Source: Survey Data (August, 2018)

According to Table (4.4), the Chi-square value is 3.478 and the probability (P value) is 0.324, indicating that there is no statistical significance between gender and behavior of health care utilization on minor illness of the respondents. It is found that gender of the respondents does not affect the utilization behavior of respondents when minor illness occurs according to the analyzed data. Therefore, the gender and utilization behavior of respondents in occurrence of minor illness episode are not related.

4.3.4 Association between Education Level and Behavior of Health Care Utilization

The association between education levels and behavior of health care utilization of the respondents in occurrence of minor illness problems is shown in the following Table.

Table (4.5) Association between Education Level and Utilization Behavior

Education Level	Behavior of Health Care Utilization			
	Taking Informal Care	Taking Traditional Healing	Going to Private Hospital	Going to Government Hospital
University Ungraduated	79	15	17	36
University Graduated	29	2	4	18
Total	**108**	**17**	**21**	**54**

Source: Survey Data (August, 2018)

According to surveyed data, Chi-square value is 6.795 and the probability (P value) is 0.024 which is less than 0.05, proving that there is statistical significance between education levels of the respondents and behavior of health care utilization. It can be found that education levels affect the utilization behavior of the respondents during minor illness according to the analyzed data. Therefore, it has association between education levels and utilization behavior for health care when respondents suffer from minor illness episode.

4.3.5 Association between Monthly Family Income and Behavior of Health Care Utilization

The association between levels of monthly family income and behavior of health care utilization of the respondents in occurrence of minor illness problems is shown in Table (4.6).

Table (4.6) Association between Monthly Family Income and Behavior of Health Care Utilization

Monthly Family Income (Kyats)	Behavior of Health Care Utilization			
	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
≤ 100,000	19	2	3	6
100,001-200,000	56	6	7	21
200,001-300,000	23	5	8	21
>300,001	10	4	3	6
Total	**108**	**17**	**21**	**54**

Source: Survey Data (August, 2018)

To analyze the association between family income level and behavior of health care utilization respondents based on the summarized data, Chi-square test is used. According to the analyzed data in Table (4.6), Chi-square value is 11.174 and the probability (P value) is 0.264, greater than 0.05 which indicates that there is no statistical significance between monthly family income and behavior of health care utilization on minor illness. It is found that the health care utilization behavior of the

respondents do not depend on the monthly family income levels when minor illness occurs. Therefore, the monthly family income and the utilization behavior in occurrence of minor illness episode are not related.

4.3.6 Association between Reading Newspaper or Journal and Behavior of Health Care Utilization

The association between reading newspaper or journal and behavior of health care utilization of the respondents in occurrence of minor illness problems is shown in Table (4.7).

Table (4.7) Association between Reading Newspaper or Journal and Behavior of Health Care Utilization

Reading Newspaper or Journal	Behavior of Health Care Utilization			
	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
No	76	12	15	37
Yes	32	5	6	17
Total	**108**	**17**	**21**	**54**

Source: Survey Data (August, 2018)

According to Table (4.7), the Chi-square value is 0.087 and the probability (P value) is 0.993, indicating that there is no statistical significance between reading newspaper or journal and behavior of health care utilization of respondents. It is found that the utilization behavior of respondents do not depend on reading newspaper or journal according to the surveyed data. Therefore, reading newspaper or journal and the utilization behavior of the respondents in occurrence of minor illness episode are not related.

4.3.7 Association between Visiting Health Education Program and Behavior of Health Care Utilization

The association between visiting health education program and behavior of health care utilization of the respondents in occurrence of minor illness problems is shown in Table (4.8).

Table (4.8) Association between Visiting Health Education Program and Behavior of Health Care Utilization

Visiting Health Education Program	Behavior of Health Care Utilization			
	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
No	52	8	5	17
Yes	56	9	16	37
Total	**108**	**17**	**21**	**54**

Source: Survey Data (August, 2018)

According to Table (4.8), the Chi-square value is 7.127 and the probability (P value) is 0.068, indicating that there is no statistical significance between visiting health education program and behavior of health care utilization of the respondents. It is found that visiting health education program does not affect the utilization behavior of respondents when minor illness occurs. Therefore, visiting health education program and utilization behavior of the respondents are not related.

4.3.8 Association between Closet Facility and Behavior of Health Care Utilization

The association between the types of closet facility to and behavior of health care utilization of the respondents in occurrence of minor illness problems is shown in Table (4.9).

Table (4.9) Association between Closet Facility and Behavior of Health Care Utilization

Closet Facility	Behavior of Health Care Utilization			
	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
Public Hospital	28	7	7	26
Community Health Care Center	34	6	5	15
Private Hospital	0	0	0	0
Community Dispensary	45	4	9	13
Traditional Clinic	0	0	0	0
Other	1	0	0	0
Total	**108**	**17**	**21**	**54**

Source: Survey Data (August, 2018)

According to Table (4.9), the Chi-square value is 11.106 and the probability (P value) is 0.269, indicating that there is no statistical significance between the type of closet facility to the respondents and behavior of health care utilization of the respondents. It is found that type of facility nearest to the respondents does not affect the utilization behavior of the respondents when minor illness occurs. Therefore, the types of nearest facility and utilization behavior of the respondents are not related.

4.3.9 Association between Transport to the Facility and Behaviors of Health Care Utilization

The association between transport to the health care facility and behavior of health care utilization of the respondents in occurrence of minor illness problems is shown in Table (4.10).

Table (4.10) Association between Transport to the Facility and Behavior of Health Care Utilization

Transport to the Facility	Behavior of Health Care Utilization			
	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
Foot	26	2	6	13
Motorcycle	36	3	6	23
Bicycle	11	3	1	4
Trishaw	35	9	8	14
Total	**108**	**17**	**21**	**54**

Source: Survey Data (August, 2018)

According to Table (4.10), the Chi-square value is 8.985 and the probability (P value) is 0.439, indicating that there is no statistical significance between transport to the facility and behavior of health care utilization of the respondents. Therefore, the transports to the facility and utilization behavior of the respondents are not associated.

4.3.10 Association between Time Taken to Reach Facility and Behavior of Health Care Utilization

The association between time taken to reach facility and behavior of health care utilization of the respondents in occurrence of minor illness problems is shown in Table (4.11).

