



# **Final Report**

**Community Health Care Improvement Strategy toward  
Integration of Traditional and Modern Medicine of Pyi Gyee  
Tagon Township, Mandalay Division**

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Integration of Traditional and Modern Medicine of Pyi Gyee  
Tagon Township, Mandalay Division**

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However, the scenarios and interpretations of the facts and figures expressed in this research are presented as a guideline and strategy for Primary Health Care (PHC) improvement toward the integration of MTM and modern medicine (MM).

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## EXECUTIVE SUMMARY

In the world of change every component in modern society has to learn how to adjust itself to accommodate with a new challenge. No exception is permitted including traditional medicine practiced in all parts of the world. It has been admitted that traditional medicine is a kind of local wisdom which is a combination of experiences, knowledge and perception toward their world view from past to present. Due to an openness of country to welcome globalization and accumulation of foreign investment abroad, traditional medicine in Myanmar has been either directly or indirectly affected by an invasion of modern economic system. Many parts of the country have to admire to a new trend of industrialization which includes a new policy to designate Pyi Gyee Tagon Township in Mandalay as a new industrial zone. A research entitled Community Health Care Improvement toward Integration of Traditional Medicine of Pyi Gyee Tagon Township, Mandalay division is not intended to specifically study to what happened in the studied area but it has been designed to make the said area as a sample case to represent what would happen to traditional medicine in the midst of modernity. Major objectives of study are as follows:

1. To study policy and situation of integration of traditional medicine with modern medicine of health care at Pyi Gyee Tagon Township in Mandalay Division
2. To analyze external and internal factors that affect community health care improvement toward integrated traditional medicine practice
3. To present positive scenario(s) for integration of traditional medicine with modern practice of health care in the mentioned area, and
4. To develop a working network between Myanmar and Thailand to improve traditional medicine system between two countries

Research methodology introduced to this research practice is called Ethnographic Delphi Future Research (EDFR) which had been developed since 1979 to predict what will occur in the future. Accuracy of research findings is totally based to a reliability of experts who takes part in a process of data collection. Like other Delphi methods employed in a forecasting method, an accomplishment of EDFR method is depended upon a quality of data informants as we called them experts. Therefore, process of selection experts were deliberately and carefully done to assure that those who delivered their opinions to our study was qualified. Composition of a group of experts is from all stakeholders of traditional medicine in the country, namely from academic, management, and practitioners.

As mentioned in many parts of this report that an accuracy of research finding is absolutely based upon research methodology namely EDFR and certainly there is a constraint in this method. However, nature of almost every future research is always under pressure of uncertainty and, takes it for granted, that this research outcome is also obliged to that condition as well. More over since this research is aimed to forecast what will occur with traditional medicine in the studies area when it confronts with a wave of modernity arriving at the front gate of the country. Increase of reliability and validity of research outcomes was made possible through some more techniques for prediction like SWOT analysis and scenario technique. However it is undeniable that some errors in an outcome are inevitable.

It was quite certain that when Myanmar's leaders decided to open the country to allow foreign investment into their part of economic development, they also wholeheartedly know that an influx of modernity in their society created many effects to their people lives. Impacts of modernity cover almost every activity existing in the country including traditional medicine which was expected to confront with modern medication. In fact, every type of medication whether modern or traditional medicine, has both pros and con effects affecting to receivers. Side effect of modern medicine is very evident but because of its rapidly active response to sickness is also very attractive to the patients while practice of traditional treatment is rather safe but with a long period of medication. Uneasy with what happens in modern society, Myanmar government pursues every means to protect its local wisdom from domination by western way of medicine. However, the influence of modern medicine has been overwhelming and no one can resist, integration of traditional and modern medicines becomes a new policy for health in Myanmar. Traditional Medicine University has been established to ensure that local knowledge has been sustained in this society. In the midst of changes from traditional community to modern society, how a traditional medical practitioner can survive and sustain its significant role in a path of health care toward strategic formulation in community level.

Actually, traditional medicine has been found in many parts of the world and it originated from rites, tradition, and culture in each community. Traditional medicine in Myanmar has a long history from ancient time since almost 2000 years ago from non-state society to civilized country and traditional medicine in this society can maintain its identity from the past to present. Although at the mid of change and invasion of western medicine, Myanmar traditional medicine exists as the centre of faith in medication of Myanmar people as it was in an ancient time. All teaching in traditional medicine like Taguang, Srihestra, and Bagan are well respected as they were in the past. As a matter of fact, a profound concept of Myanmar traditional medicine was derived from Buddhism as well as beliefs and local wisdom which include herbs, animal products, and minerals applicable in medication. This traditional heritage has been transferred from one generation to another generation. Moreover, it is evidential that traditional medicine in Myanmar has a long relation with natural environment and social context of the country. It was claimed that traditional medicine in Myanmar is based on a concept of physical balance of human body. After that this concept has been attached with many ways of treatment and yielded to various types of medication and medical beliefs later.

Just before 1976, indigenous knowledge on traditional medicine in Myanmar had been deployed from former generation and there was no formal education on traditional medicine but, in order to formalize a system of traditional education, the Institute of Myanmar Traditional Medicine was founded in that period with an objective to produce qualified personnel in this field for society and it was followed by an establishment of the University of Traditional Medicine in Mandalay.

With a new political regime and new policy to invite foreign investment, Pyi Gye Tagon Township in Mandalay has been selected as a new zone of industry. Not only a change in landscape of the community but it also created many new occurrences in Pyi Gye Tagon Township. Due to construction of factories invested by outsiders this led to an import of labor force from people who were residing outside Mandalay division. Coming of community strangers was gathered with new

way of life and invited new patterns of business. Most interesting was a transformation of people occupation from cultivation to industrialization and from farmers to daily workers. New situation caused to new way of life and new belief. In a former time most of villagers held a belief in traditional way of medication but with a shift of occupation most of residents in Pyi Gyee Tagon Township welcomed modernity including modern medicine and it was possible that they would abandon their local wisdom like traditional medicine.

With an EDFR technique of investigation it reveals that future of traditional medicine in a transitional period may be depicted as follows:

*Firstly*, the study of policy and situation of integration of traditional medicine with modern medicine of health care at Pyi Gyee Tagon Township in Mandalay Division reveals that owing to existing policy, status of traditional medicine in the area of study is very unstable and unsecured since their position in medication function is at inferior status comparing with modern medicine. Many young generations started to doubt an efficacy of traditional way of medication. More over it can be said from an interview that they position traditional medicine is deserved for the poor and lower class in the society. At current situation, traditional medicine has to borrow some tools and techniques from modern medicine if they want to survive in the midst of change.

Regarding to policy aspect, according to our study from opinions of the experts it might be explained that so far policy of integration of traditional medicine with modern medical in the studies area was still ambiguous and uncertain because those experts felt that traditional medicine has been promoted from their government as they required. In some aspects, the government has shown their willingness to support status of traditional medicine but it still needs more assistance from the state. However, results of study presented in this part were derived from EDFR technique which may have many constrains.

Reason used to explain a cause of instability of traditional medicine is due to an interrelation between new form of occupation and occupational disease. Once people adopted a new way of survival from farmers to daily wage workers, they have to accept new types of sickness attached from their works. As mentioned in the report that changes in work organizations appear to have out-paced the system for protecting workers' health care. It is very true that working in manufacturing sector is already associated with high rates of injury from mechanical, electrical, and physical hazards. The expansion of chemical, electronic and biotechnology industries and of service and transport sectors have introduced new risk, widened the spread of work-related risks and increased their interaction with non-work factors in ill health, such as environmental pollution. Thus, in addition to old and prevalent problems, such as traumatic injuries, respiratory diseases, occupational dermatitis and muscular-skeletal injury, workers now also suffer new stresses, such as new asthmatic disorders, psychological stress, and ergonomic and visual effects. Work is increasingly characterized by a high level of demand. With little control over the nature and content of the work, leading to digestive disorders, sleep difficulties and musculoskeletal problems. (Rene Loewenson, 2001: 864)

Different from cultivating society, industrial community must have a different design of resettlement. Normally it requires a group of workers to stay close together in the same area and share infrastructure like water supply, electricity accessibility, and common transportation. Once a big gather of people have to reside in a small space of land and share common utilities, new pattern of diseases emerge inside communities like all contaminate diseases including water-based infection such as diarrhea disease, and leptospirosis. Because new pattern of resettlement is to bring people from different parts of the country to stay together and they do not know each other. Many of them have to depart from their families who stay far away from Pyi Gye Tagon, common mental health disorders like anxiety, depression, and stress are generally found among the workers in industrial zone.

Certainly, new patterns of sickness require new way of treatments and traditional medicine which is used to be effective in the past could not function well in new environment and modern medicine has replaced to situate in new condition.

*Secondly*, an analysis of external and internal factors that affect community health care improvement toward integrated traditional medicine practice, methods of study employed in this research were composed of 2 types, namely EDFR techniques was used in data collection process and SWOT analysis was on analytical function. In order to comply with our objective of research, all information collected were categorized into 2 parts, they are internal factor and external factor and criteria of classification were as follow:

Internal factor was comprised of strength and weakness of traditional medicine

External factor was comprised of opportunity and threats of traditional medicine

According to EDFR technique it reveals that strength of traditional medicine is mainly based on culture and belief of Myanmar people on their faith toward traditional medicine. Also, some parts of strength come from flexibility of traditional medicine itself to adjust method treatment with modern medicine. For example, presently, many traditional medicine practitioners introduce modern methods of disease investigation.

Weakness of traditional medicine is mainly derived from a poor assistance from the authority. What they needed is a protection of traditional medicine knowledge by laws. However, passage described here are opinions of the experts who expressed their concern how to conserve their culture.

As an external factor, opportunity of traditional medicine is depended upon a concrete belief of people on this type of health care. Since traditional medicine has been rooting in this country for many centuries and it is not possible for any other beliefs to replace easily.

Threats of traditional medicine come from in an invasion of modern medicine and trend of young generation to refuse traditional way of treatment

If we consider all conditions affecting traditional medicine it is possible that traditional medicine somehow has to reduce their strictness in their professionalism and adapt itself to accept modern way of health care. It was always commented by users of traditional medicine that experience-based medication can no longer used in modern society and traditional medicine has to apply modern tools of medical treatment from the west.

*Thirdly*, on presentation of probable scenario(s) for integration of traditional medicine with modern practice of health care in the mentioned area by using scenario technique is another objective of study. Data obtained from our interview with EDFR technique have been analyzed and classified into 2 components, one is negative scenario and another one is positive scenario. From both components we have to weight and compromise all premises and make a probable scenario or to find the most possible situation that may occur in the future on an integration of traditional medicine with modern practice of health care in Pyi Gyee Tagon Township in Mandalay division.

Negative Scenario: With an introducing industrial zone in the mentioned area, people change from farming occupation to daily-wage workers and they have to suffer from occupation diseases in which traditional medicine was not applicable to cure. Therefore, traditional medicine would be neglected and received no recognition from the people in the area. Most of traditional medicine practitioners had to remove from the community and search a new place in rural areas.

Positive Scenario : With a full support from the government to protect traditional medicine existing in this country, not only a establishment of the University of Traditional Medicine but also a handful assistance from the government like to financially subsidize an Association of Traditional Medicine of Myanmar to function perfectly and to proclaim patent laws to protect traditional medicine. Also, young generation in this country aware a harmfulness of modern medicine side-effect and they acknowledge a value of traditional medicine, then they decided to refuse modern medicine and accepted traditional medicine as their alternative way of health care.

Probable Scenario: With a combination of traditional medicine with modern medicine in some applicable aspects. Investigation methods of modern medicine were much more effective in the primary stage of treatment and deserved for acute diseases. It is possible that there was a separation of treatment division, for example, traditional medicine was positioned for chronic diseases while modern medicine was for acute diseases. Both shared their experiences and combine ways of treatment. Traditional medical products like medicine have to modify and adjust their ways of consuming. Instead of boiling medical substance they might produce in form of tablet and ready-made syrup. Most probable was a transformation of body massage from a way of health treatment to become entertainment service. Even though traditional medicine has not been recognized by modern medicine personnel at present time but sooner or later there will be integrating of the two together because both parties have their own unique of treatment. It is quite true that medical way of treatment of modern medicine is more effective but there is also some disadvantage. Traditional way of medication may be less effective but there is also less side-effected. According to our foresight on most probable scenario for integration of traditional medicine with modern practice of health care in Pyi Gyee Tagon Township in Mandalay division is an inter-adjustment of both types of medicine to support and supplement each other. However, this probable condition will be materialized if Myanmar government has a serious intention to do so as an authoritarian government, role of state is the most decisive to an accomplishment of policy.



*Lastly*, developing a working network between Myanmar and Thailand to improve traditional medicine system between two countries:

To construct a linkage between two facets of traditional medicine in two countries is a hard work since they own different backgrounds, living in different contexts, and facing different problems. What they share in common is on the same belief in religion, Buddhism.

However, it is possible, in some aspects, to build some linkages between the two like these:

Institutional Linkage: It is not deniable that traditional medicine school in Myanmar is quite advance because of an establishment of the University of Traditional Medicine which is located in Mandalay. It was founded in 2001 and every year it admits about 100 new students. Admission is based on matriculation examination. After studying for 5 years including one year internship the graduates are conferred BMTM which stands for Bachelor of Myanmar Traditional Medicine Degree. When compared with Thailand, Myanmar's traditional medical school is much more effective than Thailand. With an advancement of knowledge and long - time experiences accumulated in the school in Myanmar, an institutional linkage between Thai institutes and the University of Traditional Medicine will of benefits mainly to Thai side. Exchange of personnel and research publications will be a mutual benefit to improve quality of traditional medical services provided to people. The only problem may happen is an obstacle of language since most of traditional medical staff uses Burmese language and English proficiency of English of Thai staff is inadequate.

Exchange of students, Study program in traditional medicine in Myanmar is much more developed; if we can send our students to study there we will get more benefits. Only barrier we find in exchange of students between two counties is a mean of instruction because in the University of Traditional Medicine in Myanmar they teach in Burmese. If Thai students want to learn more in this field they should try hard to learn their language.

Research collaboration, without a research, no knowledge can be developed and if knowledge finds no improvement, innovation finds no place and followed by poor and out of date products. It is also true that knowledge benefits to all parties and cost of research should not be born in one country. Particularly, for an intensive and advance research in traditional medicine which needs high cost of research investment, no single country should take full responsibility if the benefits of the research accrue as much to its competitors as to itself. Research funding agencies in Thailand should play an active role to support this mission and research finding or right of patent should be shared by both parties.

Last but not least, it should be repeated here that all finding found in this report are mainly based upon EDFR research technique and some other methods like SWOT analysis and scenario technique. Therefore, quality of the research must be judged from the mentioned process.

## ABSTRACT

Due to new Myanmar government's policy on industrial investment sourced from abroad, government has to allocate some areas for resettlement of foreign established factories and Pyi Gye Tagon Township in Mandalay division has been selected to serve this purpose. Within the context of society which has implanted traditional way into their life, traditional medicine has to receive a new challenge from western way of medication which gradually inserts itself into every part of health function in people's way of life. Therefore, this research output is aimed at an investigation of following objectives:

*Firstly*, to study policy and situation of integration of traditional medicine with modern medicine of health care at Pyi Gye Tagon Township in Mandalay Division

*Secondly*, to analyze external and internal factors that affects community health care improvement toward integrated traditional medicine practice

*Thirdly*, to present positive scenario(s) for integration of traditional medicine with modern practice of health care in the mentioned area, and

*Fourthly*, to develop a working network between Myanmar and Thailand to improve a traditional medicine system between two countries

Due to facts that this type of research is designed to forecast what will occur in the near future, therefore research methodology introduced to this research practice is called Ethnographic Delphi Future Research (EDFR) which had been developed since 1979 to predict what will occur in the future. Accuracy of research findings is totally based to a reliability of experts who takes part in a process of data collection. In order to follow research methodology, all experts were deliberately selected as mentions by Myanmar traditional medicine advisors from the University of Traditional Medicine. It has been accepted from the beginning that any future research will confront with uncertainty of solution, this research is no exception and the way of increase validity of research answers was to add some other techniques like SWOT analysis and Scenario analysis in research findings.

With an EDFR technique of investigation it reveals that future of traditional medicine in a transitional period may be depicted as follows:

*Firstly*, it was indicated that policy and situation of integration of traditional medicine with an influx of modern medicine of health care at Pyi Gye Tagon Township in Mandalay Division made a status of traditional medicine in the area of study very unstable and unsecured since their position in medication function is at inferior status comparing with modern medicine. Many young generations started to reject traditional way of medication and said that traditional medicine is deserved for the poor and lower class in the society not for young generation.

*Secondly*, on a study of external and internal factors that affect community health care improvement toward integrated traditional medicine practice, 2 types of techniques, namely EDFR and SWOT analysis were served in analytical function. It reveals that strength of traditional medicine is mainly based on trust of Myanmar people that some diseases like chronic sickness should be cured by this type of medication. Weakness of traditional medicine, mentioned by experts, is mainly derived from unclear policy from authority. As an external factor, opportunity of traditional medicine is depended upon a concrete belief of people on this type of health care and effective adjustment to modern world. And, finally, threats of

traditional medicine come from in an increase of popularity of modern medicine and trend of young generation to refuse traditional way of treatment

*Thirdly*, regarding to a trial to present of probable scenario(s) for integration of traditional medicine with modern practice of health care in the mentioned area from positive and negative aspects and it reveals that as follows:

Negative Scenario: With an establishment of industrial zone in the mentioned area, people change their occupations from cultivation to become daily-wage workers and they have to suffer from occupation diseases in which traditional medicine was not applicable to function properly. Therefore, it was possible that traditional medicine would find no place in modern society.

Positive Scenario: If traditional medicine received a full support from the government to protect and promote academically, functionally and financially, it could survive in the midst of change and become popular again. Most probable that traditional medicine might play a new role as an alternative way of health care.

Probable Scenario: It is possible that there was a clear separation of treatment divisions in medication, for example, traditional medicine was positioned for chronic diseases while modern medicine was for acute diseases. Both shared their experiences and combine ways of treatment.

*Lastly*: Developing a working network between Myanmar and Thailand to improve traditional medicine system between two countries: Due to disparity of development and some cultural different barriers between the two it is suggested that academic cooperation can be bridge to link them together. This sort of functions can be in form of exchange of academic and students, and co-working in research but it has be admitted that language will become a major problem of collaboration. To fulfill this mission, agencies in Thailand should play an active role to support this mission and research finding or right of patent should be shared by both parties.

Finally, it should be repeated here that all finding found in this report are mainly based upon EDJR research technique and some other methods like SWOT analysis and scenario technique. Therefore, quality of the research must be judged from the mentioned process.

## บทคัดย่อ

เนื่องจากการที่ประเทศพม่าเปิดรับการลงทุนต่างประเทศโดยเฉพาะอย่างยิ่งในภาคอุตสาหกรรม รัฐบาลพม่าจึงจัดทำเลเพื่อเป็นเขตอุตสาหกรรมและพื้นที่เมืองพิจิตะกอง (Pyi Gye Tagon Township) ในเขตการปกครองมัณฑะเลย์ (Mandalay) ได้รับตอบสนองต่อนโยบายดังกล่าว ผลจากการพัฒนาดังกล่าวมีผลต่อชีวิตของประชาชนในพื้นที่ทุกด้าน และการแพทย์พื้นบ้านของพม่าที่ดำรงอยู่ในสังคมแห่งนี้มานานแสนนานต้องรับผลกระทบจากการเข้ามาของการแพทย์แผนปัจจุบัน การศึกษาครั้งนี้จึงมีวัตถุประสงค์ดังนี้

ประการแรก เพื่อศึกษาถึงนโยบายและสถานการณ์ของการผสมผสานระหว่างการแพทย์พื้นบ้านกับการแพทย์แผนปัจจุบันในพื้นที่ที่ศึกษาว่ามีสภาพเช่นไร

ประการที่สอง เพื่อวิเคราะห์ปัจจัยภายในและภายนอกที่มีผลกระทบต่อการปรับตัวของการแพทย์พื้นบ้านพม่าในการผสมผสานกับการแพทย์แผนปัจจุบัน

ประการที่สาม เพื่อนำเสนอภาพอนาคตของการผสมผสานของการแพทย์พื้นบ้านกับการแพทย์แผนปัจจุบัน และ

ประการสุดท้าย เพื่อพัฒนาแนวทางการสร้างความร่วมมือระหว่างการแพทย์พื้นบ้านของพม่าและของไทย

เนื่องการวิจัยครั้งนี้เป็นการพยากรณ์ในสิ่งที่คาดว่าจะเกิดในอนาคต ดังนั้นจำเป็นต้องอาศัยเครื่องมือการวิจัยที่แตกต่างจากวิธีการวิจัยแบบอื่น ๆ ดังนั้นเทคนิคที่ใช้คือ Ethnographic Delphi Future Research (EDFR) ซึ่งเกิดขึ้นในปี ค.ศ. 1979 โดยอาศัยความสามารถของผู้เชี่ยวชาญในการให้ความเห็น ดังนั้นการเลือกผู้เชี่ยวชาญในการให้ข้อมูลจึงเป็นสาระสำคัญของความสำเร็จในการศึกษาครั้งนี้ การเลือกผู้เชี่ยวชาญได้จากคำแนะนำของคณาจารย์จากมหาวิทยาลัยการแพทย์พื้นบ้าน นอกจากนั้นเพื่อให้การพยากรณ์มีความเที่ยงตรงยิ่งขึ้น นักวิจัยจึงใช้เทคนิคการวิเคราะห์ SWOT และ Scenario ประกอบการศึกษา

จากการใช้เทคนิคดังกล่าว ผลการศึกษาเป็นดังนี้

ประการแรก พบว่านโยบายและสถานการณ์ของการผสมผสานระหว่างการแพทย์พื้นบ้านและการแพทย์แผนปัจจุบันในพื้นที่ศึกษามีผลให้สถานภาพของการแพทย์พื้นบ้านมีความไม่มั่นคง เพราะอยู่ในสภาพที่ต่ำต้อยกว่า ยิ่งการนั้นพบว่าประชาชนรุ่นใหม่เริ่มปฏิเสธการแพทย์พื้นบ้านและยังต่อไปว่าการแพทย์พื้นบ้านเหมาะสมสำหรับคนจนและไร้การศึกษา

ประการที่สอง เพื่อศึกษาปัจจัยภายในและภายนอกที่มีผลต่อการปรับปรุงเพื่อรับกับการผสมผสานกับการแพทย์แผนปัจจุบัน ในการศึกษาครั้งนี้ผู้วิจัยได้ใช้เทคนิคประกอบกับ EDFR คือ การวิเคราะห์แบบ SWOT ผลการศึกษาพบว่าปัจจัยภายในมีจุดแข็งของการแพทย์พื้นบ้านมาจากความศรัทธาของประชาชนพื้นบ้านที่มองว่าการแพทย์พื้นบ้านมีจุดแข็งสำหรับการรักษาโรคที่เรื้อรัง และจุดอ่อนมาจากการที่รัฐขาดนโยบายที่ชัดเจนสำหรับการแพทย์พื้นบ้าน ส่วนปัจจัยภายนอกอันได้แก่โอกาสนั้นพบว่า การแพทย์พื้นบ้านมีประวัติความเป็นมาอันยาวนานซึ่งยากแก่การลบเลือนออกจากความทรงจำของประชาชน แต่กระนั้นสิ่งที่คุกคามการแพทย์พื้นบ้านคือการเข้ามาเผยแพร่ของการแพทย์แผนปัจจุบัน

ประการที่สาม เป็นความพยายามในการนำเสนอภาพในอนาคตของการผสมผสานระหว่าง การแพทย์ทั้งสองสายว่ามีโอกาสที่จะเกิดสภาพอย่างไร ในการนี้จะนำเสนอภาพเชิงลบ ภาพเชิงบวก และภาพที่น่าจะเป็นมากที่สุด ผลการศึกษาพบว่า

ภาพเชิงลบพบว่าโอกาสที่จะเกิดคือการที่ชาวบ้านเปลี่ยนอาชีพจากเกษตรกรรมมาเป็น ลูกจ้างรายวันและโรคที่เกิดขึ้นเป็นโรคอันเกิดจากการทำงานในภาคอุตสาหกรรม ผลที่ตามมาคือ การแพทย์พื้นบ้านไม่อาจจะรับกับโรคใหม่ ๆ ดังกล่าว

ภาพเชิงบวกเป็นไปได้ว่ารัฐบาลให้การสนับสนุนอย่างมากแก่การแพทย์พื้นบ้าน ไม่ว่าจะเป็น ด้านการเงิน การปฏิบัติงานและทางวิชาการ ผลที่อาจจะตามมาคือการแพทย์พื้นบ้านก็มีสภาพได้รับการยอมรับว่าเป็นแพทย์ทางเลือกของประชาชนพม่า

ภาพที่น่าจะเป็นมากที่สุดคืออาจจะมีการแบ่งแยกอย่างชัดเจนระหว่างการแพทย์ทั้งสองและ มีการระบุชัดเจนว่าโรคใดควรจะใช้วิธีการรักษาแบบใด

ประการสุดท้าย เพื่อสร้างแนวทางการพัฒนาความร่วมมือระหว่างการแพทย์พื้นบ้านระหว่าง ประเทศพม่ากับประเทศไทย แต่เนื่องจากระดับการพัฒนาที่ไม่เท่ากันระหว่างประเทศทั้งสองและยังมี วัฒนธรรมที่แตกต่างกันอีกด้วย ดังนั้นแนวทางความร่วมมือที่อาจจะเป็นไปได้คือการสร้างความ ร่วมมือทางวิชาการโดยการแลกเปลี่ยนนักวิชาการ นักศึกษา และร่วมมือในการทำวิจัย แต่ในการนี้ ประเทศไทยอาจจะเป็นผู้ริเริ่มและเป็นเจ้าภาพในการสร้างความร่วมมือ

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Brief introduction**

In the midst of Change, particularly from traditional community to modern society, comes along with changes, there are both positive and negative impacts upon the people who live in. Health system in traditional villages in Myanmar also receives a challenge derived from modern medicine brought in by the west. Confront awhile between the east and the west, traditional medicine which has been recognized and practiced by local people of Myanmar has to seek its status in the modern society. For the villagers who have been familiar with traditional medication have to decide types of treatment when they get sick. Influx of modern medicine becomes a new trend of medical choices for local people.

As a matter of fact, every type of medication has both pros and con effects to receivers. Side effect of modern medicine is very evident but because of its rapidly active response to sickness is also very attractive to the patients while practice of traditional treatment is rather safe but with a long period of medication. Uneasy with what happens in modern society, Myanmar government pursues every means to protect its local wisdom from domination by western way of medicine. However, the influence of modern medicine has been overwhelming and no one can resist, integration of traditional and modern medicines becomes a new policy for health in Myanmar. Traditional Medicine University has been established to ensure that local knowledge has been sustained in this society. In the midst of changes from traditional community to modern society, how a traditional medical practitioner can survive and sustain its significant role in a path of health care toward strategic formulation in community level.

Actually, traditional medicine has been found in many parts of the world and it originated from rites, tradition, and culture in each community. Traditional medicine in Myanmar has a long history from ancient time since almost 2000 years ago from non-state society to civilized country and traditional medicine in this society can maintain its identity from the past to present. Although at the mid of change and invasion of western medicine, Myanmar traditional medicine exists as the center of faith in medication of Myanmar people as it was in an ancient time. All teaching in traditional medicine like Taguang, Srihestra, and Bagan are well respected as they were in the past because it has been absorbed into their culture and practice in their daily life. Root of faith in traditional medicine has been implanted in every part of the country and existed in every household. As a Matter of fact, a profound concept of Myanmar traditional medicine was derived from Buddhism as well as beliefs and local wisdom which include herbs, animal products, and minerals applicable in medication. This traditional heritage has been transferred from one generation to another generation. Moreover, it is evidential that traditional medicine in Myanmar has a long relation with natural environment and social context of the country. Traditional medicine in Myanmar is based on a concept of physical balance of human body. After that this concept has been attached with many ways of treatment and yielded to various types of medication and medical beliefs later.

Just before 1976, indigenous knowledge on traditional medicine in Myanmar had been deployed from former generation and there was no formal education on traditional medicine but, in order to formalize a system of traditional education, the Institute of Myanmar Traditional Medicine was founded in that period with an objective to produce qualified personnel in this field for society.

According to first-hand field survey in Pyi Gyee Tagon Township, it was found that the community has been changed and most of the inhabitants preferred to work either in the factories or town and very few people are willing to work in the field. This pattern of change generally happens in all communities when there is a transformation occurred from rural society to urban one. Many villagers disclosed that in former time a travel from villages to town in Mandalay was difficult but after the modern roads were constructed, they felt that going to the town was quite convenient. Expansion of communities created anxiety among villagers and they felt uneasy with what would happen to them.

Most of factories founded in the communities are heavy industry. There are paper-mill factory, furniture producers, sugar factories, detergent factories, battery factories, drinkable water producer. However, those factory settlements are scattering and disorganized.

Pattern of medication found in the area was based on availability of traditional medicine existing in the communities. There were many traditional medicine clinics available because most of villagers still believed in traditional way of medication. However, due to influx of industry, there was a change in their belief once there was a new disease occurring in the area, pattern of diagnosis has to adjust to new phenomenon. Many illnesses are believed that major causes of illness are from diseases and improper behaviours, for instance cancer, therefore, way of treatment should be adjusted to new sickness and this led to new belief on medication. Even though, there was a new way of treatment but mentality of Myanmar people are still unchanged since they have been faithful to their way of traditional medicine which has been implanted in many generations. For examples, most of them still perform their ways of life such as no one would take bath at the late of the night, and they are not allowed to take a bath after a meal. All these behaviour practices are under a belief in balance of human body.

Data obtained from our preliminary survey revealed that there was an effort to maintain traditional health care in the area. Those efforts included a law enforcement to support traditional medicine by the state, supporting structure in community to protect traditional medicine treatment, establishment of traditional medicine clinics in communities, and establishment of traditional medical school in Mandalay. In order to sustain continuity of traditional medicine, association of traditional medicine was formed with an objective to exchange of knowledge among people concerned and NGO on the area.

What mentioned above was to show that at least there was a strong attempt to enforce traditional health care in the studied communities. However, it is not deniable that a wave of modernization affected some beliefs among the villagers. Modern as western medicine has been accepted increasingly. How to compromise traditional way of medication with modern technology of western medicine was an alternative for people concerned. Since it is recognized that modern diagnosis by western technology

is more advanced with high accuracy can be, at least, supplemented by traditional way of medication and this mutual support can be an alternative in modern society.

Therefore, this research project will be of benefit for development of traditional medicine in Myanmar. There was a conclusion among academics and traditional medicine practitioners in Mandalay that if we can compromise positive aspects of both traditional medicine and modern medicine together, it can serve needs of communities. Also, this combination can increase efficacy of treatment. Future research can be of benefits to strategic improvement of traditional medicine in the country and can serve nowadays situation.

