HOME HEALTH CARE QUALITY INDICATOR DEVELOPMENT IN CHRONIC DISEASE FOR HEALTH TEAM BY PARTICIPATORY ACTION RESEARCH

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HOME HEALTH CARE QUALITY INDICATOR DEVELOPMENT IN CHRONIC DISEASE FOR HEALTH TEAM BY PARTICIPATORY ACTION RESEARCH

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ABSTRACT

The objective of this study was to develop home health care quality indicators for chronic disease patients for a health team by participatory action research. The investigation was undertaken in the area under the responsibility of the Wiharnpracha Health Station located outside the municipality of Bangyai, Nonthaburi Province and an area under the responsibility of “Somchai Patana Village” Health Centre, located within the municipality of Bangkroy, Nonthaburi Province. Participatory action research was performed in 3 steps: 1) the preliminary study or the preparation period; 2) the main study or the formulating of the indicators; and 3) the trial period of the indicator. The techniques applied for data collection were participatory rural appraisal (PRA), in-depth interviews, participatory observation, focus group discussions and the use of questionnaires. The instruments used in this study were indicator development for chronic disease patients by participatory action research, the following topics were addressed: 1) the participation and enthusiasm of the target groups to formulate the indicators; 2) the use of the best suitable indicators in terms of the importance and practical implications in the community; 3) the trend to actually use the indicators by the health staff; and 4) the ability of the people in the community to modify the indicators in the future. The information obtained was analyzed by using the analytic induction concerning the background, social structure, geographic, cultural and basic social status, and the typological analysis of the variables related to the home health care quality indicators for chronic disease patients.

As a result of the investigation it was possible to formulate 15 home health care indicators for chronic disease patients living outside the municipality of Bangyai, Nonthaburi Province and 21 home health care indicators for chronic disease patients who lived within an area of the municipality of Bangkroy, Nonthaburi Province. The result of the evaluation of the participatory action research in these two areas were that: 1) the target groups were enthusiastic to participate in the indicator formulation; 2) the indicators used in the community were formulated in a way that reflected their importance and practical use; 3) the health staff will use the indicator in future; and 4) the people in the community have the ability to modify the indicator .

Comments for the Ministry of Public Health are: 1) the indicators should be formulated by the health provider responsible for people in that community; 2) the policy followed in formulating and establishing health indicators should be based on the information obtained from health indicators derived from various areas of the country; 3) training courses and orientation concerning chronic disease patients should be provided to the health personnel and caregivers who attend chronic disease patients at home; 4) a data base or information system derived from home health care for chronic disease patients should be established and used to develop home health care quality indicators for chronic disease patients.

KEY WORDS : HEALTH CARE QUALITY INDICATOR / CHRONIC DISEASE PATIENT / HEALTH TEAM / PARTICIPATORY ACTION RESEARCH

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การพัฒนาตัวชี้วัดคุณภาพการดูแลสุขภาพผู้ป่วยเรื้อรังที่บ้านสำหรับทีมสุขภาพโดยวิธีวิจัยปฏิบัติการแบบมีส่วนร่วม (HOME HEALTH CARE QUALITY INDICATOR DEVELOPMENT IN CHRONIC DISEASE FOR HEALTH TEAM BY PARTICIPATORY ACTION RESEARCH)

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บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อพัฒนาตัวชี้วัดคุณภาพการดูแลสุขภาพผู้ป่วยเรื้อรังที่บ้านสำหรับทีมสุขภาพ พื้นที่ที่ทำการวิจัย 2 พื้นที่ คือ พื้นที่รับผิดชอบของสถานีอนามัยวิหารประชา อำเภอบางใหญ่ จังหวัดนนทบุรี(นอกเขตเทศบาล) และพื้นที่รับผิดชอบของศูนย์สุขภาพชุมชนหมู่บ้านสมชายพัฒนา อำเภอบางกรวย จังหวัดนนทบุรี(ในเขตเทศบาล) โดยใช้การวิจัยปฏิบัติการแบบมีส่วนร่วม และประเมินผลการปฏิบัติการแบบมีส่วนร่วมในการพัฒนาตัวชี้วัด 4 ประเด็น 1). การมีส่วนร่วมของกลุ่มเป้าหมายในการพัฒนาตัวชี้วัด 2) ความเหมาะสมของตัวชี้วัดกับพื้นที่ 3). แนวโน้มของกลุ่มเจ้าหน้าที่สาธารณสุขในการนำตัวชี้วัดไปใช้จริงในอนาคต 4) ศักยภาพของชุมชนในการพัฒนาตัวชี้วัดต่อไปในอนาคต ได้ดำเนินการวิจัยเป็น 3 ระยะคือ 1). ขั้นเตรียมการ 2). ขั้นตอนการกำหนดตัวชี้วัด 3). ขั้นตอนการนำตัวชี้วัดไปทดลองใช้ในพื้นที่ กลุ่มเป้าหมายมี 3 กลุ่ม คือ 1) กลุ่มผู้ป่วยเรื้อรังที่บ้าน 2) กลุ่มผู้ดูแลผู้ป่วยเรื้อรังที่บ้าน 3) กลุ่มเจ้าหน้าที่สาธารณสุขในพื้นที่ เครื่องมือที่ใช้ได้แก่ แบบประเมินตัวชี้วัด , ฐานข้อมูลการดูแลสุขภาพผู้ป่วยแต่ละราย แบบสรุปฐานข้อมูลและผลการวัดคุณภาพการดูแลสุขภาพผู้ป่วยเรื้อรังที่บ้านแต่ละเดือนและแต่ละปี การเก็บรวบรวมข้อมูลใช้เทคนิคการวิเคราะห์ชุมชนแบบมีส่วนร่วม การสัมภาษณ์เจาะลึก การสังเกตแบบมีส่วนร่วม การสนทนากลุ่มตามธรรมชาติ การตรวจสอบตัวชี้วัดโดยประชาชน ในช่วงของการจัดทำตัวชี้วัดใช้เทคนิคของการจัดสนทนากลุ่มเป็นส่วนใหญ่ วิเคราะห์ข้อมูลใน 2 ลักษณะคือ ข้อมูลเชิงประจักษ์ ใช้วิธีการวิเคราะห์แบบอุปนัย (Analytic Induction) ส่วนข้อมูลที่กำหนดลักษณะของตัวชี้วัดวิเคราะห์ด้วยการจำแนกชนิดข้อมูล (Typological Analysis)

ผลการวิจัยพบว่าตัวชี้วัดคุณภาพการดูแลสุขภาพผู้ป่วยเรื้อรังที่บ้านของพื้นที่ที่ทำการวิจัย พื้นที่นอกเขตเทศบาลมีจำนวน 15 ตัวชี้วัด และพื้นที่ในเขตเทศบาลมีจำนวน 21 ตัวชี้วัด การประเมินผลการใช้การวิจัยปฏิบัติการแบบมีส่วนร่วมในการพัฒนาตัวชี้วัดทั้ง 2 พื้นที่พบว่า 1) กลุ่มเป้าหมายทั้งเจ้าหน้าที่สาธารณสุขและชาวบ้านมีส่วนร่วมการพัฒนาตัวชี้วัดเป็นอย่างมาก 2) ผู้ที่นำตัวชี้วัดไปใช้เห็นว่าตัวชี้วัดมีความเหมาะสมกับพื้นที่ 3) เจ้าหน้าที่สาธารณสุขมีแนวโน้มในการนำตัวชี้วัดไปใช้จริงในอนาคต 4) ชุมชนน่าจะมีศักยภาพในการพัฒนาตัวชี้วัดต่อไปในอนาคต ซึ่งพบว่าเจ้าหน้าที่สาธารณสุขที่ร่วมโครงการวิจัยมีความรู้พอที่จะเป็นแกนนำในการพัฒนาตัวชี้วัดของพื้นที่ต่อไปได้ ด้านความตระหนักของกลุ่มเป้าหมายในการพัฒนาตัวชี้วัดพบว่า กลุ่มเป้าหมายทั้งที่เป็นชาวบ้านและเจ้าหน้าที่สาธารณสุขมีความตระหนักต่อการพัฒนาตัวชี้วัด ด้านทักษะของกลุ่มเป้าหมายในการพัฒนาตัวชี้วัดพบว่าเจ้าหน้าที่สาธารณสุขที่ร่วมโครงการวิจัยมีทักษะพอที่จะเป็นแกนนำในการพัฒนาตัวชี้วัดต่อไปได้ ส่วนกลุ่มเป้าหมายที่เป็นชาวบ้านไม่ได้รับการฝึกทักษะให้เป็นผู้ดำเนินการอภิปราย แต่ยินดีจะร่วมมือกับเจ้าหน้าที่สาธารณสุขในการพัฒนาตัวชี้วัดต่อไปในอนาคต

ข้อเสนอแนะ 1) ผู้บริหารสาธารณสุขน่าจะกำหนดนโยบายให้แต่ละพื้นที่รับผิดชอบของสถานบริการสาธารณสุขต่างๆ กำหนดตัวชี้วัดที่เป็นของพื้นที่นั้นๆ เอง 2) การตัดสินเชิงนโยบายควรใช้ข้อมูลจากพื้นที่มาประกอบการตัดสินใจเพื่อให้สอดคล้องกับความหลากหลายของพื้นที่ 3)ผู้บริหารและผู้นิเทศน่าจะพัฒนาผู้ปฏิบัติงานในพื้นที่เกี่ยวกับการดูแลสขภาพผู้ป่วยเรื้อรังที่บ้าน 4) การจัดทำฐานข้อมูลหรือระบบข้อมูลข่าวสารเกี่ยวกับการดูแลสุขภาพผู้ป่วยเรื้อรังที่บ้านเครวนำมาพัฒนาตัวชี้วัดคุณภาพการดูแลสุขภาพผู้ป่วยเรื้อรังที่บ้าน

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CHAPTER I
INTRODUCTION

1.1 Background and the Importance of the Problem

Presently, the need for home health care services for elderly patient increased due to a number of factors related to the demographic development, the change of the morbidity pattern in Thailand and other important issues related to the improvement of the health care delivery system of the country.

1. The number of elderly and the proportion of the population belonging to the fraction of elderly rapidly increased from 4.9 to 9.1% from 1970 to 2000 (Ministry of Public Health 2001: 3-4; The National Statistic Office 2001). Most of the elderly are sick, suffering from chronic diseases, are disabled, cannot care for themselves and need treatment. Often they have to stay in the hospital for a long time. The duration of hospitalization increases steadily and by this the burden of the hospital to take care of the patients.
2. The expenses of the hospital to care for the elderly patients also increase because the cost for diagnosis of and treatment for chronic diseases rise due to the necessity to use high technology and expensive medical tools. Often it is necessary to discharge the patient earlier then advisable and to take care for her or him at home (Pornthip Kayuranont, 1996:2).
3. The technical development in the industry and the agricultural sector increased the risk to meet an accident by operating a machine or being poisoned by chemicals. This might contribute to the rising number of disabled and chronically sick individuals (Janpen Chuprapawan, 2000: 72). At the same time living standards rose and by this the cost of living. Members of the family work outside the house, and have no time to look

after the patients, who are suffering from chronic diseases or are disabled. All these factors contribute to the increased demand for home health care services.