Table (4.11) Association between Time Taken to Reach Facility and Behavior of Health Care Utilization

Time Taken to Reach Facility	Behavior of Health Care Utilization			
	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
Within 15 Minutes	63	4	12	38
About Half Hour	44	13	9	16
Within One Hour	1	0	0	0
Total	**108**	**17**	**21**	**54**

Source: Survey Data (August, 2018)

According to Table (4.11), the Chi-square value is 12.652 and the probability (P value) is 0.049, indicating that there is statistical significance between time taken to reach facility and behavior of health care utilization of the respondents. It is found that the health care utilization behavior of the respondents when minor illness occurs depend on the time taken to reach facility. Therefore, the time taken to reach facility and utilization behavior of the respondents are related.

4.3.11 Association between Being Expensive for Health Care Expenditure and Behavior of Health Care Utilization

The association between the perception on health care expenditure and behavior of health care utilization of the respondents in occurrence of minor illness problems is shown in Table (4.12).

Table (4.12) Association between the Perception on Health Care Expenditure and Behavior of Health Care Utilization

Health Care Expenditure is Expensive	Behavior of Health Care Utilization			
	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
No	54	3	11	20
Yes	54	14	10	34
Total	**108**	**17**	**21**	**54**

Source: Survey Data (August, 2018)

According to Table (4.12), the Chi-square value is 8.031 and the probability (P value) is 0.045, indicating that there is statistical significance between the perception on health care expenditure in the study area and behavior of health care utilization of the respondents. It is found that health care utilization behavior of the respondents depend on their perception on health care expenditure. Therefore, the perception on health care expenditure and utilization behavior of the respondents are associated.

4.4 Factors Influencing the Behavior of Health Care Utilization on Major Illness Episode

4.4.1 Association between Age and Major Illness Episode

The association between age levels of the respondents and the occurrence of major illness episode-TB, Carcinoma, Hypertension, Diabetes Mellitus, Heart disease, Major surgery and other major disease is shown in the following Table.

Table (4.13) Association between Age and Major Illness Episode

Age (Years)	Major Illness Episode	
	Yes	No
18-25	0	39
26-35	1	40
36-45	0	42
46-55	0	44
Above 55	1	33
Total	**2**	**198**

Source: Survey Data (August, 2018)

According to Table (4.13), Chi-square value is 3.414 and the probability (P value) is 0.491 which is greater than 0.05, indicating that there is no statistical significance between age and major illness episode. It is found that the occurrence of major illness episode does not depend on the age of the respondents. Therefore, there is no association between the age and the occurrence of major illness episode.

4.4.2 Association between Age and Behaviors of Health Care Utilization

The association between age levels of the respondents and behavior of health care utilization in occurrence of major illness problems by using Chi-square testis shown in the Table (4.14).

Table(4.14) Association between Age and Behavior of Health Care Utilization

Age(Years)	Behavior of Health Care Utilization				
	Taking No Care	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
18-25	13	7	5	10	4
26-35	13	3	4	17	4
36-45	10	10	2	15	5
46-55	7	2	8	18	9
Above 55	1	3	8	17	5
Total	**44**	**25**	**27**	**77**	**27**

Source: Survey Data, (August, 2018)

To analyze the association between age levels and behavior of health care utilization on major illness of the respondents based on the summarized data, Chi-square test is used. According to the analyzed data in Table (4.14), Chi-square value is 30.723 and the probability (P value) is 0.015, less than 0.05 which indicates that there is statistical significance between age levels and behavior of health care utilization on major illness. It is found that the utilization behavior depends on the age levels of the respondents in occurrence of major illness episode and therefore, the age and the health care utilization behavior are related.

4.4.3 Association between Gender and Behavior of Health Care Utilization

The association between gender of the respondents and behavior of health care utilization in occurrence of major illness problems is shown in the following Table.

Table (4.15) Association between Gender and Behavior of Health Care Utilization

Gender	Behavior of Health Care Utilization				
	Taking No Care	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
Male	21	13	14	35	16
Female	23	12	13	42	11
Total	**44**	**25**	**27**	**77**	**27**

Source: Survey Data (August, 2018)

According to Table (4.15), Chi-square value is 1.710 and the probability (P value) is 0.789 which is greater than 0.05, showing that there is no statistical significance between gender and behavior of health care utilization on major illness. It is found that gender of the respondents does not affect the utilization behavior on major illness. Therefore, the gender and health care utilization behavior of the respondents in occurrence of major illness episode are not related.

4.4.4 Association between Education Level and Behavior of Health Care Utilization

The association between education levels and behavior of health care utilization of the respondents in occurrence of major illness problems is shown in the following Table.

Table (4.16) Association between Education Level and Behavior of Health Care Utilization

Education Level	Behavior of Health Care Utilization				
	Taking No Care	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
University Ungraduated	27	22	23	55	20
University Graduated	17	3	4	22	7
Total	**44**	**25**	**27**	**77**	**27**

Source: Survey Data (August, 2018)

According to analyzed data, Chi-square value is 8.093 and the probability (P value) is 0.038 which is less than 0.05, proving that there is statistical significance between education levels and behavior of health care utilization on major illness. It is found that education levels of the respondents affect the utilization behavior during major illness. Therefore, it has association between education levels and health care utilization behavior of the respondents when major illness episode is suffered.

4.4.5 Association between Monthly Family Income and Behavior of Health Care Utilization

The association between levels of monthly family income and behavior of health care utilization of the respondents in occurrence of major illness problems is shown in the following Table.

Table (4.17) Association between Monthly Family Income and Behavior of Health Care Utilization

Monthly Family Income (Kyats)	Behavior of Health Care Utilization				
	Taking No Care	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
≤100,000	14	0	2	12	2
100,001-200,000	27	10	10	30	13
200,001-300,000	3	9	10	28	7
>300,001	0	6	5	7	5
Total	**44**	**25**	**27**	**77**	**27**

Source: Survey Data (August, 2018)

According to surveyed data, Chi-square value is 39.294 and the probability (P value) is 0.000 which is less than 0.05, proving that there is statistical significance between education levels and behavior of health care utilization on major illness. It is found that the utilization behavior of the respondents depend on their family income levels during major illness episode. Therefore, the monthly family income and the utilization behavior of the respondents in occurrence of major illness are related.

4.4.6 Association between Reading Newspaper or journal and Behavior of Health Care Utilization

The association between reading newspaper or journal and behavior of health care utilization in occurrence of major illness problems by using Chi-square test is shown in Table (4.18).