## **1.2 Objectives of Research**

1. To study policy and situation of integration of traditional medicine with modern medicine of health care at Pyi Gye Tagon Township.
2. To analyse external and internal factors that affect community health care improvement toward integrated traditional medicine practice
3. To present probable scenario(s) for integration of traditional medicine with modern practice of health care in Pyi Gye Tagon Township, Mandalay Division (During year of 2013 - 2023)
4. To develop a working network between Myanmar and Thai to improve TM system between two countries.

## **1.3 Benefits of the Study**

Experiences of strategy and improvement way (s) of community health care toward traditional and modern medical performance in Myanmar can be of benefit to Thailand to study and apply to Thai society

## **1.4 Definitions related to the research**

*Traditional medicine (TM)* WHO defines TM as diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, spiritual therapies, manual techniques and exercise applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness (WHO 2002, 7)

*Complementary/alternative medicine (CAM)* these are used interchangeably with traditional medicine in some countries. They refer to a board set of health care practices that are not part of that country's own traditional and are not integrated into the dominant health care system.

*Integration of Traditional medicine* means the way to use Traditional medicine into national health care system follows 4 approaches; a tolerant system, an inclusive system, a parallel system, and an integrated system. (WHO 2002, 2000)

*Myanmar Traditional Medicine* means any form of medical treatment that belongs to any one of the four methods: Desana Method, Bhesijja Method, Nakkhatta Method and Vijjadhara Method.(Myanmar Ministry of Health,2008)

*Modernity* means the discovery of the ‘new world’, the Renaissance, and the Reformation-these 3 monumental events around the year 1500 constituted the epochal threshold between Modern times and the middle ages.(Jurgen Habermas,1987: p.5) The concept of modernization define by the specificities of the European modernity, which includes a complex of processes that are cumulative and mutually reinforcing. They are following; (Anand Kumar, 2004: p.18)

1. The formation of capital and the mobilization of resources,
2. The development of the forces of production and the increase in the productivity of labor,
3. The establishment of centralized political power and the formation of national identity,
4. The proliferation of the rights of political participation,
5. The enlargement of urban forms of life,
6. The establishment of formal public schooling system,
7. The secularization of values.

Modernization in the Third World nations is not only a means of economic and social development but also a process for the projection of their cultural self-consciousness and national identity. (Yogendra Singh, 1978: p.11) For this research we looked at the idea of Asian modernity, that engagement with the processes of globalization. But globalization is not seen as a direct consequence of uncertainly conceived modernity. One pattern has been addresses in the terms on Asian modernity by separating culture, economy, industrialization and westernization. The study area of this research is Pyi Gyee Tagon Township in Mandalay Division, the area of industrial zone from 18 industrial zones in Myanmar - the symbol of modernity.

### **1.5 Scope of Study**

The experimental research will be conducted in Traditional Medicine Clinics in Pyi Gyee Tagon Township, Mandalay Division due to the fact that the studied community is located at the junction of modern and traditional ways of life and it receives some impact from modernity introduced to Myanmar

### **1.6 Duration of Study**

The whole process of the research will be done from 1 September 2011 – 31 August 2012 (1st Progressive report on 29 February 2012).

### **1.7 Counterparts from Myanmar**

Staffs from the Department of Traditional Medicine in Myanmar and staffs from University of Traditional Medicine in Mandalay will be the counterpart in the research activities with permission from the Ministry of Health in Myanmar.

## **CHAPTER 2**

### **LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK**

#### **2.1 Definition of Traditional Medicine and Herbal Medicine**

*Traditional Medicine* is the sum total of knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures that are used to maintain health, as well as to prevent, diagnose, improve or treat physical and mental illnesses. (Management Sciences for Health, 2011)

Steven B Kayne (2009) defines Traditional Medicine as “Health traditions originating in a particular geographic area or ethnic group and which may also have been adopted and/or modified by communities elsewhere”

Traditional Medicine may be codified, regulated, taught openly and practiced widely and systematically, and benefit from thousands of years of experience. Conversely, it may be highly secretive, mystical and extremely localized, with knowledge of its practices passed on orally. It may be based on salient physical symptoms or perceived supernatural forces. Clearly, at global level, Traditional Medicine eludes precise definition or description, containing as it does diverse and sometimes conflicting characteristics and viewpoints. But a working definition is nevertheless useful. For WHO such a definition must of necessity be comprehensive and inclusive. WHO therefore defines Traditional Medicine as including diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness. (World Health Organization, 2002)

In Myanmar the term Traditional Medicine is used to describe: Medicine for the physical well-being and longevity of people in accordance with anyone of the four *nayas* of Traditional Medicine, namely *Desana naya*, *Bethitsa naya*, *Netkhata Veda naya* and *Vissadara naya*. (The Asean Consultative Committee for Standards and Quality (ACCSQ), 2006)

*Complementary/alternative medicine (CAM)* or "alternative medicine" is used inter-changeably with Traditional Medicine in some countries. They refer to a broad set of health care practices that are not part of that country's own tradition and are not integrated into the dominant health care system.

*Herbal medicines* include herbs, herbal materials, herbal preparations and finished herbal products that contain as active ingredients parts of plants, or other plant materials, or combinations.

- Herbs: crude plant material such as leaves, flowers, fruit, seed, stems, wood, bark, roots, rhizomes or other plant parts, which may be entire, fragmented or powdered.

- Herbal materials: in addition to herbs, fresh juices, gums, fixed oils, essential oils, resins and dry powders of herbs. In some countries, these materials may be processed by various local procedures, such as steaming, roasting, or stir-baking with honey, alcoholic beverages or other materials.

- Herbal preparations: the basis for finished herbal products and may include comminuted or powdered herbal materials, or extracts, tinctures and fatty oils of herbal materials. They are produced by extraction, fractionation, purification,

concentration, or other physical or biological processes. They also include preparations made by steeping or heating herbal materials in alcoholic beverages and/or honey, or in other materials.

- Finished herbal products: herbal preparations made from one or more herbs. If more than one herb is used, the term mixture herbal product can also be used. Finished herbal products and mixture herbal products may contain excipients in addition to the active ingredients. However, finished products or mixture products to which chemically defined active substances have been added, including synthetic compounds and/or isolated constituents from herbal materials, are not considered to be herbal.

### **Traditional use of herbal medicines**

*Traditional use of herbal medicines* refers to the long historical use of these medicines. Their use is well established and widely acknowledged to be safe and effective, and may be accepted by national authorities.

### **Therapeutic activity**

*Therapeutic activity* refers to the successful prevention, diagnosis and treatment of physical and mental illnesses; improvement of symptoms of illnesses; as well as beneficial alteration or regulation of the physical and mental status of the body.

The major traditional healing systems that have survived the impact of modern biomedicine driven by germ theory are *traditional Chinese medicine* and its associated therapies, Indian systems of medicine and traditional African medicine. The last differs from the two Asian systems in that it is largely an oral tradition with no written records whereas the Asian systems have written philosophies and pharmacopoeias. The distinction between Traditional Medicine and what is known as folk medicine is not clear cut and the terms are often used interchangeably. Folk medicine may be defined as treatment of ailments outside clinical medicine by remedies and simple measures based on experience and knowledge handed down from generation to generation. Another simpler definition is the use of home remedies and procedures as handed down by tradition. In Traditional Medicine there is usually a formal consultation with a practitioner or healer and such practices may be integrated into a country's healthcare system, while in folk medicine advice is passed on more informally by a family member or friend and there is no such integration.

## **2.2 Comprehensive Community and Home-based Health Care Model**

Toward the change of diseases and demographics in cases of elderly people, the need for long-term and chronic care, and care to manage daily living, moreover to strengthening the basic health care services especially for vulnerable and underprivileged groups, there is an urgent need to extend health services beyond that of the hospital. In addition to protect and promote the health of all the people of the world. It was the first an international declaration underlining the importance of primary health care.

*Primary health care* was brought to the forefront of the international health agenda by the Alma Ata Declaration (1978) and reinforced by Health for All by the year 2000 as being key to attaining set targets. The approach has three essential components:

Addressing the health needs of the community, through a mechanism anchored at the lowest level of care, in the context of overall country characteristics. As a policy position with respect to these essential components, primary health care is still a relevant approach for universal coverage. As a strategy to scaling up services in the SEA region, primary health care may need review with respect to two specific aspects: area of public health which are the focus of primary health care but where problems continue. Particularly relevant here are systems constraints underlying the persistent high level of preventable causes of mortality and morbidity. And health transition in countries, notably the challenge posed by HIV and AIDS to the entire health system of countries. (World Health Organization, 2006: 5) to provide good health with low cost and better outcome.

World Health Organization (SEARO)(2004:1-6) has developed a generic model for Comprehensive Community and Home-based Health Care (CCHBHC) to provide information on how can strengthen community health services to meet the changing health needs and to provide holistic, integrated and continuous care that is patient/client-centered, with the active involvement of communities. In order to be a useful tool in assisting countries to better organizes and manage community health services.

This model is developed with the active involvement of Member States.<sup>1</sup> It is based on good practices in countries within and outside South-East Asia Region. The first in field areas<sup>2</sup> revealed that this model is a useful managerial tool to assist countries for the provision of quality health care and enable them to effectively work with individuals, families and communities.

Strategies to attain the objectives and ultimately achieve the goal, a variety of strategies need to be employed under the coherent and integrated way. Strategies for involving all stakeholders are ensuring political commitment and support, strategies for mobilizing and managing resources building on the existing system, and strategies for developing and implementing appropriate health information system.

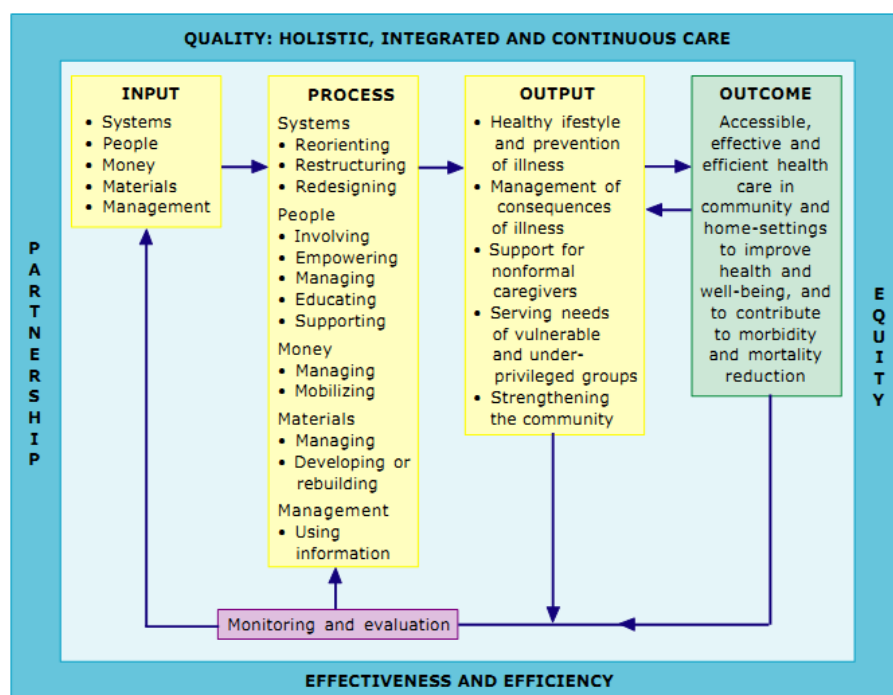
CCHBHC model includes multiple feedback loop, and ongoing monitoring and evaluation indicating that changes and deviations can be addressed at any point in the ongoing implementation of the model. This model is based on the assumption that, at present, comprehensive health care provided at home and in community setting is not well established or in place in the existing health system. A conceptual framework of the model is provided in Figure 1.

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<sup>1</sup>Member states are Bangladesh, Bhutan, DPR Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, and Timor-Leste. The model was developed by the joint WHO and Mahidol University, Thailand.

<sup>2</sup> It was then field-tested in Bhutan, Myanmar, Nepal and Thailand in 2002 – 2003.





**Figure 1:** A conceptual framework of the Community and Home-based Health Care Model (CCHBHC model)  
Source: World Health Organization (2004: 8)

To implement this model, the existing health care system has to be reoriented towards the provision of holistic, integrated and continuous health care that needs to be extended beyond health care facilities. In addition, there should be sufficient health care providers to give care at home and in communities and these health personnel must be educated systematically and continuously to improve their understanding of the concepts and practices in CCHBHC.

Than Tun Sein, Maung Maung Win and Nilar Tin (n.d: online) have studied the project “Coverage and Skill mix balance of Human Resource for Health in Myanmar” revealed that the township health system in Myanmar is regarded as a *mean* to achieve the end of and equitable, efficient and effective health system based on the principles of primary health care approach. The Human Resource for Health skill mix is appropriate and cost-effective for primary health care services in Myanmar’s rural areas. However, providing training alone will not improve practice; standard operating procedures in work environment may need to be changed or modified so that what had been trained could be practically materialized.

### 2.3 Integration of Traditional Medicine into National Health Care System

The integration of Traditional Medicine within the national health care system generally follows four approaches.

A *tolerant health system* is based on conventional Western medicine, but allows some TM/TCM practitioners to practice in some capacity. In the United Kingdom, only the practice of osteopathy and chiropractic are protected by statute; Canada’s provinces individually regulate CAM practitioners, resulting in some CAM practitioners being regulated in some provinces but not others; in the United States,

provider training, credentialing, and licensure requirements vary from state to state. Few national credentialing and licensing bodies are available to determine qualifications for a particular practice.

*An inclusive system* recognizes TM practices but does not fully integrate them into health care delivery, education, or regulation. Nigeria and Mali are examples of inclusive system, where the governments have a national TM policy, but there is otherwise little regulation of products or practices. In some countries, such as Norway, Zimbabwe, and South Africa, authorities are giving substantial recognition to TM/CAM providers through national efforts designed to increase the integration of TM/CAM and conventional medical systems.

*A parallel health care system* has both conventional and TM as separate components of the national health system. For example, the government of India officially recognized the Ayurvedic and Unani medical system through the Indian Medicine Central Council Act of 1970. More than 700,000 registered Traditional Medicine practitioners are active in India and almost 500 colleges of Ayuavedic and other Traditional Medicine education exist.

In Asia medical pluralism – the use of multiple forms of healthcare – is widespread.

Consumers practice integrated healthcare irrespective of whether integration is officially present. In Taiwan, 60% of the public use multiple healing systems, including modern western medicine, Chinese medicine and religious healing. A survey in two village health clinics in China's Zhejiang province showed that children with upper respiratory tract infections were being prescribed an average of four separate drugs, always in a combination of western and Chinese medicine. The challenge of integrated healthcare is to generate evidence on which illnesses are best treated through which approach. The Zhejiang study found that simultaneous use of both types of treatment was so commonplace that their individual contributions were difficult to assess.

Asia has seen much progress in incorporating its traditional health systems into national policy. Most of this began 30–40 years ago and has accelerated in the past 10 years. In some countries, such as China, the development has been a response to mobilizing all healthcare resources to meet national objectives for primary healthcare. In other countries, such as India and South Korea, change has come through politicization of the traditional health sector and a resultant change in national policy.

Two basic policy models have been followed: an integrated approach, where modern and Traditional Medicine are integrated through medical education and practice (e.g. China), and a parallel approach, where modern and Traditional Medicine are separate within the national health system (e.g. India).

*An integrated system* integrates conventional and TM system at the level of medical education and practice. Integrative measures include government regulation and registration to control the safety, efficacy, and quality of herbal medicine product; registration of traditional healers and herbalists; and universities. Worldwide, only China, the Democratic People's Republic of Korea, the Republic of Korea, and Vietnam are considered to have fully integrated system. The association of Southeast Asian Nations recently committed to promoting the integration of TM/CAM into the members' national health care services, including drafting an Action Plan and

Declaration on Traditional Medicine. (Bodeker, 2005) From the definition of an integrations system, Myanmar should be on the list of countries that have fully integrated systems.

The study of Traditional Medicines and their manufacturers has much to offer to sociocultural studies of many medical systems. Medicines constitute a meeting point of almost any imaginable human interest: material, social, and political and emotional. They also play their many roles at different levels of social and political organization: in international policy and funding, in national politics, and as vehicles of ideology and identity construction. Ultimately medicines affect the private lives of individual patients, e.g. in the context of a consultation with the healthcare provider they are the conduit through which ill-health is transformed to good health. In the context of the family, buying a medicine for a relative can emit a message of love and care. Within a religious context medicines may be seen as gifts to the ailing community from holy leaders.( Steven B Kayne, 2009)

Large scale community interventions like home herbal gardens in India have demonstrated that many simple primary health care problems like fever, upper respiratory tract infections, gastro-intestinal problems such diarrhea, dysentery, worm infestations, hepatitis, anemia, arthritic conditions, and certain gynecological conditions can be managed at household level through simple herbal home remedies and early identification and interventions. Reproductive health and nutrition forms two important aspects of household care. Considerable health cost saving has been found through this program apart from health and nutrition benefits.

#### **Role of TM/CAM in Communicable Diseases**

In communicable diseases such as malaria, HIV, Traditional Medicine has proved its significance. Global incidence of malaria is around 300 million per year leading to mortality as high as 1.124 million and around 40% affected population have no access to effective modern drugs. Two of the major drugs used in malaria management such as quinine and artemisinin are derived from traditional medical knowledge in Peru and China respectively. Traditional Medicine is an important source for several such potential drugs for contemporary applications in various infectious diseases. A recent survey showed that 78% of patients living with HIV/AIDS in the USA use CAM medicines. And similar patterns have been reported in many other developed and developing countries. A number of systematic studies on efficacy are slowly emerging suggesting antiretroviral, opportunistic infection reducing effects of traditional management methods.

#### **Role in Chronic Diseases**

Longer life expectancy in developed countries as well as newly emerging economies have brought increased risks of chronic, debilitating diseases such as cardiovascular diseases, musculo-skeletal disorders, cancer, diabetes and mental disorders. It is an accepted fact that TCAM is playing an important role in care of such chronic diseases. Systematic studies and wide dissemination of potentials of Traditional Medicine are required for further popularization of such methods.

#### **Relevance of Local Healers as Health Care Providers**

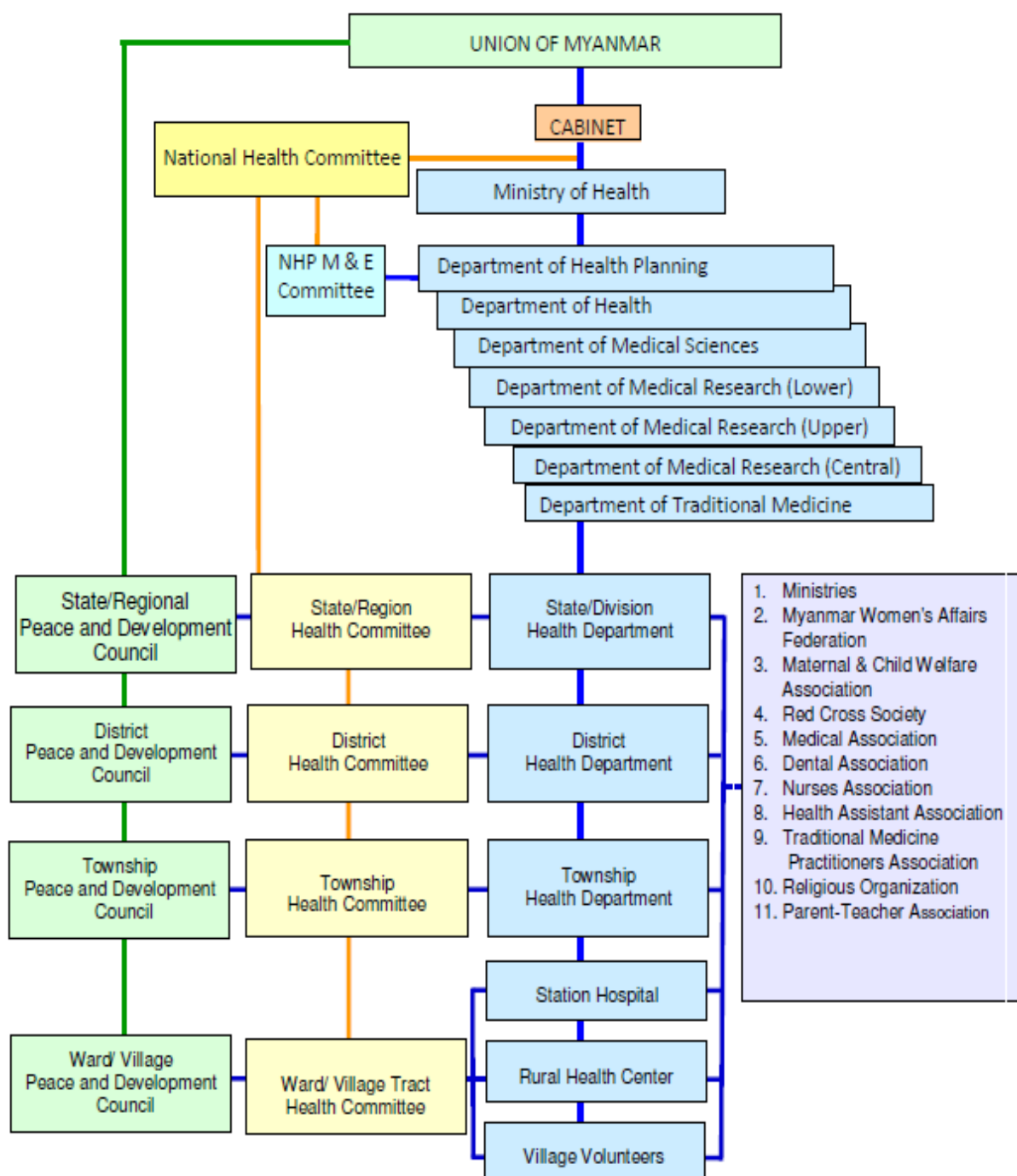
Folk healers continue to play a key public health role contributing to availability of human resources in countries where the population to physician ratio is high. Apart from general healers, traditional orthopedic practitioners, birth attendants, poison healers, spiritual therapists, mental health providers, healers specialized in eye,

pediatric conditions, skin diseases etc., are some of the specialty areas. Estimations suggest that around 60% of child deliveries in the world are managed by traditional birth attendants. Though many official policies do not recognize them, more countries are realizing the community health education role that healers can perform.

#### **2.4 Myanmar Health Care 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 both in the financing and provision. Health care is organized and provided by public and private providers.

One unique and important feature of Myanmar health system is the existence of Traditional Medicine along with allopathic medicine. Traditional Medicine has been in existence since time immemorial and except for its waning period during colonial administration when allopathic medical practices had been introduced and flourishing it is well accepted and utilized by the people throughout the history. With encouragement of the State scientific ways of assessing the efficacy of therapeutic agents, nurturing of famous and rare medicinal plants, exploring, sustaining and propagation of treatises and practices can be accomplished. There are a total of 14 traditional hospitals run by the State in the country. Traditional medical practitioners have been trained at an Institute of Traditional Medicine and with the establishment of a new University of Traditional Medicine conferring a bachelor degree more competent practitioners can now be trained and utilized. As in the allopathic medicine there are quite a number of private traditional practitioners and they are licensed and regulated in accordance with the provisions of related laws.



**Figure 2** Organization of Health Service Delivery during the period of the State Peace and Development Council Government  
Source: Ministry of health Myanmar, 2011

## 2.5 Myanmar Traditional Medicine

The Myanmar Traditional Medicine is one with profound medical treatises, a variety of potent and effective medicines and a diversity of therapies.

In the Union of Myanmar, the national policy on TM/CAM was issued in 1993. The Myanmar Indigenous Medicine Act was adopted in 1953 and updated and renamed the Traditional Medicine Council Law, which serves to ensure that Traditional Medicine practitioners abide by established rules of conduct and discipline. The Department of Traditional Medicine was established in 1989 under the Ministry of Health and expanded, together with the research division, in 1997. It serves as both the national office and the expert committee. (World Health Organization, 2005: 123)

Dr.Thein Swe said that Myanmar Traditional Medicine was widely practiced since a long time ago. In 1976, the Institute of Traditional Medicine was established and it produced systematically trained Traditional Medicine practitioners. In 2001, the University of Traditional Medicine was opened in order to upgrade the standards of Traditional Medicine practitioners.

The Department of Traditional Medicine was established in 1989 under the Ministry of Health. There was one major section in the department, which was responsible for the development of herbal gardens and cultivation of medicinal plants. There were some limitations to cultivation of medicinal plants, such as improper soil, which needed to be treated before planting, shortage of skilled workers in herbal gardens, and requirement of technical know-how. Multi sectors involvement, technical support by international organizations and collaboration of Member countries would improve the cultivation of good quality, safe and easily available medicinal plants. (World Health Organization, 2005, p. 16)

In Myanmar, the Traditional Medicine Drug Law was enacted in 1996 to ensure the quality, safety and efficacy of Traditional Medicines. It is a separate law, solely for the regulation of traditional and herbal medicines. The regulatory statuses used for herbal medicine are over the counter medicines and herbal medicine as a separate category. By law, herbal medicines may be sold with medical and health claims. Development of a national pharmacopoeia is in progress. The *Monograph of Myanmar medicinal plants* was published in 2000.

Regulatory requirements for herbal medicines are limited to special GMP rules; implementation of these requirements is ensured by inspection and laboratory analysis of quality control. Safety requirements include traditional use without demonstrated harmful effects and reference to documented scientific research on similar products. These requirements are enforced through inspection, laboratory analysis for safety and market surveys.

There are 3,678 registered Traditional Medicines in Myanmar. The development of national essential Traditional Medicines drug lists is in progress. The national post marketing surveillance system does not include adverse effect monitoring, but such a system is being planned. Herbal medicines are sold in pharmacies as over the counter medicines and without restriction.

With the aim to extend the scope of health care services for both rural and urban areas, health care by Myanmar Traditional Medicine services is provided through Myanmar Traditional Medicine hospitals and clinics in all states and divisions of Myanmar. There are now, two 50 bedded Myanmar Traditional Medicine

hospitals, twelve 16 bedded hospitals and 237 district and township clinics and sub-centers. In addition to these public institutions, private Traditional Medicine Practitioners are also taking part in health care provision in township and hard to reach areas.

In 2007, the Department of Traditional Medicine started to provide emergency Traditional Medicine kits in 3 townships as a pilot project. The objective of the project is to provide easy access to common traditional medicinal drugs for minor illness especially for rural areas. The kits are handed over to the persons who live in rural area and also who have no access to western medicine. The government and private donors supported the initial provision of kits and the replenishment of the medicines is to be accomplished through user charges. The report by evaluation and monitoring team revealed that users benefited from this project as Traditional Medicine is more economical, saves time and relieves minor illnesses. (World Health Organization, 2005)

### **Teaching of Traditional Medicine**

Myanmar Traditional Medicine is truly an inherited profession whose development has interrelations with the natural and climate conditions, thoughts and convictions and the socio-cultural system of Myanmar.

Before 1976, the knowledge of Myanmar Traditional Medicine was handed down from one generation to another. In 1976, with the aim to improve the qualification of Traditional Medicine practitioners, the Institute of Myanmar Traditional Medicine was established and systematic training programs were started to train and produce competent Traditional Medicine Practitioners. A two year course together with one year internship was conducted conferring, a Diploma in Myanmar Traditional Medicine to successful candidates. The yearly intake of students is about 100. The Institute had already produced (2,187) diploma holders.

The University of Myanmar Traditional Medicine was established in 2001, using modern teaching learning methodologies in accordance with the systematic curricula, developed by the joint efforts of Myanmar traditional practitioners and medical educationists. The curriculum covers all the Traditional Medicine subjects of the four Nayas, basic science and basic concepts of western medicine. It is a four years course together with one year internship and confers Bachelor of Myanmar Traditional Medicine. The yearly intake is 175 candidates.

Basic concept of Myanmar Traditional Medicine has been introduced to the curriculum of 3<sup>rd</sup> year M.B., B.S medical students since 2003. A module, comprising 36 hours of teaching and learning sessions of Traditional Medicine was developed and incorporated together with assessment for completion. A certificate was presented to all successful candidates and the main aim of the course is to familiarize medical students with Myanmar Traditional Medicine. This is the first of its kind where Traditional Medicine is integrated into western medicine teaching program in the world. It gives opportunities for medical students to explore the concepts of Traditional Medicine and paves a venue for interested student to venture into the realms of Myanmar Traditional Medicine at a deeper level. Among the first batch of medical graduates three has joined the Research and Development section, of the Department of Traditional Medicine to take up further studies and research in the field of Myanmar Traditional Medicine.

### **Manufacturing of Traditional Medicine**

The government is giving impetus to developing Traditional Medicine systematically reach international standards and to manufacturing potent and efficacious Traditional Medicine based on scientific evidences and practices.

Traditional Medicines have been manufactured by both public and private sectors. The Department of Traditional Medicine takes responsibility for the public sector and has two Traditional Medicine factories. According to the increasing demand of users, the department produces more Traditional Medicine drugs. Medicines are produced according to the national formulary and Good Manufacturing Practices (GMP) standards. In addition, these two factories manufacture twenty one varieties of Traditional Medicine in powder form, which are provided free of charge to patients attending public Traditional Medicine facilities, and the factory also produces 12 kinds of drugs in tablet form for commercial purposes.

The private Traditional Medicine industry is also developing and undertaking mass production of potent medicine according to the GMP standards. Some private industries are now exporting Traditional Medicines which are well accepted.

Due to the encouragement, regulations and assistance of the government and the manufacturing of standard Traditional Medicine through correct and precise methods which complies with international norms of production processes, storage system and packaging methods using modern machinery, public trust and confidence in indigenous drug has greatly been enhanced. There is a progressive increase in demand for Traditional Medicine not only in rural areas but also in urban areas

For sustainable production of Traditional Medicine, availability of raw materials at all times would be very critical and cultivation of medicinal plants by farmers like any other cash crops for income generation would go a long way in meeting the requirements of the Pharmaceutical and Research Unit (PRU). Natural habitats for medicinal plants needed to be protected from over-harvesting and destruction by domestic animals. Production capacity at PRU needed to be enhanced to meet the growing demand for Traditional Medicines (World Health Organization, 2005, p. 17)

### **Traditional Medicine Council Law**

The Myanmar Indigenous Medicine Act was enacted in 1953. According to the Act, the State Traditional Medicine Council was formed; it was a leading body and responsible for all the matters relating to Traditional Medicine. To keep abreast with the changing circumstances, the department reviewed and updated the Myanmar Indigenous Medicine Act and transformed it into Myanmar Traditional Medicine Council Law, which was enacted in the year 2000. One of the objectives of the law is to supervise Traditional Medicine Practitioners for causing abidance by the rule of conduct and discipline. At present, there are about six thousand Traditional Medicine practitioners registered under this law. According to the law, the licenses for practicing are issued to the persons who have diploma in Myanmar Traditional Medicine or Bachelor of Myanmar Traditional Medicine.