4. Formerly the women in the household cared for the elderly. Due to the need to keep a certain living standard and to contribute to the family's income more and more women are working for instance in factories or some in the agricultural sector. The elderly and children don't have anyone to look after them when they are sick (Penprapa Sirirot, 2000: 2–5). Also this contributes to the necessity to have a home health care service.
5. The policy of the Ministry of Public Health concentrates on 3 important issues in the development of public health:-
   - Health Care Reform
   - Decentralization of health care and giving more responsibility to the Administrative District Office
   - The universal health coverage scheme

The policy of the ministry will be implemented at the Community Health Centre or Primary Care Unit (PCU) (Samrueng Yaengkratoak and Ruejira Mangklasiri 2001: Introduction). Following the slogan "Near House Near Heart", the primary care unit should be the first spot to be approached by the people in case they need medical assistance. The primary care unit provides health service to the public in terms of health promotion, disease control and prevention. The service provided should be a holistic approach, which offers service to the people in relation to the physical, mental, emotional, social, and spiritual wellbeing. It also integrates health promotion, disease control and prevention, primary health care and health rehabilitation. It should be a continuous service which needs the cooperation from the service provider, the family of the service receiver and the community. It is a service that supports the people to care for their own health, for the health of the member of the family and for the health of the people in the community. It is related to basic health problems of daily life, such as to minimize the risk to acquire an infectious disease and getting treatment when falling sick (The Nursing Division, Ministry of Public Health, 2002: 5). The service provided by the Primary Care Unit concentrates on the patient and emphasizes the care for the patient at home. Whenever possible the patient should be able to care for her-

or himself or the relatives should know how to take care for the patient. According to the policy of the Ministry of Public Health, the role of the health personnel of the primary care unit is to take care of people with health problems and to provide health promotion to the people in the community. One staff of the Primary Care Unit should serve the people in the area under the responsibility of a particular PCU for 15 hours per week. He or she should visit patients with chronic diseases or families with members suffering from complicated health problems for 30 % of the working hours (The Nursing Division, Ministry of Public Health 2002: 33 – 35). The aim will be to help the patient to recover, prevent complications and decrease the severity of the ailment. The health personnel support health promotion by caring for their own health and care for the health of the people which is the basic principle of good health for all. (The Nursing Division, Ministry of Public Health, 2002: 3 – 10). Due to the policy of the Ministry of Public Health, the number of home visits increased especially for chronic disease patients and for families with members suffering from complicated health problems.

Presently, health care for chronic disease patient at home is very essential due to the fact that the number of patients with chronic diseases increase every year particularly in developing countries. A survey of the health status of 5,882 families in Thailand found that 67% of the surveyed families had 1 to 2 family members, who suffered from a chronic ailment. In average 1.6 chronic diseases were found per family. Only 11.8% of the surveyed families had no family member with a chronic disease (Chanpen Chuprapawan, 1996). From 1996 to 2000 the mortality due to cancer, heart disease, hypertension and cerebral vascular diseases increased. For cancer the mortality increased from 50.5 in 1996 to 63.9 in 2000 per 100.000 population, for hypertension and cerebral vascular diseases the mortality increased from 15.6 in 1996 to 18.9 per 100.000 in 2000. The morbidity rate of hospitalized patients was the highest for patients with heart diseases amounting to 230.81 per 100.000 population in 1999, the rate for diabetes was 218.88 and for hypertension 216.60 (The Office of the Policy and Planning for Public Health, Ministry of Public Health ,2001). Chronic diseases mainly are non infectious. In developed countries chronic diseases are the main cause of illness leading to death. Even though, the patients receive treatment using high technology, sophisticated medical equipment and

medicine, it can only prolong the lives of the patient (WHO, 1998). The patients have to suffer from chronic diseases throughout the rest of their lives because the disease as such cannot be cured. Hospitalized patients with chronic diseases will be discharged after getting better. He or she will stay at home, take care of her- or himself or is cared for by a member of the family. The members of the family are laymen and usually don't understand the nature of the disease and are lacking the knowledge about the illness and the correct way to take care of the patient. Eventually the patient is worried, confused and lacks confidence while caring for her- or himself. This also happens to the member of the family, who takes care of the patient. In case wrong decisions are made because the illness and the symptoms of the patient are misinterpreted and the condition of the patient is getting worse or the patient develop complications, all this will bring the patient back to the hospital for the treatment. This course of events is contrary to what the policy of the ministry did intend, which aims to shorten the stay in hospital and promotes self care. It also directly affects the quality of care the patient received.

In order to solve the problem and prevent the course of events as described above, advice and consultation should be given to the patient and the relatives. To the patient and the relatives it should be demonstrated how to care best for the sick person and the patient should practice the correct way to care for her- or himself and also the member of the families or relatives, who take care of the patient should do so. This may help to avoid complications and with the good and correct health care at home, the patient then will have a good quality of life which also will depend on the economics status of the patient. Besides that, the patient and the family can save some money, because they don't have to pay for treatment, traveling to and from the hospital and the accommodation for the family at the place of the hospital, while the patient is admitted. Also the government will save money and can provide it to the other patients, who have severe symptoms and need the treatment.

The principles of home health care for the patient is based on the study entitled "good health begins at home", which was a health project of the Yala hospital from 28th of October 1993 to 30th of September 1994 (Thipwadee Bumpenbun, 1994: 22 – 26). Home health care was provided to 149 elderly and the result was, that the number of visits to the outpatient department of the elderly decreased in average 3

times /person and also the length of stay in the hospital decreased in the average of 1 time (7 days) /person. Consequently beds were vacant for other patients and the income of the hospital increased by 301,002 Baht and expenses of the hospital decreased for 1,618,584 Baht. The expenses for patients and relatives also decreased, because they had to spend less for traveling. The relatives still can go to work and earn some money. The expenses of 149 elderly patients and relative decreased by 108,240 Baht. A similar result was obtained by the study of Oktay and Valland (Oktay & Valland , 1990: 39) Home visits were paid to elderly who were discharged from a hospital where the elderly received health care and social services. The result showed that, the length of stay in the hospital decreased as well as the expenses of the hospital by US $ 4,585/person/year. It can be concluded, that home health care is advantageous to the patients particularly within the present economic and social situation of the country. Because the number of patients at the inpatient department decreased, and also the expenses for the hospital and for the patient decreased (Prayoung Limtrakul, 1997:1). The elderly patients were continuously cared for at home by members of the family or relatives within a familiar and warm atmosphere which can help to improve the condition of the patient and prevent complications of the disease and may avoid worsening the condition of the patient due to incorrect care. (Jariyawat Kompayak 1995: 69).

People became more and more interested in home health care and the service was expanded to a wider area. The home health care service was included in the Public Health Development Plan No. 7 (1992 – 1996). In 1993 it was the policy of the Ministry of Public Health to develop the home health care service to be a selective service, which should be applied for the whole country (The Committee of the Public Health Development Plan 1992: 50). The home health care service also is included in the development project for the health service system of the health provider and regional public health units (Prapin Wattanakit, 1998 : 12). The hospital can adjust the model of the home health care service according to the situation in the area under the responsibility of the hospital. Pornthip Kaeyuranon (1996) studied a model of the health care services provided by the hospitals under the responsibility of the Regional Hospital Division, Ministry of Public Health. The study investigated the situation in future by applying the Delphi technique. The result was, that in the next decade, home

health care should not follow only one model for all areas of the country but should be applied through various models adjusted to the particular conditions of a given area and taking into the account the problems in that particular area. However the program should follow the same objectives.

The management and the procedures of the home health care should follow the policy of the Ministry of Public Health. A professional nurse should provide health service as the team leader. She should be the coordinator between the health personnel and the patient or his or her relatives. She should monitor the program by collecting data, receive information, report to her superiors and follow up the progress of the home health care project. (Prapin Wattankit, 1993: 1). Home health care faces many problems and obstructions. For example it was not clear which unit of the health care delivery system should be responsible. The job description of those providing home health care was lacking, there was not enough health personnel, and no daily allowance for the staff. The health personnel was not prepared for the job, there was no budget and equipment. There was no co-operation between the health organizations and communities. It was not clear how to evaluate the service and who should be the person, who is responsible for the coordination. Patients and relatives refused to receive the service from the health personnel but wanted to see a doctor instead. Some patients could not afford to pay for the services. Patients didn't' want to be cared for at home after she/he was discharged and there was any body to care for him/her at home (Pornthip Kaeyuranon, 1996).

The evaluation of the home health care provided by the hospitals under the responsibility of the Ministry of Public Health in 12 zones of the country showed that the service reached only to 85 % of the area under the responsibility of the hospitals (Good Health Begin at Home Club, Thailand, 1999: 3). Some areas under the responsibility of the hospitals didn't receive the service, because of insufficient planning for expansion in the long term, uncertainty about the service procedures, lack of information about the situation of the service since no relevant data had been collected and the coordination between the health team and the patient or relatives was bad (The Committee of Good Health Begin at Home Club, Thailand, 1996: 8 – 13). The data for the evaluation of the home health care in the past, was derived from seminars. The evaluation of the general procedure of the home health care did not

consider the quality of home health care and in neglected the requirements for home health care of chronic disease patients. The home health care quality indicator and the community health care quality indicator of chronic disease patients were developed by the American Nurse Association (American Nurse Association, 2002) and the Centre for Health System Research and Analysis of the University of Wisconsin – Madison (The university of Wisconsin-Madison Centre for Health System Research and Analysis, 2003). Apart from the fact that the hospitals and universities in the United State of America invented and developed the home health care quality indicator for chronic disease patients, they also took into account specific issues for example the ability of patient to care for himself or herself, to prevent accidents, to receive health information, and to control infectious diseases etc. (The University of Iowa College of Nursing, 2002, North Carolina Hospital, 2000, Idaho Hospital and Long Island Hospital, 2000) It is necessary to keep in mind that by using the system and the indicator for the measurement and evaluation of the home health care quality of chronic disease patients the particular environment of the area the patient is living in, the resources available and the particular and special problems the patient is facing has to be considered carefully.

In 2001, the Ministry of Public Health set up the community nursing quality indicator for the health providers in order to measure the quality of the community nursing in the areas under the responsibility of the providers (The Nursing Division, Ministry of Public Health, 2001: 103 – 109). In 2003, 11 community nursing quality indicators were developed by the Ministry of Public Health and used nationwide. There are three nursing quality indicators related to home health care for the chronic diseased patient, that is the quality of life of the chronic disease patient, the decubitus rate and the accidental rate in chronic disease patients. (The Nursing Office, Ministry of Public Health, 2003: 2 – 24 photocopy). The indicators were set up by experts and professional staff from the Ministry of Public Health without having sufficient information about particular problems and demands of the people in individual areas. The indicators were used by the health care providers all over the country. The result was, that the health providers did not know the quality of service they provided to the people. The structure, procedure and the outcome of the service did not respond to the problems and requirements of the people in a given area. The people and the public

health personnel should participate in setting up the home health care quality indicator for chronic disease patients in order to have a suitable and efficient indicator which makes it possible to well understand the problem in the area and follow the concept of social medicine. The severity of illness also depends on the environment and culture the patient is living in and largely depends on the social conditions, in that different treatment is given to different social strata of the population. The efficiency of illness prevention and treatment depends on the social environment and the knowledge about the technology used for the health care of the people. The social environment does not only influence the patient and his illness but also the care givers in many aspects. The illness of the patients therefore is not only to be considered under a biological aspect but the social conditions are important as well. If one is seeing only the medical aspects of an illness that one will go completely wrong because one will not recognize the important influence the social environment has on the patients suffering or well being (Benja Yoddamnuen and et al., 1980: 2 – 5).

It is the perception of the anthropology to conduct research in that the people in the communities participate in and are the main subject to be studied under the continuous observation of the investigator. The investigator should learn to know about the behavior and the culture of the people in the communities and understand how the people adapt to the physical and social environment. Each group of people might have its own way to respond to changes in the different environments. In order to understand the behavior of humans it needs to study every aspect of human life for instance the physical, psychological and cultural circumstances (Ngampit Satsahuan, 1980: 2- 3).