Table(4.18) Association between Reading Newspaper or journal and Behavior of Health Care Utilization

Reading Newspaper or Journal	Behavior of Health Care Utilization				
	Taking No Care	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
No	34	16	21	47	22
Yes	10	9	6	31	5
Total	**44**	**25**	**27**	**77**	**27**

Source: Survey Data (August, 2018)

According to analyzed data, Chi-square value is 6.954 and the probability (P value) is 0.138 which is greater than 0.05, proving that there is no statistical significance between reading newspaper or journal and behavior of health care utilization of the respondents. It is found that the health care utilization behavior of the respondents do not depend on reading newspaper or journal during major illness episode. Therefore, reading newspaper or journal and the utilization behavior of the respondents are not related.

4.4.7 Association between Visiting Health Education Program and Behavior of Health Care Utilization

The association between visiting health education program and behavior of health care utilization in occurrence of major illness problems is shown in the following Table.

Table (4.19) Association between Visiting Health Education Program and Behavior of Health Care Utilization

Visiting Health Education Program	Behavior of Health Care Utilization				
	Taking No Care	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
No	20	9	11	28	14
Yes	24	16	16	49	13
Total	**44**	**25**	**27**	**77**	**27**

Source: Survey Data (August, 2018)

According to analyzed data, Chi-square value is 2.619 and the probability (P value) is 0.624 which is greater than 0.05, proving that there is no statistical significance between visiting health education program and behavior of health care utilization of the respondents. It is found that the health care utilization behavior of the respondents do not depend on visiting health education program in occurrence of major illness. Therefore, visiting health education program and the utilization behavior of the respondents are not related.

4.4.8 Association between Closet Facility and Behavior of Health Care Utilization

The association between the types of closet facility to the respondents and behavior of health care utilization in occurrence of major illness problems is shown in the following Table.

Table(4.20) Association between Closet Facility and Behavior of Health Care Utilization

Closet Facility	Behavior of Health Care Utilization				
	Taking No Care	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
Public Hospital	14	7	15	28	4
Community Health Care Center	11	10	6	23	10
Private Hospital	0	0	0	0	0
Community Dispensary	19	8	6	26	12
Traditional Clinic	0	0	0	0	0
Other	0	0	0	0	1
Total	**44**	**25**	**27**	**77**	**27**

Source: Survey Data (August, 2018)

According to the analyzed data, Chi-square value is 18.496 and the probability (P value) is 0.101 which is greater than 0.05, proving that there is no statistical significance between type of closet facility to the respondents and behavior of health care utilization on major illness. It is found that health care utilization behavior of the respondents do not depend on the type of their nearest facility. Therefore, the type of

closet facility to the respondents and the utilization behavior of the respondents are not related.

4.4.9 Association between Transport to the Facility and Behavior of Health Care Utilization

The association between transport to the facility and behavior of health care utilization in occurrence of major illness problems is shown in the following Table.

Table(4.21) Association between Transport to the Facility and Behavior of Health Care Utilization

Transport to the Facility	Behavior of Health Care Utilization				
	Taking No Care	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
Foot	13	10	3	14	7
Motorcycle	18	6	9	26	9
Bicycle	4	3	2	7	3
Trishaw	9	6	13	30	8
Total	**44**	**25**	**27**	**77**	**27**

Source: Survey Data (August, 2018)

According to analyzed data, Chi-square value is 13.595 and the probability (P value) is 0.327 which is greater than 0.05, proving that there is no statistical significance between transport to the facility and behavior of health care utilization on major illness. It is found that health care utilization behavior of the respondents do not depend on the transport to the facility. Therefore, the transport to the facility and the utilization behavior of the respondents are not related.

4.4.10 Association between Time Taken to Reach Facility and Behavior of Health Care Utilization

The association between time taken or travelling time to reach facility and behavior of health care utilization in occurrence of major illness problems is shown in the Table (4.22).

Table (4.22) Association between Time Taken to Reach Facility and Behavior of Health Care Utilization

Time Taken to Reach Facility	Behavior of Health Care Utilization				
	Taking No Care	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
Within 15 Minutes	28	13	13	48	15
About Half Hour	16	12	14	28	12
Within One Hour	0	0	0	1	0
Total	**44**	**25**	**27**	**77**	**27**

Source: Survey Data (August, 2018)

According to analyzed data, Chi-square value is 4.492 and the probability (P value) is 0.810 which is greater than 0.05, proving that there is no statistical significance between time taken to reach facility and behavior of health care utilization on major illness. It is found that health care utilization behavior of the respondents do not depend on the time taken to reach facility. Therefore, time taken to reach facility and the utilization behavior of the respondents are not related.

4.4.11 Association between Perception on Health Care Expenditure and Behavior of Health Care Utilization

The association between the perception on health care expenditure of the respondents and behavior of health care utilization in occurrence of major illness problems is shown in the following Table.

Table (4.23) Association between Perception on Health Care Expenditure and Behavior of Health Care Utilization

Health Care Expenditure is Expensive	Behavior of Health Care Utilization				
	Taking No Care	Taking Informal Care	Taking Traditional Healing	Going to Private Center	Going to Government Hospital
No	27	9	4	33	15
Yes	17	16	23	44	12
Total	**44**	**25**	**27**	**77**	**27**

Source: Survey Data (August, 2018)

According to analyzed data, Chi-square value is 16.871 and the probability (P value) is 0.002 which is less than 0.05, proving that there is statistical significance between the perception on health care expenditure and behavior of health care utilization on major illness. It is found that health care utilization behavior of the respondents depend on their perception on health care expenditure in the study area. Therefore, the utilization behavior of the respondents and their perception on health care expenditure are related.

4.5 Perception on Health Care Expenditure and Making Sale of Assets

The association between health care expenditure paid to health care center by the respondents and their sales of assets for required health care costs is described in Table (4.24).

Table (4.24) Association between Health Care Expenditure and Making Sale of Assets for Health Care Costs

Health Care Expenditure	Sales of Assets	
	Yes	No
Yes	29	83
No	17	71
Total	**46**	**154**

Source: Survey Data (August, 2018)

According to Table (4.24), Chi-square value is 1.203 and the probability (P Value) is 0.273, indicating that there is no statistical significance between health care fees and making sales of assets for required health care costs. It is found that they didn't make sales of assets for health care costs. Therefore, there is no association between perception on health care expenditure of the respondents and making sales of assets for health care costs.

CHAPTER 5
CONCLUSION

This chapter is organized of three sections. First, it summarizes the findings in relation to the factors influencing the behavior of health care utilization in Nyaunggyo Village Group. In addition, it also provides the suggestions and recommendation based on the findings and needs for further study to fill the gap.