### **Traditional Medicine Drug Law**

In 1996, the Government promulgated the Traditional Medicine Drug Law in order to control the production and sale of Traditional Medicine drug systematically. This was followed by the series of notifications concerning registration and licensing, labeling and advertising. One of the objectives of the Traditional Medicine Drug Law is to enable the public to consume genuine quality, safe and efficacious traditional drugs. According to the Traditional Medicine Drug Law, all the Traditional Medicine drugs produced in the country have to be registered and the manufacturers must have licenses to produce their products.

### **Myanmar Traditional Medicine Practitioners Association**

Myanmar Traditional Medicine Practitioners Association has been formed since 2002 to promote unity, harmony and adherence to code of conduct of the Traditional Medicine Practitioners. The objectives of the association are to implement programs through the work of practitioners well versed in their field, to held seminars in which the physicians themselves can seek means to revive hidden and extinct subjects, therapies and drugs and to unite all the practitioners of the various groups under the banner of Myanmar Traditional Medicine Practitioner Association.

### **Research and Development**

In 1980, Myanmar Traditional Medicine National Formulary has been compiled for 57 numbers of Traditional Medicine formulations, each monograph included formulary, therapeutic uses, caution and dosage in Myanmar language. These Traditional Medicines were standardized botanically and physio-chemically and evaluated toxicologically and pharmacologically in the period of 1984-1989. This project has been implemented with the assistance of UNDP/WHO. Five volumes of Myanmar Traditional Medicine had been published in English and are being used as references and guidelines where and when necessary such as quality control system, health education and the use of Traditional Medicine formulation in primary health care.

### **Harmonization of traditional and modern medicine: Case of Chinese Traditional Medicine**

Xie ,Z.F. (2002) said that the age-old wisdom of the people of every country has been crystallized into different system of Traditional Medicine, each nation having its own system /s. Some of these traditional system are well established, supported by theories and rich experience and recorded in writing, such as the Indian system of Ayurveda, the Muslim system of Unani, traditional Chinese medicine, ancient Greek medicine and the system that evolved from it, and the humeral theory and therapy of Latin America. But Traditional Medicine in some other parts of the world has merely been practiced and handed down verbally from generation to generation, without any written record. Whether sophisticated or not, the system of Traditional Medicine served as the only mean of health care for ages, till modern biomedicine came into being.

In contrast to modern biomedicine, which was founded on the basis of modern natural sciences, most traditional system of medicine originated in and developed according to the principles of ancient schools of philosophy. A description of their characteristic features follows.

### **Correlation between the mind and body**

Ayurveda considers the body, mind and soul as complementary to each other. An imbalance and disease in the body begin with an imbalance or stress in the awareness, or consciousness, of the individual. Therefore, mental techniques such as meditation are considered essential to the promotion of healing and prevention. The basic philosophy of Unani medicine is that the body composed of matter and spirit should be taken as a whole because harmonious life is possible only when there is a proper balance between the physical and spiritual function. In traditional Chinese medicine, mental activities and emotions are taken as function of the corresponding visceral organs: spirit is attributed to the heart, while excessive joy injures the heart; soul is attributed to the liver, while anger injures the liver, and so on. Thus, mind and body, emotions and viscera, are parts of an integral whole. No matter how diversified the various systems of Traditional Medicine in the spheres of diagnosis, treatment and management of diseases and patients, they have a common viewpoint which may be summed up by the term holistic medical model or holism.

### **Basic concepts of modern biomedicine**

In the Middle Ages in the West, the domination of religion and feudalistic monarchy greatly hampered the development of the natural sciences, and obstructed the progress of medicine. Thus, medieval medicine was shrouded in the mists of theology.

Modern western medicine was first established in the 18th century, during the enlightenment in Europe. The new natural sciences created by Galileo, Descartes, Newton, Boyle and others no longer conceived of the world in terms of qualities and elements, but as consisting of particles of measurable sizes, shapes and motion. Descartes saw the body as he saw the world, in mechanical terms. This new and influential philosophy was one that reduced biological processes to mechanical events.

The achievements of the natural sciences and the reductionist approaches, and the use of analytical methodologies, brought about a medical revolution in the West – medieval medicine was transformed into scientific biomedicine. The revolution started with anatomy, which explored the precise structure of the human body. The microscope not only became an essential aid for anatomists, but also furthered pathological study from the organic and histological levels to the cellular level. Progress in the physical sciences inspired experimental investigations in physiology. Breakthroughs in chemistry, such as the study of energy conversion in the human body, also held great promise for medicine. In the latter half of the 19th century, the bacteriological revolution clarified the true pathogens of many communicable diseases. Along with the advance of anatomy, physiology, pathology and bacteriology, clinical medicine also progressed, particularly in respect of diagnostics and surgical operations. A new system of medicine modern biomedicine was thus formed and developed in the West. This system is different from the traditional systems, not only in terms of concrete knowledge and practice, but also with respect to the underlying philosophical views.

### **Conflicts between Traditional Medicine and modern biomedicine**

Owing to the fact that Traditional Medicine and modern medicine evolved on the basis of different philosophical assumptions and with different methodological approaches, conflicts are bound to arise when the two systems are used simultaneously in the same country or area. Different countries have found different ways of solving this problem, but since the People's Republic of China seems to be one of the countries that have harmonized well the functioning of the two systems of medicine; the developments which took place in China are described as an example. Modern biomedicine was introduced in China in the late 19th and early 20th centuries. At this juncture, China felt the urgent need to firmly establish and assert its national identity, and to gain competence in various spheres. In addition to the need for new political and technological initiatives, the issue of health and medicine also came to the forefront. Particularly after the Revolution of 1911, many intellectuals who were frustrated by China's failure to forge ahead began to re-evaluate the country's traditional culture in the light of what they perceived to be the key to the success of the West – modern science. A Desecration faith in the potential of science to solve mankind's problems led them to embrace Western biomedicine. At the same time, they denounced traditional practices as defunct remnants of the old order. These, they felt, were impeding China's modernization. They blasted traditional physicians for being ignorant and irrational, and condemned their system of medicine as an amalgam of superstitions incompatible with scientific progress. In 1929, the Central Government passed a Bill to ban Traditional Medicine in order to clear the way for developing medical work.

However, in spite of the persecution it suffered, traditional Chinese medicine has never been eliminated, nor replaced by modern biomedicine. First, most Chinese people continued to believe in Traditional Medicine, not so much because of their cultural background, but more because of the benefits that they, their family members and acquaintances had experienced by using traditional methods of treatment. Second, traditional remedies were simple, convenient and affordable, and had fewer side-effects. Modern biomedicine, on the other hand, often necessitated surgical procedures, which could cause pain and result in complications. Third, the unique philosophy underlying Traditional Medicine was well-received by the common people, and had no satisfactory parallel in modern biomedicine. Traditional Medicine had a unique theoretical system which was well received by the common people and could not be replaced by modern biomedicine. Some of the traditional medical expressions and terminologies had already been absorbed into the language of the common people. Last but not the least; medical professionals well-trained in modern Western biomedicine were to be found only in some big cities. With the ban on Traditional Medicine, the vast majority of the Chinese population had no access to health care of any kind. This scenario gave rise to a bitter conflict between the traditional practitioner and the modern doctor, as well as between the common people and the Government.

It was only after the founding of the People's Republic of China in 1949 that attempts began to be made to revive traditional Chinese medicine, and to harmonize it with modern medicine.

### **Policies to harmonize traditional and modern medicine**

To begin with, the Chinese Government formulated official policies to protect and develop Traditional Medicine. In 1950, it stipulated uniting the traditional Chinese and modern western medical professionals as one of the guiding principles of health work. A major reason for this was that Traditional Medicine had been of great benefit to the Chinese population, especially the common people. Also, according to the statistics of 1949, the total population of mainland China was 5.4 hundred million, while the number of doctors formally trained in modern Western medicine was only 38,875, i.e., the ratio between these doctors and the population was approximately 1:14,000. The situation in rural areas was much worse, with most of the trained modern doctors concentrated in the big cities. Of all the practitioners of either system, the majority (about 80 per cent) were trained in Traditional Medicine.

The Constitution promulgated in 1982 and the present Constitution declared that the State should “develop both modern medicine and Traditional Medicine”. Thus, the Chinese Government has clearly put both systems of medicine.

Besides the official policies, the remarks made by the leaders of China have had a great impact on the development of Traditional Medicine and its harmonization with modern medicine. In 1958, Mao Zedong declared that traditional Chinese medicine is a great treasure-house, and efforts should be made to explore and raise it to a higher level. The Government has adopted a series of measures for the implementation of its policies. These include the establishment of administrative bodies at the central and local levels for the execution of policy, exploitation of human resources, development of related academic organizations and publications, gathering and summarizing of the knowledge of experienced traditional medical doctors, and setting up of institutions for clinical practice, education and research (both for traditional and integrated medicine). One of the most powerful organizations for the implementation of these policies is the relatively independent State Administration of Traditional Chinese Medicine, which provides protection to Traditional Medicine.

### **Future prospects of harmonization**

This brief review of the development of Traditional Medicine in the People's Republic of China clearly indicates the possibility and benefits of the harmonization of traditional and modern medicine. Harmonization has progressed in China mainly because of the Government's efforts to formulate and implement appropriate policies, as well as the efforts made by the Chinese medical community. In the quest for harmonization, one must keep in mind that the breach between the two systems is increasingly narrowing, with the rapid advance of modern medicine in recent decades. Earlier, there were irreconcilable conflicts between the mechanistic and reductionist approach of modern medicine and the dialectic and holistic approach of Traditional Medicine; and between modern medicine's analytical approach to arriving at conclusions and Traditional Medicine's method of comprehensive observation.

## **2.6 Myanmar Traditional Medicine and Primary Health Care**

The system of Primary Health at grass-roots level apart from playing a key role in social and economic development. (Myanmar Ministry of Health, 2008: 4-5) The 8 tasks included in primary health care are;

1. Education concerning prevailing health problems and the methods of preventing and controlling them
2. Promotion of food supply and proper nutrition
3. An adequate supply of safe water and basic sanitation
4. Maternal and child health care, including family planning
5. Immunization against the major infectious diseases
6. Prevention and control of locally endemic diseases
7. Appropriate treatment of common diseases and injuries
8. Provision of essential drugs

These 8 tasks are designed to provide health care for the public with western medical science. In reality, Myanmar people are found to depend on Traditional Medicine and Myanmar government have done everything they can to improve their respective Traditional Medicine practices. Today, the development of Myanmar Traditional Medicine is on a par with that of the international community.

The department of Traditional Medicine under the Ministry of Health is giving medical treatment free of charge the length and breadth of the country. Myanmar Traditional Medicine practice and natural medicinal plants have been inextricably linked with primary public health care since days of yore. In order to render help to all villages, Traditional Medicine kits have sent to rural people for emergency use. Manual of Myanmar Traditional Medicine also delivered to primary health care workers.

## **2.7 Review of related studies**

**1. Department of Traditional Medicine, Ministry of Health (2008)** published a research entitled “A Study on Knowledge, Attitude, and Practice (KAP) of Myanmar People on Traditional Medicine” published by the Department of Traditional Medicine, Ministry of Health, Union of Myanmar in March, 2008 was an official document referred to how people of Myanmar know, think and recognize way of traditional medicine practiced in their country. The specific objectives of research covered revelation of levels of traditional medicine knowledge of Myanmar people, how they normally practice in traditional medicine when they get sickness both methods and medicines, and finally relationship between demographic characteristics of population with practice of traditional medicine. Site of research area covered 14 states and divisions in the country encompassed both rural and urban communities. Since unit of analysis was household and appropriate sample size was 3,600 households which were derived from random sampling. Tool of data collection was questionnaires.

The rationale of conduct this research was derived from a situation that an invasion of western medicine was well accepted by people of Myanmar. It could be found that during 1960s there was a massive establishment of western hospitals, clinics, and drug stores in the country and this situation marked an uneasy feeling in local people and authorities concerned. Traditional medicine was positioned at an intersection of western wind and eastern wind. How to foster traditional medicine survived from this crisis was a responsibility of government. It was revealed that there were 237 district and township traditional medicine clinics throughout the country and 14 traditional medicine hospitals are in operation. To compare with modern medicine, traditional medicine was more advantageous because of the low cost of treatment and

self-medication. Therefore, predominant users of traditional medicine were rural and poor people and most of traditional medicine substance is available in the villages.

### **Research Findings;**

1. *General information of respondents:* Most of respondents were male, most of them were aged over 40 years and almost 90 percent were married. The majority of them were educated only at the primary school level and most of them were unemployed due to the fact that in Myanmar tradition, most housewives were stated as unemployed even though they engaged partially in family business such as farming, animal husbandry and grocery. It was found that more than 80 percent of surveyed households earned more than Kyats 100.000 per month.

2. *Access to Traditional Medicine Services:* As mentioned in the beginning that most of traditional medicine services were made available in the rural areas. This is a reason why places of services were located nearby the residences of the users, usually not longer than a 30 minute walk. The Majority of respondents used to experience traditional medicine in their lives and the majority of users were male.

3. *Knowledge on Traditional Medicine:* It is a belief that knowledge is a basic requirement of attitude, a survey of knowledge of Myanmar people on traditional medicine will be of help to understand why they think like that. It was surprising to learn that about one fifth of Myanmar people did not know about traditional medicine and 10.7 percent of respondents did not know that there was an existence of government traditional medicine centers nearby their houses. However it was evidential that there was no relationship between knowledge of people on traditional medicine and their level of education attainment.

4. *Attitudes of Respondents toward Traditional Medicine:* It was indicated that the overwhelming majority of Myanmar people who relied on traditional medicine were from rural areas and there was a strong interrelation between location of residences and faith in traditional medicine. The findings revealed that more than half of people who trusted traditional medicine chose self- medication when they got sick and one fourth preferred to go to consult traditional medicine practitioners. Most of self-medication users were females and elderly people. Regarding to questions on the reason behind application of traditional medicine practice, they had a strong belief that this pattern of medication was more effective, safe and cheaper.

5. *Myanmar People's Practices on Traditional Medicine:* it was described that traditional medicine was a part of culture and was attached to our lives from birth. Nobody could deny that in their lives they used to have at least a kind of traditional medicine such as balms, herbal powder, and digestive salts. However, the term of traditional medicine was sometimes vague among the people and they could not make a difference between medicines and cosmetics, which is why they sometimes could not answer questions properly.

Among the users of traditional medicine, most expressed satisfaction in the products and most of them were old females. It was found that many young females felt dissatisfied with the quality of traditional medicine. Among users of traditional medicine, almost everyone said that they also used traditional medicine from other countries as well, mainly Chinese and tribal indigenous medicines.

When they were asked on choices of traditional medicines used for treatment, most of them explained that it depended upon types of illness but generally they used them for common illnesses like the common cold, cough, mild fever, insomnia, headache and diarrhea. Because Myanmar traditional medicine was commonly used by villagers in rural sectors, therefore most of them preferred to keep common-used traditional medicine at home. On the effectiveness of Myanmar traditional medicine for curing disease, most respondents confirmed that this type of medication was very effective for common illnesses like fever, respiratory issues, and others.

*1. Improvement on Traditional Medicine:* Almost all respondents confirmed that traditional medicine should be improved, researched and developed. A small amount of respondents expected it to replace western medicine. This is a confirmation that most Myanmar people were in trust of their old indigenous wisdom.

*2. Conclusion:* By the end of the research there was a conclusion that the level of knowledge on traditional medicine in Myanmar people was considerably high with a positive and trustful attitude toward traditional medicine.

**2. Sam Sam Htu and Dr. Thin Thin Toe (2012)** studied the research paper entitled “The Use of Traditional Medicine in Myanmar: A Qualitative Study in Chanmyathasrsi Township, Mandalay” published by Sam Sam Htu and Dr. Thin Thin Toe from University of Traditional Medicine, Mandalay, Union of Myanmar had been presented in the Third Traditional Medicine Research Congress on February 22, 2012 held at the University of Traditional Medicine. The Main objective of the research was to investigate people’s behavior in using traditional medical drugs. Qualitative analysis was a core discipline implemented in this research with 6 samples in the area of in Chanmyathasrsi Township in Mandalay city.

#### *Background of the research*

The researcher was an academic staff in the University of Traditional Medicine and became interested in health social science. The research result was an attempt to associate medical science with social sciences therefore the size of the sample was small. In the first part of the paper, the researcher presented a significant amount of research questions related to the popular use of traditional drugs among Myanmar people in both positive and negative ways. There were many factors responsible for a misuse in traditional drugs which included ambiguity of national policy and regulation on traditional drugs. Researches defined that in many countries there was no clear-cut on definition of herbs because one type of herb can be both medicine and food. If there was no definite meaning of herb, then it led to mischief action of some people. Secondly, there was a limitation of scientific tests of traditional medicine products. If so, there was no guarantee of safety, effectiveness and quality of products. Thirdly, if traditional medical products were encouraged and commercialized, thus, many cultivators might increase productivity by using a land intensive way of growing, environment hazards would be generated as a victim of capitalism.

In order to avoid the negative impacts of over-use of traditional medical drugs in Myanmar, the government had promulgated the Traditional Medicine Drugs Law in 1996 which aimed at enabling the public to consume genuine quality, safety, and efficacious traditional medicine drugs. According to the law, all traditional medicine drugs produced in the country have to be registered and all manufacturers must have a license for production. After law enforcement, there were more than 10,000

traditional medicines registered and more than 20,000 licenses were given to producers.

In 1980, Myanmar Traditional Medicine National Formulary had been compiled for 57 numbers of traditional medicine formulations and the government tried to set up standards of drug formulation for the safety of users.

#### *Research Results*

(1) It was an evident that most of Myanmar people, about 90 % of rural people and 69 % of urban people were using traditional medicine. The reasons behind were a cheaper price of medicine, 10-20 times cheaper than western medicine, safer than modern medicine and could be a self-medication. In their beliefs they thought that traditional medicines were appropriate to cure many diseases like digestive problems, cough relief, and inhalers.

(2) Patterns of purchasing and using of traditional medicine found in the studied area:

- Source of information: most people bought traditional medicine by themselves and they knew the qualification of drugs from mass media, family members and colleagues.

- In cases of sudden illness, most respondents admitted that they decided to use basic medicine for self-medication. If they did not feel recovered, they went to consult doctors after.

- Types of medicine they used and places of clinics that patients went to were dependent upon types of illness. Most patients with a problem of muscular related disorders and bone and joint related problems, would go to consult traditional medicine practitioners.

**3. Lwin Ko (2008)**, former Rector of the University of Traditional Medicine presented his research paper on “Herbal Medicine – Past, Present and Future” which revealed that it was very certain that most of both traditional and modern medicines were derived from a similar root, which were natural substances. Even though western medicine has been developed to a certain level, one day they had to turn back and started questioning the efficacy of modern medicine. Alternative medicine, particularly herbal, became a new choice of medical users. With a concern in environmental conservation and side-effects of modern medicine, drug users were in doubt about the destructive impacts of western medicine. It was so surprising to learn that a group of people who paid more attention to alternative medicine was composed of well educated, young, and middle aged people. It was found by much research evidence both in United States of America and Australia that there were less side-effects of using herbs and the cost of treatment was cheaper. This fact was supported by the amount of budget used for alternatives increased from year to year. As well as in Europe, for example in the case of Germany it was found that two thirds of the population used alternative medicine. In the United Kingdom, the number of practitioners concerned in traditional medicine increased and many of them were specialized in acupuncture, hypnosis and meditation as many in herbal medicine specialists.



In his opinion, the researcher would like to forecast the future of herbal medicine but he showed some evidence to insist that the number of users in traditional medicine were higher all around the world. He also inclined to believe that no matter on the name of medicine, whether it was tradition or modernity, if the result of treatment is effective then users will judge the quality of medicine.

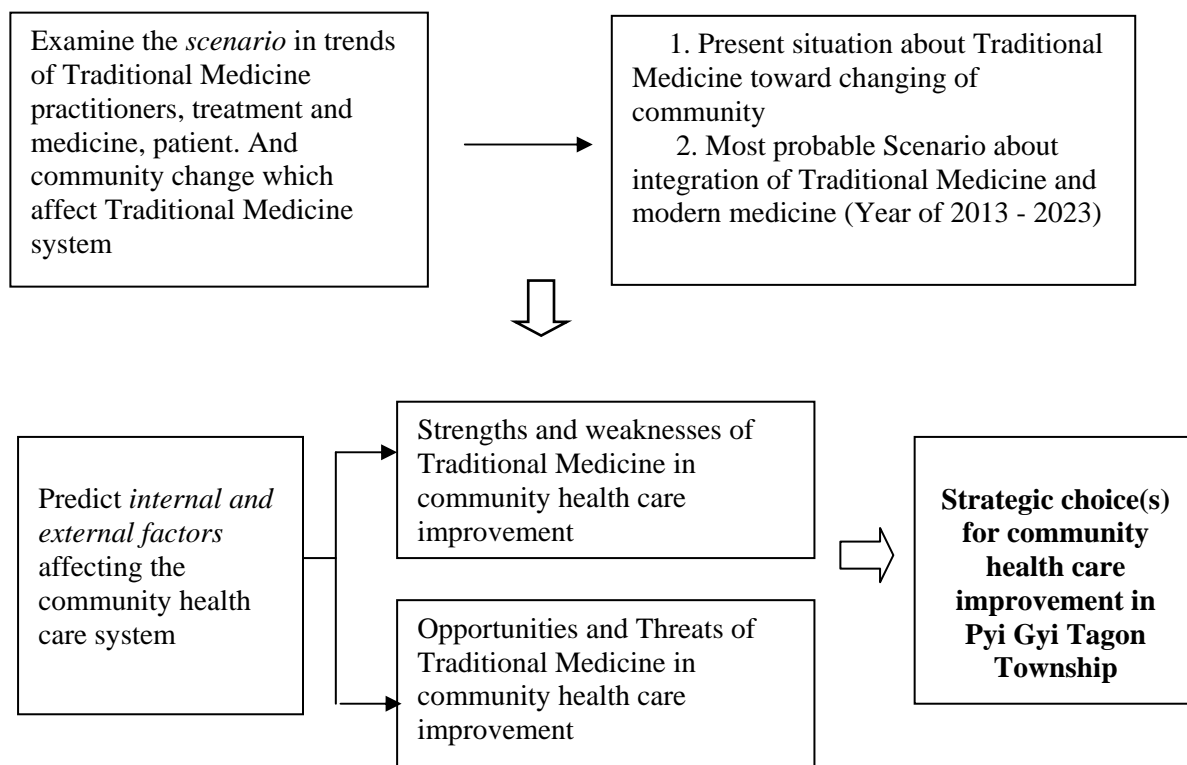
**4. Shin, S. S. (1999)** has studied the project “Development of integrated traditional Chinese and western medicine and change of medical policy in China”, and revealed that the trend of Integration of Chinese and Western Medicine came into the world four hundred years ago when Traditional Chinese Medicine (TCM) contacted Western Medicine (WM) at the beginning of the 17th century. Now the recognition that the cooperation of eastern and western medicine is more efficient to cure disease is spreading widely.

It was clearly indicated in the constitutional law that "We not only have to develop modern medicine but also traditional medicine". The equality of TCM and WM was legally established in this time. From the 1990s, "equality of TCM and WM" was adapted as one of the hygienic policies, and department of ITCWM was opened in traditional Chinese medical school and western medical school. Integration of Traditional Chinese and Western Medicine (ITCWM) has been settled down as a new academic field through education, training, research, academic activity, and publishing text books. In conclusion, the motive of the development of ITCWM was the policy such as "the effort of research and development on TCM-WM integration" and "equality of TCM and WM" aimed at the development of Chinese medical area. It is no doubt helpful to organize systems and policy-making for the cooperation of eastern and western medicine in Korea.

**5. Khin Kyi Kyi (1992)** has presented the article in “Evaluation of Traditional Medicine in Myanmar” shown that Myanmar Traditional Medicine is accepted and used by a large segment of the population particularly in the rural area and it is an important component of our national health strategy for providing health care to the grass root level. This is the policy of the governments to encourage and revitalize Traditional Medicine in parallel with allopathic medicine and to develop a standardized cohesive central system of Traditional Medicine. The Department of Medical Research has taken the responsibility of evaluating traditional drugs and formulations since 1984. Moreover toxicological studies showed most of the formulations to be relatively non-toxic in the amounts used, this could be an evidence of widespread use of Traditional Medicine for primary health care.

**6. Suresh Awale, Thein Zaw Linn, Myint Myint Than, Thein Swe, Ikuno Saiki and Shigetoshi Kadota (2006)** studied about Traditional Medicines in Myanmar with title “The healing art of Traditional Medicines in Myanmar”. Results of this paper presented that Traditional Medicines are an integral part of people’s culture and are used extensively by the people in developing countries for their primary health care. A rich heritage of traditional medical knowledge and the use of plants as medicines still exist in Myanmar which have been inherited from earlier generations. However, many areas in Myanmar are now experiencing rapid changes. Traditional knowledge as well as plants that the traditional healers rely upon are being lost at an alarming rate. Therefore, it is important that immediate steps be taken to protect the important source of traditional knowledge as well as medicinal plant diversity.

## 2.8 Conceptual framework



## CHAPTER 3

### RESEARCH DESIGN AND METHODOLOGY

#### 3.1 Sources of Data and Data Collection

3.1.1 Documentations were acquired from annual reports, journals, research findings and articles from all sorts of publications, including government agencies, academic institutions and publishing houses. Official records were found in health care units and hospitals. Villages and periphery villages were also investigated in this step of data collection.

3.1.2 Experts were interviewed using the EDFR technique (a research technique). The main source of information was derived from 17 experts in medical fields, which include the following three groups; 1) policy side, 2) academic side and 3) TM practitioners. For the criterion of 17 experts, the research of Thomas T. Macmillan revealed that 17 or more experts would be a good sample with the lowest level of error ( $\leq 0.02$ ), as appears in figure 1.

Number of experts	Range of errors	Errors reduction
1 – 5	.102 – .70	.50
5 – 9	.70 – .58	.12
9 – 13	.58 – .54	.04
13 – 17	.54 – .50	.04
17 – 21	.50 – .48	.02
21 – 25	.48 – .46	.02
25 – 28	.46 – .44	.02

**Source:** Montchai Thianthong, 1995: online

(for the rationale of applying EDFR techniques in this research project, please see the attached topic given in the last part of this chapter)

The Delphi technique is a method of eliciting and refining group judgments. The procedures used have three features: anonymous response, iteration and controlled feedback, and statistical group response. (Thomas T. Macmillan, 1971: online)

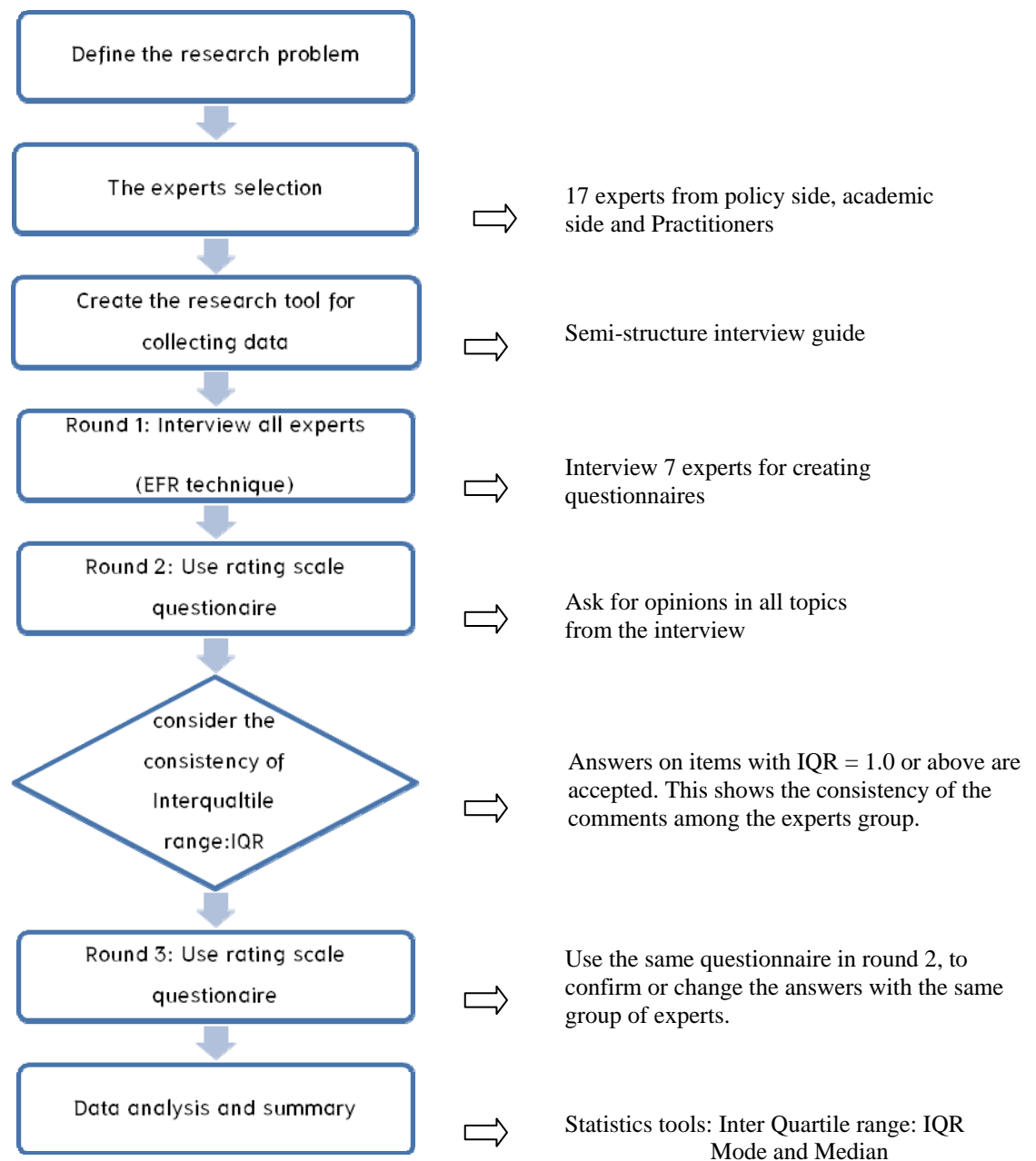
Ethnographic Delphi Future Research: EDFR is a research technique that Dr. Choopol Phoonphatchivin (2005: 3) developed in the year 1979 to enhance the effectiveness of the EFR and Delphi techniques. According to the EDFR technique, methods of data collection by interviewing experts are comprised of 3 steps, respectively.

**Step I**, (using the EFR technique, developed by Dr. Robert B. Textor) All experts were asked to describe a situation in changing Traditional Medicine systems toward modernity, in perspectives of the Patients, Practitioners, Treatment and Medicine, and factors affecting Traditional Medicine. The interview process starts from asking their optimistic scenario (O-R), pessimistic realistic scenario (P-R) and most probable scenario (M-R), respectively.