The people in the community participated in the study and had been the main subject of the investigation while developing the home health care quality indicator for chronic disease patients. Care also was taken to consider the economic situation and the efficient use of local resources. The indicator will be suitable to identify the problem in the community which might be due to limited resources in terms of land, labor, raw material, and time etc. Whatever the occupation or the living status the people might be, they will decide how to address their economic problems. They will try to make the best use of the limited resources and get the most benefit out of a given situation in order to get an optimum of satisfaction (Ratana Saikanit and Chonlada

Jamornkul, 1985, 2- 3). It is the choice of the people what goods they want to consume. They will select goods from which they think they will have the most benefit out of them (Praphan Sawatanan and Phaisal Laekuthai, 1995 : 6). Following this concept the people in the community choose the home health care quality indicator from which they believe that it will serve them best and which they think will best reflect the health care problem the people in the community will face.

The investigator collected the information of the people, who lived outside the municipality of Bangyai, Nonthaburi province, an area under the responsible of Wiharnpracha health station. A second group was studied living in the "Somchai PatanaVillage", an area within the municipality of Bangkroy, Nonthaburi province and under the responsible of the Community Health Centre there. From the population living in the area under the responsible of Wiharnpracha health station 8.71 % suffered from chronic diseases and 44.06 % of the chronic disease patient were continuously cared for by the health team at the health station (Wiharnpracha health station, 2002 : 1). Some of the patients, living in the most infertile area of the Nonthaburi province can not be reached by car and the health team have to visit them traveling by boat. Because of the inconvenience to reach these patients the health team should train and advise the patients and the relatives how to care for the sick patient so that the families can help themselves, since the health team cannot come to see them as frequent as necessary. From the population living in the area under the responsible of the Community Health Centre "Somchai Patana Village", 10.27 % had chronic diseases and 24.78 % of those patients were continuously cared for by the health team at the Community Health Centre. Some of the chronic disease patients visit the hospital for treatment. (Community Health Centre "Somchai Patana Village", 2002: 3). Eighty percent of households in the area where staying in a housing estate and bought their house from the company, which developed the compound. The active part of the population work outside the house and the elderly relatives suffering from chronic diseases did stay at home being cared for by employed care givers. It is essential to give advice, health information, and consultation to the patients and their care givers and also to train the patients and their care givers so that the patient can care for her- or himself and the care giver can provide correct and proper care to the patient.

The people in these two areas under study had problems with chronic diseased patients and the home health care for these chronic disease patients. They are lacking a good and logic evaluation system for the home health care for chronic disease patients. That means they don't have their own home health care quality indicator. They use the community health care quality indicator of the Ministry of Public Health, which is the only one being used for all areas of the country. This indicator cannot measure the home health care quality in chronic disease patient which the result, that the problem concerning the health service system cannot be identified correctly, because the indicator does not consider the culture, belief and economic status of the people in the community and the requirement of the people in the area. Therefore, the development of the health service system does not respond to the real health problems and the requirements of the people in the area are not met. This will affected the health- and the economic status of the people in the area and also influence negatively the management and economic status of the hospital, as it is explained below:-

- As a result of the incorrect and improper care the patient develops complications and his condition is getting worse. At the end the patient has to visit the hospital for treatment.
- The patient and his or her family or relatives spent money for traveling and treatment.
- The relatives or members of the family can not go to work, and lose income because they have to accompany the patient to the hospital and back home after treatment. In case the patient is admitted at the inpatient department, they also will stay at the hospital or pay for the accommodation somewhere near the hospital.
- The hospital has expenses in that it has to treat the patient, who will stay in hospital for a long time and occupies a bed which could be provided to another patient more severely ill and with the necessity to stay in the hospital. The length of stay in the hospital is expensive and a lost for the hospital.

So it can be seen that it is essential to have an efficient home health care system for chronic disease patients as well as an evaluation system using a proper home health care quality indicator for each individual area. The people and the health

team in the area can use the indicator to measure, evaluate and further develop the quality of home health care for chronic disease patients. This will be beneficial for the health of the patient and his or her family financial standing. For example the family has not to pay the expenses for traveling to the hospital and the treatment as well as the hospital doesn't have to shoulder the expenses for caring for the patient. The family members or relative can go to work and earn money because the patient is being cared at home by the member of the family or a familiar person which may help the patient to recover from the sickness at home faster than in the hospital.

The investigator asked for the cooperation from the people under the responsibility of the Wiharnpracha health station and the community health station "Somchai Patana Village" to help to develop a home health care quality indicator for the chronic disease patient using the method of participatory action research (PAR). In the opinion of the investigator, the PAR is related and in accordance to the theory of social science and applies a methodology suitable for the procedures of a study in the filed of critical social science, which emphasize critical reflection about knowledge, belief, encouragement and empowerment. Through this methodology the social conditions can be improved. By using the reflexive method and dialectic technique, the people who are the target subject of the research participate in the development of a concept, provide information, develop the sense of ownership and will have a benefit from the outcome of the research (Pongpan Treimongkonkul and Supab Chattraporn, 2002: 201 – 206). Besides the development of the home health care quality indicator for chronic disease patients, the investigator also wanted to evaluate the development of the participatory action research indicator. This will be useful for health care providers since they can measure, evaluate and improve the home health care for chronic disease patients. The people under the responsibility of two areas mentioned above also can use the home health care quality indicator for checking the home health care provided to the patient by the health team so that the patient gets the most efficient home health care which will be good for his or her health. Other health providers also can use the home health care quality indicator to evaluate the outcome of the home health care for chronic diseased patients. According to the procedures used for indicator development, the health providers in the area defined the indicator for that particular area. The participatory action research was suggested by the

Ministry of Public Health as a guideline for setting up the indicator. As mentioned before each individual area has its own resources and problems, so it is necessary that the indicator is defined by the people and the health team in a particular area so that for the outcome of the home health care the quality of the care can be assessed in accordance with the conditions of the individual areas. The indicator was applied for home health care in order to measure the quality of such a service for chronic disease patients and also to develop the service, which the aim to have good health care in the future.

1.2 Objective of the Research

General Objective

To develop a home health care quality indicator for chronic disease patient to be used by the health team

Specific Objective

1. To develop the home health care quality indicator for chronic disease patients through participatory action research.

2. To evaluate the home health care quality indicator for chronic disease patients to be used by the health team in the area under study with emphasizing the following issues:-

2.1 The cooperation of the target group to formulate the indicator.

2.2 The suitability of the indicator in terms of importance , clearness and its practical use in the community.

2.3 The trend to use the indicator by the health staff.

2.4 The ability of the target group in community to modify the indicator in the future after the investigator left the area. The ability of the target group in the community will be evaluated in matters of :-

2.4.1 The knowledge of the target group to formulate the indicator.

2.4.2 The awareness of the target group to formulate the indicator.

2.4.3 The skills of the target group to formulate the indicator.

1.3 Research Framework

1. The home health care quality indicator for chronic disease patients used by the health team can be developed only as an outcome indicator.The outcome consisted of the proximate outcome and the ultimate outcome.The structural indicators and the process indicators of health stations and community health centers can not be changed due to the structures of the centers and the working process of the health team which is fixed by the Ministry of Public Health for all areas of the country.

2. The development of the home health care quality indicator for chronic disease patients used by the health team was necessary in order to evaluate the quality of home health care for chronic disease patients only in the area under study. The indicator was defined by the patients, the caregivers, the health team and the research team.

1.4 Fundamental Issues

1. Due to the limited time available for this study, the investigator used the most feasible procedures as mentioned below :-

1.1 The concept of the American Nurse Association (ANA) to formulate home health care quality indicators for chronic disease patient were used because this concept is suitable to conclude on a basic procedure and can be used as a guideline for fast data collection.

1.2 Due to the limitation in time, physical and economic assistance to the target groups were given so that they could participate in the group discussion. So for instance the investigator made it convenient for some members of the group discussion to participate in providing them transportation to the location were the group discussion took place.

1.3 The home health care quality indicators for chronic disease patient were used for 3 months in the area under investigation.

2. According to the regulations of the Faculty of Graduate Studies, Mahidol University, for research projects with human individuals, the sample groups must sign a consent form.

3. The target groups i.e. the health staff, community research team, patient and caregivers participated in the group discussions. The investigator trained only the health staff and the community research team to be able to modify the home health care quality indicators for chronic disease patients, because they will be the leaders to formulate the indicators for the people in the community in future. Patients and caregivers participated in the discussions by giving comments and exchanged point of views with the other members of the group discussion.

1.5 Variables

The dependent variables are the procedures used for the development of the home health card quality indicators for chronic disease patients by participatory action research.

The independent variables are the home health care quality indicators for chronic disease patient which already have been developed by participatory action research and the ability of the target groups to modify the indicators in terms of knowledge , awareness and skills to formulate the indicator.

1.6 Expressions Used in this Study

1. **Home health care** means the health service provided to the chronic disease patient and her or his family within the home environment. The health team of the health provider visit the patient, give care, advice and consultations in order to promote the health, maintain the health status, decrease the illness and disability related to the illness, including the final stage of illness. It was planned to provide a suitable service to the patient according to the necessity of the patient and family with the cooperation and the responsibility of the person involved so that the patient was

cared for continuously and can maintain her or his health and have and optimum of quality of life.

2. Chronic disease patient means the patient who needs care at home due to an illness which caused her or him not being able to go to receive the service at the location of the health provider and to be disabled or have limited functions of some parts of the body and who cannot fully recover from her or his illness. The patients need continuous care and treatment, for instance physical therapy, and rehabilitation. They will be cared for by health team within 1 year.

3. The health care quality indicator means a variable or the group of variables used to measure the quality of home health care for chronic disease patient. The indicators were formulated by using the method of PAR. The target groups participated in the group discussion, and they were aware of importance of the indicators and informed accordingly. The indicator were measured in quantities and comparable with the criterions for health standards. The indicator is able to measure the grade of severity of the health problem or the health status of the patient. The indicator measures the outcome of the home health care in terms of quality of the serviced provided to the chronic disease patient. The proximate part of the service outcome relates to the advice and the treatment and the ultimate part of the service outcome measures the grade of disability of the patient, whether she or he dies or get getter and how satisfied the patient and the relatives are with the service.

4. The community and home health care quality indicators for chronic disease patients as developed by the American Nurse Association means that the investigator used the concept of the indicators as the fundamentals for this study or used it as the basis for a theory to classify the indicators and their use in the study area. The American Nurse Association divided the indicators into 8 categories.

4.1 Utilization of service. Utilization of service indicators consisted out of indicators related to the number of visits of the patients, time spent for caring, total hour / day for caring chronic disease patient and the readmission rate of patients within 60 days after being cared for by the community health service.

4.2 Client / patient satisfaction. The satisfaction indicator comprised of the satisfaction of the patient with the health service related to health information receiving and total care.

4.3 Risk reduction. The risk reduction indicator considered stopping smoking, decrease of hypertension.

4.4 Increase activities in prevention. The indicator related to prevention were associated with the time the caregiver spent for the daily life activity of the patient at home, the efficiency of the health care provider to care for the patient, the caregiver's reaction to the patient and the frequency it was allowed to provide care to the patient by the caregiver.

4.5 Level of functioning : Activities of daily life / Use of tools for daily life. The indicator assesses the level of functioning or the activity of the patient by assessing whether he or she used tools in daily life related to taking a bath, walking, food consumption and et. al.

4.6 Psychosocial health indicator. The indicator related to social interaction, perception, communication, the skills of life and et. al.