5.1 Findings and Discussion

This study analyzes the factors influencing the people behavior of health care utilization. There were two main objectives to do this study: to explore the factors influencing the resident behavior of health care utilization and to analyze the correlation between predisposing and enabling factors and behavior of health care utilization. To meet these objectives, the study was based on the primary data from 200 respondents represented to their households living in Nyaunggyo Village Group. The data were fit to Anderson's Behavioral Model of health care utilization.

According to the results of predisposing factors, most of the respondents under the study are females which is a slightly difference in number of males and most are dependents of their households. The respondents aged between 46-55 years are the highest group while the number aged above 56 years is the least group in the study and the majority of respondents are pious in Buddhism. The largest number of respondents has married status and literates. University graduates are the highest number of respondents while the second majority passed middle school level. Doing own small businesses like Farming, Fishing and Agriculture are the most common occupations of the respondents and the household having family members between four and six with no child are the highest amount in the study. By brief analyzing, there are much more number of middle aged people than number of children in the study, indicating that the elders have no dependence because children are a dependable source of old-aged people.

In addition, according to analyze data, it was found that the minor illness episode such as Headache, Body ache, Common cold, Acute diarrhea and Cough are occurring in the Villages Group depending on age levels of the residents. Moreover, the age group suffering from minor illness episode is more likely between 36-45 years

but there is not significant number for each age level. On the other hand, it was not found that major illness episode such as Tuberculosis, Carcinoma, Heart disease, Diabetes Mellitus, Hypertension and Major Surgery has no association with age levels in the study area and some of the respondents have never suffered from any major illness throughout their lives.

Moreover, when the association between predisposing factors and behavior of health care utilization on minor and major illnesses are assessed, it was also found that the behavior of choosing health care centers or providers by residents as well as health care utilization is depending on the age levels of those residents. The higher level of age usually take informal care and the lower level of age seek treatments informal care pattern from public or private health care centers or providers when they suffer from minor illness. And, it could be accessed that the utilization behavior on major illness are not related to the age levels of the residents because the choices of residents for using health care change depending on their age levels. According to analyzed data, the higher level of age of the respondents decrease the likelihood of using formal care from private health care centers and/or public hospitals while the lower level of age of the respondents decreases the probability of choosing informal care such as taking rest, buying drug from nearest drugstore and consulting with monks when they suffered from major illness, indicating that, although youths can easily access the required health care centers, the elders are unable to go formal health care centers, therefore, they take informal home care from external health workers.

After that, gender of the respondents have no correlation with the utilization behavior of health care centers or health providers, indicating that gender does not affect the health care choices of the respondents in the study area when minor and/or major illness occurred. However, the next finding is that education levels of the respondents are based on the behaviors of health care utilization for both minor and major illnesses, indicating that the level of education increase the likelihood of utilizing health care, in other words, the higher educational level increases the usage of health care from qualified providers and taking formal care during illness in the study area.

According to the analysis of enabling factors, it could be assessed that the family income of the major respondents is between 100,001 and 200,000 kyats per month, the most common monthly health expenditures for their families is 10,000 and less than 10,000 kyats, food costs of the most respondents is 100, 000 and less than

100, 000 kyats per month, indicating that the level of income of the residents in Nyaunggyo Village Group is very low amount and they have no extra income if health expenditures and food costs are added to it. Therefore, the source of required costs for health care in emergency way is the money paid by the head of the households and saving money of their families.

By analyzing the common uses of family income, the first priority they use is for food and other housing matters, the second priority is for health, third is for clothing, fourth is for living and the last priority is for education.

It can be concluded that residents do not prioritize the education among common uses of family income. As mentioned above, the education levels indirectly affect their good health status, when other variables are constant. In other ways, most of the household respondents have no child, by considering this variable, indicating that having no child in their families is more likely the main reason of what education is the last priority and the second evidence in this study is health as their second priority among common uses of family income.

According to the analysis, it was found that the monthly family income of the respondents has no association with the behavior of health care utilization on minor illness in the study area but have significance with utilization on major illness, indicating that choices of health care patterns when major illness is suffered have a burden cost for residents to take treatment according to their income level although it does not affect during minor illness.

From the findings, the respondents' communication with environment has good status. They own some communicated items such as Telephone, Television and Radio in their households. Moreover, it was found that over half of the respondents usually go to health education programs when they can be available in the Village but they are very weak in accessibility to newspapers, journals, magazine and health related articles. As a good character of the respondents, it can be assessed that only health related newspapers is the second majority items in the study population, which follows the majority of magazines. The community health care center is the nearest facility to most of the respondents and the second nearest facility is public hospital of the Village. The majority of the respondents usually go the facility by motorcycle and the second majority rents trishaw to reach health care center with a transportation fee at mostly 1,000 kyats. Travelling time is about only 15 minutes or 30 minutes to arrive at the center depending on the types of vehicle they use, showing that only

motorized transport such as motorcycle or car can save the time taken to get the facility and make patients more convenient during illness. The health expenditure of health care centers within the Village is mostly between 1,000 and 5,000 kyats per visiting time and rarely between 5,001 and 10,000 kyats in the study area. Therefore, it can be concluded that communication, transportation of the residents and health care facilities and expenditures, travelling costs and time of the Village Group have fair conditions according to the surveyed data.

From the results based on need factors, most of the respondents think that heath care fees are expensive for them but they didn't make sales of assets for required health care costs. Only about one quarter of the respondents made asset sales for taking required treatment. Therefore, it has no evidence that sales of assets are made by the respondents due to health care costs in the study area.

It was also found that any health care centers in study area cannot give sufficient treatment for major illness episode but necessary heath care for minor illness episode can be available. Therefore, residents had to visit hospitals or clinics located in cities or towns during illness. Doctors, nurses, modern medicines, tools and technology, free care center, health education programs, hospital and clinics are more needed in the Village. In addition, most of the respondents consults first with husbands or wives when suffering illness and the key decision maker of the households to take treatment is mostly by themselves and secondly by their parents.

Regarding with the analysis, most of the respondents usually take health care as soon as they had suffered and nearly one-third of the respondents visit only when they cannot do daily activities. Common cold and headache are the most common health problems among minor illness episode in the Village and buying drugs from drugstore is the behavior of the most respondents, the second most behavior is visiting government hospital and only a few numbers of respondents take traditional healing. Therefore, the fact indicates that the residents take informal care and/or go to public hospital when minor illness occurs. There are seven major illnesses in the study area. Among them, hypertension and heart disease which are not communicable diseases are mostly occurring in the Village and going to private center is the major choice of the respondents. But a few numbers of respondents have still superstitious and conservative beliefs to take informal care such as consulting with monks and folk remedies. It indicates that most of the residents take formal care from private center

when major illness happens and some of the residents take informal care from non-sanctioned organizations.