**Step II**, Data was analyzed by using content analysis and distillation to find the trend of integration of Traditional Medicine with modern medicine, and to apply it to community health care. Then, those themes were developed and transformed into a Delphi questionnaire (the first questionnaire).

Data for this step will be analyzed by using statistical mean and inter-quartile range. By the end of this process, output of information will be employed to develop a second questionnaire.

**Step III**, The second questionnaire will be presented and confirm the opinions of the former informants given in the first questionnaire stage. The purpose of this stage is to re-assure that their opinions of different scenarios of integration of traditional and modern medicines are correct. Revisions of former answers were accepted and they had to give new opinions and confirmation. Information were obtained at this stage will be brought to the meeting of researchers and then new analysis of all data concerned was conducted and presented the most probable scenario.



**Figure 3.1:** Process of EDJR technique for this research

3.1.3 Observation in the Experimental Site: Researchers made several visits to traditional medical service units to observe the ways of treatment given to their patients in order to understand the background and situation of Traditional Medicine in the township.

Most parts of the research content are qualitative in nature, except for data obtained from questionnaires, which will be processed into quantitative form. In order to ensure the validity of the output of the study, peer review by colleagues from Myanmar will be of help to verify content analysis of the study.

### **Explanation of Ethnography Delphi Future Research (EDFR)**

1. *Objective of EDFR*: EDFR is a research technique which is designed to forecast what would happen in future. It has been developed since 1940 when RAND Corporation first invented Delphi technique to forecast trends of situations and how to prepare oneself to face a predicted circumstance. Outcomes of forecasts by EDFR are beneficial for policy planners to formulate a proper policy to cope with uncertain future scenarios in the most appropriate alternative. The EDFR technique has been implemented in many fields of academics and management. The philosophy of EDFR is based on the assumption that the future is now, and from available information we can predict what will happen in the future.

2. *Functions of EDFR*: The accuracy of a forecast depends upon the proper technique we implement and the validity and reliability of information we gain for prediction. Owing to the above assumption, the first thing we have to manage is how get the right information from the right people, and from this information how to proceed to a solution. However, even though the information we gather may be perfect, the prediction may turn out to be incorrect. This is the nature of any prediction techniques because we are dealing with the future. Therefore, predictions are used to forecast the most probable occurrence at one time with one tool. After all, EDFR is nothing but a reliable technique of forecast by introducing the right method of data collection from the right persons, who will from now on be referred to as “experts”.

Because the EDFR technique is totally based on information derived from experts, there is a question of how we can trust the information given. This is a problem of expertise. In order to ensure the quality of expertise in our informants in this research project, we introduced several criteria for their selection, such as:

1) They have been involved in Traditional Medicine and are still working in this field. Therefore, all experts are actively working in traditional health care facilities in studied areas. Some are traditional medical practitioners, policy makers, Traditional Medicine producers and Traditional Medicine university professors. It is undeniable that some of them are not Traditional Medicine experts from their origin. For example, some experts are modern medical healers, but have used Traditional Medicine for quite a long time, their experiences and expertise are well deserved to be one of our samples.

2) In order to ensure their expertise in the field study, it is a must that all experts have been working in the studied site area, Pyi Gyee Tagon Township, for not less than 10 years.

3) Due to the fact that this research project has been conducted in Myanmar, where we have had no experience and know nobody in this field personally, therefore, the only available sampling technique is a snowball method. We started by interviewing an expert suggested by a team of researchers at the Traditional Medicine University in Mandalay. From that interview, we received other names of experts that we followed up on. However, even though we obtained many experts by recommendation, we had to make sure that they met the requirements to be a sample in our study.

4) Scrutiny of the experts: During the interview, information will be recorded using a digital recorder, and every day the researchers will transcribe the verbal interview into written form. A process of validating the information obtained will help us ensure the good quality of information and expertness of the informants. Confirming the validity of the answers is the objective of this process, by means cross-check analysis and contradiction review to find if there is a conflict in their answers or not. Logical review is employed at this stage, and if the information is found to be invalid and poorly logical, information obtained from that expert will not be used. The content of information will also be cross-checked with available data from annual reports and official documents. We will also have to consult our advisors from the Traditional Medicine University.

3. *Content of the Interview*: Each expert will be requested to express their opinions on situations of Traditional Medicine in the study site, by how they would confront challenges and the adjustments they would make. They have to propose what shall happen to directions of Traditional Medicine with optimistic, pessimistic, and most probable scenarios. With this approach, researchers can analyze and forecast the most probable scenario of the future of Traditional Medicine in those communities.

4. *Process of EDFR*: Scrutinized information from experts after a review will be re-structured into questionnaire form. Questionnaires will be returned to the former and reliable experts to review their opinions whether they agree with the scenarios we present them in the questionnaire. By this method, all experts will be given more time to reconsider their previous opinions and may reinvent what they feel to be the most probable scenario for Traditional Medicine in communities.

### 3.2 Data analysis

All data was divided into three parts: the analysis of the data in Round 1, 2 and 3, which are summarized below;

**Data analysis I:** Data from 7 experts interviewed was interpreted and categorized into 4 terms, which are TM Practitioner, Patient and Treatment, Pharmaceutical and other factors, to make the Delphi questionnaire in order to collect data in step II.

#### **Data analysis II:**

After receiving data from 20 Delphi questionnaires, all data was analyzed by a statistical program; SPSS for Windows, which are summarized below.

1. Part 1: General data was presented in frequency and percentage.
2. Part 2: The present situations about Myanmar Traditional Medicines in Mandalay were analyzed by using frequency and percentage, mean and standard deviation

3. Part 3: The trend of Myanmar Traditional Medicine in Modern Mandalay (Year of 2013 – 2023), analyzed by the median, mode and inter-quartile range (IQR) (Interquartile Range = IQR), which are in IQR 1 and IQR 3 of the possible opportunity or actual opportunity. Frequency and percentage were also used for analyzing the desirable and undesirable scenarios.

#### **Data analysis III:**

Data in part 3 of the questionnaire, Trend of Myanmar Traditional Medicine in Modern Mandalay (Year of 2013 – 2023), was analyzed by examining median, mode and inter-quartile range (IQR) of the potential or actual, frequency and percentage analyzing the desirable and undesirable scenarios.

#### **Data Interpretation**

Interpretation of the median

4.50 to 5.00 is likely to happen / is the most realistic.

3.50 to 4.49 is likely to happen / is very realistic.

2.50 to 3.49 is defined as the potential / actual medium.

1.50 to 2.49 is less likely to happen / is actually less likely to happen.

1.00 to 1.50 is minimally likely to happen / is minimally likely to happen.

Criteria for possible or likely to occur. The study considered the highest level and the median score from 3.50 to 5.00 in the interpretation of the present data.

#### **Interpretation of median score (Median)**

Median score from 4.50 to 5.00 means most probable

Median score from 3.50 to 4.49 means more probable

Median score from 2.50 to 3.49 means moderately probable

Median score from 1.50 to 2.49 means less probable

Median score from 1.00 to 1.49 means least probable

#### **Interpretation of the inter-quartile range (Inter quartile Range = IQR)**

If the scores obtained value of between-quartile range (IQR) from 1.0 or less, it can be interpreted that the opinions of the experts on that message are consistent. On the other hand, if the scores in the quartile range are greater than 1.0, it means that their opinions are inconsistent.

#### **Interpretation of differentiation between mode and median values**

If the values of differentiation between the mode and median are not greater than 1.0, it can be assumed that the opinions of the experts are statistically consistent.

#### **Consistency criteria**

If any messages obtain the values of inter-quartile range (IQR) less than 1.0 and values of mode and median differentiation not greater than 1.00, we can assume that the contents of the messages are consistent. But, if the values of inter-quartile range are less than 1.00, but the values of mode and median differentiation are greater than 1.0, and vice versa, we regard those messages as having no consistency.



**Criteria applied for Scenario Direction**

Criteria used to judge desirable and undesirable directions of trends in Traditional Medicine in Myanmar in this report are; the scenario could be accepted when experts answer the same scenario, and the difference between 2 scenarios (desirable / undesirable) be agreed upon by more than 5 experts. If the difference between scenarios is less than 5, it means that the scenarios of that item(s) are ambiguous.

## **CHAPTER 4**

### **OVERVIEW OF RESEARCH AREA**

#### **4.1 Overview of Mandalay**

Mandalay, the ancient capital, is situated geographically in the middle of the country. It is the second-largest city in Myanmar and is located in the Mandalay Division, which is inhabited by the largest population of all divisions. Although there are some small and medium-size industrial enterprises located in the Mandalay Industrial Zone and in the surrounding area, the majority of the people in the Mandalay Division depend upon agriculture and commerce (via inland waterways or overland trucking routes). Mandalay is located in the designated dry zone region, due to the lower level of annual rainfalls. The major highway connecting the China-Myanmar border to Mandalay and onward to Yangon serves as the primary artery for trade and commerce. (ZAW, Myinmo, and Toshihiro KUDO, 2011: 2-3)

In Myanmar, there are 18 industrial zones located across the country. The following table shows the distribution of small and medium enterprises as well as large enterprises in the industrial zones. The highest numbers of small and medium enterprises are allocated in Yangon Division, with a total of 3,895 enterprises. The majority are established in East Yangon, totaling 1,125 units. Among the industrial zones, Mandalay zone is found to have the highest number of small and medium enterprises, while Myeik has the lowest.

Regarding the trend of development from localization to globalization by means of establishing the industrial zone in Mandalay, it was estimated that at 2000, this policy could minimize the gap of joblessness and make good chances to offer job creation for people in the rural section. (Guy Lubeigt, 2007: 161). Since the change of globalization is based on modern marketing, changes in culture and living conditions occur for the people in the area. Pyi Gyi Tagon Township, Mandalay Division, has tremendously changed since the Myanmar government launched the project “Year of Country’s Industrial Development” in 2004-2005, and big divisional areas were determined to be industrial zones, such as Yangon, Mandalay, Sagaing, Magwe, Bago, Patheingyi, Shan and Mon. A total of 18 industrial zones in the whole country.

**Table 4.1** Numbers of Industrial zones in Myanmar

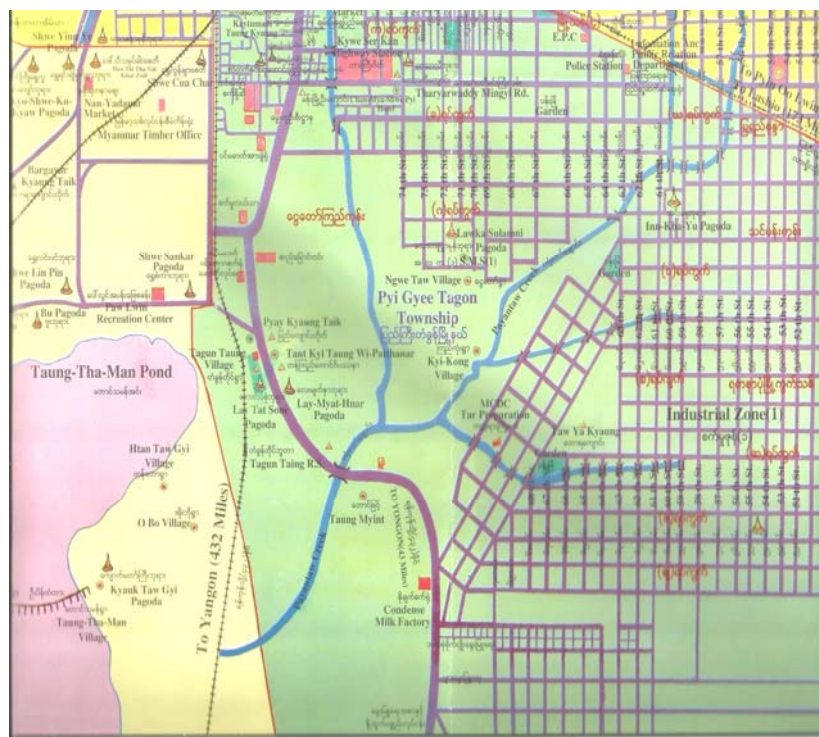
No.	Commodity Group		No. of Industrial Enterprises			
			Large	Medium	Small	Total
1	Mandalay Industrial Zone		287	189	633	1,109
2	Myin Chan Industrial Zone		37	170	123	330
3	Meiktila Industrial Zone		21	110	218	349
4	East Yangon Industrial Zone					
	a	No.1 South Dagon Industrial Zone	95	34	2	131
	b	No.2 South Dagon Industrial Zone	116	364	52	532
	c	No.3 South Dagon Industrial Zone	6	82	45	133
	d	Dagon Myo Thit (Seikan)	83	8		91
	e	Dagon Myo Thit (East) Zone	35	18	27	80
	f	North Okkalapa	27	20	18	65
	g	Shwepoukkan	32	82	8	122
	h	South Okkalapa	26	57	31	114
	i	Tharkayta	24	14	10	48
5	West Yangon Industrial Zone		148	274	612	1,034
6	South Yangon Industrial Zone		76	150	673	899
7	North Yangon Industrial Zone					
	a	Hlaing Thar Yar	344	41	3	388
	b	Shwe Pyi Thar	134	32	15	181
	c	Mingaladone	81	17	38	136
8	Myaung Mya Industrial Zone		40	33	291	364
9	Hin Tha Da Industrial Zone		13	41	389	443
10	Patheingyi Industrial Zone		28	86	241	355
11	Monywa Industrial Zone		87	226	582	895
12	Kalay Industrial Zone		8	34	212	254
13	Pyaw Bye Industrial Zone		19	87	84	190
14	Yenang Chaung Industrial Zone		8	20	60	88
15	Pakokku Industrial Zone		38	113	122	273
16	Mawlamyine Industrial Zone		41	149	19	209
17	Taunggyi (Ayetharyar) Industrial Zone		40	41	669	750
18	Myeik Industrial Zone		19	2	5	26

**Source:** Myanmar Industrial Development Committee Facts about 18 Industrial Zones as of September 30, 2009.

It is true that after the industrial zones era in Mandalay, there was achieving development in all sectors. Mandalay was the royal city of the Myanmar monarchs. During the reign of King Mindon, his younger brother, Crown Prince Kanaung laid down and implemented plans directing at modernization, industrialization and development of Myanmar. The Prince tried hard to leave and discard the old ideas of the old era and devise and introduce new methods and thoughts for the new era.

The new light of Myanmar (2002) presented the developments of the Mandalay Industrial Zone. Kinwun Mingyi U Kaung was one of the great Myanmar leaders trying to develop and modernize the nation during the Konboun era. His efforts bore results when he led a Myanmar diplomatic mission to visit three European countries - England, France and Italy - as an ambassador, twice. He compiled a diary of his London visit and his visit to France in accord with the international standards of that time. His records had enabled the Myanmar people to learn and know all about the advancement and progress of the European countries he had visited. It would be that because of the historic efforts and inheritance of the great Myanmar people of the olden days, the Mandalay Industrial Zone today is able to play the leading role in the nation's industrial sector. A new model town was founded to establish the Mandalay Industrial Zone which was divided into Zone-1 and Zone-2. At present, Industrial Zone-1 accommodated industries of nearly 700 entrepreneurs, and Industrial Zone-2 housed the factories run by 670 industrialists of the former Seinban region. Moreover, work is in progress in relocating the remaining industries owned by over 3,000 entrepreneurs of Mandalay to the two zones.

**Figure 4.1** Map of Pyi Gye Tagon Township



#### 4.2 General Data in Pyi Gyi Tagon Township, Mandalay Region, Myanmar

Traditional Medicine Practitioner (TM Practitioner) Institute in Mandalay Division (former entitle of administrative provision) started service on January 3, 1976. At the beginning there were only 18 TM practitioners, but by 1997, the institute was producing 895 graduating students per year. Besides that progress, they also had the Traditional Medicine seminar every year since 1989. Many TM practitioners had a chance to present academic reports regularly.

**Table 4.2** Amount of the Traditional Medicine service center in 1988-2001

State / Division	Sub-District	District	Hospital
Kachin State	9	-	-
Kayah State	8	-	-
Kayin State	7	-	-
Chin State	7	-	-
Mon State	10	1	1
Rakhine State	10	1	1
Shan State	19	2	1
Sagaing Division	20	1	-
Tanintheryi Division	7	2	1
Bago Division	22	2	1
Magway Division	16	2	1
Mandalay Division	23	1	1
Ayeyarwady Division	27	14	1
Yangon Division	19	1	1
<b>Total</b>	<b>224</b>	<b>27</b>	<b>10</b>

**Source:** Ministry of Health (2001: online)

There are plenty of health volunteers, such as 39,893 volunteers working in the communities, in which 23,322 are midwives assistants, 14,356 are physicians, 12,642 nurses, 1,725 nurse assistants and many others which are increasing annually.

From a survey report published in the year 2007, it showed that there were more than 742 hospitals with 30,254 beds available, including 1,412 government centers and more than 1,000 health care units.

The changing of the country's economy from the traditional way of life to a market-based economy, also paradoxically changed community life to city life, which affected cultural change and the people's way of life. Data obtained from inquiring old persons in the community, they stated that the establishment of the industrial zone started in 1990 and was completed in 1997. People in the villages who were owners of the land in that area started to have their lands sold, then moved to live on their paddy fields instead of staying outside their cultivating land. This caused a minimization of their harvesting lands. As found in the survey, many of them shifted to dwell in the town.

The resettlement of people found that 50 percent moved outside Pyi Gyi Tagon Township. Presently, statistics showed that the ratio of people from outside is at 15 percent. Mostly, people opened small shops for their source of income. There are many retail shops which sell goods which are brought in from outside, rather than local community products. A lot of tea and coffee shops are now open where people who are working in factories can enjoy milk, tea, coffee and other sorts of recreation. This phenomenon is a new cultural pattern for people. People usually work in factories from Monday to Saturday, with Sunday being a day off. This is a big change of life from the old days, as people don't work in the rice paddy, anymore, except for their own household's paddy for personal rice production, rather than a source of income.

Working in the industrial zone induces a different quality of life. In the past when people worked as farmers, their lives depended upon land use and the way of life was very simple. They could do their work any time they wanted and there weren't too many work restrictions. In the factories they have to adjust their way of living to comply with industrial obligations. Everything in their lives is re-scheduled from morning to the end of the day. When styles of living changed, the old conditions and ways of life of the past ceased to be. Since industry needs labor force, this situation invites an influx of immigrants from other parts of the country to find jobs and start a new life in the new industrial area. With an increase of population, most paddy fields were replaced by newly constructed buildings. The general symbols of township are super markets and shopping mall centers located along the main streets, and the number of cars on the road also increased.

For disadvantageous people in the communities, the government has established community social welfare funds, called social welfare association or Thar-yay-nar-yay, in Burmese, with donations from the communities. This financial support is aimed to supply basic needs for the poor. This provident fund is voluntary, not compulsory, and the amount of sharing depends upon the economic status of donors. The association is run by community monasteries to give support to their members on many occasions, like cultural festivals, wedding ceremonies, cremations, child births and others. The monastery managing this association has a long historical background, almost 40 years since its founding.

The total population in the studied community is 138,308 people, with 67,504 males and the 70,804 females.

Information given from the interview of Daw Tin Tin, who is 95 years of age and is a first-generation person staying in the village, revealed that formerly, this community was a cultivating area residing near an irrigation supply from a dam constructed by Thibaw, a former king of the country. Most residents were from Ta Tar Oo Township (a current international airport is city located on the south side of Amarapura town)

It can be said that in the former time there was no Pyi Gyi Tagon township, but after the first industrial zone came, they divided the total land into many townships. However, due to the long history of establishment in the community, sometimes the informant, Ms. Daw Tin Tin, could not remember everything that happened in the past, but she could remember that people in the past preferred to get medication from traditional medicine. It was uncertain during the occupation of imperialism, but there was a mixture between western and traditional medicine. She

could remember well that this part of township was formerly a cultivating-dominant area and people's ways of living were very primitive. For example, as a way to protect themselves from a snake bite, they drew tattoos on their wrists in a snake shape, with the belief that snakes feared the magic of the snake-shaped tattoo. However, this belief is no longer in use.

#### **4.3 General Information on health care in Mandalay Division (Data obtained at Aung Myay Tharzan Township Traditional Medicine Clinic)**

From our interview with a traditional medicine practitioner named Mr Daw Than Oo, who is head of Mandalay clinic supervision section, revealed that there were 6 community clinics in this township and every clinic was monitored once a month. Clinics, along with his office, provided medical service outside their location, called mobile clinics. The frequency of supervision depended upon the condition of the clinics. Before entering into the supervision area, he had to inform local officers in the area for permission.

General diseases found in the area were gynecology disease, joint pain, and back pain. For children, diarrhea and seasonal colds were regularly found, almost 5 patients at the time of our visit.

An additional interview was made in the mentioned office, and the interviewee was Mrs. Aung Swe, aged 51 years. She disclosed that normally, all government clinics were run by money from donations and financial subsidies from the central government. Medical drugs and equipment, and more than 50 registered drugs or traditional medicine formulas (TMF) were subsidized by government. Most people visiting the clinics suffered from joint pain, like angle pain and back pain. Methods of diagnosis were derived from traditional experiences more than modern methods. Frequency for mobile clinic service was once every two months.

#### **4.4 Data Obtained from Private Clinics in Pyi Gyi Tagon Community**

In our survey in the studied area, the researcher was suggested to interview Mr. Au Muang Maye, aged 53, and experienced traditional medicine practitioner who was very famous from a paralysis remedy. He disclosed that his clinic is open all-day and his method of treatment is an analysis of the four components of a human being, namely earth, water, wind, and fire. Also, on many occasions he also applied modern tools and methods of western medication, like electric stimulation combined with traditional methods for patients with paralysis. Nine formulas of traditional drugs were invented by him with self-funded equipment. For traditional medicine formulas, he can produce almost 20 types of drugs by himself. The composition of drugs changes from time to time and along with seasonal products and types of diseases.

In his clinic he employed one more traditional medicine practitioner and another 4 assistants to run his medication business. In order to cooperate with other practitioners, in 2004, traditional medicine practitioners in the area founded an Association of Township in Traditional Medicine for the purpose of exchanging knowledge among themselves, and so far there are 30 members. Besides academic activity, they also collaborate with some non-government organizations to promote the status of women and children. Community-level conferences and some other activities are also parts of their mission.

In regards to their problems and their needs to sustain traditional medicine status, they defined that they need better equipment and machines for drug production. Also, one big disadvantage of traditional medication was a slow result of efficacy comparing to western medicines. For example, if one has to get consultation with traditional medicine practitioners, he needs to go for 3 days and pay about 3,000 Kyat, but if he goes to see a modern medicine doctor, he spends only one day and pays the same amount. One big difference between modern medicine and traditional is that traditional medicine has fewer efficacies than modern ones, but the cost of treatment may be cheaper.

#### **4.5 Data Obtained from Government Clinics in Pyi Gyi Tagon Township**

Besides 10 private clinics of traditional medicine in Pyi Gyi Tagon Township, there was one government clinic (according to government's regulation, there must be at least one government clinic in each township). This clinic has operated from 1998, after the establishment of the industrial zone in the area. The expansion of commercial centers was resulted after the appearance of the industrial estate in 1990, and numbers of patients increased onward. It is estimated that there is an average of 25 patients per day to get service from this clinic. Please see the record, below.

**Table 4.3** Number of patients from 2007 – 2010

<b>Year</b>	<b>Numbers of Patients</b>
2007	3,011
2008	3,770
2009	9,069
2010	11,216

**Source:** Government Clinic of Traditional Medicine in Pyi Gyi Tagon Township in 2011

In general, major diseases found in this area were skin disease, colds, muscle pain and back pain. Attitudes toward traditional medicine have changed gradually and have been replaced by modern methods. In combination with an occurrence of new types of diseases, like cancer, the role of traditional medicine has withered away and recognition of modern medication has increased. As a matter of fact, the way of traditional medicine is less effective and this concept of treatment doesn't suit with the modern thoughts of people. So far, there are more than 50 traditional drugs with traditional medicine formulas (TMF), but the problem of acceptance still stands with the Burmese people.

Service quality improvement is inevitable if they need a better standard of service and recognition from users. More important is how to build communication skills between service givers and users. If one can maintain a good relationship between providers and recipients, ways of medication will be smoothly sustainable. From our preliminary survey, it was revealed that the way of modern treatment is to introduce new technology and medication, while traditional methods are still employed for diagnosis dispersion of traditional medicines. However, as found in our survey, the level of medication depends mainly on the proficiency of traditional medicine practitioners.



According to the records presented by traditional medicine practitioners, it revealed that 80 percent of patients preferred to consult traditional medicine found in their communities. However, of all traditional medicine practitioners, 70 percent of them were certified by official registration and 30 percent of them had no professional certificate.

## **CHAPTER 5 RESULTS**

The study of "Community Health Care Improvement Strategy toward Integration of Traditional and Modern Medicine of Pyi Gyee Tagon Township, Mandalay Division" is aimed 1) To study policy and situations of integration of Traditional Medicine with modern practice of health care; 2) To investigate external and internal factors affecting community health care improvement toward integration of Traditional Medicine with modern medicine, which includes economic, technological, regulatory, social, cultural, and administrative considerations in Pyi Gyee Tagon Township, Mandalay Division; 3) To present the possible scenario for integration of TM and modern medicine in Pyi Gyee Tagon Township, Mandalay Division toward changing society, and 4) To present guidelines for developing TM network between Myanmar and Thailand. The Future research tools, Ethnographic Delphi Futures Research: EDFR, is applied in this research.

Results of research have been presented in 5 parts, which are;

5.1 Overview of professionals

5.2 Present situation of Myanmar Traditional Medicine in Modern Mandalay

5.3 Trend of Myanmar Traditional Medicine in Modern Mandalay  
(Year 2013 - 2023)

5.4 Data from Focus group discussion about Integration of Traditional  
Medicine and Modern Medicine

5.5 Data from Focus group discussion with Myanmar Traditional Medicine  
Experts in Yangon, on May 29th, 2012. White rice restaurant.

### **Research Constrain**

Before the results of study will be introduced in the following chapters, please let us review our method of study. The whole content of study is an attempt to find out answers on the present situation of Myanmar Traditional Medicine in modern society at Pyi Gyee Tagon Township, Trend of Myanmar Traditional Medicine in studied area, and to develop a plan of cooperation in order to link Traditional Medicine in Myanmar with Traditional Medicine in Thailand.

Since the major objectives of this study are focused on a forecast in trend of Traditional Medicine situation in Myanmar under a pressure of industrial impact imposed to the communities. Therefore, Traditional Medicine in Myanmar is at transitional period to adjust itself to new environment, namely industrialization. Pyi Gyee Tagon Township was chosen as a sample area of study because this location has been facing a controversial situation. In a former time it was a cultivation society and it was selected by the authority to accommodate a coming of industrialization. Pyi Gyee Tagon Township has become industrial zone which people in the area have never experienced before. Everything changes including Traditional Medicine which has been rooted in the society for many centuries also had to adjust itself to new atmosphere. In order to forecast what will happen to Traditional Medicine in Myanmar, Pyi Gyee Tagon Township may represent some possibility of what may be a trend of Traditional Medicine adjustment in Myanmar. However, results of this study never claim perfectness to explain everything about Traditional Medicine

situation in Myanmar comprehensively due to the fact that it also depends upon method of study.

A reliability of results of study is derived from method of study is undeniable. Because there have been very few studies on Myanmar's Traditional Medicine and a scarcity of information written in English, researcher was facing a problem how to collect first-hand information at the beginning. Moreover, as an outsider in this society who has no experiences in research in Myanmar and inability of language proficiency, the best way of data collection should be taken from experts in this field. It seemed that Ethnography Delhi Future Research Technique (EDFR) was the most appropriate and deserved to function in this condition. Reasons supporting a chosen EDFR technique are as follows :

1. For a foreigner to conduct a research in Myanmar in the period of opening the country is not an ordinary work due to limitation of language proficiency and availability of document evidences. Source of information accessible is from experts. Therefore, as researcher of this project, it seems the EDFR technique of research methodology suitable for a conduct of study in this situation.

2. As describe in the latter chapter that philosophy of EDFR technique is based upon an assumption that we can forecast our future by studying present situation. There is an inter-relationship between now and next. In other words it implies that if we want to know our future we have to consider from our present situation. That is why the first objective of this study begins with present situation of Traditional Medicine in the studies area and based upon result of study in the first objective we move further to forecast what will happen in the future as specified in the second objective.

3. Reliability of research results obtained from using EDFR technique is absolutely based upon a quality of source of information. As mentioned that only source of information in this study is a group of experts and we have to depend upon their expertise. To ensure a quality of their expertise, we employed many qualification standards to scrutinize number of informants as written the report. After data collection process was completed we found that there were some unexpected problems. For instances, many experts could not communicate with researcher in English and we needed an interpreter. As a matter of fact, a translation also needs expertise and we found that sometimes it was quite difficult for our local staff in this research to function this mission perfectly. There were many technical terms in Burmese which were uneasy to make them clear in English terms. In addition, many experts were not familiar with this sort of data collection and, sometimes, in group interview. In many occasions when they were asked some questions like number of customers and how they treated their patients, they sometime showed their uncomfortable condition in the meeting.

Therefore, results of study in this research are derived from EDFR technique which in itself has some limitation. Moreover, once we have to forecast something, possibility of a mistake in prediction always exists because we are dealing with uncertainty. Nevertheless, researcher of this project tried hard to assure that results of study would be beneficial to readers as much as possible.

### **Research Justification in Reliability of Information**

As mentioned in the former section that an accuracy of research results derived from EDFR technique is depended upon perfect source of information. Major source of information specified in our research methodology is a group of experts in Myanmar's Traditional Medicine. Our first responsibility is to define their expertise because expertise is a resource of authority and authority has been accepted to confirm reliability of research results. To sum up, it is a responsibility of researcher to justify that source of information obtained is from genius experts who are widely recognized in this field.

In order to justify their expertise, researcher has scoped qualification of experts who joined this research. With an assumption that if the experts are qualified then they can be recognized in their expertise. This qualification includes length of experiences, academic background, and fields of expertise. By these criteria we can assure that the people we interviewed are appropriate source of information in Traditional Medicine in this country.

Once qualification of experts was properly defined and selection of experts were made then it came to a part of contents of forecast which covered a full range of Traditional Medicine. With consultation with Traditional Medicine theory there are at least 4 constituents concerned namely patients, practitioners, pharmaceutical aspect, and other aspects. Within this framework it helps our researcher define scope of concentration. Therefore, an interview guide designed for interview was based on this framework and research results presented in the report are also derived from these 4 aspects of analysis.

Regarding to confirm reliability of results of study, according to ranking of possibility of occurrence which are classified into 5 levels like most probable, more probable, moderate probable, less probable, and, lastly, least probable, criteria used to justify reliability of study will select from answers which are given at the rates of most probable, more probable, and moderate probable only. The rest two, less probable and least probable are referred in this study. By this standard it can assure at least a significant reliability of the forecast.