4.7 Change in symptom severity. The indicator related to increasing or releasing of pain, pain management and discomfort management.

4.8 Strength of the therapeutic alliance. The indicators is related to the strength of the therapeutic alliance meaning that the continuous communication between patient/family and nurse is measured and the satisfaction of the patient/family with emotional support , health information , decision for treatment and the technical service accessibility.

5. Health team means the public health personnel in the area under study for instance graduated nurses, public health management staff, academic public health professionals, staff of the public health in community and technical nurses.

6.Caregiver means the person who was trained by the public health personnel how to take care for the chronic disease patient at home. She or he might stay in the house with the patient or stay outside the patient's house but must be the person who takes care of the patient continuously at least for 1 month.

7.The clearness of the indicator means that the health staff and the people in the community have the correct perception and understanding about the indicators as used in the area under study.

8.The knowledge of the target groups to develop the indicator means that the health staff who participated in the investigation of home health care quality

indicator development for chronic disease patient, have the universal and theoretical knowledge about how to formulate the indicators, including the specific perception about PAR and the knowledge about the procedures used in PAR.

9.The awareness of the target group to develop the indicators means that the target groups who are health staff and the people in the community participate in finding out how to develop home health care quality indicators for chronic disease patient and have the intention, interest, perception, and response in formulating the indicators and phrase them as best as possible to point out the importance of the indicators and are willing and able to continuously modify them.

10.The skill of the target groups to develop the indicator means that the health staff who participated in the investigation how to develop home health care quality indicators for chronic disease patient has the skill to conduct group discussions and define the indicators for the people in the area.

Conclusion

In this chapter the investigator mentioned the background of the study, objective, framework, fundamental issues and variables related to the study had been described. Finally the expressions used in this investigation were explained. The literature review will follow in the next chapter.

CHAPTER II
LITERATURE REVIEW

The literature review and related research of home health care quality indicators in the care of chronic disease patients by participatory action research (PAR) are given below: -

Part 1: Concept and theory related to the development of quality indicators

Part 2: Quality in the care of chronic diseased patients

Part 3: Home health care

Part 4: Participatory action research

Part 5: Studies and investigations involved

Part 6: Research framework

Part 1 Concept and Theory Related to the Development of Quality Indicators

1.1. Concept Related to the Quality Indicators

Hoffer and et al., (1997:455-467) stated that an indicator is the instrument for to measure or evaluate the outcome and quality of a major process or minor process or the outcome between two main processes. It might be used for the evaluation of the quality and outcome at some joining points of different service processes. The objective is to reflect the service process that is related to the outcome.

Jirut Srirattanabun and et al., (2000:41-42) explained that an indicator is not a method to be used in an evaluation that intends to determine certain outcomes after the termination of a process but in contrary an indicator is a tool for giving warning signals when a problem occurred and that should result in the revision of a service

process or the investigation about the pitfalls of a service process in order to come to clear answers about the nature of the problem.

1.2. The Important Characteristic of the Quality Indicator

Hofer and et al., (1997: 455-467) suggested that a good and appropriate indicator should have the following features: -

1. The indicator can be applied for estimating the problem currently and retrospectively.

2. The data collection should be convenient with low expenses and not too time consuming.

3. The indicator can be used for recognizing the problem of substandard care.

4. It can indicate the reoccurring problem, of which the underlying cause is known and therefore the occurrence of the problem can be prevented.

Bernstein and Hilborne, (1993: 501-509) stated that the important factors for health quality indicator development must answer positively the three basic questions:-

1. Is the indicator reliable for the correct and complete study of the risk group?

2. Is the indicator valid to assess the given problem?

3. Is the indicator capable to evaluate the problem?

Jirut Srirattanabun and et al., (2000: 41-42) recapitulated that a good indicator should have the following qualifications: -

1. It should relate to the main activity, common area and the service procedure provided to the service receiver and patient, and should include the evaluation of the high-risk group and the problematic processes. It should indicate the intention to continuously develop and improve the system.

2. It should reflected the concept, need and expectation of the service receiver, service provider and management personnel, and especially the process and

the outcome of the service which should be related to the important health policy and public health of the country.

3. It should be valid, reliable and should be able to respond to the change of the environment and situation and be in accordance with academic principles and acceptable quality standards.

4. Data collection should be efficiently and should not be the burden of the working unit. The information obtained should be analyzed and used.

5. A serial indicator should assess the structure, procedure and outcome of the health service and treatment of patients by a unit with general quality consideration in order to be able to assess the quality of the activities of the unit.

1.3 Type of Quality Indicator

Sirinapa Cheethanghai, (2000: 42-43) classified the quality indicator into four categories: -

1. The structure indicator is an input or resource quality indicator. The input or resources into a given unit is utilized for providing treatment or services. Resources might be health personnel, beds, medicine, medical equipment or the building or the nurse – patient ratio.

2. A process indicator is the indicator which indicates the procedure of the activity or the continuous work of the unit in order to achieve the unit‘s goal.

3. An outcome indicator measures the important work of a unit. For instance given that the target of the nursing unit is to provide quality and efficient care, the health receiver’s satisfaction with the service then will be the outcome indicator of the nursing unit. This implies that in an ideal situation the people receive quality and efficient care which results in the change towards a better health of the health receiver or the people.

4. Patient’s satisfaction outcome indicator. This indicator measures the satisfaction of the health receiver as far as the results of treatment and other factors such as cleanliness, waiting time and receiving of health information is concerned. The satisfaction of the health receiver indicates the quality of care, attention and the sympathy they receive from the health provider.

Bernstein and Hilborne (1993: 501-509) suggested to improve the quality indicator of Donabedian, which is a combination of structure-, process- and outcome indicator, and suggested that the quality indicator should be subdivided into three types: -

1. Structural indicators: These indicators evaluate the structure of the service system such as the number of beds of the health provider.

2. Process indicators: These indicators evaluate the process activity or the procedure of the service provider in relation to the patient, such as which medicine is given and treatment applied.

3. Outcome indicators: These indicators measure the outcome of the service procedure. An evaluation of this might be possible or not. Outcome also could be measured by a proxy indicator. For example the correctness and validity of laboratory results could be taken as proxy outcome indicator. Other examples for the direct measurement of the outcome might be the result of treatment including disability, death or the satisfaction of the patient.

Besides that a quality indicator can measure the result of working procedures or the performance of a unit in various aspects such as the efficiency, accessible care and appropriate care. A quality indicator can be composed out of different indicator systems according to the structure and work performance of the unit.

1.4 Quality Indicator Selection

Potter (1991: 30-39) mentioned factors which points towards problem areas, which must be considered and for which a meaningful quality indicator has to be developed:-

1. High Volume. The health care provided to the patients is not sufficient because the unit is overloaded with patients above capacity.

2. High Risk. Working conditions are such that it is dangerous to work there.

3. High Problem Areas. The situation of the service provider is problematic in certain areas which affects the personnel as well as the patients.

4. **High Cost.** The expenses for health care are too high.

1.5 Beneficial of Quality Indicator

Sirinapa Cheethanghai, (2000: 40) divided the benefit of quality indicators into two aspects:-

1. The indicator should be the monitor device for the health care system and the service quality in order to maintain a high standard of the health system. The indicator can not measure directly the quality of the service.

2. An indicator should be tested in order to know whether it proper and relates to the resource, procedure and objective of the unit. If not it should be developed further or changed.

1.6 Formulation and Development of Quality Indicator

Hofer and et al., (1997: 455-467) suggested to go through four steps in the selection and determination of an indicator, so that in the end the indicator efficiently measures the quality of a service:

1. Select a promising indicator and go through a literature review applying the following procedures:-

1.1 Select the indicator on the basis of clinical experience.

1.2 Go through the literature review in order to collect the appropriate information

1.3 Assess the problem and how often it occurs by using the indicator and review the given problem by identifying the underlying cause and possible ways to prevent that it occurs again.

2. The indicator should be judged by experts

An indicator used within the health system must reflect clinical standards and the indicator must consider service procedures.

3. The indicator must be suitable for making comparisons between an experimental group and a control group by using patient's records.

4. For indicator development the simulation of different situations and areas where the indicator should be applied might be useful. This procedure allows investigating whether the indicator the indicator measures the quality of health providers. The following questions should be answered :-

4.1 What is the sample size?

4.2 By using the indicator is it possible to distinguish, between health providers with good, fair and bad service quality?

4.3 How important are measurement errors caused by the indicator in case different groups of patients visiting different hospitals in that one group is suffering from mild and others from severe diseases? In such a situation is it still possible to use the indicator?

Medicare Quality Indicator System (Mayer-Oakes, Barnes, and 1977: 381-390) modified the quality indicator system by using a validity assessment, which is based on five steps of a verifying procedure: -

1. Test validity by the experts.
2. Construct a valid indicator and test it by following up procedures and evaluate the outcome.
3. Test the reliability of the data assessment which can be done by…

3.1 Analyze the individual data element every three months

3.2 The indicator of the hospital informing about shortcomings of services such as the proportions of patients falling from beds or getting the wrong medicine injected must be compared with the standard indicator of the Ministry of Public Health.

3.3 Use standard questionnaires in field studies.

4. Test the clinical relevance
5. Test usefulness

A procedure indicator that can not evaluate the procedure outcome is useless and cannot be applied for attempting to improve quality. An outcome indicator, which is not reasonably related with the procedures of the health care unit for in patients also, is useless. The indicator might be useful for problem identification and might help in finding ways to prevent the occurrence of problems in future. (Hofer, et al., 1997).

The formulation of an quality indicator for quality development of a working unit should follow these activities: - (Jirut Srirattanabun and et al., (2000:45)

1. Set up the development team with a clearly defined objective
2. Define the service scope or the care procedure
3. Investigate about the requirement and expectation of the health receiver
4. Investigate about important issue of the service or observe the health care system.
5. Define an indicator
6. Set up the indicator target related to the problem or the achieved development
7. Select appropriate methods for data collection
8. Verify the outcome frequently
9. Test the indicator
10. Assign a responsible person, who will use the outcome of the activity evaluation as well as revise and improve the quality of indicators.

An indicator should be clearly defined, use mathematical formula if appropriate, determine the sample size and data resources and take care to collect data which are valid and reliable.

Conclusion

A quality indicator is a device to measure, screen or evaluate the service and further develop the service quality. Incase of health care the service, support and performance of the unit should be evaluated that affects the health of the patient. The important information necessary for using the indicator is shown below: -

1. Whether the different indicators reflect the quality of service or data or not.
2. Whether the indicators have a relationship with the service procedure or not. A good indicator should reflect the different service procedures which are out of control of the health provider.

Part 2 Health Cares Quality in Chronic Disease Patient and the Roll of the Caregiver

2.1. Meaning of the Quality

The meaning of the quality according to the Webster's dictionary is the superb level or thing that is better than the other. (Webster's Dictionary, 1988).

The American Heritage Dictionary (1976) defined the meaning of quality as a particular characteristic of value, a level or the superb level, or a particular expectation.

For Frobe and Bain (1976:9) the meaning of the quality is defined by the outcome of the procedure or the outcome of the activity with results in a superb level and can be identified as outstanding by comparing it with the standard criterions.

To Feigenbaum (1991:7), the decision of the consumer or health receiver to choose the goods or service is related to quality. The quality of goods or service can be measured from the requirement or the expectation of the consumer or health receiver.

The meaning of the quality according to the Royal Academy Dictionary (1950) is the characteristic of the goodness or the personality of the person or things.

It can be concluded that, quality is the good characteristic or the superb feature of something according to a defined standard, requirement and expectation of the service receiver.