In summary, poor predisposing and enabling factors and limited health care facilities are correlated with the choices of informal or formal care, private or public health care center. In this study, it was found that predisposing factor is the most significant influential factor on behavior of health care utilization of the residents.

5.2 Suggestions

Based on the limitations and results of the study, the following suggestions are made in general interest and welfare of the community concerned. Firstly, in the majority of taking informal care such as buying drugs from drugstore, it is the problem in compliance with drug regimens which is an undesirable issue, contributing to developing drug resistance. Therefore, there should have some systematic training programs for drugstores and regular supervision and examining the drugstore keepers so that the misuse of sub-curative doses can be reduced.

Secondly, the findings of the study provide an evidence of high burden of hypertension and heart disease in the area. Therefore, the risk factors of occurring hypertension and heart disease should be educated to assist in identifying the priority risk factors to be handled in advance. Then, health education programs for the interest of residents in the Village should be kept in periodical intervals by health workers or any health organization because health education is a source of health care that the community can support the residents' good health status.

Thirdly, the choice of health care centers or types of taking treatment depends on their income level for the reason of having no enough occupations as a source of family income. The lower levels of income can lead to increase in poverty rate, any region or area with higher poverty rate cannot prioritize to keep their good health status, contributing to higher morbidity. Therefore, the government should establish the industrial zone or factories through community development programs to create jobs for residents.

Fourth, prepayment schemes should be developed to all rural and urban regions in the country and it should be found to encourage lower income groups to increase their participation in them. It includes community based health insurance, voluntary or private health insurance and social health insurance which are suitable to

Myanmar. For the study area, more formal clinics and/or hospitals should be increased for the development of health care sectors. From residents' side, it is difficult to seek health-related knowledge and improve their existing knowledge because rural are less-developing areas. They are lack of health-related knowledge that they should keep, which can lead to wrong thoughts to access the health care such as conservative informal care; consulting with monks, using herbs or folk medicines, buying drugs from stores, self-medication, self-treatment, and other non-sanctioned health services. Therefore, the residents should access to health related knowledge and seek the ways to improve their existing ones that can partly keep their good health status.

By attracting the suggestions of respondents in the study, the health organizations in the Village should have accountability on the patients visited to take health care. The respondents would like authorized people in relation with health sector to make a seat careful and mindful doctors or nurses for the Village. Therefore, the health workers should emphasize on the health of residents without neglected ways and government organizations should also make supervision and manage the actions of community's health care providers or workers in regular intervals.

Fifth, to transit from the village's health care center to the center in other towns or cities, transportation status is a considerable factor. Poor transportation can be the barrier to reach necessary care center in time. This situation can cause losing the lives of emergency patients and maternal patients. Therefore, repairing processes for the community roads or streets should be done to easily enable to access the required health care from cities or towns. Moreover, local health care centers are lack of modern medicines, tools and technologies to give sufficient cares to the rural residents. The residents had to visit other special care centers located in cities or towns to seek treatment in occurrence of illness. Therefore, the Ministry of health should more emphasize on rural health sector to improve care systems and health security for the residents.

Sixth, health care costs are expensive for the residents if compared to their low levels of family income and these costs make a burden to the family beyond other expenditures of the households. Therefore, it should be aware of providing more health care facilities and health financing policy should be correlated to drug policy, for instance, using cost sharing revenues to improve drug availability in government

hospital and there should be free home care programs for elders, disabilities and families of lower income levels.

Finally, this study suggests that the health sector of the whole Village should be improved by increasing living standards and community resources of the Village because predisposing factors, enabling factors and need factors can totally affect the utilization of health care of the residents.

5.3 Needs for further Study

There are many factors affecting human health status. Due to time limitation and financial constraints, this study considers the factors influencing the resident behavior of health care utilization in Nyaunggyo Village Group from the perspective of socio-demographics. There is also need to review the health care utilization by people from sociocultural, socio-psychological, organizational and social systems approaches. The possible influence of family planning and contraceptive practices and potential barriers to health care are not examined in the current study. Health care utilization can affect the health status of the people by 50%. A similar study should be done in any urban center where community and family resources have high status and there are better health care facilities to determine how the findings will differ. Moreover, further researches are needed to examine the utilization of health care services by type of health provider to lay a comparison between the government, private and private not-for-profit providers. This will help in identifying the type of health facilities that should be improved to favor utilization of health care by people. The further study should also be done to guide on the policy makers on allocation of resources for provision of equitable preventive, curative and rehabilitative care services to different regions in attempt to make progress due to limited health care for rural areas and limited utilization of health care by rural residents. Moreover, further study should be carried out to specify the strength of association between risk factors and Hypertension and Heart disease because these incommunicable diseases are common health problems in the Village. Nowadays, adolescents widely adopt health-risk behaviors such as cigarette smoking, weapon-carrying, unprotected sexual intercourse and drinking alcohol and beer in rural areas. Therefore, further research related to behavioral risk factors that contributed to the leading causes of morbidity, mortality and social problems among adolescents should be investigated.

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APPENDICES

APPENDICES

APPENDIX I

Structured Questionnaire on Resident Behavior of Health Care Utilization

The purpose of this study is to access the behavior of health care utilization of residents from Nyaunggyo Village group under Ingabu Township, Ayeyarwaddy Region. The research from this study will be useful for better health care services improvement for residents.

Part 1: Questions concerned with data for predisposing, enabling and need factors

1. Age _____ years

Age (years)	
18-25	
26-35	
36-45	
46-55	
Above 56	

2. Race _____.

3. Religions
   - (a) Buddhism ☐
   - (b) Christian ☐
   - (c) Hinduism ☐
   - (d) Islam ☐

4. Marital Status
   - (a) Single ☐
   - (b) Married ☐

5. Gender

(a) Male ☐

(b) Female ☐

6. Education

(a) Illiterate ☐

(b) Can read and write ☐

(c) Primary school level ☐

(d) Middle school level ☐

(e) High school Level ☐

(f) University graduated ☐

7. Occupation

(a) Company employee ☐

(b) Government employee ☐

(c) Worker ☐

(d) Owner/ Own business ☐

(e) Dependent ☐

(f) Unemployment ☐

8. Position if you are company or government employee _____.

9. How long have you been in the village? _____ years.

10. Number of family members ☐ members

11. No. of your children ☐ children

12. Average family income (per day) ☐ kyats

13. Average family income (per month) ☐ kyats

14. Health expenses (Average per month) ☐ kyats

15. Food cost (per day) ☐ kyats

Food cost (per month) ☐ kyats

16. The required health care cost would be spending the following resources.

(a) Food cost ☐
(b) Paid by head of household ☐
(c) Paid by relatives ☐
(d) Saving money ☐
(e) Borrowing money ☐