### 5.1 Overview of professionals

Research samples are experts who have more than 10 years of experience in working in Traditional Medicine practice at Mandalay. All 20 experts were purposely selected from the academic side, the University of Traditional Medicine in Mandalay, and from the policy side, people who work in townships or division levels, and lastly, licensed practitioners. General information presented in this part is composed of groups of experts with different educational levels, ages and experience in working in the Traditional Medicine field.

**Table 5.1** Expert groups

<b>groups</b>	<b>Frequency</b>	<b>Percent</b>
academic	6	30.0
TM practitioner	8	40.0
policy	6	30.0
<b>Total</b>	<b>20</b>	<b>100.0</b>

Table 5.1 shows that most experts, 40 percent, are Traditional Medicine practitioners, 30 percent of them are from academic, and, the rest, 30 percent, are from the government, aka, policy. This variety of experts is intentionally designed to assure that results of this study are derived from different segments of the traditional medical community of Myanmar.

**Table 5.2** Educational background of experts

<b>Educational level</b>	<b>Frequency</b>	<b>Percent</b>
Diploma	1	5.0
Bachelor	18	90.0
Higher	1	5.0
<b>Total</b>	<b>20</b>	<b>100.0</b>

For the educational background of the experts, it is found that 90 percent of them obtained a bachelor degree in Science, Art, and Law. Only 5 percent of them received a high school diploma and PhD. This confirms that Traditional Medicine in Myanmar is operated by highly educated groups, which may be not similar to other countries since it is evident that most people working in Traditional Medicine are poorly educated. This is another main reason why Traditional Medicine in Myanmar is fairly acceptable by all classes of people in the country.

**Table 5.3** Ages of experts

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
40-50	11	55.0
50-60	9	45.0
<b>Total</b>	<b>20</b>	<b>100.0</b>

The majority of experts are in the age-range of 40-50 years, 55 percent. 45 percent of the experts are in the age-range of 50-60 years. Therefore, opinions we obtained in this research are from highly experienced persons in Burmese communities and information received is trustable, so far.

**Table 5.4** Experiences in working in the Traditional Medicine field

<b>Year of experiences</b>	<b>Frequency</b>	<b>Percent</b>
11-15	5	25.0
16-20	4	20.0
21-25	3	15.0
26-30	8	40.0
<b>Total</b>	<b>20</b>	<b>100.0</b>

The table above confirms that most of the experts who shared their opinions in our study owned a length of experience in the traditional medical field, between 26-30 years, which is comprised of 40 percent of all experts, then 25 percent lie between 11 – 15 years of experiences, and the rest, between 16-20 years, is 20 percent.

It can be explained that most of our experts have been involved in this activity for more than half of their lives and Traditional Medicine has been deeply implanted in their careers.

**Table 5.5** Expertise in Traditional Medicine

<b>Year of experiences</b>	<b>Frequency</b>	<b>Percent</b>
1.general treatment	12	60.0
2.pharmaceutical science	1	5.0
3.sore, ulcer and trauma	2	10.0
4.alternative Traditional Medicine	5	25.0
<b>Total</b>	<b>20</b>	<b>100.0</b>

Most of the experts, 60 percent, are regarded as expertise personnel in general treatment, 25 percent are in alternative Traditional Medicine, such as Indian or Japanese massage, 10 percent in sore, ulcer and trauma and 5 percent in pharmaceutical science. It happens almost everywhere, that most Traditional Medicine practitioners have to be trained in general treatment, since it is a basic foundation of practice of medical functions, and if any persons want to further their knowledge and expertise in specific fields, they have to acquire more training and more efforts.

## 5.2 Present situation of Myanmar Traditional Medicine in Modern Mandalay

The second part of this chapter indicates the general situation of Traditional Medicine in Myanmar in the midst of modernization inside Mandalay. All indicators are classified into factors concerned, like practitioners, patients, pharmaceutical / treatment and other factors. The results are shown as follows;

**Table 5.6** Present situation of Myanmar Traditional Medicine in Modern Mandalay

	Present situation of Myanmar Traditional Medicine in Modern Mandalay	Level of opinion (n=20)					Mean ( $\bar{X}$ )	S.D.
		Highly agree	Agree	Not sure	Dis agree	Highly disagree		
Patient								
1	Chronic illness patients prefer to use Traditional Medicine	11 (55.0)	8 (40.0)			1 (5.0)	4.40	.940
2	The new generation of this society is aware of the dangers of modern medicine	7 (35.0)	12 (60.0)	1 (5.0)			4.30	.569
3	Traditional Medicine is the first choice of people in the middle and lower class with a low rate in side-effects.	6 (30.0)	10 (50.0)	3 (15.0)	1 (5.0)		4.05	.639
4	Young and educated people in Mandalay pay more attention to Traditional Medicine	5 (25.0)	9 (45.0)	6 (30.0)			3.95	.571
5	Traditional Medicine is an alternative way of treatment of the poor	4 (20.0)	10 (50.0)	1 (5.0)	5 (25.0)		3.65	.923

### Patients

In terms of Patients, the majority of the experts, 55 percent, agreed that chronic illness patients prefer to use Traditional Medicine ( $\bar{X} = 4.40$ ) at the highly agree level. 60 percent of experts also agreed about the new generation of this society starting to become aware of the dangers of modern medicine. ( $\bar{X} = 4.30$ ) and 45 percent agreed that young and educated people in Mandalay pay more attention to Traditional Medicine ( $\bar{X} = 3.95$ ). It showed that the status of TM practitioners is well recognized, especially among people in the new generation.

**Table 5.6** Present situation of Myanmar Traditional Medicine in Modern Mandalay  
(continued)

	Present situation of Myanmar Traditional Medicine in Modern Mandalay	Level of opinion (n=20)					Mean ( $\bar{X}$ )	S.D.
		Highly agree	agree	not sure	dis agree	Highlly disagree		
Practitioners								
6	Role of health and Traditional Medicine practitioners has increasingly supported the health care in community	10 (50.0)	9 (45.0)	1 (5.0)			4.45	.759
7	Traditional Medicine today accepts modern methods of diagnosis to supplement in their investigation, compatibility with their beliefs, and more efficacy	6 (30.0)	14 (70.0)				4.30	.471
8	Practitioners tend to be younger because there is Traditional Medicine at the university	8 (40.0)	10 (50.0)	1 (5.0)	1 (5.0)		4.20	.553
9	New generation of practitioners are more knowledgeable because they receive better training	2 (10.0)	14 (70.0)	4 (20.0)			3.90	.470
10	Some modern medicine doctors are reluctant to use Traditional Medicine	2 (10.0)	11 (55.0)	2 (25.0)	2 (10.0)		3.65	.813

### Practitioners

Most experts, 50 percent, agreed that the role of Traditional Medicine practitioners has been increasingly supported the health care in the community ( $\bar{X} = 4.45$ ). Most experts, 70 percent, agreed with Traditional Medicine today to accept modern methods of diagnosis to supplement their investigations, compatibility with their beliefs, and more efficacy ( $\bar{X} = 4.30$ ). This could be the evidence of integration in modern medicine methods and Traditional Medicine. To sustain Traditional Medicine in modern society, young staff and newly trained personnel are in need; 50 percent of experts agreed that MTM practitioners tend to be younger ( $\bar{X} = 4.20$ ) and new the generation of practitioners are more knowledgeable because they receive better training and higher education attainment ( $\bar{X} = 3.90$ ).



**Table 5.6** Present situation of Myanmar Traditional Medicine in Modern Mandalay  
(continued)

	Present situation of Myanmar Traditional Medicine in modern Mandalay	Level of opinion (n=20)					Mean ( $\bar{X}$ )	S.D.
		highly agree	agree	not sure	dis agree	highly disagree		
Pharmaceutical / treatment								
11	Every Myanmar household must have at least one type of Traditional Medicine	16 (80.0)	4 (20.0)				4.80	.410
12	Traditional Medicine needs advanced technology for producing	17 (85.0)	2 (10.0)		1 (5.0)		4.70	.923
13	Integration between traditional and modern medicines has supported the role of Traditional Medicine higher and is more acceptable at present time	7 (35.0)	11 (55.0)	2 (10.0)			4.25	.875
14	Methods and tools for medication from the west are much useful at the first step of investigation	7 (35.0)	11 (55.0)	2 (10.0)			4.25	.605
15	Traditional Medicine is more culture rather than medical treatment	9 (45.0)	7 (35.0)	3 (15.0)	1 (5.0)		4.20	.894
16	People understand and can distinguish between types of diseases and proper ways of treatment	4 (20.0)	11 (55.0)	3 (15.0)	2 (10.0)		3.85	.639
17	Traditional Medicine is for chronic disease but western medicine is for acute disease	4 (20.0)	8 (40.0)	6 (30.0)	2 (10.0)		3.70	.553
18	Traditional Medicine is mainly used for symptomatic treatment	3 (15.0)	6 (30.0)	2 (10.0)	7 (35.0)	2 (10.0)	3.05	.825
19	Traditional Medicine is less effective than western medicine	2 (10.0)	5 (25.0)	3 (15.0)	8 (40.0)	2 (10.0)	2.85	.864
20	Traditional Medicine is suitable for minor sickness	1 (5.0)	4 (20.0)		11 (55.0)	4 (20.0)	2.35	.954

### Pharmaceutical / Treatment

Myanmar Traditional Medicine has more than one kind of treatment in the health care system. 80 percent of experts insisted that every Myanmar household must have at least one type of Traditional Medicine. Most experts, 85 percent, agreed that Traditional Medicine needs advanced technology for producing medicines to respond to the high demand of Traditional Medicine ( $\bar{X} = 4.70$ ). For integration of Traditional Medicine and modern medicine, 55 percent agreed that the role of Traditional Medicine is higher and more acceptable at present time ( $\bar{X} = 4.25$ ).

In contrast, 55 percent of experts disagreed that Traditional Medicine is suitable for minor sickness ( $\bar{X} = 2.35$ ) and 40 percent also disagreed that Traditional Medicine is less effective than western medicine ( $\bar{X} = 2.85$ ).

**Table 5.6** Present situation of Myanmar Traditional Medicine in Modern Mandalay (continued)

	Present situation of Myanmar Traditional Medicine in modern Mandalay	Level of opinion (n=20)					Mean ( $\bar{X}$ )	S.D.
		highly agree	agree	not sure	dis agree	highly disagree		
Other factors								
21	Traditional Medicine is placed in a higher prestigious position than western medicine	1 (5.0)	6 (30.0)	8 (40.0)	4 (20.0)	1 (5.0)	3.10	.968
22	At the national level there is no pragmatic guideline for policy implementation throughout the country	10 (50.0)	6 (30.0)	2 (10.0)	2 (10.0)		4.20	.826
23	TM Kit is quite beneficial to people in rural areas	10 (50.0)	9 (45.0)	1 (5.0)			4.45	.605
24	TM Kit is an effective tool to connect people to Traditional Medicine treatment	12 (60.0)	7 (35.0)		1 (5.0)		4.50	.761

### Other factors

Most experts, 60 percent, agreed that TM Kit is one effective tool to connect people to Traditional Medicine treatment ( $\bar{X} = 4.50$ ). Most experts, 50 percent, agreed that TM Kit is quite beneficial to people in rural areas ( $\bar{X} = 4.45$ ). 50 percent of experts agreed that at the national level, there is no pragmatic guideline for policy implementation throughout the country ( $\bar{X} = 4.20$ ) and Traditional Medicine is placed in a higher prestigious position than western medicine ( $\bar{X} = 3.10$ ).

The results have shown that TM Kit is an effective tool to deliver Traditional Medicine as the primary medicine to people in remote areas.

### 5.3 Trend of Myanmar Traditional Medicine in Modern Mandalay (Years of 2013 - 2023)

The third part of this chapter indicates scenarios of Myanmar Traditional Medicine in modern Mandalay. All indicators are classified according to data from interviewing 7 experts into 4 groups, which are Patient, Treatment/Pharmaceutical, Government support and supportive external factors. The results are shown as follows;

**Table 5.7** Trend of Myanmar Traditional Medicine in Modern Mandalay  
(Years of 2013 – 2023)

<b>Trend of Myanmar Traditional Medicine in Modern Mandalay (Years of 2013 – 2023)</b>	<b>Mdn</b>	<b>Mode</b>	<b>Probability</b>	<b>IQR</b>	<b>consistency</b>	<b>Scenario</b>
<b>Patient</b>						
1. Number of people who recognize Traditional Medicine will gradually increase	2.0	1	less	2.0	inconsistency	Desirable
2. Young generation feel uneasy to follow this path of risk from modern medicine	2.0	2	less	2.0	inconsistency	Desirable
3. Well educated people will pay attention of alternative medicine	2.0	2	less	2.0	inconsistency	Desirable
4. New generation will apply Traditional Medicine as an alternative medicine	3.0	3	moderate	3.0	inconsistency	Desirable

<b>Trend of Myanmar Traditional Medicine in Modern Mandalay (Years of 2013 – 2023)</b>	<b>Mdn</b>	<b>Mode</b>	<b>Probability</b>	<b>IQR</b>	<b>consistency</b>	<b>Scenario</b>
<b>Treatment/Pharmaceutical</b>						
1. modern medicine is very harmful and full of side-effects	2.0	1	less	2.0	inconsistency	Desirable
2. new Traditional Medicine practitioners will positively respond to new medical technologies	2.0	2	less	2.0	inconsistency	Desirable
3. Traditional Medicine concepts of treatment have been rooted in this society for many centuries and no one can deny this basic knowledge.	1.0	1	least	1.0	Consistency	Desirable
4. Transform into new methods of treatment like using new tools from the west	2.0	1	less	2.0	inconsistency	Desirable
5. Traditional Medicine practitioners should apply both western medicine treatment and Traditional Medicine.	3.0	2	moderate	3.0	inconsistency	Desirable
6. Traditional Medicine will be more popular in the country	2.0	2	less	2.0	inconsistency	Desirable
7. Instead of using experience-based treatment, Traditional Medicine is better to apply evidence- based treatment	1.0	1	least	1.0	consistency	Desirable
8. Myanmar Traditional Medicine should associate with other countries' Traditional Medicine concepts	2.0	2	less	2.0	inconsistency	Desirable

<b>Trend of Myanmar Traditional Medicine in Modern Mandalay (Years of 2013 – 2023)</b>	<b>Mdn</b>	<b>Mode</b>	<b>Probability</b>	<b>IQR</b>	<b>consistency</b>	<b>Scenario</b>
<b>Government support</b>						
1. Development of Traditional Medicine still occurs with a big pace of progress	2.0	2	less	2.0	inconsistency	Desirable
2. Government should create a patent law to protect Traditional Medicine formulas.	1.0	1	least	1.0	Consistency	Desirable
3. It is expected that the government will increase its assistance, financially, humanly, and technologically to TM much more than today	1.0	1	least	1.0	Consistency	Desirable
4. Human resource development is a need of the country in order to improve the competence of Traditional Medicine services	1.0	1	least	1.0	consistency	Desirable
5. The predominant factor to determine sustainability of Traditional Medicine is support from the government	2.0	2	less	2.0	inconsistency	Desirable
6. The government will encourage people to use Traditional Medicine more	1.0	1	least	1.0	Consistency	Desirable
7. Study program for Traditional Medicine should be composed of both Traditional Medicine with modern medicine	2.0	2	less	2.0	inconsistency	Desirable
8. Offering of Master and PhD programs of Traditional Medicine will improve the progress of Traditional Medicine	1.0	1	least	1.0	Consistency	Desirable

<b>Trend of Myanmar Traditional Medicine in Modern Mandalay (Years of 2013 – 2023)</b>	<b>Mdn</b>	<b>Mode</b>	<b>Probability</b>	<b>IQR</b>	<b>consistency</b>	<b>Scenario</b>
<b>External Supportive Factors</b>						
1. Utilization of land for herbal plantation has decreased	2.0	2	less	2.0	inconsistency	Undesirable
2. Amount of herbs is minimized and probable that we have to import from foreign countries.	2.0	2	less	2.0	inconsistency	Undesirable
3. The opening of the country has no effect on the acceptance of Traditional Medicine	3.0	3	moderate	3.0	inconsistency	Desirable
4. Role of modern mass media has increasingly supported the acceptance of Traditional Medicine	1.50	1	less	1.50	inconsistency	Desirable
5. Myanmar has to open the markets for foreign investment. Modern medicine is inevitably overwhelming.	2.0	2	less	2.0	inconsistency	Desirable
6. Traditional Medicine is part of the environmental conservation and needs to be protected.	1.0	1	least	1.0	Consistency	Desirable
7. Coming of new technology like mass media, mobile phones, and internet make people feel like fading away from a belief in Traditional Medicine	3.0	3	moderate	3.0	inconsistency	Desirable

### **Patients**

Trends of Traditional Medicine in Myanmar during 2013 to 2023 from patients' perspective are derived from 4 messages. It was revealed that all opinions from the experts are inconsistent. Most of the messages, three out of four, obtained less likelihood in median values. Secondly, one message obtains moderate likelihood but the majority of the messages are considered by the experts as a possibility to happen.

From patients' perspective towards the future of Traditional Medicine, there is a moderate probability and ambiguous scenario that the new generation will apply Traditional Medicine as an alternative medicine (3.0). On desirable scenarios but less probable are as follows; number of people who recognize Traditional Medicine will gradually increase (2.0), young generation feels uneasy to follow this path of risk from modern medicine (2.0) and well educated people will pay attention of alternative medicine (2.0)

### **Treatment/Pharmaceutical**

On the matter of treatment and pharmaceutical aspects, it was comprised of 8 messages and all experts agreed with 2 messages and disagreed with the remaining 6 messages. On probability of occurrence, most messages received less probable level 5 items, one message got least probable level and the last message obtained moderate level of probability. However, all are desirable.

Trends of treatment and pharmaceutical perspectives in Traditional Medicine, from median values obtained in our survey from the experts on probability of occurrences are given below: Instead of using experience-based treatment, Traditional Medicine is better to apply evidence-based treatment (1.0) and Traditional Medicine concepts of treatment have been rooted in this society for many centuries and no one can deny this basic knowledge (1.0).

On inconsistent opinions but values of moderate probability of occurrence are including modern medicine is very harmful and full of side-effects (2.0), new Traditional Medicine practitioners will positively respond to new medical technologies (2.0), Transform into new method of treatment like using new tools from the west (2.0), Traditional Medicine will be more popular in the country (2.0), and Myanmar Traditional Medicine should associate with other countries' Traditional Medicine concepts (2.0).

### **Government support**

Regarding the government support perspective, it is consisted of 8 items of opinions and it happened that 5 messages are agreeable and 3 messages are inconsistent among themselves. On probability of occurrence, the majority of them, 5 out of 8, received a least probable level and the other 3 received a less probable level. But all messages are a desirable trend, they admitted.

The trend of Traditional Medicine on aspects of government support, all experts agreed with this and have less probable occurrence are as follows: Government should create a patent law to protect the traditional medicinal formulation (1.0), this statement implies that even though the related patent laws have been proclaimed, other aspects like Intellectual Property Rights (IPR) and related laws are still in need. It is expected that the Burmese government will increase its assistance financially, humanly, and technologically to TM much more than today

(1.0), Human resource development is a need of the country in order to improve the competence of Traditional Medicine services (1.0)

The items that all the experts have different opinions and values of median at less probability of occurrence are: Development of Traditional Medicine still occurs with a big pace of progress (2.0), the predominant factor to determine sustainability of Traditional Medicine is support from the government (2.0), and study programs for Traditional Medicine should be composed of both Traditional Medicine with modern medicine (2.0).

### **External Supportive Factors**

Trends of external support of Traditional Medicine, there are 7 messages and all of them agreed in one item and they have different opinions in the other 6 items. Three of them received a less probable occurrence level, 2 items received a moderate level of occurrence and another 2 received a least probability level. 2 items are undesirable trends and 5 are desirable.

Items on the trend of getting external support for sustainability of Traditional Medicine in Myanmar that received agreeable opinions but has least probable occurrence is the item suggesting Traditional Medicine is a part of environmental conservation and needs to be protected (1.0).

On the items that most experts did not all agree, but median value of occurring probability is moderate, are the opening of the country has no effect on acceptance of Traditional Medicine (3.0), Coming of new technology like mass media, mobile phones, and internet make people feel like fading away from a belief in traditional (3.0)

On the item that received less value of probability of occurrence but are desirable trends include utilization of land for herbal plantation is decreasing (2.0), Amount of herbs is minimized and probable to import from foreign countries (2.0), Myanmar has to open the markets for foreign investment. Modern medicine is inevitably overwhelming (2.0), and the role of modern mass media has increasingly supported the acceptance of Traditional Medicine (1.50).



**Additional comments from Delphi questionnaires (I) about the present situation of integration of Traditional and Modern Medicine**

No.	Present	Additional comments
1	Chronic illness patients prefer to use Traditional Medicine	<ul style="list-style-type: none"> <li>– Beliefs of patients.</li> <li>– Depends on patient's choice</li> <li>– Majority of patients who come to clinics suffer chronic illness.</li> <li>– Chronic illness patients use TM.</li> <li>– Can say only generally, but some acute cases such as low back pain will be chosen.</li> <li>– Cheaper price and low side effects.</li> </ul>
2	The new generation of this society has started to be aware of the dangers of modern medicine effects	<ul style="list-style-type: none"> <li>– The new generation has more medical knowledge than ever before because of University of Traditional Medicine, Mandalay.</li> <li>– Experts have heard some stories that osteoporosis is the side-effect of some drugs for asthma containing steroids.</li> <li>– Because of side effects of modern medicine.</li> <li>– Because of health education in school, Establishment of University of Traditional Medicine, Mandalay</li> <li>– The more medical knowledge they have, the more they are aware of the dangers of modern medicine.</li> </ul>
3	Young and educated people in Mandalay pay more attention to Traditional Medicine	<ul style="list-style-type: none"> <li>– Only 1/4 of young and educated people pay more attention to TM</li> <li>– Because of the establishment of university of Traditional Medicine.</li> </ul>
4	Role of health and Traditional Medicine practitioners has been increasingly supported in the health care community	<ul style="list-style-type: none"> <li>– According to the leading researchers of Department of TM and government.</li> <li>– Because of Health education in public and field-trip programs.</li> <li>– Most therapeutic procedures of TM are well accepted by the patients presently.</li> <li>– Opening TM hospitals and clinics and offering TM Kits in rural areas have been increased and improved.</li> </ul>
5	Methods and tools for medication from the west are very useful at the first step of investigation	<ul style="list-style-type: none"> <li>– They are not that useful. They cannot see signs at the very first stage of a disease</li> <li>– This is true because of laboratory investigation.</li> </ul>

No.	Present	Additional comments
6	It is a clear to distinguish between types of diseases and proper ways of treatment	<ul style="list-style-type: none"> <li>– They are many proven cases of Myanmar TM drugs</li> <li>– Producing TMP by people who are knowledgeable, not only TM but also modern medicine</li> <li>– According to national health plan, We teach TM with concepts of University of medicine (Western medicine)</li> <li>– Diagnosis and treatment are improved by integration between traditional and modern medicine.</li> </ul>
7	Integration between traditional and modern medicines has helped increase the role of Traditional Medicines, and they are more accepted at this time.	<ul style="list-style-type: none"> <li>– Because of examples in recovery cases</li> <li>– Effectiveness with low price.</li> </ul>
8	Traditional Medicine is the first choice of people in the middle and lower classes, with a low rate in side-effects.	Myanmar is developing a national health plan for TM.
9	At the national level there is no pragmatic guideline for policy implementation throughout the country	-
10	Traditional Medicine is for chronic diseases but western medicine is cheaper and used for acute diseases	-
11	Practitioners tend to be younger because there is a Traditional Medicine university	<ul style="list-style-type: none"> <li>– New generation is more knowledgeable than the old in modern medicine and the older generation is more knowledgeable than the new generation in TM</li> <li>– New generation of practitioners also learn from old practitioners</li> </ul>
12	New generation of practitioners are more knowledgeable than old one because they receive better training	<ul style="list-style-type: none"> <li>– More effective treatment is improved by investigation in cardiac diseases, hypertension and diabetes.</li> <li>– Because many modern methods of diagnosis are being taught in the university of TM.</li> </ul>
13	Traditional Medicine today accepts modern methods of diagnosis to supplement in their investigation, compatibility with their beliefs, and higher efficacy	-

No.	Present	Additional comments
14	Every Myanmar person's household must have at least one type of Traditional Medicine	<ul style="list-style-type: none"> <li>– Not every, but most of the households</li> <li>– All households must have more than one</li> </ul>
15	Traditional Medicine is placed in a higher prestigious position than western medicine	<ul style="list-style-type: none"> <li>– It depends on conditions</li> <li>– Because of culture and patriotism</li> </ul>
16	Traditional Medicine needs advanced technology for producing	TM needs to produce high quality drugs systematically

According to the experts' opinions it can be summarized from our survey and available information that at present, there is a study curriculum about the integration of Traditional Medicine with modern medical technology initiated by the University of Traditional Medicine. By this approach, Traditional Medicine has been increasingly recognized by the young generation and many of them want to be Traditional Medicine practitioners. Because of the better quality of Traditional Medicine and since Traditional Medicine has played a significant role in society, the number of traditional drug users has been higher than ever before.

In our studied areas, we found many newly established traditional medical clinics and hospitals. One can observe that in these places, they introduce modern medical tools like nerve stimulators used with traditional massage for paralysis treatment. Also, there were numerous modern machines being used to produce traditional drugs.

Although the Burmese government emphasizes its economic development policy by means of the establishment of industrial zones to replace traditional communities, a belief in traditional ways of treatment among the population in those communities is still firm. Traditional Medicine does not mean a way of medication but it is a culture and it is a reflection of nationalism. At a cross road of modernization, Traditional Medicine has been modified and combined with modern medical technology. The high capacity of adaptation of Traditional Medicine makes it flexible, and it receives more recognition from the public. This flexibility makes it capable to cope with the new demands of society. There are no more specific details of additional comments for Trends of Myanmar Traditional Medicine in Modern Mandalay (During year of 2013 – 2023).

#### 5.4 Data from Focus group discussion on May 25, 2012 at University of Traditional Medicine, Mandalay (UTM)

##### Participants

Name	Position	Experiences
U Ohn Swe Myint	Divisional officer (Mandalay), Department of TM	20 years
Daw Thaung May	TM practitioner	17 years
Daw Cho Cho	Deputy Medical Officer	15 years
Daw Wine May	Township officer, Department of TM	15 years
U Htoon Min Latt	TM practitioner	11 years
U Si Thu Tun	TM practitioner	10 years
U Aang Kyow Moe	Deputy Medical Officer	15 years

**Translator:** Dr. Thein Zaw Linn

Head of Research Scientist, Research Division,  
Department of Pharmacology, UTM

There are five townships in Mandalay. Pyi Gyee Tagon is one of the biggest new townships that has become a center of industry.

##### How has Pyi Gyee Tagon Township changed?

There have been so many changes in Pyi Gyee Tagon Township, such as the population, many workers have come to the town. But, the actual population cannot be estimated. However, there was a change in population structure because of the industrial establishment; many new comers have migrated from other areas of the Mandalay region.

##### What about the health situation?

The health situation is better than in the past. When the government allowed an industrial zone in Pyi Gyee Tagon Township, people who stayed received more care and better facilities, like extension of higher education, better infrastructure, more income, and others. If the standard of living is better, then, the health situation must be improved. It has been proven that there is a relationship between health conditions and the level of national development. A better national economic situation paves the way to increase national revenue, which has a great impact to national budget allocation. Improving the health situation needs a huge budget, and the better development of the country has a major impact to the health conditions of the country.

##### Are there any problems caused by industry?

There is no serious problem, but some workers drink alcohol after work. Some patients get injuries from their work, such as trauma caused by the operation of machines.

**What about diseases?**

No change. Most workers have muscular pain (shoulder pain, back pain), gastric ulcer, hypertension and diabetes.

However, since the participants in this focus group are only Traditional Medicine practitioners in the Pyi Gyee Tagon Township, sometimes they have no idea what is going on with the health situation in their own area because if there is danger from working in industry, the patients may go to modern hospitals instead of coming to get traditional medical treatment. But, from the Traditional Medicine perspective, there is no significant evidence to show that there is an increase in health problems caused by industrial settlement.

**What do you think about the present situation of Traditional Medicine toward the changing community?**

No change. Most people in the Pyi Gyee Tagon Township use TM as the first choice of treatment. The number of patients increases, including new patients as well as practitioners.

**How to help keep Traditional Medicine in Pyi Gyee Tagon Township sustainable?**

The effectiveness of traditional treatment makes people use it as their first choice, and they insist their families use it also. The teachers also teach TM to the children.

**Does the government provide some TM policy in the Pyi Gyee Tagon Township?**

In Pyi Gyee Tagon Township, there is one Traditional Medicine clinic supported by the government, but the rest of them, another 25 clinics, are privately operated units. There is no special assistance given by the state to private sector clinics because there is a restriction that the state cannot provide any sort of help to private organizations. Therefore, private Traditional Medicine clinics have to stand on their own.

**Do you have any ideas to improve Traditional Medicine in the Pyi Gyee Tagon Township?**

The government should provide health education for the community. The government support of Traditional Medicine clinics should cover private operating clinics as well. In the future, the government should improve Traditional Medicine hospitals from 50 beds to 100 beds.

**What factors effect Traditional Medicine in Pyi Gyee Tagon Township?**

Effective treatment makes people believe Traditional Medicine, and also respect and trust their practitioners. Traditional Medicine is not the best way of treating sickness, but it has become part of the national culture. This belief system is very difficult to change.

## **5.5 Data from Focus group discussion with Myanmar Traditional Medicine experts in Yangon, on May 29th, 2012. White rice restaurant.**

### **Present and Future of Traditional Medicine**

Currently, Traditional Medicine in Myanmar is undergoing a boost in popularity because of the growing concern among educated people that modern medicine comes with dangers.

Normally, Burmese people use Traditional Medicine as part of their normal routine from birth to death. Furthermore, Traditional Medicine is regarded as part of their culture and they never consider it as a way of medical treatment. One more thing that we have to understand about Traditional Medicine in Myanmar is that they consider everything involved in their lives a part of Traditional Medicine. Food, accommodation, religion, environment, social relationships and all parts of life are regarded as Traditional Medicine. Therefore, no one can separate the way of life from Traditional Medicine in this society. In this sense, whether one likes it or not, no one can deny Traditional Medicine. Because of this definition, sometimes, people get confused and think that if they use modern medicine, it means they reject Traditional Medicine. In fact, they simply misunderstand the cultural meaning behind Traditional Medicine.

There is no doubt that in the future, Traditional Medicine will be popular among Burmese people, even if the government opens the country to international investment. Traditional Medicine has been rooted in the national mentality and that will never change. Moreover, the Burmese government has a concrete policy in promoting the traditional legacy in medicine. Because of the budget allocated by government in this field, we can foresee the betterment in Traditional Medicine practice from now on.