2.2 The Meaning and the Concept of the Quality Care

Quality care by Donabedian (1980:6-7) is the care measured by a standard of health with a high living quality and the safety of the health receiver, which is evaluated by taking benefit gain and benefit lost into consideration.

The definition of the quality of care by the American Medical Association (1986: 1032-1034) is defined as the continuous assistance given to the patient in order to improve and maintain the patient's quality of life and to live long by providing health promotion, disease prevention and proper care. The defined qualification of the care such as the participation of the patient in receiving health information, use the science knowledge for the basic health care and utilize the resource efficiently.

Donabedian, (1982: 3-15) suggested that the quality care should cover three issues as mentioned below: -

1. The perfect meaning of the quality care is recognized in comparing an assumed positive outcome with the possibility of a negative outcome or the health hazard of the care. The health provider should provide efficient care without the problem to worry about the cost of treatment.

2. The individual opinion about quality care relates to the expectation that the outcome of care is positive while a negative outcome is undesired.

3. The definition of the quality care also involves the social status of people which includes the cost of the treatment, the possibility of a positive and negative outcome and the equal or unequal allocation of care provided to the people.

In conclusion quality care is care given continuously or the assistance provided to the patient so that the health receiver is healthy and can live long with a high living quality and in safety.

In 1989 the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) summarized the factors of health care quality indicator in patient into 11 parts:-

1. Accessibility of care. Convenience in which the patient can approach the health care provider according to necessity.

2. Time of care. Health care is available for 24 hours.

3. Effectiveness of care. The health provider provides good care with good manner, polite and skill in treatment.

4. Efficacy of care. The achievements of the health provider in providing the health care according to the requirement of the health receiver.

5. Appropriateness of care. Health care is provided according to the demand of the health receiver.

6. Efficiency of care. The patient will be satisfied with the outcome of the treatment. The patient can afford to pay for the treatment because it is inexpensive.

7. Continuity of care. The cooperation of the health personnel involved provide continuous care to the patient

8. Privacy of care. The care provided to the patient is given by observing the right of the patient to know about the circumstances related to the illness.

9. Confidentiality of care. The information concerning the patient is confidential unless the patient wants the relative or other person to know about it.

10. Participation of the patient and the patient's family in the care provided. The care that let the patient or relative participate in the decision procedure influences the course of sickness.

11. Safety of the care environment. The preparation of place and instrument for the care are safe and care can be provided to the patient immediately when required.

The evaluation of quality care is bases on the system theory, which consists of three elements, structure, process and outcome (Donabedian, 1980:79-122).

1. The structural issues in relation to the medical doctor and the service unit includes for instance the license of the doctor or the health personnel, the specialization of the doctor or the status of the service unit, the sufficient availability of medical equipment and medicine. The structure according to Donabedian's concept includes the instruments, resources, physical characteristics and the management of the working unit or health provider. The structure comprises of four factors, namely personnel, physical instruments, management and budget.

2. The process issue deals with the relationship between the doctor or health personnel on one side and the patient on the other, the activity of the health provider or the interrelationship between health provider and health receiver. The public health personnel should provide a quality health service according to the expectation of the

health receiver. Donabedian divided the health service into the technical and the interpersonal process. The technical process is the care that applies various scientific techniques or special technology for solving health problems. The outcome evaluation depends on the knowledge, decision making as well as skills of the providers to use the techniques for health care. The criterion for evaluation is based on the hypothesis, that high quality of health care results in good health of the health receiver and uses the patient records, reviewing the illness record, or reviewing the patient's eligibility for health care, and the treatment received. The interpersonal process is the art of care that concerns the social and psychology relationship between health provider and health receiver according to the need of the person, its expectation and the standard of health service. However, the health receiver can not judge clearly about the technical methods used in the health procedures but can consider only the quality of the interpersonal process and how the patient is treated within the system, which focuses on him. The patient is one of the important persons who can comment on the quality of health care. Therefore, it is important to assess the satisfaction of the health receiver.

3. The outcome indicator reflects the health status of the health receiver, the change of his or her health status at present and in future. The improvement of the social and psychological status of the health receiver might be a factor that influences the health status. The health status of the health receiver is also dependent on the knowledge, point of view and healthy behavior of the person.

In conclusion, the evaluation of the quality of health care is based on the system theory, which consists of three main factors, structure, process and outcome. The individual factors also comprises of technical issues, interpersonal relationships and care facilities, which are reached conveniently. All this might be included into an efficient indicator for a working unit and organization. A standard for the evaluation of the health services should be set so that the outcome of the service can be assessed and that it can be made sure that the service concentrates on the patients. It should also be considered that there is a proper relationship between the indicators of input, such as medical tools, the procedures, performed for instance by the working staff and the outcome of the service. It is the guideline to improve the quality of health care in order

to provide a service of professional standard according to the requirements of health receiver.

2.3. The Health Care for Chronic Disease Patient

2.3.1 Meaning of the Chronic Illness

Chronic illness are defined according to the Commission of Chronic Disease 1949, as illnesses with the following specific symptoms :-

1. Permanent illness
2. Cause of disability or limited functions of some parts of body
3. Cannot be cured entirely
4. Need continuous attention or physical therapy and should be subject to a rehabilitation program
5. Require curative care from doctors and nurses, and the symptoms have to be observed for the rest of life of the patient.

It is easy to describe, explain and understand the nature of chronic illnesses, and apply this for the health services. But there is also a weak point in that only specific symptoms and the diseases together with the treatments are mentioned but seldom attention is paid to the time the patient has to stay in hospitals or rehabilitation centres. Therefore later an additional feature was added by the international scientific community to the description of chronic diseases, in that the chronic disease patient should at least stay 30 days in the hospital for treatment or should undergo 90 days of treatment and rehabilitation (Sujitra Luangamornlert, 1994:19).

Abram (1972:659) similarly described chronic illness by including the time for treatment and rehabilitation of chronic disease patient, the fact that some parts of body will not functioned for a long period of time, and that the patient has to use the still functional parts of his body to compensate for disability and that he or she also has to adjust her or his behavior to the illness.

Cluff (1981:399) explained about the chronic illness, the illness that can not be treated by medicine but need to be controlled and care according to the symptom in

order to decrease the symptom severity, complication and delay the progress of disease. The assistance give to the patient in order to enlarge the capability of patient to cope with the illness, can care for her/himself and have appropriate daily life.

For the description of chronic diseases it can be concluded, that some parts of the body might be permanently or at least for a longer period of time disabled and that for many cases a full recovery is not possible. The disease might be progressive or not and symptoms of the illness might be permanently present or not. Not only patients with symptoms are effected but also her or his family or relatives. The patients and the relatives have to learn to cope with the disease, to learn how to interpret the symptoms and signs of progression, when they occur. They need assistance for self care, for controlling the symptoms and complications and how to prevent further disability.

Chronic illnesses which are causing problems and effect the patients, families and social environment are often accounted to the following in the following diseases (Sujitra Limamnuaylap, 1993: 52-53)

1. Cardiovascular diseases
2. Pulmonary diseases including Tuberculosis
3. Chronic kidney diseases
4. Diabetes
5. Hypertension
6. Blood diseases
7. Liver diseases
8. Cancer
9. Stroke
10. Rheumatoid, gout

2.3.2 The Specific Characteristic of Chronic Illness

Sujitra Limamnuaylap (1993 :52) described the specific characteristics of chronic illnesses in the light of the problems they cause for the affected patient as shown below :-

1. The patients suffer from chronic illnesses for a long period of time or life long and therefore need treatment and carefor a long time. In case the patients show

severe symptoms they have to visit the hospital for treatment and will stay there for days, weeks or months. When the patient is in good condition, she or he will be discharged. She or he will then stay home and might go through a rehabilitation process and might follow the suggestion of ther doctor and nurse.

2. Due to uncertain prognosis of chronic illnesses, the patient, relative and health team might be depressed. Doctors and nurses can not plan for long term care

3. The chronic disease patients need proper care in order to decrease pain and suffering. Patients want to know and understand about the symptoms they have, they want to know about the side effects of medicine given them for treatment as well,. and want the assistance from relatives and friends.

4. The chronic disease patients often suffers from multi-morbidity, means that not only one organ is affected but others as well. So for instance chronic kidney disease are very often associated with cardiovascular diseases.

5. Chronic illnesses decrease quality of life. The patients must modify her or his daily life and working according to the limited function of some parts of the body and the treatment. They might also need specific tools for movements and a special diet. Expenses for treatment and care taking for the one suffering from chronic illnesses are high. Some patients with disability isolate themselves from friends and social activities.

6. The chronic diseasd patient and particularly the disabled one might have mental problems and need help from the service unit. The service unit might have to provide consultation, a place for convalescence and for vocational training.

7. Treatment for the chronic disease patient requires a long period of time or must be given life long and this also might be true for the care given to her or him. This is related to the high expenses to be covered. Some patients need special tool for instance wheel chairs, walking sticks etc.

2.3.3.The Objective of Home Care for Chronic Disease Patient

The chronic disease patient stays at home with the caregiver. The caregiver should be trained how to provide proper care to the patient and she or he should understand the nature of the illness of the patients so that they can interpret the symptoms of the disease (Supanee Onchuenjit and Ruethaiporn Tritrong, 2001:77). With the good and

proper care provided to the chronic disease patient at home by the caregiver, the following objectives will be achieved:-

1. Decrease the length of stay in the hospital and the doctor can discharge the patient faster.

2. Decrease complications and prevent disability. The patient has the problem to carry out her or his activities of daily life and the caregiver has to help her or him to do it.

3. Support the mental health of the patient, with the assistance of offspring's, relatives, friends and neighbors so that the patient feels comfortable and contented, and that he or she can participate in the activities around her or him without the necessity to be regulated in a hospital.

4. Support self care the caregiver should stimulates the patient to go through her or his daily life activities.

5. Help the patient to modify her or his daily life according to the condition of the illness so that an optimum of quality of life can be achieved by encouragement, providing health information and appropriate choice for treatment and caring.

6. Prevent a progression of symptoms through the proper care of the caregiver.

2.3.4. Assistance for the Chronic Disease Patient

Sujittra Luangamornlert (1994: 33-39 laid down the principles of assistance which should be given to chronic disease individuals:-

1. Help for the Acceptance and Satisfaction of the Chronic Disease Patient. The patient should be enabled to live with high level of life quality, she or he has to learn how to know about her or his ability to work and participate in the daily life activities. She or he should follow the advice of the doctor so that complications and further disabilities might be prevented.

2. Support From the Health Personnel. The patient and family should receive information and consultation in connection with the treatment and care. They should have the opportunity to talk to the health personnel involved about the results of the treatment and their requirements for additional treatment.

3. Provide Health Information to the Patient and Her or His Family. To support the self care of patients, information about health and diseases should be provided to the patient and her or his family.

4. Health Education about Disease Prevention for the People. Health education should be provided to the people including information about health care, disease prevention, nature of chronic disease which often occur , basic care methods when getting sick, feature of appropriate health service, prevention of progress of symptoms and adjustment of daily life in case of illness

5. Investigation in Chronic Illnesses. The study of chronic illnesses, problems caused by them and requirements of the chronic disease patient are important for the improvement of services for those patients.

6. Courses for Nurses. The chronic illnesses should be one of the subjects in the training of nurses and the health team, which should include communication skills with the patient and relatives.

7. Caring of Chronic Disease Patient. The new models for caring the chronic disease patient underline the importance of enabling the patient to cope with the daily life which associated with the social, economic and mental health so that the patient lives a normal life within the society.