17. You are

(a) Head of the household ☐
(b) Dependent ☐

18. How do you usually spend the most income of the family? (Arrange your priority in number order)

Particular	1	2	3	4	5	6
(a) Food						
(b) Clothes						
(c) Shelter						
(d) Health						
(e) Education						
(f) Others						

19. Your type of house is

(a) Hut ☐
(b) Bamboo house ☐
(c) Wood house ☐
(d) Apartment ☐
(e) Other ☐

20. What is the main source of drinking water for members of your household?

(a) Covered source (well/ piped/ tap/ roof catchments) ☐
(b) Uncovered source (river/ spring/ stream/ lake/ pond) ☐

21. Your household owns the following items.

(a) Radio ☐
(b) Television ☐
(c) Telephone ☐
(d) Electricity ☐
(e) Refrigerator ☐

22. Do your household read daily newspaper or weekly journal?

(a) Yes ☐ (b) No ☐

23. If read, the type of newspaper or journal is

(a) Health newspaper ☐
(b) Weekly journal ☐
(c) Sport Journal ☐
(d) Magazine ☐
(e) Other ☐

24. Do you or your family member go to the health education programs?

(a) Yes ☐ (b) No ☐

25. The closet facility from your house is

(a) Public hospital ☐
(b) Community health care center ☐
(c) Private hospital ☐
(d) Community dispensary ☐
(e) Traditional clinic ☐
(f) Other ☐

26. You would go to the facility by

(a) Foot ☐
(b) Motorcycle ☐
(c) Bicycle ☐
(d) Trishaw ☐
(e) Boat/ Ship ☐
☐

(f) Cart/ Carriage ☐
(g) Car ☐
(h) Other ☐

27. Your household own the following items.

(a) Motorcycle ☐
(b) Bicycle ☐
(c) Trishaw ☐
(d) Boat/ Ship ☐
(e) Cart/Carriage ☐
(f) Car ☐
(g) Other ☐

28. Depending on the type of vehicle you usually use, the time taken to reach health facility is

(a) Within 15 minutes ☐
(b) About half hour (30 minutes) ☐
(c) Within one hour ☐
(d) About half an hour ☐
(e) Within two hours ☐
(f) Above two hours ☐

29. Did you get the required health care when you or your family member visited to the health care center or facility?

(a) Yes ☐ (b) No ☐

30. The health expenditure per visiting time is

(a) Free ☐
(b) 1,000-5,000 (kyat) ☐
(c) 50,01-10,000 (kyat) ☐
(d) 10,001-15,000 (kyat) ☐
(e) 15,001-20,000 (kyat) ☐
(f) Above 20,000 (kyat) ☐

31. How much travel cost is usually spent to reach health care center?
For one time visit (in Kyat) ☐

32. Do you think that health care expenditures are expensive?
(a) Yes ☐ (b) No ☐

33. Did you make sales of your assets for required health care costs?
(a) Yes ☐ (b) No ☐

34. If you made sales, please answer the amount (in kyat) ☐

35. Which health care needs are there in your village? Please choose the following ones.
(a) Free services ☐
(b) Doctor ☐
(c) Nurses ☐
(d) Modern Medicines ☐
(e) Hospital ☐
(f) Clinic ☐
(g) Tools and Technology ☐
(h) Health education programs ☐
(i) Other (Please specify _____) ☐

36. If you or your family member suffers from illness, which person do you consult with first?
(a) Doctor ☐
(b) Husband/Wife ☐
(c) Neighborhood or Friend ☐
(d) Relatives ☐
(e) Others ☐

37. Who is the key decision maker of the household for health care in your family?
(a) Self ☐
(b) Parents ☐
(c) Husband/Wife ☐
(d) Your generation (Son and Daughter) ☐

(e) Others ☐

38. If you or your family member suffers from illness, when would you go to the health care?

(a) In time of illness ☐
(b) Cannot do daily activities ☐
(c) Cannot go to work ☐
(d) Health condition becomes worse ☐
(e) Other ☐

Part 2: Questions concerned with the behavior of health care utilization

39. Has you or your family member ever been in illness?

(a) Yes ☐ (b) No ☐

40. If you or your family suffered from minor illness, please choose the kinds of illness. (Answer more than one)

(a) Headache ☐
(b) Body ache ☐
(c) Common cold ☐
(d) Cough ☐
(e) Acute Diarrhea ☐

41. When you or your family suffered from these minor illnesses, how did you utilize the health care?

(a) Taking rest ☐
(b) Buying drugs from drug store ☐
(c) Taking traditional healing ☐
(d) Going to private hospital ☐
(e) Going to government hospital ☐

42. If you or your family suffered from major illness, please choose the kinds of illness.

(a) Tuberculosis ☐

(b) Carcinoma ☐
(c) Heart disease ☐
(d) Diabetes mellitus ☐
(e) Hypertension ☐
(f) Major surgery ☐
(g) Other (please specify _____) ☐

43. When you or your family suffers from these major illnesses, how did you utilize the health care?

(a) Taking rest ☐
(b) Buying drugs from drug store ☐
(c) Taking traditional healing ☐
(d) Going to private hospital ☐
(e) Going to specialist clinic ☐
(f) Going to government hospital ☐
(g) Consulting with monk ☐
(h) Other (Please specify _____) ☐

44. Are any hospital or clinic in your village able to give sufficient health care for major illness?

(a) Yes ☐ (b) No ☐

45. Did you or your family get the necessary health care when you take it for minor illness?

(a) Yes ☐ (b) No ☐

46. The most common illnesses in the village would be

(a) Malaria ☐
(b) Dengue fever ☐
(c) Common cold ☐
(d) Respiratory infection ☐
(e) Diarrhea ☐
(f) Stomach disease ☐
(g) Other (Please specify _____) ☐

47. Has you or your family ever gone to any health care center in city or town due to insufficient health care facilities?

(a) Yes ☐ (b) No ☐

48. How would you like to give suggestion for the health care and medicines available to the village?

_____

_____

_____

"Special thanks for your cooperation"

APPENDIX II

edu * incCrosstabulation

Count

		Inc				Total
		1.00	2.00	3.00	4.00	
Edu	1.00	15	65	46	21	147
	2.00	15	25	11	2	53
Total		30	90	57	23	200

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.842[a]	3	.003
Likelihood Ratio	13.839	3	.003
Linear-by-Linear Association	12.548	1	.000
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.10.