### **Traditional Medicine Practitioner Development**

It is obvious that we need to confront the many challenges from the west by not only in improving medical techniques, but also by developing and training personnel. Traditional Medicine practitioners are the main factor in developing this field. The government currently has plans to increase the number of practitioners through the Traditional Medicine University.

The university has already prepared modern techniques, advanced medicine and other accessories for the practitioners. Generally, we have meetings every 3 months for disseminating newly advanced knowledge in this field. Some practitioners will discuss Traditional Medicine with the members of the Myanmar Traditional Medicine Association, who hosts the meeting. We set the training course for every township to develop new techniques according to the guideline and regulations of the government. The government has made many new drug laws to control the quality of medicine and the processing of medicine. Also, we expect to uplift knowledge of people to understand how to use drugs in proper way.

It is expected that our government may found another Traditional Medicine university in Yangon due to the fact that the number of graduates in this field remain small, about 100 graduates a year. The entrance system for new admission to the university is very competitive. In many rural parts of the country we find no qualified practitioners, since they all have the better choice of staying in urban areas. Both the quality and quantity of practitioners are required for the sustainability of Traditional Medicine in Myanmar.

### **Integration with Modern Medicine in order to improve the quality of Health Care Service**

We do need integration to improve the status of Traditional Medicine. Our objective is to upgrade Traditional Medicine to equal modern medicine. Actually, many Traditional Medicine practitioners need new knowledge of modern medicine techniques. For example, many practitioners have advised their patients to consult modern medicine doctors for getting diagnosis, and then bring the results back to Traditional Medicine practitioners for traditional medication. Therefore, many traditional medicine practitioners have to know how to interpret results of blood laboratory tests, blood sugar tests, blood pressure tests, inspection of pulse rate, respiratory rate, temperature fluctuation and vital sign indicators by using modern medical tools.

On many occasions, if a Traditional Medicine practitioner found that their patients were better off to get modern medication, they would convince their patients to consult modern hospitals. As a matter of fact, every student of the Traditional Medicine University has to study modern science, like botany, anatomy, chemistry, and research methodology besides the many subjects in their own field.

The most important aspect in the integration between traditional and modern medicine is the changing from experienced-based treatment to laboratory-based treatment. This is a complete change in the concept of medicine, but Traditional Medicine is broad-minded enough to adjust itself to western ways of treatment and make Traditional Medicine acceptable from educated people.

Most modern hospitals today have a special provision of Traditional Medicine in their units. Both compliment each other and depend on each other. However, the combination of both medical approaches may not be observed significantly, but in practice they compliment each other quite well, depending upon each case. Most modern doctors know well how to apply traditional ways of medication with the modern approach.

### **Support needed from Government**

We realized that if sustainability is our goal, then support from our government is a precondition of success. Without a sincere consideration for support, it is not possible for Traditional Medicine to survive the advancement of Western Medicine.

So far, we found that the government of Myanmar is helping support Traditional Medicine. Nowadays, there is only one university teaching Traditional Medicine in Mandalay. The government might open more universities to serve the new generations that are interested in learning about Traditional Medicine. Government commitment is the most important factor that made Traditional Medicine well-established. For instance, because the TM kit is very cheap and applicable in the rural region; the government should continue their support of the kits, free of charge. On other hand, the government may request their patients in rural sectors to share the cost of Traditional Medicine fees and use that income to subsidize the poor. Another condition for the success of Traditional Medicine's sustainability is the role of mass media. The media must show interesting content for all audiences. For example, in order to convince the population, let movie stars use Traditional Medicine and become a role model, then the young generations will follow them. Let's use the analogy that Burmese people are like water in a container. They will change their

minds along with the container. If a container changes, the Burmese people will also change with the shape of the container. The leader of the country should also act in the proper way as a role model of the nation for maintaining their own strong identity and for the protection of Traditional Medicine.

### **Best Way to Sustain Traditional Medicine toward the Changing Society**

Society is changing rapidly and our education system has to prepare for modern society. What we have to do is adjust ourselves to the new world and select what is appropriate and suitable for our society. We have to open our minds to welcome good things from outside, while protecting our own identity.

For example, in terms of university programs, we can introduce advanced techniques of medication for the students. In schools, we also give the concept of Traditional Medicine and modern medicine for children. Sometimes we have to learn Traditional Medicine from other societies, like acupuncture from China, and we have to apply new pharmaceutical techniques from the west. For example, it has been discussed that methods of using Traditional Medicine are very difficult, for example, sometimes we have to spend quite long time for preparation and it is very difficult to give to the patients, but today, many Traditional Medicines have been produced into tablet forms. Therefore, they have less side effects. But, western medicines are extracted from substances. It may be convenient to carry and consume, but it is also attached with harmful side effects.

As mentioned earlier, sustainability of Traditional Medicine depends mostly on a commitment from the Burmese government. The government should give both formal and informal education to the young generation in order to maintain Traditional Medicine in Myanmar.

In addition, the Association of Traditional Medicine of Myanmar, which is a center of well established, famous and well respected scholars in the country, also has to position itself to support the sustainability of Traditional Medicine. One way to sustain Traditional Medicine is to organize a Traditional Medicine conference annually. By this function, it is expected that all practitioners in the country will learn and share their new techniques from the meeting. Transferability of knowledge from former generations to new ones is a critical means to sustain the national heritage.

### **For the word “ASEAN Harmonization”, what is good for co-operation with Thailand and others in terms of TM?**

Traditional Medicine substances in Myanmar are similar to those in Thailand, because of the climate and topography of the countries are identical. Thailand and Myanmar also have the same herbs. Some senior practitioners from Myanmar have traveled to the northern part of Thailand, such places as Chiang Mai, Chiang Rai and Mae Hong Son, and they found that many parts of Thailand use similar types of herbs for treatment as we do in Myanmar. For these reasons, we can share the materials, as we regularly import herbs from India and Pakistan. Myanmar also exports materials to China.

We have an idea of letting foreigners learn Traditional Medicine in Myanmar, but we have to change some attitudes of the practitioners to be broad-minded enough to share their knowledge with other people. Because, some of them only teach their own family the unique Traditional Medicine and never allow other people to know. The government has tried to open the section for Traditional Medicine training for foreigners. Formerly, we have had co-operation with the Nippon Foundation,



delegated by Prof. Sutakae, the foundation helped record the species of herbs and plants in Myanmar. We also would like to have some sort of collaboration with Thailand. For example, Thailand may send their staff of Traditional Medicine practitioners to train here. But, our constraint is that everything has to get approval from the Burmese government at the ministerial level. However, there is another limitation for the collaboration between Myanmar and Thailand, and that is the communication barrier, since we do not share the same language.

**Any suggestions for the government's responsibility about Traditional Medicine?**

The government wants to develop Traditional Medicine by upgrading the hospitals to serve foreigners, like what they have done in China. As in the past, lots of patients from Malaysia were treated by Traditional Medicine in Myanmar, including the leaders of that country. Some of them suffered from knee pain and cancer. It is advisable that Myanmar's Traditional Medicines are well recognized by all, and if we can export them, we can make a profit for our country. However, exportation of Myanmar's goods needs to comply with the regulations, laws and other requirements of the country.

There is a concern that sometimes Traditional Medicines in the rural sector are not reliable and misused. For example, some producers have illegally mixed steroids in their medicine, and it is very difficult for our officers to monitor. However, there is a law provision to prohibit such an undesirable manner of producers. Every Traditional Medicine formula has to be reported and get registered. Samples of medicines will be analyzed by experts before giving permission to producers.

In the future, we need larger budgets for hospital extensions. Some of them may need to extend from 50 to 100 beds. The number of patients who attend hospitals will increase. All Traditional Medicine is made from crude extracts of herbs, especially leaves and roots, but modern medicine is made of chemical extraction, which may leave you with a lot of side effects. The benefit of Traditional Medicine is that there are no ill-effects to a patient's physical or mental well-being.

## **CHAPTER 6**

### **POSSIBLE SCENARIO FOR INTEGRATION OF TRADITIONAL MEDICINE AND MODERN MEDICINE IN PYI GYEE TAGON TOWNSHIP**

In the former part of study it has indicated internal and external factors affecting to an integration of Traditional Medicine with modern medicine in the Pyi Gyee Tagon Township. Researcher has attempted to use EDRF technique on data collection and applied SWOT analysis method for interpretation of information. Scope of study is mainly in current situation. On contrary, this part of report will focus on future of an integration of Traditional Medicine with modern medicine in the mentioned area. Therefore, this is rather a prediction of a trend of the referred issue. Once it is a matter of forecast then we need some other additional tool to help analyse information obtained.

As mentioned earlier that this part of report is intended to present a tentative picture of future of Traditional Medicine in Pyi Gyee Tagon Township by employing scenario analysis method. Scenario is a tool used at particular stage in a process of engagement. Normally is stage is temporary and the result of coming change can be forecasted with less uncertainty. Therefore, scenario planning is a disciplined method for imagining possible future that many planners have to apply in order to set up their strategy to accommodate the future.

Scenario planning has a long history and dated back to the 16th Century a Spanish Jesuit theologian and scholar, Luis de Molina, who was credited with introducing the concept of conditional future contingents or futuribilia as an explanation for free will. After that there were many scholars who tried to explain what would happen in the future with different tools of prediction. It just happened after Second World War that scenario planning concepts emerged as a military planning tool. But the person who contributed most to the development of scenario planning is referred to Herman Kahn during his tenure in the 1950s at RAND Corporation known as a non-profit research and development organization for the US government and his formation of the Hudson Foundation in the 1960s. Kahn, described variously as a military strategy and system theorist, is known as the most celebrated and controversial nuclear strategist. He encouraged people to “think the unthinkable” first about the consequences of nuclear war and then about very manner of future condition.

Another invention of the use of scenario planning is found in 1970 by Royal Dutch Shell to forecast future situation of oil situation and this techniques made a lot of profit to the company and after that scenario planning began to emerge everywhere from military, politics, economics, business, and public policy. It can be said that every field of management is eligible to apply this technique if they want to know what will happen in the future.

Even though there are many techniques of constructing scenario but in this chapter we will use a simple technique to forecast future of integration between Traditional Medicine and modern medicine in studied area. The technique used at this phase is as follows: Defining scope of scenario, Identify stakeholders in shaping tentative future, Identify possible situations leading to future and Identify possible scenario

### **6.1 Defining scope of scenario**

Scope of scenario in the study is on integration of Traditional Medicine with modern medicine in Pyi Gyee Tagon Township which covers medicine for physical well being and longevity of people in accordance with anyone of the four disciplines of Traditional Medicine, namely Desana, Bethitsa, Netkhata Veda, and Vissadara. In modern terms it includes physical and psychological treatments based on local wisdom and in form of body treatment and herbal medication. However, our major scope of scenario is on integration of both medical ways of treatment namely traditional and modern medicines.

Since the term “integration” means a combination of at least 2 components together. But it is not necessary that each component has to bend to mix up together. It is possible that component A stands still and firmly while component B has to move and mix with component A. Just like a case of integration between Traditional Medicine and modern medicine that sometime one side has to move itself to link with another in order to save itself for survival.

### **6.2 Identify stakeholders in shaping tentative future**

For integration of Traditional Medicine and modern medicine in the studies area: There are 3 major parties that shape future of integration in the study. As mentioned in former chapter they are role of state in promotion of Traditional Medicine, role of Traditional Medicine personnel which includes Traditional Medicine practitioners, Traditional Medicine producers, and Traditional Medicine association, and, lastly, people (patients or Traditional Medicine users). Because local people are customers of treatment and Traditional Medicine is a kind of service which needs some people to buy. At the same time, customers own their choices of selection that they will go to get service and so far they can go to get from either Traditional Medicine or modern medicine, or from both sections.

### **6.3 Identify possible situations leading to future**

Techniques of situation identification which leads to changes of future of Traditional Medicine cover 2 dimensions namely positive aspect and negative aspect. The former aspect means activities which are supporting sustainability or development of Traditional Medicine. Opposite to the former one, negative aspect refers to undesirable situation that deteriorate sustainability of Traditional Medicine in the country.

Followings are results of process of information analysis derived from data obtained from EDFR technique and classified by scenario method. Information is divided into 2 parts which are positive aspect and negative aspect. Experts were requested to present their attitudes toward sample situations. Their answers were classified into either positive or negative aspect in accordance with scenario method and after that both aspects will be analyzed in order to indicate possible scenario of integration of traditional and modern medicines in the area studied.

### **Positive Aspect:**

#### **6.3.1 Role of the State:**

(1) *Standardization of Traditional Medicine.* As a part of country, situation in Pyi Gyee Tagon Township is no difference from the whole country which is affected by Myanmar government's policy. In Myanmar, government of Myanmar has spent a lot of effort to protect status of Traditional Medicine. Also, in order to maintain standard of service of Traditional Medicine, all practitioners have to register to office in their districts. Every Traditional Medicine products have to get license of production. By these measures, people who are the users of traditional medical services will be assured their safety and feel reliable to the products.

(2) *Standardization of Traditional Medicine Practitioners:* For an assurance of continuation of Traditional Medicine existing in the country it is a must that they have produced qualified personnel in serving this business. University of Traditional Medicine was established to increase a number of Traditional Medicine workers both in academic and practical functions. The said institute then becomes a center of traditional medical activities in the country which includes producing practitioners and doing many sorts of research and giving medication to patients with their own hospital located nearby the university. The university then functions in a comprehensive area as a mainstream of taskforce to push Traditional Medicine ahead. Found in the survey that most of experts inclined to accept that Traditional Medicine practitioners tend to be younger because there is a university of Traditional Medicine responsible for producing new generation of practitioners (Mean = 4.20) As well as there is a perception that new generation of practitioners is more knowledgeable than old one because they receive better trainings (Mean = 3.90)

Functions of University of Traditional Medicine have some impacts to Pyi Gyee Tagon Township because the studied area is located not far from the university and hospital of Traditional Medicine and people who want to get service are accessible.

(3) *Standardization of Service:* With a strong intention to promote Traditional Medicine, Myanmar government has opened the first Traditional Medicine hospital in Mandalay situated next to the University of Traditional Medicine. It is claimed by the government that they plan to establish more Traditional Medicine hospitals in near future. By this policy it guarantees at least that health security of people in the country will be protected under knowledgeable boundary of local wisdom, Traditional Medicine. Not only through establishment of hospitals but also government of Myanmar tries hard to hand her support by introducing Traditional Medicine methods combining with modern medicine approach. It was found that in modern hospitals there is an availability of Traditional Medicine and workers operating with modern doctors.

#### **6.3.2 Role of Traditional Medicine Personnel like Practitioners, Traditional Medicine Producers and Association**

(1) Increasing number and better qualification of Traditional Medicine practitioners. Since Traditional Medicine in Myanmar is a type of professional in this society therefore all workers have to be well trained both in theory and practice. This occupation receives a high prestige and well regards particularly in rural communities. As a matter of fact, being Traditional Medicine practitioners is not so much attractive for

sourcing money but it can guarantee minimum requirement of family to survive because there are many customers every days. For a famous practitioner in big town, approximately more than one hundred patients a day to get consult are quite normal. It was found in the research result that role of health and Traditional Medicine practitioners has been increasingly supporting health care in community (Mean = 4.45)

(2) Modernization of Traditional Medicine. In former time, using Traditional Medicine was so much complicated and time consuming. We needed to consult an expert, search for herbal substances, prepare whether burning or streaming, and consume. Besides time consuming, formula or composition of medicine is another trouble for a patient because each traditional healer has their own formula in producing medicine. So far most of traditional healers realized of this stage of difficulty and the way to mitigate troublesome is to produce a ready-made tablet or bottle of syrup which are ready for a patient to consume immediately. Moreover, new types of Traditional Medicine are easily portable. Consumers can carry to everywhere they want. Responding this idea, the Department of Traditional Medicine in the Ministry of Public Health had initiated new tool of Traditional Medicines which was called Traditional Medicine Kit that all users could keep it at home and it was praised as a very functional and beneficial for users in rural communities (Mean = 4.45) and this Traditional Medicine Kit became an effective tool to connect people to Traditional Medicine in practice (Mean = 4.50). New trend of medical productions have been welcomed among users as found in the research that integration between Traditional Medicine and modern one has supported role of Traditional Medicine higher and more acceptable at present time (Mean = 4.25) By this innovation, Traditional Medicine which once in the past almost disappeared in the market became popular again. This passage is consistent with a perception of experts in Myanmar that Traditional Medicine needs an advance technology for producing (Mean = 4.70) To confirm this assumption it was found in our survey which reveals that every Myanmar people's household must have at least one type of Traditional Medicine (Mean = 4.80)

Another supporting reason behind an increase of popularity of Traditional Medicine is a decline of acceptance of western medicine. It is true that most of western medicines are more effective but another perspective of effectiveness is a side-effect of medicine. Because of modern communication through television and mass media, most of young generation started to aware danger of modern medicine effects (Mean = 4.30) Further more there was an opinion to support above assumption that many young and educated people in Mandalay pay more attention to Traditional Medicine (Mean = 3.95) By these evidences, we can more or less assume that there is a bright future of Traditional Medicine in Myanmar.

(3) Role of Traditional Medicine Association of Myanmar. Although there is no legal obligation to support status of association but in practical situation, status of association is highly regarded among scholars and high – rank officers in the country. Any changes which may cause any negative effects to Traditional Medicine must be rejected by this organization. Therefore, an association has functioned as a concrete post to protect Traditional Medicine from the threat caused by western invasion.

### **6.3.3 Role of People**

As mentioned in many occasions that determinant factor affecting to a sustainability of Traditional Medicine is an acceptance of people or users of Traditional Medicine. In a transitional circumstance between an invasion of western or modern medicine and a conservation of Traditional Medicine, it is quite difficult for people to take side which part is better for their health. A advantageous aspect of modern medicine is an effectiveness of medicine for acute disease but, on other side, it causes many side-effects to the users. At the crossroad between new medical technology and old concept of healing, people who are living in the communities have to judge which one they want to supply their needs. Perceptions toward both ways of medication play a significant role because people will judge everything from their perceptions. According to our survey we found different opinions but all are on similar direction. For examples, more than half of the experts thought that Traditional Medicine is placed in a higher prestigious position than western medicine (mean = 3.10). Also most of them disagreed that Traditional Medicine is suitable for minor sickness since they thought that Traditional Medicine can apply to serious and minor sickness (Mean = 2.35). To compare between the two, many experts did not think that Traditional Medicine is less effective than western medicine (Mean = 2.85)

From above information we find a positive perception among people towards Traditional Medicine and it supports a belief of people that Traditional Medicine is not a consumer product but it is rather a culture of the nation and no one could deny civilization of medicine derived from local wisdom (Mean = 4.20).

Drawn from our survey a conclusion can be made that most of people have a favorable perception toward Traditional Medicine and recognize Traditional Medicine as a solid part of their lives which will be never ever last.

### **Negative Aspect**

Not all good news we received from our survey since there were many perceptions opposed toward a future of Traditional Medicine. Major threats derive from the open of the country and a consequence after the country welcomes an external investment in medication. No one can deny an entry of modern technology including modern medicine. Experiences from other countries show that once a country opens to new world it will be followed by a clash between former and modern existences. It always happens in many parts of the world that a coming of new thoughts leads to a wither-away of the old one. In case of a future of Traditional Medicine after the country opened it is expected that there must be a challenge from an influx of new products of modern medicines and how Traditional Medicine has to adjust itself to accommodate a new trend.

Owing to our survey from the experts in Traditional Medicine we received some opinions on trend of Myanmar Traditional Medicine in modern society and we bring these opinions to construct a scenario of Traditional Medicine. From data obtained it shows that there are many uncertainties come after an entry of modern medicine. It was believed that cost of modern medication will be high and it will distinguish a class of customers. Most probable is that Traditional Medicine will be an alternative choice for

the poor people because they have no money to effort cost of modern treatment (Mean = 3.65). Many expert revealed that there is a situation happening in the modern hospitals that some modern doctors refused to use Traditional Medicine in their hospitals (Mean = 3.65). What we are afraid is if we let a gap of traditional and modern medicine widen then people of Myanmar would take side on based on their economic status. For instances, the rich of the country will be a regular customers of modern medicine and the poor would be left to use Traditional Medicine.

Moreover, since Pyi Gyee Tagon Township has been positioned as an industrial zone, certainly there must import new technology like machines, modern way of life, external labor force, and inevitable, new diseases. New syndromes of sickness sometimes require new way of treatment and possibly that Traditional Medicine cannot accommodate with new occurrences. Traditional Medicine might be neglected and wither away from the community.

#### **6.4 Identify possible scenario**

At the end of scenario planning, what we expect from this stage is a set of scenarios which includes best scenario, worst scenario, and most probable scenario. Best scenario refers to the most favorite situation while worst scenario means the most undesirable situation that will be harmful to our organization. Most probable scenario refers to the most possible situation with high potential to happen.

After being isolation from external world for many decades we can expect what will occur once Myanmar has to open the country, become a member of the Association of South-east Asia Nations in 1997 and, finally, welcome foreign investment and commerce. In this report we cannot go beyond a context of Traditional Medicine and we scope our research boundary within an effect derived from an abolishment of isolation policy. Once one country prepares to open to modern world it is not only the country that open but they have to face a lot of changes attached to free society. Against their traditional background they were, Myanmar people from now on have to realize that their way of life is no more alone. Similar situation can be re-envisaged to Myanmar Traditional Medicine. One can assume that open of the country creates an environment of exchange like people travel in and out beyond their countries, foreign commodities like new models of fashions, machines and electronic equipments, foods, books, and certainly, modern medicines.

Among the experts of Traditional Medicine in Myanmar, our survey revealed that their opinions toward an effect of modernity on Traditional Medicine had no concrete conclusion. Responding the question on an effect of opening the country toward Traditional Medicine, most of them could not tell us exactly what would happen (Median = 3) But most of them agreed that number of Traditional Medicine users would gradually decrease (Median = 2) and definitely they thought that new Traditional Medicine practitioners had to adjust themselves to new medical technology (Median = 2) and it seems there was a resolution that Traditional Medicine practitioners had to adopt western and traditional concepts of medication together (Median = 3) (Please details in the former part of this report)

#### **6.4.1 Positive or Best Scenario for Traditional Medicine**

Our first scenario is constructed on a basis of optimism that everything was going well with existing Traditional Medicine in the country. There was a pre-assumption that all stakeholders in this affair would not change their roles as they did before. If government confirmed to hand their assistances as usual then Traditional Medicine in Myanmar would be protected and well supported. Secondly, all partners in Traditional Medicine personnel were still of cooperation each other and they kept standard of service as well as standard of medical products. Finally, people of Myanmar are still in trust and faithful to their local wisdom, then everything would go fine with this scenario. However, this scenario is restricted to many conditions and finds no changes occurring.

#### **6.4.2 Negative or Worst Scenario for Traditional Medicine**

What would happen if everything is not running as it used to be. For examples, Myanmar government was forced by their international members to give up her domestic support to local entrepreneurs like abolishment of tax protection, permission to foreign investment, no foreign fee charge upon foreign firms established in the country, and etc. If everything goes worst like this, one can expected that Traditional Medicine would find difficulties when local medicine find itself standing at the midst of challenges. Cheap modern medicine which is not from the western countries but imported from her neighboring countries, will spread over the whole country. Modern hospitals with better equipments and invested by foreign investors are located at the middle of the city. Young generation graduated from modern universities in and out of the country and surrounded by high technology like internet and mobile phone would look at their Traditional Medicine as a remote and poor class of treatment. In other word, Traditional Medicine is deserved for the poor.

#### **6.4.3 Most Probable Scenario for Traditional Medicine**

This type of scenario is based on existing situation found at present time and also accepts an evitable change whether we like it or not. For example, once Myanmar opened her country and became a member of the international community with an attachment of several conditions, foreign investment will sooner or later become a major capital available in economic setting of the country and this will be followed by foreign workers. When foreigners come and reside in the communities, they will bring with them their culture including pattern of medication. People everywhere in the world are dynamic they change along their existing environment and no one resists change. Moreover everybody choose the best they think.

Many aspects of modern medicine are universally recognized such as modern medical tools and equipments. As a matter of facts, to compare with Traditional Medicine, process of sickness investigation done by western process is less time consuming and results of investigation are more accurate than Traditional Medicine. Western medicines are normally invented for acute disease but very effective after using but effectiveness of Traditional Medicines need longer time even though there is a very less side-effect. Naturally every patient wants to get recover as soon as possible that is why modern medicine gets popularity soon and sooner or later number of users in Traditional Medicine will decline.



Based upon a concept of adaptation, it is expected that next possible scenario of Traditional Medicine in Myanmar is how Traditional Medicine can adjust itself to new environment with an influx of modern medicine. Most probable scenario will need new action- policy for a sustainability of itself. This action policy is comprised of:

1. It is possible that Traditional Medicine will focus on their target groups whom are their customers in future.
2. It is possible that Traditional Medicine will define types of illness suitable for using Traditional Medicine
3. It is possible that almost every Traditional Medicine practitioner has to identify their specialty which means that general treatment can be no longer in modern society.
4. It is possible that Traditional Medicine practitioners have to be trained in applying modern medicine techniques.
5. It is possible that Traditional Medicine Clinics and Traditional Drug stores have to sell some western medicines in order to maintain their profits and keep their business sustainable.
6. It is possible that an entry of Modern Medicine causes local Traditional Medicine producers learn how to do marketing and somehow have to export their products abroad in order to increase volume of sale.
7. It is possible that either number of big hospitals in the city increases or number of Myanmar patients go abroad for medication and Traditional Medicine is regarded as an alternative for the villagers or poor people.
8. It is possible that highly educated population or young generation will turn down Traditional Medicine and consider it an outdated product.

From all possibilities mentioned above, our most probable scenario of Traditional Medicine in Pyi Gyee Tagon Township will be like this:

*First Stage:* Once Pyi Gyee Tagon Township is expected to be industrial zone it is inevitable and followed by a big volume of import in commodities including modern medicine and modern medical facilities like hospitals and equipments. Even Traditional Medicine is a philosophy of life and culture of the community but it will be challenged by modernity.

*Second Stage:* With an external challenge, Traditional Medicine personnel have to learn how to adjust themselves to a new context of society. Many Traditional Medicine practitioners in Pyi Gyee Tagon Township are local people and learn Traditional Medicine knowledge from the parents and sometime they can not survive in modern society.

*Third Stage :* Even though, Myanmar government sincerely wants to protect status of Traditional Medicine in the country but they cannot resist a pressure which comes from abroad with a strong support from young generation of country who obtain high and modern education.

*Fourth Stage:* Some segments of Traditional Medicine may be easily adjustable to new trend like massage because this segment can be both for medication and entertainment. In order to survive, most probable that massage service will be provided for tourists, not patients. Some herbal products may become souvenir.

#### **6.4.4 Possible Scenario of Integration of Traditional Medicine with Modern Medicine in Pyi Gyee Tagon Township**

Take it for granted that Pyi Gyee Tagon Township is sooner developed into industrial community. Transforming into new atmosphere creates new phenomenon like new immigrants, new land zoning, new way of life and new types of sickness. Open of the country will welcome foreign investment and new medical services and products.

As mentioned in the beginning of this chapter that integration does not mean both sides have to bend toward each other but it may happen that one side has to adjust itself toward another. Possible Scenario of Integration of Traditional Medicine with Modern Medicine in Pyi Gyee Tagon Township is as this sample that Traditional Medicine has to incline to cope up along with the influence of modern medicine. It is evidential that in every industrial township, nature of sickness requires a sudden recovery because most of the patients are daily workers who are employed in the factories. They are not able to take a long leave otherwise they will be laid-off. A major weak point of Traditional Medicine is their inability to reach a sudden recovery. Practice of Traditional Medicine normally takes long time like it take long time to prepare medicine and after receiving medicine it also takes some time to get recover. This type of medication may not be accepted by patients in future in Pyi Gyee Tagon Township. Certainly, modern medicine can facilitate and accommodate new phenomenon. Modern medicine will be popular and stands at in an advantageous status. Pressure will surge over Traditional Medicine position and seek the way out of pressure. If Traditional Medicine stand still and do nothing, then it can not survive at the midst of sensitive changing condition.

Possible scenario of integration may be like this

- It seems that Traditional Medicine has no alternative but to adjust itself to new trend of medicine that modern medicine will become more popular and receive more recognition from people, both local people and immigrants, in Pyi Gyee Tagon Township.
- Certainly that modern medicine will by no mean adjust itself to Traditional Medicine because they know they are advantageous in the current situation.

Possible scenario of forms of integration between Traditional Medicine with modern medicine

(1) Methods of Medication: New scenario in the methods of medication will be integration between a concrete and unshakable concept of Traditional Medicine with new tools of health diagnosis and investigation. Traditional Medicine practitioners from now on are trained in modern sciences like biology, physics, and chemistry therefore they acknowledge a need of improvement of their way of treatment and Traditional Medicine has to change from experience-based medication to experimental based treatment. New practitioners have been trained in the modern labs with advanced tools and instruments. Even though, Traditional Medicine has been recognized as a way of culture but the students of Traditional Medicine have to be secularized more or less. Health healing is not a matter of belief but it must be researched with scientific evidences. Instead of using words of experiences from former generation, new generation of Traditional Medicine has to use data to support their treatment.

A major integration of Traditional Medicine with modern medicine in this matter will be two features

- Traditional Medicine will no longer to base on beliefs generated from their former ancestors but they will employ scientific theory to support their treatment but their core concept of treatment remains.
- Tools and techniques in diagnosis and investigation from modern medicine will be integrated into Traditional Medicine treatment.

(2) Traditional Medicine Products: It is very true that a method of treatment in Traditional Medicine way is quite complicated. Time for preparing drugs, pattern of use, and obligation imposed to patients are time consuming and uneasy to follow. From now on, Traditional Medicine personnel have to accept this handicap and weakness and have to introduce new method from modern medicine. Instead of boiling, heating, rubbing, and chanting in their way of treatment, Traditional Medicine drugs will be produced in form of tablets, and syrup. Particularly, former traditional drugs are not applicable and usable in industrial zone like Pyi Gyee Tagon Township because most of the daily workers have no time for preparing medicines and with a lot obligation they can not stand and accept former way of treatment.

(3) In modern society like Pyi Gyee Tagon Township which will become industrial town, new disease like cancer and other sickness can not be solved by modern way of medication, sooner or later, modern medicine practitioners have to find some ways out. Traditional Medicine will be recognized and introduced to the patients in some occasions as an alternative medicine. One day one may find that in modern hospitals in Pyi Gyee Tagon Township there is a section of Traditional Medicine located inside the places.

Also, with a context of industrialization occurring in Pyi Gyee Tagon Township, number of population certainly increases, pollution problem occurs, and diseases incrementally happens it is then not possible for modern medicine to provide sufficient services. Modern hospitals reluctantly have to invite Traditional Medicine to supplement their urgent fulfillment. Integration between the two is a chance without choice.