8. Public Health Policy. Health personnel acts as representatives of the chronic disease patients and should make decision makers aware of the need to define a public health policy that should stress the care aspect of chronic disease patients more than the aspect of treatment.

2.3.5. Principles of Assistance to the Family of Chronic Disease Patients.

The health team should cooperate with the patient's family to provide assistance and service to the chronic disease patient in particularly for the disabled patients or patients who needs care from the caregiver in order to help the patient to remain active in her or his daily life and have a good quality of life depending to her or his the physical status.

The details of the procedures of the assistance provided to the chronic diseased patient are given below. (Supanee Onchuanjit and Ruethaiporn Titrong, 2001:88-89)

1. Advise the patient's family to find one person as caregiver

2. Provide information about the nature of the disease, its symptoms and how to prevent complications. Provide training to the caregiver concerning the health care service, knowledge about the symptoms and demonstrate the proper care for the chronic disease patient.

3. Provide the information about what to decide in case of an emergency.

4. Provide a list of names, working place and telephone number of person work in the hospital, belong to the health team and health units of the caregiver so that it is possible to call for help.

5. Help the patient's family to make a financial plan to cover the expenses for a long care period.

6. Help the patient's family to change the set up of the interior of the house so that it is convenient for the patient to stay for instance in the bath room, toilet and walk up and down steps etc.

7. Support the courage and confidence of the patient and family by giving them advise and assistance and follow up the outcome of the home care service.

8. Self help groups within the community should come to visit the family of chronic disease patient to exchange experiences and have an opportunity to participate in problem solving. This is one of the good methods to help to decrease the tension of the patient.

It can be summarized that nurses and public health personnel play a major roll for caring for the chronic disease patients:-

1. Establish a good relationship with the patient and the family.

2. Provide health information and demonstrate methods of appropriate self care to the patient.

3. Help the patient to follow the doctor's advice concerning the treatment.

4. Follow up the outcome of home health care continuously.

5. Encourage and give assistance to the patients to cope with the health problem.

6. Arrange the service system for the patient and the family.

Part 3 Home Health Care

3.1. The Characterization of Home Health Care

There are various types of home health care for instance home health care for the patient and home health care for the people. Good health begins at home, and home health services should realize this. This study deals with home health care and details about the characterization of home health care are taken from appropriate associations and many individuals as given below:-

According to the American Medical Association (Stanhope and Lancaster, 1996:805), home health care is the service provided to the patient and her or his family at home in order to promote and maintain the health status of the patient at a level that the patient can care for her or himself, disability is and sickness is decreased. These principles are also valid in dealing with illnesses at the last period of life. The doctor who treats the patient must make the decision what essential services had to be provided to the patient and her or his family and how the persons involved could co-operate. Besides that the home health care also should provide nursing services, social welfare, physical therapy and assistance for house work

According to the concept of Albrecht (1990: 121-122), home health care is related to three important aspects: structure, process and outcome. The structure comprises of the characteristics of the population, the social and economic environment, the mental status of the health receiver, the relationship between the members of the family, the philosophy, the policy, structure and standard of the health services, the available budget, technology and service time of the health units. The health team of the health units co-operate with professional nurses while providing home health care for the chronic disease patient. The process includes the type of services such as providing information concerning health, prevention of further health problems, health supporting measurements and treatment or technology used for health care. The professional nurse is responsible for continuous home health care.

Good home health care will result in the satisfaction of the patient and the family, will improve the quality of the service so that is seems worth for the service receiver to get the service, the health status might improve and so the ability of the patient to care for her or himself. Home health care should be provided to the patient according to her or his requirement and should address the health problems of the patient within the frame of the structure, process and the desired outcome of the home health care.

Home health care according to the explanation of Rovinski & Zastocki (1989 3) is a part of health care service provided to the patient and family at home to promote and maintain health, and decrease disability related to the illness. The service should be provided according to the requirements of the individual patient and her or his family. The health provider offers the home health care in giving appropriate service to the patient such as dental care, nursing, physical therapy, speech therapy, social welfare, advice about nutrition, caregivers, transportation and medical tools.

Stanhope (1996: 806) stated that home health care is an element of health service provided continuously to the patient and family at the residence of the patient in order to support and promote health, offer rehabilitation and try to maintain the health status.

Prapin Vatankit (1993:5) described home health care as a the health service provided to the patient and family at home by the health team. The patient and family can ask the health team for help in case of emergency or dangerous situations and for health information concerning self care and proper care considering the symptoms of the patient.

Wilawan Saenarat and et al., ((1995:3) remarked that home health care, is a health service provided continuously to the chronic disease patient, to elderly, and persons and disabled persons who need rehabilitation. The health team supports and promotes the participation of the patient and family so that an optimum the quality of life is maintained and that the patient and family can care for the patients health as best as possible .

The conclusion of all these statements is that home health care is a part of the health service and deals with treatment and giving advise continuously to the patient and family by the health team within the environment of the home so that the patient can recover from the illness and can care for her or himself and live as happy as possible.

2.2. The Objective of Home Health Care.

The objective of the home health care is not only to provide treatment but also emphasizes on the prevention of illness as well as the health promotion so that the health receiver can care for her or his health and maintain a good health status. The objective of home health care can be summarized as follows: -

1. Provide health information and advise to the patient and her or his family so that the patient can care for her or himself while staying at the hospital. The patient and family participate in the home health care by planning with the health team the continuous care at home.

2. Ensure that the patient and family care for the health of the patient in so that they patient can perform activities of daily life more or less independently without the help of caregiver.

3. Efficient home health care decreased the number of patients at inpatient departments and also decrease the expenses for the patient as well as for the hospital.

2.3. Type of Home Health Care

Home health care can be divided into two types according to the demand for health care (Supanee Onchuenjit, 1994: 23-24).

1. The service might be provided to the health receiver who comes to the out- or inpatient department of a hospital. The health provider or the responsible staff of the hospital decide clearly about the target group to be cared for, the standard of service and the category of the health receiver. The health provider decides when to discharge the patient or transfer the patient to a suitable service unit which takes over,

monitor the result of the treatment and finally decide when the patient can continuously obtain the service at home.

2. The service will be provided to the health receiver according to the situation and possibilities for home care within a given community. A nurse will approach and cooperates with the people in the community and assess the health problems of the people in that place. The nurse should define her roll and duty towards the patients and their families as well as towards the community. She will provide health care; health support and promotion to the target group in the respective area and manage the resource for the health service available within the community.

Home health care will be provided to the health receiver following the policy, objective, the structure of the health management for an efficient home health care as far as the budget and the support resource allows.

2.4.Health Team for Home Health Care

The health team consists of doctors nurses, therapists, social workers, career trainers, pharmacists, nutritionists, speech therapists. A health team, who provides additional service by responding to the requirements of the health receiver (Sukhontha Ratno, 2000:37-38). must take over the following responsibilities:-

1. The doctor is responsible for the treatment at the hospital and at home, and has to decide when the patient should be discharged from the hospital and cared for continuously at home. He or she also has to arrange for the transfer of the patient to another ward for continuous treatment at the hospital if necessary.

2. The nurse is the leader of the team which provide and planning the home health care, coordinate the activities of the member of the health team, monitor the home health care, collect data and information, follow up the outcome of the home health care and report it to the responsible working unit, and provide health care according to plan and teach the patient how to take care of her or himself.

3. The therapist is responsible for rehabilitation in case of disability and should try to prevent that the situation of the patient gets worse. Injured patients who lost a hand or leg for instance should regularly exercise; get massage, electronic stimulation and heat according to medical requirements.

4. The social worker gives advice and can be consulted by the patient, caregiver or the member of the family in connection with the social- and emotional issues affecting the patient. He or she also should coordination the links to community.

5. The occupational therapist helps and teaches the disabled patient by practicing to be mobile again so that he or she can cope with the demand of daily life or even can continue to go back to work.

6. The pharmacist distribute the medicine to the patient while the patient is staying in the hospital and at home, he hands over the prescription to the health team and caregiver to make sure that the patient takes the right medicine and know about the side effect of the medicine.

7. The nutritionist composes the diet for a patient who is on rehabilitation or a patient who suffers from the chronic diseases such as heart disease, diabetes mellitus or obesity. The nutritionist should pay home visits to look into the diet and whether it has to be changed and should give advice to the patient, the health team and caregivers to ensure that the patient always is taking the appropriate food.

8. The speech therapist assist the patient who has problems with speaking, swallowing, pronouncing and hearing. An important issue is, that the patient can communicate with others.

9. The health team also should provide additional services for the patient for instance cleaning of the house and its surrounding, preparing food, help patient to take a bath and to eating, go shopping or stay with the patient over night.

3.5. The Process of Home Health Care

There is not yet an established system for home health care in Thailand especially as the structure and management of home health care unit is concerned (Ruja Poophaibul, 1994:212). The home health care unit of the regional hospital and the general hospital under the regional hospital division of the Ministry of Public Health provide services according to the following policy :-

1. The principle process of home health care

1.1. The health team provides the same service to the patient as in the hospital only that the service is provided to the patient at home.

1.2. The health team provides home health care in the afternoon for 2 to 3 hours once a week depending on the work of the health team in the morning at the hospital.

1.3. The target group are patients in the area under responsibility of the hospital, who are problematic to care for at home.

1.4. A 24 hours service gives advice in case of health problems and how to maintain good health through the telephone and radio or by mail or by health volunteer of the centre named “Good health begins at home” etc.

1.5. Monthly data collection for the good health begins at home centre.

2. The process of home health care.

2.1. Set up the Committee board for home health care are being set up and suitable person to act as in betweens hospital and home are selected to take responsibility for monitoring treatment, health problems etc.

2.2. The office of the home health care might consist only of one room and a writing desk.

2.3. Information about the target group was selected by a survey at the beginning of the period.

2.4. The procedure how to provide the service

2.4.1. Advice, information and training courses about health are provided to the public to make people aware that one can care correctly for themselves and his or her families. People should be able to notice and interpret the symptoms of chronic diseases and solve the problem or notify the medical personal in charge at the health centre.

2.4.2. At the meetings of the health team issues of the home health care are discussed and the suggestions are formulated how to improve the working process before and after providing the service to the patient.

2.4.3. Home health care is provided to the patient by the health team which continuously communicates with the patients and family at home.

2.4.4. An efficient communication between home and health centre is important so that the home health care for instance is supported by the Public Primary Health Care Foundation.

2.4.5. The health team meets once a month, during the meetings issues of home health care are reported and the problems of individual health teams are discussed.

2.4.6. The result of the home health care provide to the patient are recorded so that they can be reported and discussed during the meeting of the health teams.

2.4.7. The home health care program is evaluated in order to improve the working process of the home health care.

3.6. The Benefit of the Home Health Care

The health receiver, the health provider and the hospital benefit from the home health care as explained below (Stewart, 1979:10):-

1. The patient and her or his family know and understand more about the illness and can care for themselves so that they can achieve a good quality of life.

2. The mental condition of the patient and her or his and family is better than the patient remains to stays in the hospital because the patient will be together with his family and within a familiar environment, with a warm family atmosphere. The patient and the family members gain confidence while the patient is caring for her or himself. The stress of the patient decreases and her or his confidence increases (Meneses & Burgess, 1993:10).

3. Equity is achieved in that the underprivileged, unfortunate people, the risk groups and the poor can receive home health care.

4. The number of patient visiting the hospital or health providers decrease, and the number of patients coming to the hospital in real need of help and treatment increase.

5. Decreased the expenses of the health provider or hospital in providing the service to the health receiver who can care for her or himself at home.

6. It creates a good relationship between the health receiver and his family, relatives, the community and the health provider or hospital.