Age * Minor Crosstabulation

Count

		Minor		Total
		0	1	
Age	1	5	34	39
	2	8	33	41
	3	2	40	42
	4	8	36	44
	5	1	33	34
Total		24	176	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.534[a]	4	.044
Likelihood Ratio	9.598	4	.048
Linear-by-Linear Association	1.282	1	.258
N of Valid Cases	200		

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 4.08.

Age * Major Crosstabulation

Count

		Major		Total
		0	1	
Age	1	39	0	39
	2	40	1	41
	3	42	0	42
	4	44	0	44
	5	33	1	34
Total		198	2	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.414[a]	4	.491
Likelihood Ratio	3.975	4	.409
Linear-by-Linear Association	.305	1	.581
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is .34.

Age * min Crosstabulation

Count

		Min				Total
		1.00	2.00	3.00	4.00	
Age	1	21	2	5	11	39
	2	21	4	3	13	41
	3	24	5	6	7	42
	4	26	4	4	10	44
	5	16	2	3	13	34
Total		108	17	21	54	200

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.362[a]	12	.004
Likelihood Ratio	7.486	12	.824
Linear-by-Linear Association	.035	1	.853
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 2.89.

Age * majCrosstabulation

Count

		Maj					Total
		.00	1.00	2.00	3.00	4.00	
Age	1	13	7	5	10	4	39
	2	13	3	4	17	4	41
	3	10	10	2	15	5	42
	4	7	2	8	18	9	44
	5	1	3	8	17	5	34
Total		44	25	27	77	27	200

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.723[a]	16	.015
Likelihood Ratio	33.788	16	.006
Linear-by-Linear Association	13.368	1	.000
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 4.25.

Gender * min Crosstabulation

Count

		Min				Total
		1.00	2.00	3.00	4.00	
Gender	1	50	10	8	31	99
	2	58	7	13	23	101
Total		108	17	21	54	200

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.478[a]	3	.324
Likelihood Ratio	3.497	3	.321
Linear-by-Linear Association	1.071	1	.301
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.42.

Gender * majCrosstabulation

Count

		Maj					
		.00	1.00	2.00	3.00	4.00	Total
Gender	1	21	13	14	35	16	99
	2	23	12	13	42	11	101
Total		44	25	27	77	27	200

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.710[a]	4	.789
Likelihood Ratio	1.717	4	.788
Linear-by-Linear Association	.099	1	.753
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.38.

edu * min Crosstabulation

Count

		Min				
		1.00	2.00	3.00	4.00	Total
edu	1.00	79	15	17	36	147
	2.00	29	2	4	18	53
Total		108	17	21	54	200

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.795[a]	3	.024
Likelihood Ratio	4.115	3	.249
Linear-by-Linear Association	.440	1	.507
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 4.51.

edu * majCrosstabulation

Count

		Maj					
		.00	1.00	2.00	3.00	4.00	Total
edu	1.00	27	22	23	55	20	147
	2.00	17	3	4	22	7	53
Total		44	25	27	77	27	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.093[a]	4	.038
Likelihood Ratio	8.550	4	.073
Linear-by-Linear Association	.442	1	.506
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.63.

inc * min Crosstabulation

Count

		Min				Total
		1.00	2.00	3.00	4.00	
inc	1.00	19	2	3	6	30
	2.00	56	6	7	21	90
	3.00	23	5	8	21	57
	4.00	10	4	3	6	23
Total		108	17	21	54	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.174[a]	9	.264
Likelihood Ratio	10.709	9	.296
Linear-by-Linear Association	4.234	1	.040
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 1.96.

inc * majCrosstabulation

Count

		Maj					Total
		.00	1.00	2.00	3.00	4.00	
inc	1.00	14	0	2	12	2	30
	2.00	27	10	10	30	13	90
	3.00	3	9	10	28	7	57
	4.00	0	6	5	7	5	23
Total		44	25	27	77	27	200

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.294[a]	12	.000
Likelihood Ratio	48.188	12	.000
Linear-by-Linear Association	10.067	1	.002
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 2.88.

Exp * SalesCrosstabulation

Count

		Q33		Total
		0	1	
Q32	0	71	17	88
	1	83	29	112
Total		154	46	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.203[a]	1	.273		
Continuity Correction[b]	.860	1	.354		
Likelihood Ratio	1.216	1	.270		
Fisher's Exact Test				.312	.177
Linear-by-Linear Association	1.197	1	.274		
N of Valid Cases	200				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 20.24.

b. Computed only for a 2x2 table.

Q22 * min Crosstabulation

Count

		min				Total
		1.00	2.00	3.00	4.00	
Q22	0	76	12	15	37	140
	1	32	5	6	17	60
Total		108	17	21	54	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.087[a]	3	.993
Likelihood Ratio	.086	3	.993
Linear-by-Linear Association	.040	1	.842
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.10.

Q22 * majCrosstabulation

Count

		Maj					Total
		.00	1.00	2.00	3.00	4.00	
Q22	0	34	16	21	47	22	140
	1	10	9	6	30	5	60
Total		44	25	27	77	27	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.954[a]	4	.138
Likelihood Ratio	7.071	4	.132
Linear-by-Linear Association	.387	1	.534
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.50.

Q24 * min Crosstabulation

Count

		min				Total
		1.00	2.00	3.00	4.00	
Q24	0	52	8	5	17	82
	1	56	9	16	37	118
Total		108	17	21	54	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.127[a]	3	.068
Likelihood Ratio	7.338	3	.062
Linear-by-Linear Association	5.604	1	.018
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.97.

Q24 * majCrosstabulation

Count

		maj					Total
		.00	1.00	2.00	3.00	4.00	
Q24	0	20	9	11	28	14	82
	1	24	16	16	49	13	118
Total		44	25	27	77	27	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.619[a]	4	.624
Likelihood Ratio	2.604	4	.626
Linear-by-Linear Association	.002	1	.969
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.25.

Q25 * min Crosstabulation

Count

		min				Total
		1.00	2.00	3.00	4.00	
Q25	1	28	7	7	26	68
	2	34	6	5	15	60
	4	45	4	9	13	71
	6	1	0	0	0	1
Total		108	17	21	54	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.106[a]	9	.269
Likelihood Ratio	11.570	9	.239
Linear-by-Linear Association	6.867	1	.009
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is .09.