## **CHAPTER 7**

### **CONCLUSION**

Traditional medicine (TM) has a distinct appeal to broad populations of people. Traditional medicine systems often have specific theories, diagnoses and treatments which may be different from the methods and treatments of modern medicine (MM). In recognizing these differences, it is essential to understand that both systems of traditional medicine and modern medicine have their advantages and weaknesses. The advantages of traditional medicine may be found in their utilization for chronic diseases, improving quality of life and health maintenance, as well as for some health conditions that could not be treated well with modern medicine.

There are significant challenges facing this integration. There is a lack of appropriate standards and measures to control the quality of traditional medicine, especially herbal medicines. There is also a lack of appropriate accepted research methodology to evaluate traditional medicine based on traditional medicine characteristics. Therefore, the cooperation and collaboration between the experts of both traditional medicine and modern medicine is necessary (Xiaorui Zhang, 2009: online). Moreover, according to the WHO policy on indigenous medicine and primary health care (PHC) in 1978, WHO/UNICEF issued the Alma-Ata Declaration urging member countries to formulate national policies, strategies and plans of action to launch and sustain PHC as a part of comprehensive national health systems in order to attain the “Health for All by the Year 2000” (Wichai Chokevivat, 2005: 7). This included the promotion of making the fullest use of local, national and available resources, e.g., medicinal plants, indigenous medicines and appropriate technology. In order to decrease the high cost of MM and loss of self-reliance in health care, many countries started trying to come up with a new way suitable to their contexts. As a matter of fact, many of them have great potential to apply for what they have in their countries to meet the new challenge of health conditions, and it depends upon their ability to adapt with the new situation.

Myanmar has much experience applying TM into health care systems. His experience includes working to create laws and regulations to sustain Myanmar Traditional Medicine (MTM), providing education and training of TM, medical care services in hospitals and clinics that are free of charge (public clinics), registration and legislation of TM drugs and also research and development activities to improve the quality of health care service with MTM.

WHO also encourages countries to integrate traditional medicine into health systems so that patients will obtain the health benefits from both traditional medicine and modern medicine. In support of integrating traditional medicine into their existing health systems, WHA 62.13 resolution on traditional medicine, adopted May 2009, urges the Member States to respect, preserve and communicate, as appropriate, the knowledge of traditional medicine, treatments and practices, appropriately based on the circumstances in each country, and on evidence of safety, efficacy and quality; to consider, where appropriate, including traditional medicine into their national health systems based on

national capacities, priorities, relevant legislation and circumstances, and on evidence of safety, efficacy and quality; to further develop traditional medicine based on research and innovation, giving due consideration to the specific actions related to traditional medicine in the implementation of the global strategy and plan of action on public health, innovation and intellectual property resolution which was adopted in 2008.

According to our research proposal proposed to the donor that this project is aimed at using EDFR technique of research methodology, the validity and reliability of research results are based on method of data collection and interpretation of EDFR technique. As mentioned in the previous chapter, the EDFR technique also has some limitations of finding knowledge and sometimes it cannot answer every question comprehensively. This is a trial of employing new techniques to respond to new situations. However, within this limitation, some parts of the research have been supplemented with other techniques like SWOT analysis and scenario technique, for example.

Before a presentation of research results begins, it is appropriate for objectives of study to be reviewed in this part.

1. To study policy and situation of integration of traditional medicine with modern practice of health care
2. To investigate external and internal factors affecting community health care improvement toward integration of traditional medicine with modern medicine with includes economic, technology, regulation, social, culture, and administrative considerations in Pyi Gyee tagon Township, Mandalay division.
3. To present the possible scenario for integration of traditional medicine and modern medicine in Pyi Gyee tagon Township, Mandalay division.
4. To present guidelines for developing traditional medicine networks between Myanmar and Thai.

### **7.1 Policy and situation of integration of traditional medicine with modern medicine of health care at Pyi Gyee Tagon Township.**

National Health Policy of Myanmar (item number 14) mentioned that:

"To reinforce the service and research activities of indigenous medicine to international level and to involve in community health care activities".

In Myanmar, TM is often the most widely available and affordable source of health care, especially for those in resource-limited as in rural area. Myanmar also protects TM knowledge, such as creating a national policy on intellectual property rights and TM medicine and natural resources. (Hla Myat Tun, 2010: online)

#### **Myanmar Traditional Medicine (MTM) and Primary Health Care (PHC)**

As appeared in a manual of Myanmar Traditional Medicine for Primary Health Care Workers (Ministry of Health, 2008: 4), it has identified that health experts or specialists are implementing in earnest the task of public health care in the line of public affairs.

The eight tasks included in public health care are;

1. Education concerning prevailing health problems and the methods of preventing and controlling them
2. Promotion of food supply and proper nutrition
3. An adequate supply of safe water and basic sanitation
4. Maternal and child health care, including family planning
5. Immunization against the major infectious disease
6. Prevention and control of locally endemic disease
7. Appropriate treatment of common diseases and injuries
8. Provision of essential drugs

The eight tasks are designed to provide health care for the public with modern medical science. In reality, people are found to depend on the above medicine and on alternative medicine as well. In every country, traditional medicine practice is fundamental to alternative medicine.

Myanmar traditional medicine practice and natural medicinal plants and medicinal substances have been inextricably linked with public health care since days of yore. The Department of Traditional Medicine, under the guidance of the Government and under the auspices of the Ministry of Public Health, is now working hard for the health and fitness of the entire national people in the service of public health care. All tasks have been distributed and the development of Myanmar traditional medicine is on a par with that of the international community.

#### **7.1.1 Policy of integration of traditional medicine with modern medicine of health care at Pyi Gyee Tagon Township considering from legal aspect on traditional medicine**

One way to study Myanmar policy on traditional medicine is through legal approach. Since enforcement of law demonstrates intention of authority to deal with facing situation. It happens in many countries that their government sometime have never shown their concrete policy on traditional medicine and only way to understand their policy is to consider from available laws and regulations proclaimed by their governments. However, it is admitted that it is very difficulty to find every law concerned because of a problem of identification of related laws. If so, major law concerned will be a focus point of study.

The Myanmar Indigenous Medicine Act was enacted in 1953. The State Traditional Medicine Council, a leading body responsible for all matters relating to traditional medicine, was formed according to the law. But in the year 2000, the Myanmar Indigenous Act was replaced by the Traditional Medicine Council Law. One of the objectives of the law is to supervise traditional medicine practitioners for abidance by the rule of conduct and discipline. As an outcome of the law it is estimated that at present there are more than 6,600 registered traditional medicine practitioners under the control of the law.

Another important code of conduct in traditional medicine is the Traditional Medicine Drug Law which was promulgated in 1996. This law was drafted in order to supervise systematically the production and sale of traditional medicine in the country.

One feature of the law is enabling the public to consume genuine quality, safe and efficacious traditional drugs. According to the law, all the products of traditional drugs produced in the country have to be registered and the manufacturers must have license to produce their products. It is estimated at the present there are more than 1,000 traditional drugs registered and the license for production is issued more than 2,000 manufacturers. By the law, manufacturing of traditional drugs must follow the good manufacturing practice. It is a responsibility of the Department of Traditional Medicine to supervise and monitor the advertisement of traditional drug products.

Understanding of the two significant laws related to traditional medicine in Myanmar is to enable Thai authority to learn a proper function of authority how to control standard of service in traditional medicine. Because traditional medicine in Myanmar has a long history and popularity, role of government in supervising and monitoring of traditional medicine activities must be broader than what they have in Thailand. Learning from the experiences from other country will be beneficial to our works.

Considering from the mentioned laws, namely the Traditional Medicine Council Law and Traditional Medicine Drug Law, probably it indicates that Myanmar's policy on traditional medicine is directed toward 2 missions, Firstly, they are how to introduce a code of conduct to traditional medicine practitioners and, secondly, how to control quality of traditional medicine products. With this legal measure Myanmar's stage of policy formulation is at primary state which means that Myanmar government pays more attention in protection and control of traditional medicine instead of promotion. First measure is to control a mischievous service of practitioners in traditional medicine. This is a human side of policy. Second part of the policy is to insert a strict qualification of products in order to assure that consumers of traditional medicine products will not be deceived by the drug producers. Reasons behind the policy are based on an assumption that customers of traditional medicine are the local, relatively poor and less educated people. Most of them have been neglected by state authority because they are inhabited in the remote areas of the country and can be easily induced to accept an improper way of medical treatment.

### **7.1.2 Policy of integration of traditional medicine with modern medicine of health care at Pyi Gyee Tagon Township considering from EDFR technique**

One way to study policy of integration of traditional medicine with modern medicine is by using a technique of EDFR method. Information used to analyze is derived from experts' opinions as shown in chapter 5. Since there are many passages given by the experts which indicated to policy of the government on the traditional medicine and related to modern medicine practices.

Since the results of study on policy of integration of traditional medicine with modern medicine of health care at Pyi Gyee Tagon are output of information from interview and analysed by method of EDFR technique, then there must be some limitation for explanation and they can depict some parts of policy from opinions of people concerned. Therefore this is not a policy from the government perspective but it is

rather a reflection of policy from people who are affected by government's policy. This alternative approach of studying policy is sometime capable to show us real situation of policy implemented by the authority.

This part of study consists of 2 major perspectives, namely, present status of traditional medicine, and government role upon traditional medicine.

Status of traditional medicine in studied community:

1. Status :

- Traditional medicine is an alternative way of treatment of the poor (mean value = 3.65)
- Role of health and traditional medicine practitioners have been increasingly supporting health care in community (mean value = 4.45)
- Traditional medicine today accepts modern method of diagnosis to supplement in their investigation, compatibility with their beliefs, and more efficacy (mean value = 4.30)
- New generation of practitioners is more knowledgeable because they received better training (mean value = 3.90)
- Practitioners tend to be younger because there is traditional medicine university (mean value = 4.20)
- Integration between traditional and modern medicines has supported role of traditional medicine higher and more acceptable at present time (mean value = 4.25)
- Methods and tools for medication from the west are much useful at the first step of investigation (mean value = 4.25)
- At national level there is no pragmatic guideline for policy implementation over all country (mean value = 4.20)
- Traditional medicine kit is quite beneficial to people in rural area (mean value 4.45)

The first consideration on policy toward traditional policy from experts' opinions is on status of traditional medicine in that community. It is found that from existing policy, status of traditional medicine in the area of study is very unstable and unsecured since their position in medication function is at inferior status comparing with modern medicine. More over it can be said from an interview that they position traditional medicine for the poor and lower class in the society. At current situation, traditional medicine has to borrow some tools and techniques from modern medicine.

2. Government role in supporting traditional medicine in studied community:

This part of study has taken from our interview with the traditional medicine experts. In particular all experts were requested to express their opinions on probability of get support from the government. If the answer on this part is less or least it implies that their expectation toward assistance from the government was dim and reflects that policy of government in the section is not feasible. As mentioned in the beginning that this is a reflection of government policy on traditional medicine indicated from experts.



### Government support

<b>Trend of Myanmar traditional medicine in Modern Mandalay (Year of 2013 – 2023)</b>	<b>Probability</b>	<b>Scenario</b>
1. Development of traditional medicine still goes on at a fast pace of progress	less	Desirable
2. Government should create a patent law to protect the traditional medicinal formulation.	least	Desirable
3. It is expected that Myanmar government will increase its assistance, financially, humanly and technologically to TM much more than today.	least	Desirable
4. Human resource development is a need of a country in order to improve a competence of traditional medicine services.	least	Desirable
5. The predominant factor to determine sustainability of traditional medicine is support from Myanmar government.	less	Desirable
6. Myanmar government will be encouraging more people to use traditional medicine.	least	Desirable
7. Study program for traditional medicine should be composed of both traditional medicine with modern medicine.	less	Desirable
8. Offering of Master's and PhD programs of traditional medicine will improve a progress of traditional medicine.	least	Desirable

Tables above are reflections of the policy's stakeholders in traditional medicine toward operation of government. All cases received less and least levels of probability to be achieved. It implies that all experts in traditional medicine expected less functions and less efficacy from their authority. If we consider each question, they can indicate general condition of policy.

First, every question asked to them has been responded with a desirable response in which every expert indicated their need of assistance from the government, but when they were asked about possibility to get an assistance in response to their request, answers given were all negative.

Interpretation of information reveals that all experts were pessimistic to their government policy.

Second, information given from interviews shows that there are many requests imposed to their government with pessimistic attitudes, and it implies less efficacy of government to formulate its policy of integration of traditional medicine with modern medicine.

The first question on development of traditional medicine still goes on with a fast pace of progress. All experts desired this, but they were also not sure it was probable and they felt their profession might be challenged by an influx of modern medicine.

The second question on government (should create a patent law to protect the traditional medicine formulation), all agreed, but they had a least expectation from their government.

The third question on it is expected that Myanmar government will increase its assistances, financially, humanly and technologically, to traditional medicine much more than today, certainly the answers must be positive, but their expectation from their government was reversely negative. It was surprising to learn that their attitudes in this case were least probability.

The fourth question on human resource development is the need of the country in order to improve a competence of traditional medicine service, it was found that all agreed but least expectation was their output of attitudes they owned.

The fifth question on the predominant factor to determine a sustainability of traditional medicine is a support from Myanmar government, all admitted that in order to survive they needed an active role of the authority to bear responsibility. From an opinion of the experts, they know they needed but they inclined to accept that their hope was not going to be fulfilled.

The sixth question on Myanmar government asking if they will be encouraging more people to use traditional medicine, they all knew this is a prerequisite of accomplishment of traditional medicine and this would decide a future of this professional. However, they all also admitted that their government would not be so much helpful to this situation.

The seventh question on a study program for traditional medicine and whether it should be composed of both traditional medicine and modern medicine, there was a disagreement in this question but many of them demonstrated their desirability. On the contrary, they did not think their government would be inclined to do so.

The eighth question on whether an offering of Master's and PhD programs of traditional medicine would improve a progress of traditional medicine, all agreed and desired to see it happened. It was least probable, was their attitude.

In overall integration of traditional medicine with modern medical treatment policy in the studies area was in need and recognized this is a way to achieve their sustainability. Therefore, policy of integration between traditional and modern medicine was a right formulation of policy.

From our study from the opinions of the experts, it might be explained that so far the policy of integration of traditional medicine with modern medicine in the studies area was still ambiguous and uncertain because those experts felt that they had not obtained what they required. However, results of the study were derived from the EDFR technique, which may have many limitations.

### **7.1.3 Situation of integration of traditional medicine with modern medicine of Health Care at Pyi Gyee Tagon Township: Analysed by EDFR technique**

*Data from focus group I* with TM practitioners and lecturers of University of Traditional medicine, Mandalay revealed that after establishment of industrial zone, there are so many changes in Pyi Gyee Tagon Township such as the occupations of people. Formerly they were mainly farmers but today 90% of population becomes factory workers but the number of population could not be estimated since the section of traditional medicine in Pyi Gyee Tagon Township has no information. However, there was a change in population structure because of the coming of industry establishment; many new comers who situated are migrating from other Mandalay region. On the other hand, the health situation is better than the past. When the government allows settling up an industrial zone in Pyi Gyee Tagon Township, people who stay over receive more and better facilities like extension of higher education, better infra-structure, more income, and others. If standard of living is better than health situation must be improved.

*Data from questionnaires* by 20 experts has shown that in terms of patient, majority of experts, totally 55 percent of experts agreed that chronic illness patients prefer to use traditional medicine ( $\bar{X} = 4.40$ ) at totally agree level, 60 percents of experts also agreed about new generation of this society started to aware danger of modern medicine effects ( $\bar{X} = 4.30$ ) and 45 percents agreed that young and educated people in Mandalay pay more attention to tradition medicine ( $\bar{X} = 3.95$ ). It showed that status of TM practitioners is well recognized, especially among people in new generation.

In terms of practitioners, most of experts, 50 percents agreed that role of health and traditional medicine practitioners has been increasingly supporting health care in community ( $\bar{X} = 4.45$ ). Most of experts, 70 percents agreed with traditional medicine today to accept modern methods of diagnosis to supplement in their investigation, compatibility with their beliefs, and more efficacy ( $\bar{X} = 4.30$ ). This could be the evidence of Integrating in Modern medicine method and Traditional medicine.

Myanmar Traditional Medicine has more than one kind of treatment in health care system. 80 percents of experts insisted that every Myanmar people's household must have at least one type of traditional medicine. Most of experts, 85 percents of experts agreed that Traditional medicine needs an advance technology for producing medicines to response high demand of traditional medicine ( $\bar{X} = 4.70$ ). For integration of traditional medicine and modern medicine, 55 percents agreed that role of traditional medicine higher and more acceptable at present time ( $\bar{X} = 4.25$ ).

TM Kit is one effective tool to connect people to traditional medicine treatment ( $\bar{X} = 4.50$ ). Most of experts, 50 percents agreed TM Kit is quite beneficial to people in rural area ( $\bar{X} = 4.45$ ). 50 percents of experts agreed that at national level there is no pragmatic guideline for policy implementation over all country ( $\bar{X} = 4.20$ ) and Traditional medicine is placed in a higher prestigious position than western medicine ( $\bar{X} = 3.10$ ).

The results have shown that TM Kit is effective tools to deliver traditional medicine as the primary medicine to people in remote area.

As mentioned in the chapter 5 that situation of traditional medicine in Pyi Gyee Tagon Township was challenging and was in transitional curve of survival crisis. In this chapter, researcher would like to extend further ideas to support this assumption as follows:

#### **7.1.4 Linkage between Industrialization, Occupational Diseases, and Sustainability of Traditional Medicine**

Naturally, according to systematic approach if there is a change in one thing it will cause to another change after and it also leads to another impact. Interrelation, in other word called interdependent, is a common phenomenon of explanation of change. This similar situation happens in many occasions including an occurrence of industrialization in all developing countries. Many countries choose an establishment of industrialization as an alternative of elevation of poverty. The reason why many of them turn their policy from cultivating economy into industry development is they have observed glory of the rich countries which was derived from investment in industrialization. As known in theory of economic development and evidences from many experiences occurring in economic development that there are 3 stages of transformation of nation from poverty to prosperity namely it is from cultivation society to industrial advancement and finally to end at service countries.

It has been evidential to all that industrialization has contributed to the spread of income to local people as well the enhancement of job creation. A large proportion of farmers have been brought into workforce and they started to sell their paddy land to investors. Out of 18 industrial zones, land and labor force existing in Pyi Gyee Tagon community have been sold to owners of the factories. New type of development in form of industrialization has generated a new pattern of employees called daily wage workers.

Attached with job creation in industrial zone there are many newly unexpected concurrences with an establishment of factories within community of Pyi Gyee Tagon division, there are as follows:

1. *Migration of workers from outside Pyi Gyee Tagon division*, because industry produces mass products and it is not possible for huge machines to produce a small scale of production. From major experiences everywhere that when one country begins to move forward to industrialization, first step of becoming industrial country is to be labor intensive industry. If so, every industrial zone needs a massive labor force as well.

2. *Quality of working life*, it happens almost everywhere when a poorly developed country wants to pursue industrial progress policy that in the beginning they have to buy less advanced technology from abroad. Generally, newly imported machines are second hand equipments with poor maintenance standard. Working condition of labor force will be in risk and their quality of working life is under bottom line of standardization.

3. *Ecological degradation*, as many countries of the region including Thailand, Cambodia, and Vietnam, emerged from cultivating society to industrial nations and in the first stage of development they need capital and technological investment from abroad. It was always found that technology imported to newly establish industrial countries is not a modern one and many times they brought poor and out of date machines to this region. With this pattern of industrialization, poor and old technology always creates a problem of pollution and this ecological degradation is at the expense of society.

#### **7.1.5 Impacts of Industrialization on Occupational Health**

Changes in work organization appear to have out-paced the system for protecting workers' health care. It is very true that working in manufacturing sector is already associated with high rates of injury from mechanical, electrical, and physical hazards. The expansion of chemical, electronic and biotechnology industries and of service and transport sectors have introduced new risk, widened the spread of work-related risks and increased their interaction with non-work factors in ill health, such as environmental pollution. Thus, in addition to old and prevalent problems, such as traumatic injuries, respiratory diseases, occupational dermatitis and muscular-skeletal injury, workers now also suffer new stresses, such as new asthmatic disorders, psychological stress, and ergonomic and visual effects. Work is increasingly characterized by a high level of demand. With little control over the nature and content of the work, leading to digestive disorders, sleep difficulties and musculoskeletal problems. (Rene Loewenson, 2001: 864)

Different from cultivating society, industrial community must have a different design of resettlement. Normally it requires a group of workers to stay close together in the same area and share infrastructure like water supply, electricity accessibility, and common transportation. Once a big gather of people have to reside in a small space of land and share common utilities, new pattern of diseases emerge inside communities like all contaminate diseases including water-based infection such as diarrhea disease, and leptospirosis. Because new pattern of resettlement is to bring people from different parts of the country to stay together and they do not know each other. Many of them have to depart from their families who stay far away from Pyi Gyee Tagon, common mental health disorders like anxiety, depression, and stress are generally found among the workers in industrial zone.

### **7.1.6 Occupational Diseases and Traditional Medicine in Pyi Gyee Tagon Township**

Owing to the fact that industrialization is a major source of many changes to Pyi Gyee Tagon township and many changes have some impacts to the existing of traditional medicine which was prevailing in that community.

1. *Secularism and traditional medicine.* In modern world and industrial viewpoint there is a separation between religious world and technological world which is called secularism.

2. *Occupational diseases along with industrialization,* as mentioned in the former part of this report that new types of sickness come along with an occurrence of industrial environment like injury, stress, infection diseases, ergonomic and visual effects. Most of these sicknesses are believed that they should get modern medication instead of traditional one.

3. *Changing of daily life,* most of the workers are daily-wage employees in the factories and amounts of wage given to them are calculated by number of days they work. Because they receive no salary, if so, if possible they do not want to leave from their routine works. Moreover, every worker wants to work overtime since it is an additional source of their incomes. In order to ensure their regular income, when they get sick they will find some sorts of medicine to recover themselves as soon as possible.

4. *Limitation of time,* in every modern town particularly in industrial zone, to find a drug store and buy medicine is easier like to go to food shops and most of those societies have no restriction for purchasing drugs. From workers' experiences, they think, no matter whether it is right or wrong, using traditional medicine is too much troublesome, they need to spend quite some time for preparation and there are so many restrictions like if they use traditional medicine they are obliged not to eat some kinds of foods, they have to refrain from doing some things, and they are imposed by many conditions just like to worship some gods and as workers they can not comply to every requirement. Due to many restrictions required from traditional medicine way of treatment they think it is better to use modern medicine when they get sick.

In summary, our explanation for a decline of traditional medicine acceptance at Pyi Gyee Tagon Township (if happen) is caused by an implementation of industrial development policy. There is a relationship between many factors concerned.

### **7.1.7 Conclusion of Situation of Integration of Traditional Medicine with Modern Medicine of Health Care at Pyi Gyee Tagon Township**

This is a confronting phenomenon between traditional medicine existing in Pyi Gyee tagon Township and modern medicine which is increasing their role in treatment tremendously in this society.

1. Traditional Medicine in Pyi Gyee Tagon Township
  - Traditional medicine was a part of culture
  - Every household was a user of traditional medicine products
  - Traditional medicine practitioners were on service in every village
  - Cost of treatment was inexpensive
2. To be selected as an industrial zone
  - Location is nearby Mandalay
  - Has plenty of vacant land and proper facilities available
  - Cheap labor force
3. Establishment of factories and production began
  - Immigrants from other parts of the country
  - Way of life changed
  - Poor environmental condition and caused a problem of pollution
  - Transforming from farmers to daily workers
  - Changed from self-subsistence economy to wage-earner society and market economy
4. Impacts of industrialization upon health situation
  - New types of sickness caused by working in factories like back pain, stress, accidents, and others
  - Scarcity of source of income and less time available for recreation
  - Due to limitation of time as a daily workers when they get sick they have to recover as soon as possible
5. Apparition of modern medicine
  - More effective treatment, particularly for acute diseases and accidents
  - Easily consuming
  - Convenient to purchase
  - Less time-consuming
6. Impacts of modern medicine upon traditional medicine
  - Reducing of number of patients in traditional medicine
  - Major customers of traditional medicine are old people and poorly educated people
  - Amount of income for traditional medicine practitioners decreases
  - Accept modern medicine tools and treatment to mix up with traditional medicine way

#### 7. Situation of traditional medicine with modern medical way of treatment

- Traditional medicine was unsecured challenged by modern medicine
- Have to depend very much on assistance imposed from government policy because it is very difficult to survive at the midst of change
- Young generation felt reluctant to use traditional medicine

#### **7.2 Analysis of external and internal factors that affect community health care improvement toward integrated traditional medicine practice**

Department of Traditional Medicine, Myanmar has a future plan to encourage participation of TM practitioners in primary health care system and train them on environmental health, preventive medicine and use of some essential modern drugs.

In order to present the guideline to improve the community health care in an economy dominated by industrialization, a challenge confronting traditional medicine is how to survive and receive acceptance from native people. This is a hard work for executives concerned to lead and lift up status of traditional medicine to compete a rival namely modern medicine. How traditional medicine can struggle and generate the desired growth of volume of users is a facing situation. Prior to the implementation of any policies related to sustainability of traditional medicine there is a need to take one prior step called a strategic planning. By this concept of management it guides the personnel concerned who want to protect traditional medicine to sustain in this society to concentrate on implementation of appropriate policies and to ensure that what we invest in this matter is not going in vain. This method which is called strategic management has been employed in many sectors like business, public administration, and others. In order to formulate a best practice for protection of traditional medicine in Myanmar we may introduce a concept of strategic management at this stage.



SWOT analysis is intended to apply to this method for our investigation of strategy for sustainability of traditional medicine in Myanmar. The following items are an introduction of SWOT analysis in order to provide a basic knowledge of this approach, and after that we will apply our findings in our survey.

## SWOT ANALYSIS



### SWOT analysis, with its four elements in a 2x2 matrix.

SWOT analysis (alternately SWOT Matrix) is a strategic planning method used to evaluate the strengths, weaknesses/limitations, opportunities and threats involved in a policy formulation. It involves specifying the objective of policies and identifying the internal and external factors that are favorable and unfavorable to achieve that objective.

Any policies with high intention to achieve at policy implementation stage, or setting the objective of the policies, should be done after the SWOT analysis has been performed. This would allow achievable goals or objectives to be set for the organization.

Application of SWOT analysis with traditional medicine can be depicted as follows:

- Strengths: internal characteristics or factors of traditional medicine that give it an advantage over others or make it better than modern medicine
- Weaknesses (or Limitations): internal characteristics that place the traditional medicine at a disadvantage relative to modern medicine
- Opportunities: external chances to improve traditional medicine (e.g., make greater recognition) in the environment
- Threats: external elements in the environment that could cause trouble for traditional medicine

Identification of SWOT is essential because subsequent steps in the process of planning for achievement of the selected objective may be derived from the SWOT. Therefore, the method of identification first is to define sources of components that can be identified using two sources, namely

Internal factors – The *strengths* and *weaknesses* internal to the traditional medicine

External factors – The *opportunities* and *threats* presented by the external environment to the traditional medicine

From a Delphi questionnaire as a part of EDFR technique of research and analysis of internal and external factors, the results have been shown that;

### SWOT Table of Traditional Medicine in Myanmar

<b>Strengths</b> 1. Every Myanmar people's household must have at least one type of TM 2. TM needs an advance technology for producing medicine 3. TM kits is an one effective tools to connect people to TM treatment 4. TM already applied evidence-based treatment 5. Myanmar has University of Traditional Medicine	<b>Weakness</b> 1. Government did not create a patent law to protect the TM formulation 2. Government should increase its assistance, financial subsidy, human capacity development, and technological support to TM much more 3. HRD is a need of a country in order to improve a competence of TM service
<b>Opportunities</b> 1. TM concept of treatment has been rooted in this society for many centuries 2. Offering of Master and PhD programs of TM will improve a progress of TM 3. Myanmar Government will be more encouraging people to use TM	<b>Threats</b> 1. Utilization of land for herbal plantation decreased 2. Amount of herbs decreased due to limitation of land

### **Strategy for improve Health Care Development in Myanmar**

#### **1. Compatibility of Strength and Opportunity**

From the passages in catalog “strengths,” we find that strengths of Myanmar’s traditional medicine is mainly related to popularity and effective adjustment of traditional medicine. For example, the popularity of traditional medicine is a revelation that every household in Myanmar must have at least one type of traditional medicine which is compatible with a passage said that the concept of traditional medicine has been rooted in Myanmar society. Moreover, establishment of the University of Traditional Medicine, Mandalay was a great leap forward of the traditional medicine movement and leverage acceptance among local people. The prominent evidence to show how traditional medicine is more effective is an introduction of TM kids to communities and well recognize by all users.

2. To study weakness or threat of traditional medicine whether they can be changed into opportunity or not

There was a complaint among the experts of traditional medicine that their government did not play positive roles in supporting traditional medicine in some aspects. For example, the government has made no effort to introduce patent laws to protect invented formulas of traditional medicine. Also, they complained that their government did not help much in human and technological capacity development.

3. If weakness and threats cannot be of benefits to traditional medicine, how we can mitigate seriousness of those components

Composition of success in sustainability of traditional medicine is comprised of at least three factors like hardware, software and people-ware, but major efforts of the government are on introduction of an education institute, namely establishment of the University of Traditional Medicine, and neglect to support laws provision and herbal plantation. If this problem remains unsolved then Myanmar may have to import herbs from neighboring countries. The Ministry of Public Health, which is responsible for traditional medicine, should negotiate with the Ministry of Agriculture to promote herbal plantation.

Since one major weakness is a decrease of herbal plantation and it is not possible to conduct a traditional medicine treatment without the composition of herbs, one way to mitigate harm of herbal inadequacy is to import herbal substances from neighboring countries like Thailand, Cambodia, Laos PDR and China. But the cost of treatment will be higher. By this method, the sustainability of traditional medicine practice will be protected.

From internal and external factors where information was sourced from the EDFR technique, the following is to present analytical results of the study as mentioned in the proposal that is to investigate external and internal factors that affect community health care improvement toward integration of traditional medicine with modern medicine, including economics, technology, regulation, social, and culture and administration perspectives.

Definitions of terms used in this study:

1. External factors mean situations or phenomena happening outside the boundary of medicine context
2. Internal factors mean situations or phenomena inside the context of medicine
3. Integration means a combination of efforts to bring traditional medicine integrating with a modern way of medication

### **7.3 Probable scenario(s) for integration of traditional medicine with modern practice of health care in Pyi Gyee Tagon Township, Mandalay Region (During year of 2013 - 2023)**

This part of report is intended to present a tentative picture of future of traditional medicine in Myanmar by employing scenario analysis method. Scenario is a tool used at particular stage in a process of engagement. Normally this stage is temporary and the result of coming change can be forecasted with less uncertainty. Therefore it is necessary to every function of management to do forecasting. In order to forecast we need an efficient tool and scenario planning is a disciplined method for imagining possible future that many planners in many sectors of business have applied to set up their strategy to accommodate the future.