7. Supports the public health policy of the country in that the ability of the health receiver is extended into the community and towards the family which is able to

care for sick family members at home. In future that will lead to self care and improvement of quality of life. This will be in accordance with the objective of the public health development plan of the country.

Part 4 Participatory Action Research : PAR

4.1 Concept and Philosophy

Kamol Sudprasert (1994:8-9) explained the concept and philosophy of PAR as shown below:-

PAR is a scientific research tool with the objective to solve problems by encouraging the participation of people in the research process as well as in benefiting from the result of the research.

PAR aims to help the people who otherwise have no chance in the society and no confidence about their ability to solve problems; the people gain confidence and will have valid experiences from the study. The objective of PAR is to help the people to achieve the goal of self development.

PAR is the research tool that includes practical issues and consideration for reasonable improvements and social learning. It is a guideline in the development of a standard for the political elite and governmental organizations; it might help to improve the cultural and social status and also the economic status of the community. PAR accepts the experience and knowledge of the people in the community.

The process of PAR involves the cooperation of the people in the community and the research team to participate in group discussion dealing with the social economic, political, governmental and cultural problems in the community. Also issues of democracy and the way how to solve the problems in the short and long term can be discussed by PAR.

The concept of PAR stresses self development by the people. It is the objective of the researcher to help the poor and unfortunate people to solve the problem within a working process of cooperation between the development unit and the community. With PAR, the people gain the following advantage as shown below:-

(1) Education of people increase

(2) Performance of people increase

(3) Knowledge of people is enlarged

PAR not only to help the people to find out about the problems and ways to solve them but it also stimulates the people to take action. Finally the people know how to solve the problems and at the same time gain the experience from it.

Smith (1997:173-275) elaborated about his idea concerning PAR as shown below:-

1. Self Recognition: Seeking for the Solution. When the people in the society, community and organizations feel uncomfortable, uneasy or discouraged, they want to express their feeling, about their problems. They are willing to change themselves in order to solve the problems.

2. Cooperation and Relationship. People having problems tend to gather into groups, where they exchange their experiences and finally accept the benefits derived from the discussions. They cooperate with the researcher in participating in focus groups and in individual interview in order to provide information.

3. Study Background: Basic Need of the Human being. The criterion of basic need of people is derived from experience, ideas and the feelings of groups of people, who have problems with the result, that the people understand the situation and the factors involved. The researcher participates in PAR and studies the background and will learn more about the situation and factors involved.

4. Self Perception-Action. The goal members of PAR would like to achieve is to improve their social standing. They realistically discuss about self perception of problems and situations and which action should be taken to solve the problem and correct the situation. Individual members have different perceptions about the problems and the situation, and they exchange the ideas, raise the questions, analyze the information obtained, and study the possibility to solve the problems and improve the situation.

5. The Common Sense Experience. As soon as the people understand the factor related to inequity and unfairness, their common sense develop and their power and they to cooperate with the member of PAR in the aim to improve the situation.

6. Motivation: Modification. As soon as one person exposes her or himself, the other individuals will know her or him and will be motivated to participate in the group to modify the situation, political circumstance, economic discrepancies etc.

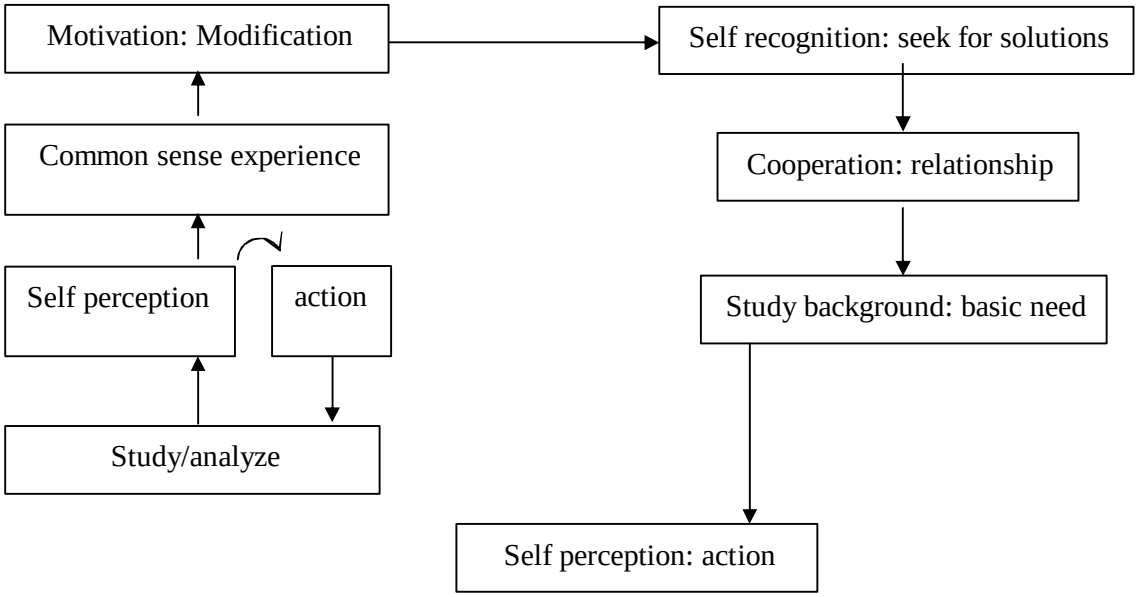

Diagram 1. The PAR follows the concept of Smith (1997:198)

In conclusion: PAR is a research tool which aims to identify and solve problems in the filed of social circumstances, economic situations, political and governmental discrepancies as well as cultural issues and helps to improvement of the process of problem solving for disadvantaged people with the cooperation of the person and working units involved.

4.2 The Definition of PAR

A definition of PAR has been formulated by William Foote Whyte and et al., (1991:20-21): Some people of an organization or study community participate in the research process from the step of research design through the step of discussion of the outcome of the research with the cooperation of the professional researcher. PAR is completely different from pure research where the people are the passive subjects or participates only in a limited way in the research according to the assignment of the researcher; and they have to wait for the result of the research. The researcher in pure

science is the professional expert and project designer, data collector, interpreter the information collected and is the one, suggests to the organization or the people. The researcher has an overall influence over the research process. But for PAR, the member of the organization or group participates in data collection and set up the plans for future activities. PAR can be organized in a variety of forms that are just being explored. It is clear, however, that the scientific demands and possibilities of PAR are considerable.

As Susan E. Smith and et al., (1997:177) wrote about PAR, it alters persons and the social situation from domination to independence. The people get wisdom under the PAR process which is a tool for studying and common sense development. The people answer questions related to their difficulties in daily life. They have the liberty to choose the method for solving their problems. The process of PAR helps the member of PAR discussion panel to improve critical common sense, and have an ability to change the social and economic unfairness. Decisions are made by the member of PAR in order to solve the problem and free the people from the ties and let them gain experience.

Pantyp Ramasoota (2002:59) said that PAR, is one of the liberty process that people apply to change or improve their social situation. Therefore, PAR is the research tool that the people, who formerly used to be the passive research subject in the general research, change their roll to be participant in the process from the first step throughout the entire research project. They might for instance participate in selecting of the study area, make a list of adverse situation and collect evidence and data for identifying the study problem, problem factors and study tool. The assessment and the outcome of PAR will be made known to the people for practical purposes. PAR is connected with adult education; their vision about the fighting of people for freedom and stands for the fact, that education is for all people and not only for a selected group. The emphasis of PAR is also related to the cooperation between the people and the researcher to link the knowledge of the expert to experience of the people in the community.

It can be concluded that PAR, is a process in which the people from a group or community participate in the study process from the first step to the end of the project. PAR can help in the improvement or change of the society from suppression to freedom as well as the development of common sense. PAR stresses on the relationship of what is officially supported believe which is based on governmental statements, the knowledge of expert which represents the professional class and the experience and perception of the ordinary people in the community.

4.3. Methodology of PAR

Susan E. Smith and et al., (1977:183-185) distinguished between various versions of PAR due to changes in the environment and the pressure from the participants in the process. That there are different categories of PAR is due to the difference of groups of people who participate in the process of PAR and difference in the situations faced.

What PAR should Achieve is Shown Below:-

1. Intend Liberation. Liberation going along with fairness in the community, balance of justice, freedom and a safe environment.

2. **Compassionate Cultural Development**. The people should take care of each other and aim to share the difficulties in participate to improve the situation and take actions. Individuals should cooperate with other persons. People in the community should be motivated and develop common sense in dealing with other persons and communities through group discussions, for instance with questions such as: who are we?, why we are here ?, what do we believe in?, what are our objectives?, how can we cooperate in working?

3. Participate in a Cohesive Dynamic Process of Action-Reflection. PAR is a vital process, its procedures can be changed and modified. It might not be a straight forward method and can be continued without time limitation or prearranged questions. Individuals as well as groups of people can response to the process of PAR in a similar way. People participate in the information analysis, inspection and

discussion, sometimes they go back to data collection in order to check the validity of data and continue the procedure of information analysis.

4. Importance of What People Know and Believe by Reflecting their Present Reality as a Starting Point and Building on it. People realize the importance of the environment; they will improve the environment and compare the situation in the past with the present environment. Experts having experience with PAR know and believe that the feeling, belief and the experience of the people are linked with recognition.

5. Collectively Investigation and Action. One working group going through PAR might cooperate with another working group also involved in a PAR project, which has the same objectives will discuss and make decisions about important questions to be asked and further start activities which will stress on the alteration of structures not on persons.

6. Consciously Produce New Knowledge. Members of a group going through a PAR project will try to modify the situation and will make decisions which are based on the experience of the group members. They are eager to widen their horizon and understanding. By doing so they use the technique of problem identification and solving.

The five principles of PAR according to Tandon, 1988 (in Pantyp Ramasoota, 2002:62) are shown below:-

1. Appreciate, respect and acknowledge the experience of the people in the community. The way knowledge is perceived and communicated by the people is different from academic persons. But it is useful for solving problems of the daily life of poor people.

2. Support the ability and the feasibility of the people to solve the problem in the community by encouraging their confident concerning recognition and decision making, so that they are able to analyze the situation and can solve problems.

3. Provide information to the people considering their social status in the community so that they can understand and interpret information and use it for their daily life.

4. Pay attention to what the people in the community say in group discussion and the individual interviews, while conducting PAR. They answer questions related to their situation and tell the person with influence about the problems they coped with. Conventional research never used this kind of questionnaire before.

5. PAR follows a liberal concept, so that the people in the community and the poor have the freedom to express their idea and comments about their problems and situation without limitations. The information obtained through this method is a valid tool to discover the real situation and problems. That cannot be influenced by the outside or powerful persons.

Pantyp Ramasoota (2002:62-63) that PAR is a useful tool for research dealing with social investigations, education and action for the benefit of the poor and disadvantaged people. They participate in the research process in order to improve the social system and the behavior of people in the community. PAR concentrates on the awareness of the people about quality of life, matters of daily life, the basic structure of the society and the relationship between the people in the community. The target group has to be selected considering the experiences and problems of the people. Through PAR it can be found out what the requirements of the people are and where are the weak points and problems, what are the social constrains and how big is the gap between requirements and supply. PAR can help to change the social system that obstructs problem solving.

In conclusion, through PAR it is possible to: -

1. Obtain information based on the experience or knowledge of the people in the community. This method is accepted and widely used.
2. Support the understanding between different cultures.
3. Adjust the scientific perception and the experience with knowledge of the people in the community.
4. Accept and work against inequity within the social and economic situation.