Q25 * majCrosstabulation

Count

		maj					Total
		.00	1.00	2.00	3.00	4.00	
Q25	1	14	7	15	28	4	68
	2	11	10	6	23	10	60
	4	19	8	6	26	12	71
	6	0	0	0	0	1	1
Total		44	25	27	77	27	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.496[a]	12	.101
Likelihood Ratio	16.385	12	.174
Linear-by-Linear Association	.098	1	.755
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is .13.

Q26 * majCrosstabulation

Count

		Maj					Total
		.00	1.00	2.00	3.00	4.00	
Q26	1	13	10	3	14	7	47
	2	18	6	9	26	9	68
	3	4	3	2	7	3	19
	4	9	6	13	30	8	66
Total		44	25	27	77	27	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.595[a]	12	.327
Likelihood Ratio	13.704	12	.320
Linear-by-Linear Association	. 3.739	1	.053
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 2.38.

Q26 * min Crosstabulation

Count

		min				Total
		1.00	2.00	3.00	4.00	
Q26	1	26	2	6	13	47
	2	36	3	6	23	68
	3	11	3	1	4	19
	4	35	9	8	14	66
Total		108	17	21	54	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.985[a]	9	.439
Likelihood Ratio	9.034	9	.434
Linear-by-Linear Association	.602	1	.438
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 1.62.

Q28 * min Crosstabulation

Count

		min				Total
		1.00	2.00	3.00	4.00	
Q28	1	63	4	12	38	117
	2	44	13	9	16	82
	3	1	0	0	0	1
Total		108	17	21	54	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.652[a]	6	.049
Likelihood Ratio	13.116	6	.041
Linear-by-Linear Association	2.186	1	.139
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is .09.

Q28 * majCrosstabulation

Count

		maj					Total
		.00	1.00	2.00	3.00	4.00	
Q28	1	28	13	13	48	15	117
	2	16	12	14	28	12	82
	3	0	0	0	1	0	1
Total		44	25	27	77	27	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.492[a]	8	.810
Likelihood Ratio	4.780	8	.781
Linear-by-Linear Association	.061	1	.805
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is .13.

Q32 * majCrosstabulation

Count

		maj					Total
		.00	1.00	2.00	3.00	4.00	
Q32	0	27	9	4	33	15	88
	1	17	16	23	44	12	112
Total		44	25	27	77	27	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.871[a]	4	.002
Likelihood Ratio	18.081	4	.001
Linear-by-Linear Association	.659	1	.417
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.00.

Q32 * min Crosstabulation

Count

		min				Total
		1.00	2.00	3.00	4.00	
Q32	0	54	3	11	20	88
	1	54	14	10	34	112
Total		108	17	21	54	200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.031[a]	3	.045
Likelihood Ratio	8.555	3	.036
Linear-by-Linear Association	1.765	1	.184
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.48.

APPENDIX III

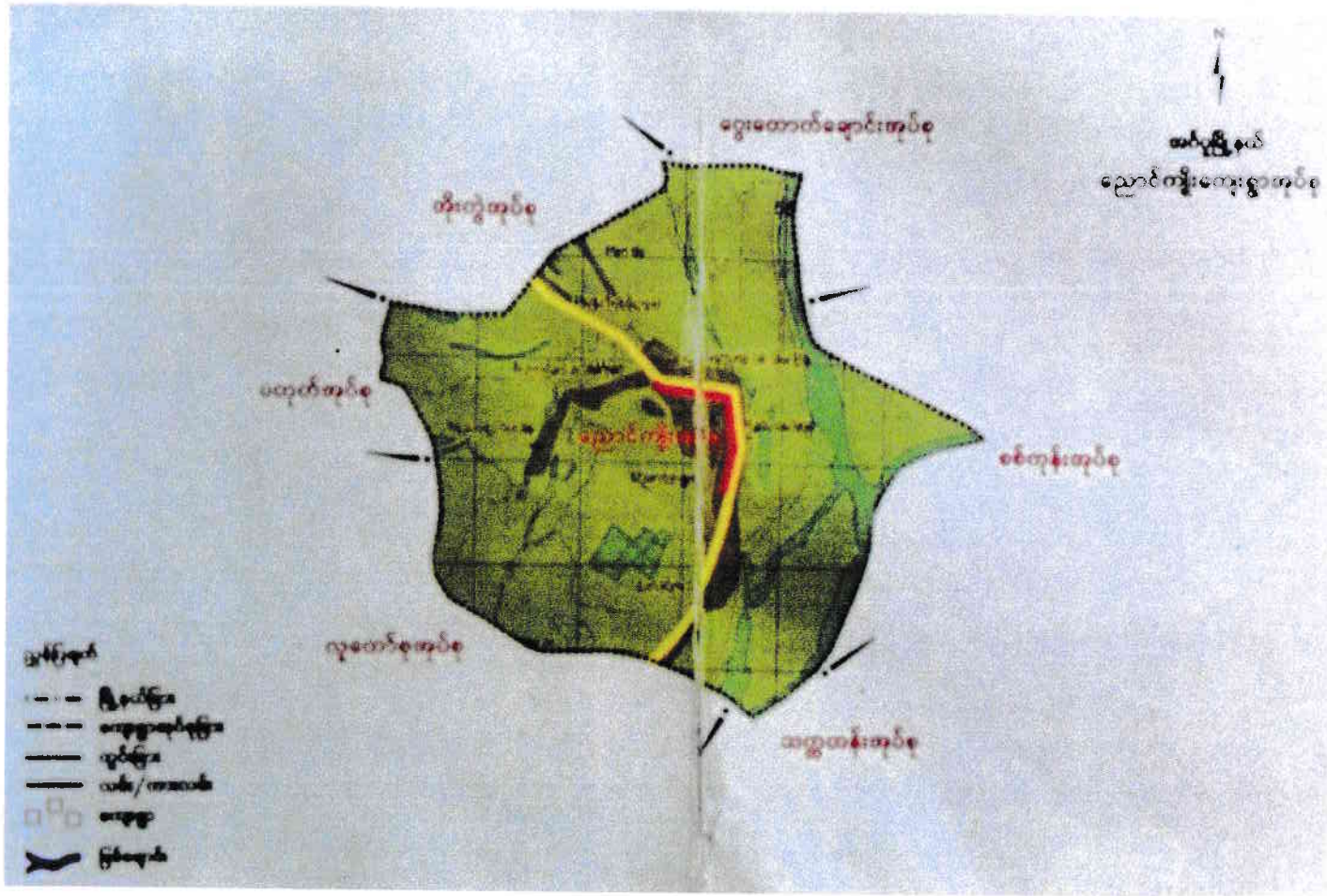

Figure 3.1 Map of Nyaunggyo Village Group