In scenario planning technique, experts in the field of study are invited to express their opinions in the specified topics and let them forecast what will happen in the near future. Effective of this technique is mainly depended upon their expertise and information provided to researcher. The following s are their perspectives on each topic and outcome of this part is a scenario of traditional medicine of Myanmar derived from information given by our interview.

#### **Patient**

From patients' perspective toward future of traditional medicine, moderate probability and ambiguous scenario is on message written that new generation will apply traditional medicine as an alternative medicine and on desirable scenarios but less probable are number of people who recognize traditional medicine will gradually increase, young generation feel uneasy to follow this path of risk from modern medicine, and well educated people will pay attention of alternative medicine.

#### **Treatment/Pharmaceutical**

Trends of treatment and pharmaceutical perspectives in traditional medicine, from median values obtained in our survey from the experts on probability of occurrences is given below: Instead of using experience-based treatment, traditional medicine is better to apply evidence- based treatment and Traditional medicine concept of treatment has been rooted in this society for many centuries and no one can deny this basic knowledge.

### **Government support**

Trend of traditional medicine on aspect of government support that all experts agreed with and have less probable occurrence are as follow: Government should create a patent law to protect the traditional medicinal formulation, it is expected that Myanmar government will increase its assistance, financially, humanly, and technologically to TM much more than today, Human resource development is a need of a country in order to improve a competence of traditional medicine services.

### **External supportive factors**

Items on the trend of getting external support for sustainability of traditional medicine in Myanmar that received agreeable opinion but has least probable occurrence owing to value of median is Traditional medicine is a part of environment conservation and need to protect.

On the items that most of experts did not all agree but median value of occurring probability is moderate are Opening of the country has no effect on acceptance of traditional medicine, and coming of new technology like mass media, mobile phone, and internet make people feel like fading away from a belief in traditional.

From all scenarios could explained the role of stakeholder in TM system

#### **A.1 Role of the state:**

(1) Standardization of traditional medicine. In Myanmar, government of Myanmar has spent a lot of effort to protect status of traditional medicine.

(2) Standardization of traditional medicine workers: For an assurance of continuation of traditional medicine existing in the country it is a must that they have produce qualified personnel in serving this business.

(3) Standardization of service: With a strong intention to promote traditional medicine, Myanmar government has opened the first traditional medicine hospital in Mandalay situated next to the University of Traditional Medicine.

#### **A.2 Role of traditional medicine personnel like practitioners, traditional medicine producers and association**

(1) Increasing number and better qualification of traditional medicine practitioners. Since traditional medicine in Myanmar is a type of professional in this society therefore all workers have to be well trained both in theory and practice. In order to maintain high quality of service, close and frequent monitoring from the authority will be helpful to lift up their standardization of service delivery.

(2) Modernization of traditional medicine. In former time, using traditional medicine was so much complicated and time consuming. We needed to consult an expert, search for herbal substances, prepare whether burning or streaming, and consume. If the process will be like this, popularity of traditional medicine treatment will be less accepted and leads to an influx of modern medicine.

(3) Role of Traditional Medicine Association of Myanmar. Existing of association as a professional pillar of traditional medicine practitioners in Myanmar is well recognized and this association should play more active role in protecting traditional way of medication.

### **A.3 Role of people**

As mentioned in many occasions that determinant factor affecting to a sustainability of traditional medicine is an acceptance of people or users of traditional medicine. In a transitional circumstance between an invasion of western or modern medicine and a conservation of traditional medicine, it is quite difficult for people to take side which part is better for their health. An advantageous aspect of modern medicine is an effectiveness of medicine for acute disease but, on other side, it causes many side-effects to the users. At the crossroad between new medical technology and old concept of healing, people who are living in the communities have to judge which one they want to supply their needs.

## **7.4 Develop a working network between Myanmar and Thai to improve TM system between two countries.**

### **7.4.1 Guideline for Developing Traditional Medicine Linkage between Myanmar and Thailand**

Normally, an outcome of a research is to search new body of knowledge. This mission of research has been rooted in enlightenment period started from 18 century onward because one objective of education in that time was to liberate body of knowledge from a belief in religion and it has become a core principle of all kinds of research until 20 century. At present, new researchers find themselves some difficulties to accept such principle and they started asking a question on utility of research outcome. Many researchers raised a new idea of research objective that outcome of a research should answer a question of communities and if it cannot perform such responsibility, then a value of the research is not worthwhile. This part of report is an attempt to respond to the new demand of research responsibility as much as possible.

To construct a linkage between two facets of traditional medicine in two countries is a hard work since they own different backgrounds, living in different contexts, and facing different problems. What they share in common is on the same belief in religion, Buddhism.

However, it is possible, in some aspects, to build some linkages between the two like these:

**Institutional Linkage:** In our research findings one institute which is very much contributing to an achievement of traditional medicine in Myanmar is the University of Traditional Medicine which is located in Mandalay. It was founded in 2001 and every year it admits about 100 new students. Admission is based on matriculation examination. By the end of their high school they are obliged to sit in overall country examination and the result of the examination will be used to apply for a seat in the university. After studying for 5 years including one year internship the graduates are conferred BMTM which stands for Bachelor of Myanmar Traditional Medicine Degree.

As mentioned in the beginning that traditional medicine in Myanmar is highly improved and advances because it has been a center of medical treatment in this society. With an advancement of knowledge and long -time experiences accumulated in the school a linkage between Thai institutes and the University of Traditional Medicine will of benefits mainly to Thai side. Exchange of personnel and research publications will be a mutual benefit to improve quality of traditional medical services provided to people. The only problem may happen is an obstacle of language since most of traditional medical staff uses Burmese.

*Exchange of students*, only barrier we find in exchange of students between two counties is a mean of instruction because in the University of Traditional Medicine in Myanmar they teach in Burmese. If Thai students want to learn more in this field they should try hard to learn their language.

*Research collaboration*, it is said that without a research, no knowledge can be developed and if knowledge finds no improvement, innovation finds no place and followed by poor and out of date products. It is also true that knowledge benefits to all parties and cost of research should not be born in one country. Particularly, for an intensive and advance research in traditional medicine which needs high cost of research investment, no single country should take full responsibility if the benefits of the research accrue as much to its competitors as to itself.

**Transferring of experiences from Myanmar to Thailand:** it cannot be denied that Myanmar traditional medicine has been developed faster than what we have in Thailand. Every year new formulations of traditional drugs have been invented and registered to authority. Certainly, all the traditional medicine formulations are confidential. If Thai traditional medicines producers are enable to negotiate and purchase producing licenses from them we also can improve our products. By this method, we need no investment in research but we have to pay for patent to Myanmar authority. Short-cut way may be easier but it takes long-run cost for Thai producers to pay after.

### **7.5 Policy recommendation: A tentative guideline of strategy of traditional medicine to respond to a challenge from modern medicine**

1. While most of traditional medicine in other countries is not professional. Traditional medicine practitioners are not well trained and have not been certified by higher education institute. But in case of Myanmar is so much different since it has been stabilized by the formal university.

2. Although Myanmar society is regarded as a traditional society and people of the country are quite conservative. But for traditional medicine movement we can see that there is a big adjustability of traditional medicine with modern or western medicine. Effective adjustment is another main character of this society. We also found in the traditional medicine university that most of teaching staff are graduates from modern medicine.

3. Even there is a founding of university of traditional medicine for taking care in search of knowledge in medication but other related fields of education should also take part in promotion of traditional medicine. For example, process of producing drugs needs some assistance from engineer section. Recognition of traditional medicine sometimes needs a help from advertisement for marketing.

Also, it is advisable that government of Myanmar should extend school of traditional medicine all over the country. In other word, traditional medicine promotion should be a national agenda.

4. If we want to see traditional medicine strong enough to face with new challenges we have to let it be competitive. Competitiveness is naturally born attached with competition. Then, traditional medicine has to learn how to do marketing because sooner or later Myanmar has to open their country and welcome a new influx of foreign investment. Therefore, it is suggested that composition of study program in traditional medicine program should introduce some courses in business administration in their trainings.

5. As a matter of fact, traditional medicine prevails in almost every country in this region, exchange of knowledge with neighboring countries will contribute a mutual benefit to all concerned and traditional medicine in Myanmar can modify its forms and functions with new trends.

6. As a culture of country, Myanmar government may disseminate this type of knowledge into their schools and convince their young student to appreciate their national legacy.

## **7.6 Constrains of Research**

1. Duration of research, mainly on time allowance in data collection in the Field, is very limited and it was also very difficult to collect data due to a problem of coordination with local authority.

2. Limitation of information available caused by the facts that there were few sources of information in the studied sites. If we could have been supplied with more information, better analysis on development of traditional medicine in communities of Myanmar would be presented in this report.

Given the difficulty in collecting accurate samples, due to the conditions of expert, and data at the previous time at the first field visit, we have again taken steps to carefully verify the validity and accuracy of the information received and used in our inferences.

3. The research technique called Ethnographic Delphi Futures Research in itself also has some capacity limitation. Since it is a technique designed to forecast the future, certainly every future is uncertain and to forecast the future is also risky. Reliability and validity of data interpretation in research processing is very problematic. In order to mitigate such uncertainty, this research added more techniques to supplement like Delphi technique, and SWOT analysis.

However it should be repeated that an outcome of this research is based on EDFR technique and it is a trial to use this new technique to answer of future.



### **7.7 Research Recommendations**

1. Results of research reveal that the state in Myanmar has played a significant role in promotion of sustainability of traditional medicine at the midst of modern medicine influence at present time. Primary health care integrated with traditional medicine has been introduced in health system in order to save cost of medication while people of the country started to be aware of side effects from modern medicine.

2. Provision of education in traditional medicine is another function to support and produce better qualification of traditional medicine practitioners. Investment of traditional medicine education shows that the government has paid high priority to this section and probably there will be an extension of traditional medicine schools wider besides having only one traditional medicine university in Mandalay.

3. Not only introduction of combination of traditional medicine with modern way of treatment but for a sake of sustainability of traditional medicine the mentioned one should also welcome new method of commercialization like how to do marketing, advertisement, and provision of traditional medicine distribution in order to attract new groups of consumers.

4. The State of Myanmar should initiate new division of law on patent and property right for protection of traditional drugs. Continuation of research and development in traditional medicine should be given a support at least for certification of drug quality. Including is an application of traditional medicine from other countries with Myanmar knowledge will be of benefits to all concerned.

### **7.8 Recommendations for a Further Study**

1. Additional study on application and adaptation of modern medicine with traditional one in modern situation will be of help to a progressive way of treatment. Within a limitation of resources in the country, it makes Myanmar government impossible to effort a total way of modern medication and at the same time a negligence of traditional medicine will be disadvantageous in medication efficacy. How to compose both advantages together is a matter of management in health policy.

2. Our current study is based on providers' perspective and, if possible, a study from recipients' perspectives or attitudes of people in the communities toward a function of traditional medicine accommodating to their needs will of benefits to policy makers in order to respond to users' demand.

3. Traditional medicine is a national heritage and property of country, knowledge management in this part is still in lack of study. Without a collection of knowledge it will cause damages to their knowledge nourishment. However, knowledge management in Myanmar is very new and needs some experts outside to teach them.

## **Appendix I**

### **Open-ended interviewed guide 7 experts (To collect data and create a questionnaire)**

1. What is the present situation of traditional medicine in Mandalay (Number of practitioners, treatment, pharmaceutical, patient and integration of traditional medicine and modern medicine)
2. What will happen in the year of 2013 – 2023 for traditional medicine (Number of practitioners, treatment, pharmaceutical, patient and integration of traditional medicine and modern medicine)
  - Optimistic Realistic Scenario (O-R)
  - Pessimistic Realistic Scenario (P-R)
  - most probable Scenario (M-P) in the 2013 - 2023

## Appendix II

### Summary from experts interviewed (I)

According to our interview with key informants in a future forecast process on the trend of traditional medicine, names of key informants are listed below;

#### 1. Name: Mr. A

##### Present situation of traditional medicine in community

1. Because of his experiences in teaching traditional medicine for many years, he disclosed that in the past decades knowledge of traditional medicine was monopolized by the older generation but after 1980 a new generation of this society started to become aware of the dangers of modern medicine effects.

2. He revealed that currently young and educated people in Mandalay pay more attention to traditional medicine because of the way the treatment of traditional medicine adjusts itself along with the modern way of treatment. For example, at the present time, methods of diagnosing a disease or sickness used in traditional treatments rely on modern medicine like using blood pressure tests, X-rays and other modern tools, but the way of treatment they still practice is of traditional medicine like using herbs, massage and others.

3. At the present time, there is a clear distinction between types of disease and proper ways of treatment. For example, when a patient was in danger of becoming paralyzed, they knew they should refer the case to traditional medicine for rehabilitation. But in other medical issues, like accidents, they knew it would be better to go to modern hospitals for an operation. This functional line leads to an interdependency between two medical camps and they support each other. This is an identical and unique system of integration of modern and traditional medicines that is rarely found in other communities, and it makes traditional medicine acceptable and part of survival in Myanmar.

4. The role of health and traditional medicine practitioners has been increasingly supportive to the health care community. For example, instead of doing as health treatment providers, they change their role into preventive advisors to villagers. This changing role creates a positive recognition among people and they take their advice as a part of their way of life. In winter, many traditional medicine practitioners will visit the villages with some advice to protect villagers from respiratory diseases.

##### Pessimistic realism in traditional medicine (year of 2013 - 2023)

(+)1. The informant found no reason why there was any undesirable situation happening to traditional medicine since he insisted that the traditional medicine concept of treatment has been rooted in this society for many centuries, and no one can deny this basic knowledge. On the contrary, the number of people who recognize the utility of traditional medicine will increase instead

(-)2. Regarding an influx of industrialization over Pyi gyee Tagon Township, many villagers changed their way of life and became workers in the newly established factories located in the communities. Whether this wind of change will have a negative effect on traditional medicine's popularity or not is still in doubt. The informant still insisted that the wave of modernization has no influence in the way of

lives of people because all of them understand and are quite aware of the danger of modern medicine.

*Optimistic realistic expectations in traditional medicine (year of 2013 - 2023)*

(4) 1. The informant insisted that the number of people who recognize traditional medicine will gradually increase in the next 10 years. Reasons behind that thought pattern are as follows :

- The number of people with higher education will be increasing, and well-educated people will pay attention to alternative medicine and so far traditional medicine treatment will be their choice.
- It is evidential that modern medicine is very harmful and full of side effects. The younger generation feels uneasy to follow this path of modern risk.
- The establishment of a traditional medicine school, namely the University of Traditional Medicine, will produce more practitioners in this field. This encourages a higher number of traditional medicine users in this community.

(2) 2. The role of modern mass media has been increasingly supportive of an acceptance of traditional medicine. Most villagers listen to radio and follow what they say. Once mass media repeats the danger of modern and Western drug abuse, this can make the villagers feel scared of Western drugs and they opt to use Myanmar traditional medicines.

3. The development of traditional medicine still goes on at a fast pace of progress. There will be an integration of Myanmar traditional medicine with other sciences of medicine. For example, acupuncture from China is pervasively introduced in traditional medicine school, as well as Japanese massage is also a part of body care found in traditional hospitals.

(3) 4. In order to comply with new medical technology, in next 10 years, traditional medicine products also have to transform into new forms of medical supply. For example, many kinds of herbs are contained in capsule form. New ways of massage techniques are also combined with Japanese styles of body treatment. The development of traditional medicine still goes on at a fast pace of progress. There will be an integration of Myanmar traditional medicine with other sciences of medicine. For example, acupuncture from China is pervasively introduced in traditional medicine school, as well as Japanese massage is also a part of body care found in traditional hospitals.

(4) In order to comply with new medical technology, in next 10 years traditional medicine products also have to transform into new forms of medical supply. For example, many kinds of herbs are contained in capsule form. New ways of massage techniques are also combined with Japanese styles of body treatment.

**4.2 Name: Mr. B**

*Present situation of traditional medicine in community*

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- Chronic illness patients prefer to use traditional medicine much more than in the past.
- The number of traditional medicine practitioners (license-registered) cannot cover to all patients' demands.
- There is a revised curriculum review every four years in UTM.
- Some people without access to modern technology still use traditional medicine treatment.
- There is a need to train traditional medicine practitioners about knowledge in Western medicine and also a need for more equipment in traditional medicine treatment.
- The ratio in the national health plan for Western medicine doctor is 1:3,000 people, and for traditional medicine practitioners it is 1:1,200 people but the expected ratio should be 1:300 people.
- Traditional medicine is the first choice of people in the middle and lower classes of people with a low rate of side effects.

*Optimistic/Pessimistic realistic in traditional medicine (year of 2013 - 2023)*

- Traditional medicine will be more popular in the country.
- Traditional medicine practitioners should apply both Western medicine treatment and a traditional medicine one.
- Evidence-based medicine needs to combine both the style of treatment (TM & WM), for example, diabetics.
- The younger generation will more use traditional medicine because of fewer side effects and they do not rely on new technological medicine.
- The factors affecting the decision to choose traditional medicine include: economic, culture and the type of a person's disease.

**4.3 Name: Mr. C**

*Present situation of traditional medicine in community*

Most of the population uses traditional medicine because the price is cheaper, easy to access, and offers more efficiency for chronic disease.

The impact of the industrial zone will cover air pollution, which can cause lung disease.

All public traditional medicine hospitals and clinics are supported by the government in medicine and also facilities are needed. Myanmar traditional medicine has four disciplines: Desana system, Bhesijja system, Netkhatta system and Vijjadhara system. Authentic Myanmar Traditional Medicine is Abhidhamma-based Desana system

In the expert's opinion, in the case of chronic disease healing with traditional medicine, it is more suitable than Western medicine. In contrast, Western medicine is more appropriate with acute disease.

Currently, there is no standard cost of treatment for the patient who uses the traditional medical services. It depends on the mutual satisfaction between traditional medicine practitioners and patients.

*Optimistic/Pessimistic realistic in traditional medicine (year of 2013 - 2023)*

Traditional medicine will develop in research in every aspect and will be changed from experience-based to evidence-based practice.

The number of practitioners or the number of people who are interested in traditional medicine will be increasing every year and numbers of female students are more than male students because females could get a good mark at the competition.

Additionally owing to traditional medicine, based on students who had graduated from the University of Traditional Medicine, it was found that some of them worked for a few years. After that it was also found that, if possible, they changed their job to other business fields, for example, a travel agency.

In the future, the government should create a patent law to protect the traditional medicinal formulation.

#### 4.4 Name: Mr. D

*Present situation for traditional medicine in community*

(1)1. At the present time at national level there is no pragmatic guideline for policy implementation over all the country.

(2)2. Most of the newly graduated medical doctors are rarely interested in traditional medicine other than some experienced doctors who have begun to pay some attention to traditional medicine., The number of the latter group is also small.

(3)3. The key informant insisted that utility of traditional medicine is deserved for non-organic disease like diabetes but for other types of ailments like injuries and body dysfunction, modern medicine may be suitable for this type of disease. In cases of emergencies, like accidents and trauma situations, it is advisable to apply Western medicine.

(4)4. He was inclined to believe that methods and tools for medication from the West are much applicable at the first step of investigation.

(5)5. In his belief, he proposed that actually traditional medicine should be considered as a human life philosophy and cultural affiliation of community and it is a core principle of life. For example, way of daily consumption, living in a proper environment and mitigation of stress are all in traditional medicine teachings.

(6)6. At the current situation of medical education, he suggested that there are too many courses influenced by the West discipline in our traditional medicine program.

(7)7. Factors related to acceptance of traditional medicine include outcomes of treatment, benefits to patients, and, lastly, level of education attainment of people.

(8)8. Due to the fact that there has not been a regulated policy of traditional medicine policy at national level, there was an effort to disseminate concept of

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traditional medicine in the society, for instance, through internet and modern communication technology.

*Optimistic/Pessimistic realistic in traditional medicine (year of 2013 - 2023)*

(4)1. Because of an invasion of urban periphery and invasions to rural areas caused by industrialization, the price of land is higher and owners of the land tend to sell their land of building factories. Utilization of land for plantation has decreased. The amount of herbs has been minimized and it is probable that we will have to import from foreign countries.

(2)2. Politically it is expected that there will be a change in political atmosphere in Myanmar, and democratization will sooner or later be established. In such a situation, Myanmar has to open her markets for foreign investment. Modern medicine is inevitably overwhelming in the communities. Cheap medicine from the West will be available in every corner of the cities and no one will pay attention to traditional medicine.

(3)3. It is expected that new traditional medicine practitioners will positively respond to new medical technologies like using the internet for sharing and exchange of knowledge among people concerned.

4. One day our government will realize that traditional medicine is a part of environmental conservation and that they will need to protect local knowledge for the betterment of society.

(4)

#### 4.5 Name Mr. E

*Present situation for traditional medicine in community*

- Most of the patients in traditional medicine clinics are females (approximately age 35-55 years).

- Disease: back pain, skeleton disease, and trauma.

- The medicine and the treatment support offered by the government.....

- The age of traditional medicine practitioners at previous times are old people and learned how to use traditional medicine from ancestor.

- The reasons for using traditional medicine or modern medicine will depend on the types of disease. For example, in chronic cases, people prefer traditional medicine, but in emergency cases modern medicine is the first choice.

- All traditional medicine practitioners accepted the concept of modern medicine at diagnosis process. In an example of a case of a diabetic, they measure glucose levels.

- From the massive influx of modernity, the way of living has changed. The way of consuming traditional medicine also changed; traditional medicine is still the first choice, but people prefer an easier way to use. For example, they prefer tablets rather than powder. However, there is no research and development about integrating the methods of modern medicine with traditional treatment such as injection.

*Optimistic/Pessimistic realistic in traditional medicine (year of 2013 - 2023)*

- Increasing numbers of patients in the new group, which are the younger generation and people with a higher education, will be interested in traditional medicine because of the low rate of side effects.

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- The government will spend more effort to campaign to encourage strength of community in health care services.
- The most effective factor in sustaining traditional medicine in townships will be the effectiveness of traditional medicines.

#### 4.6 Name: Mr. F

##### Present situation for traditional medicine in community

- Pyi Gyee Tagon Township has one government traditional medicine clinic and around 15 private traditional medicine clinics. Pyi Gyee Tagon Township is the new town (14 years), and previously it was full of rice fields but after industrial zone was built, people from related areas were settled down to work as industry workers and own the small groceries or tea shops.
- People in Pyi Gyee Tagon Township are still using traditional medicine for back pain, skeleton disease and the common cold.
- The result of treatment is the key factor affecting the patient's decision to choose traditional medicine. Treatment and medicine of TM practitioners are different in technique, depending on the experience of the practitioner and source of knowledge.

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##### Optimistic/Pessimistic realistic in traditional medicine (year of 2013 - 2023)

- Increasing numbers of practitioners are at township level.
- Traditional medicine will be improved to provide the better service in community health care.
- The numbers of factories in industrial zones also increases, in case of chemical illness; TM cannot investigate the causation but can treat some symptoms.

#### 4.7 Name: Mr. G

##### Present situation for traditional medicine in community

- Myanmar people believe in Myanmar traditional medicine because it is appropriate for disease eradication as an alternative medicine in some cases of new disease, for example, cancer or HIV.
- Anti-inflammation is the best-selling product of Mauriya factory, with acknowledgement of no side effects.
- High technology in producing medicine is needed.
- There is no problem about lack of ingredient/herbs because she has her own herbal garden in Yangon.

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##### Optimistic/Pessimistic realistic in traditional medicine (year of 2013 - 2023)

- Myanmar government will be of more encouraging people to use traditional medicine.
- New generations will apply traditional medicine as an alternative medicine.
- Development of traditional medicine still goes on with an increase in progress.
- Roles of modern mass media have been increasingly supportive in acceptance of traditional medicine.



All data comes from those interviewed using the EFR technique, was analyzed and made a Delphi questionnaire as appeared in Appendix I (all data categorized into four aspects: patient, practitioner, treatment/medicine, and factor affecting traditional medicine system).

## **Appendix III**

### **Questionnaire for Research Project: Community Health Care Improvement Strategy toward Integration of Traditional and Modern Medicine of Pyi Gyee Tagon Township, Mandalay Division**

#### **Description:**

This research project belongs to Lecturer Numtip Smerchuar from School of Liberal Arts, University of Phayao, THAILAND. Objectives of the research are as follow;

1) To study policy and situation of integration of traditional medicine with modern practice of health care

2) To investigate external and internal factors affecting community health care improvement toward integration of traditional medicine with modern medicine which includes economic, technology, regulation, social, culture, and administrative considerations in Pyi Gyee Tagon Township, Mandalay Division

3) To present the possible scenario for integration of TM and modern medicine in Pyi Gyee Tagon Township, Mandalay Division toward changing society.

4) To present guideline for developing TM network between Myanmar and Thai.

You are the one who was chosen to represent expertise in Myanmar traditional medicine. Data obtained from you to all queries are crucial to the study which will be used for research purposes only. I will keep your answers confidential and will be present only as a whole.

Your time is highly appreciated.

Numtip Smerchuar  
MAY 2012

**Research project: Community Health Care Improvement Strategy toward  
Integration of Traditional and Modern Medicine of Pyi Gyee Tagon Township,  
Mandalay Division**

**Part 1: General Information of Expert**

**Description** Please take the time to fill this questionnaire in a fully as possible.

1. Name: .....

2. Age.....

3. Position.....

4. Experiences in Myanmar Traditional Medicine.....Yrs.

5. Educational background

.....

.....

.....

.....

.....

6. Your expertise in traditional medicine (please specify)

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**Part 2: Present situation of Myanmar traditional medicine in Modern Mandalay**

**Description** This questionnaire contained the sentences about Myanmar traditional Medicine in Mandalay by interviewed 7 experts. Please rate all sentences according to your comments by filling ✓ in the box marked

Item	Present situation of Myanmar traditional medicine in Modern Mandalay	Level of opinion					Reason(S) If any
		very agree	agree	not sure	dis agree	very disagree	
1	Chronic illness patients prefer to use traditional medicine						
2	new generation of this society started to aware danger of modern medicine effects						
3	young and educated people in Mandalay pay more attention to tradition medicine						
4	Role of health and traditional medicine practitioners has been increasingly supporting health care in community						
5	Methods and tools for medication from the west are much useful at the first step of investigation						
6	there is a clear distinguish between types of disease and proper ways of treatment						
7	Integration between tradition and modern medicines has supported role of traditional medicine higher and more acceptable at present time						
8	Traditional medicine is the first choice of people in the middle class and poor people with low rate in side-effect.						
9	At national level there is no pragmatic guideline for policy implementation over all country						
10	Traditional medicine is for chronic disease but western medicine is for acute disease						
11	Practitioners tend to be younger because there is traditional medicine university						
12	New generation of practitioners is more knowledgeable than old one because they receive better trainings						

Item	Present situation of Myanmar traditional medicine in Modern Mandalay	Level of opinion					Reason(S) If any
		very agree	agree	not sure	dis agree	very disagree	
13	Traditional medicine today accept s modern method of diagnosis to supplement in their investigation, compatibility with their beliefs, and more efficacy						
14	Every Myanmar people's household must have at least one type of traditional medicine						
15	Traditional medicine is placed in a higher prestigious position than western medicine						
16	Traditional medicine needs an advance technology for producing						
17	Traditional medicine is suitable for minor sickness						
18	Traditional medicine is an alternative way of treatment of the poors						
19	Traditional medicine is mainly used for the symptomatic treatment						
20	Traditional medicine is less effective than western medicine						
21	Traditional medicine is rather a culture of country than medical treatment						
22	Some modern medicine doctors are reluctant to use of traditional medicine						
23	TM Kit is quite beneficial to people in rural area						
24	TM Kit is an one effective tool to connect people to traditional medicine treatment						

**Part 3: Trend of Myanmar traditional medicine in Modern Mandalay**  
**(Year of 2013 – 2023)**

**Description** This questionnaire contains the sentences about Myanmar traditional medicine in Mandalay by interview 7 experts. Please rate all sentences according to your opinion on level of probability and mark ✓ in one column which is “desirable scenario” or “Undesirable scenario”.

- 1) Your opinions are weighted by number from the most probable to the less probable as written below;

1	means	most probable
2	means	probable
3	means	not sure
4	means	not probable
5	means	less probable

- 2) Scenarios have 2 categories which are;

“Most desirable” means a positive scenario that may occur in next 10 years and this scenario compatible with your desire

“Most undesirable” means a negative scenario that may occur in next 10 years and this scenario does not compatible with your desire

item	Trend of Myanmar traditional medicine in Modern Mandalay (Year of 2013 – 2023)	probable					Scenarios		Reason(S) If any
		5	4	3	2	1	Most desirable	Most undesirable	
1	Opening of the country has no effect on acceptance of traditional medicine								
2	number of people who recognize traditional medicine will gradually increase								
3	modern medicine is very harmful and full of side-effect								
4	Young generation feel uneasy to follow this path of risk from modern medicine								
5	new traditional medicine practitioners will positively respond to new medical technologies								
6	Traditional medicine concept of treatment has been rooted in this society for many centuries and no one can deny this basic knowledge.								
7	Transform into new method of treatment like using new tools from the west								
8	well educated people will pay attention of alternative medicine								
9	Traditional medicine practitioners should apply both western medicine treatment and traditional medicine one								
10	traditional medicine will be more popular in the country								
11	Role of modern mass media has increasingly supported acceptance of traditional medicine								

item	Trend of Myanmar traditional medicine in Modern Mandalay (Year of 2013 – 2023)	probable					Scenarios		Reason(S) If any
		5	4	3	2	1	Most desirable	Most undesirable	
12	Development of traditional medicine still goes on with a big pace of progress								
13	Government should create a patent law to protect the traditional medicinal formulation.								
14	Utilization of land for herbal plantation is decrease								
15	Amount of herbs is minimized and probable we have to import from foreign countries.								
16	Myanmar has to open the markets for foreign investment. Modern medicine is inevitably overwhelming.								
17	Traditional medicine is a part of environment conservation and need to protect.								
18	Myanmar government will be of more encouraging people to use traditional medicine								
19	New generation will apply traditional medicine as an alternative medicine								
20	Study program for traditional medicine should be composed of both traditional medicine with modern medicine								
21	Offering of Master and PhD programs of traditional medicine will improve a progress of traditional medicine								



item	Trend of Myanmar traditional medicine in Modern Mandalay (Year of 2013 – 2023)	probable					Scenarios		Reason(S) If any
		5	4	3	2	1	Most desirable	Most undesirable	
22	Myanmar traditional medicine should associate with other countries traditional medicine concepts								
23	Coming of new technology like mass media, mobile phone, and internet make people feel like fading away from a belief in traditional medicine								
24	It is expected that Myanmar government will increase its assistance, financially, humanly, and technologically to TM much more than today								
25	Human resource development is a need of a country in order to improve a competence of traditional medicine services								
26	The predominant factor to determine sustainability of traditional medicine is a support from Myanmar government								
27	Instead of using experience-based treatment, traditional medicine is better to apply evidence- based treatment								