4.4. Principal Characteristic of PAR

The training course of the Social Research Institute, Chulalongkorn University (2002:3-7) added some more principal features to the characteristics of PAR -

1. Emphasize on the community. The people are the member of the community and their behavior relates to the physical-, economical-, social- and political environment. PAR focus on the living conditions within the community.

2. Emphasis on non-formal observations and interviews. The researcher observes and asks the people for the information in relation to their daily life in the community. The information obtained can be compared with the information derived from other sources.

3. The long period necessary for data collection is due to the fact that people in the community should be given time to answer the question in full length about their behavior based on their culture and they counter with the demands of daily life. To obtain valid and useful information, the researcher and the people in the community must understand each other and the researcher must interpret the information correctly. People in the community give the information based on facts and not on the expectations of the researcher or the expectations of some minor group of people in the community.

4. Concentrate on the information obtained and the opinion of the people in the community. This should be understood as a two way communication process in that the researcher cooperate with the people in the community to study their situation by using the group discussions and individual interviews.

5. Emphasize on problem analysis and problem solving. The researcher should set up a project plan, and work according to the plan and evaluate the outcome of the project. The outstanding benefit of PAR is that the information is obtained based on the experiences of the people participating in the research activity, for instance by identifying the problem, the procedures of problem solving, discussing the results and the interpretation of the outcome. Consequently, PAR is a research tool that combines theoretical research methodology, the aim and objective of the

researcher with the requirements and experiences or perception of the people in the community which is illustrated in the following graph:-

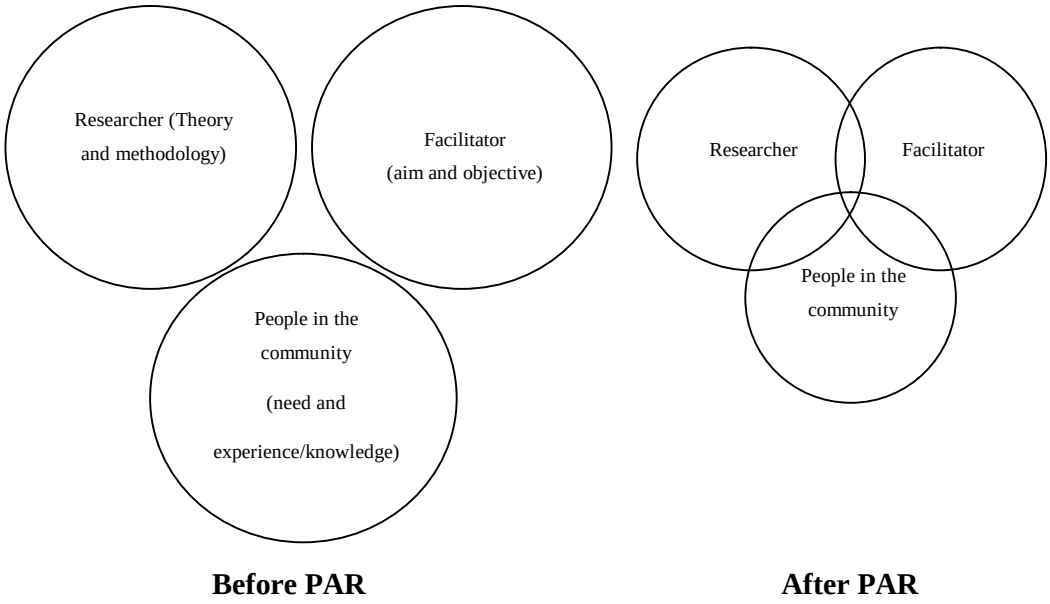

Diagram 2. The relationship between the facilitator, researcher and the people in the community before and after going through PAR

As the diagram shows above, the individual circles are the vision and way of thinking of individual groups related to the study, their vision according to their concept. After the PAR three groups of people share the visions to develop the perception and understanding. It is an efficient way how to start problem solving.

According to Pantyp Ramasoota (2002: 64-69) PAR has the features of:-

1. Widen the Horizon. PAR is the research tool that combines the perception and experience of the scientist with the experience and knowledge of the people in the community. It is a co-generative learning process which expands from partly to full participation between the people in the community and the researcher so that both have similar to have the combination opinions, join in theoretical consideration and practical activities in order to widen the horizon and understanding in matters of both sides.

2. The Interactive and Interdisciplinary Perception. The perception obtained by PAR is interdisciplinary. It is created by group interactions and the result of continuous training and systematically emphasizing on practical issues. It is not theoretical consideration which creates flexible concepts. The understanding of matters created by going through PAR is not only interdisciplinary but it is also transdisciplinary knowledge, and relates to more than two professional subjects.

3. Action to Enhance Self Confidence. PAR mobilizes ideas, considerations, and action taking by reflection and re-reflection. It is useful in reviewing ideas and then takes actions. People will realize that they should help themselves and take the lead themselves.

4. Practical. One of the outstanding characteristics of PAR is, that the method lays emphasis on important issues and reflects the reality of local problems. It trains the people who participate in PAR in practical thinking and give them a chance to improve their quality of life and enhance their role in the society. It is a method for adult education in local areas without discrimination of gender and status. Conventional research only considers theory and analysis.

5. Inclusive. The extraordinary characteristic of PAR enables this method to make efficient use of resources. The opinion of the people participating in PAR is considered and accepted, and there is an unlimited opportunity for suggestions or comments. It is an opportunity to acquire a totally new perception and understanding by participation and it is the chance for all to learn.

6. Organic. PAR is an ongoing research tool without a time limitation. By going through a PAR project it is not possible to follow a previously made plan and try to predict the outcome of the research. This is because the PAR depends on the interaction between the people and the researcher. It's the people who are important and not the researcher who should emphasis on the participation of the people within a community. The researcher only will act as facilitator and provides assistance to the research team but do not control the research process or setting up a research project. (Foresteer and Ward, 1992)

7. Self – Awareness. PAR stimulates the self-awareness of people in the community so that they can develop a concept for improving the situation by themselves. In the end the study needs only the result of the discussions to answer the

research question. However the researcher should help the participants to identify the problems, listen to the people and accept their comments. A good relationship of the researcher with the participants assure their confidence to express their feeling and accept the suggestions as well as cooperate to work as a group in order to improve their society. (Fals Borda, 1991).

8. Ecological Society. People living in a community are equal; they are unified with the natural environment. If the relationship between members of community is based on equity, then the result of this can be termed as ecological society.

9. Future Oriented. The researcher who initiate of PAR prepares for the activities based on the situation she or he faces but it is not possible to plan in advance. The people who participate in the activities follow the guidelines given and cooperate with the researcher and other participants to improve the social structure.

10. Optimistic. The principle of the liberal concept implies that the people have the ability to solve the problems in their society. The process of PAR supports their ability to succeed in problem solving and the researcher must be convinced, that have the right and power to seek for self-emancipation from problems by participate in PAR. The activity of problem solving as such and the result of it can improve their society.

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4.5. The Procedure of Research Project and the PAR Development Process

A training course of Institute of Social Research , Chulalongkorn University (2001: 8-12) explained that the procedure of research by using PAR involves two phases:-

1. The pre-research phase that consist of

1.1. Selecting and entering the community.

Before selecting a research area it is necessary to collect information about the physical, biological, social, cultural and economic situation as well as the communication technology used in the community. Qualitative and quantitative information can be obtained from governmental units and development organizations.

1.2 Building up rapport.

The plan for a research project and the project development within a community cannot only be done by the researcher but it is also necessary to go through a community preparation process to ensure that the people will cooperate in the research activities. The researcher inform the people about the objective of the research in the community, he should also stay with them and participate in community activities in order to familiarize her- or himself with the people and have good relationship with them. The researcher should take himself back and should not overreact or be biased.

2. Research phase

2.1 Problem identification and diagnosis

The people in the community participate in the group discussion, in focus groups, in dialogues and individual interviews, exchange experience and their perception of the existing problems and needs and assess the human and natural resources of governmental units and the private sector in and outside their community.

2.2 Project appraisal and identification

After the requirement of the people and the available resources in the community had been assessed then the people in the community and the researcher have to select the research tools by observing the resource limitation. The researcher must cooperate with the people in the community in trying to rank the problems, find appropriate solution and perform a suitable study based on the various factors, for instance aiming at an efficient outcome, suitability for the area, avoiding conflicts with the culture of the community.

2.3 Planning phase

The researcher needs to support and give assistance from the viewpoint of her or his scientific academic expertise should stimulate the people in the community to participate in the research. The researcher and the people participate together in group discussions about the research activities, who will be involved and how to carry it out. The roll and responsibility of all participating has to be defined as well. The researcher informs people about the details of the research activity, coordinate and select together with the participant the suitable persons to be responsible for individual activities.

2.4. Implementation phase

The researcher should try to find out what activity should be done by whom, where, when and how by applying questionnaires.

2.5 Monitoring and evaluation phase

The people in the community or community organization evaluate the outcome of the research implementation by using the same questionnaire asking the same questions. The tool for monitoring activities could be formal inspection following a guideline.

Conclusion: PAR is a research tools that emphasis development with the participation of people. It is could be learning process for governmental officer, staff of the private sector for development and the people in the community.

The steps to follow to perform PAR had been listed by Pantyp Ramasoota (2002:72-73):-

1. **Community.** The preparation of people in the community prior to the start of the research project by supporting the people to participate in decision making, problem ranking, and selection of representatives to participate in the actual research project is the first step.
2. **Training course.** Training course must be provided to the community, to explain to the people the roll and human relationship of the researcher who came into the community.
3. **Methodology**. The community research team set up the research methods for instance make clear that not all the problems can be solved at once, set up sub problem solving methods, methods for data collection and tools, determine the sample size and the target group, decide which questionnaires should be used and how to go through the questionnaires etc.
4. **Data collection**. The person who attends the training course about data collection should collect the data.
5. **Evaluation and analysis**. The community research team evaluates and analyzes the data, supports, criticize or give comments about the validity and meaning of the data.

6. Outcome presentation. The results of the data collections should be discussed by group, the information collected should be displayed graphics or pictures and put on a big pin board at public place or the community board. The people should be encouraged to express their ideas about the results and should comment about it.

7. Community plan. A training course should be offered to the planning team so that they can work on the research plan and can operate the research unit within the community. The people in the community should modify and approve the plan and support the organization involved.

8. Plan implementation. The plan is applied in the community with the cooperation and participation of people, the organizations involved and the research team.

9. Evaluation. The research team and the people in the community follow up the implementation of the plan and evaluate the outcome of study.

Pantyp Ramasoota (2002 73-84) and Kamol Sudprasert (1994: 20-71) described 30 the steps how to conduct PAR:-

1. Target the community. It should be an underprivileged and disadvantaged community.

2. Entering the community. It needs to cooperate with the persons and units involved for instance the public health staff the public health station responsible for the community. The researcher should be introduced to the people in the community, and meet the leader and key persons of the community.

3. Relationship to community. The researcher should visit the people, stay in the community and participate in the activities of the community.

4. Basic social study. Basic information of the community should be derives from the community profile, which consists of information concerning the problems of the community. Factors should be identified which will allow to compare the situation found at the start of the project and compare it with what will be found after going through a PAR.

5. Introduction of principles and concepts of PAR. Inform the people in the community about the principle and concept of PAR.

6. Problem identification. Identify the problems and rank them according to priority.

7. Research system. Give the information related to the system of PAR to the people so that they understand that the process of PAR can solve the problems.

8. Problem selection. Select the problems of people in the community and identify as research problem, which need to be answered and solved.

9. Method/choice. Seek for the answers to solve those problems the people are aware of and involve the working unit and other organizations.

10. Research planing. The content of the research plan are the activities for instance kind of activity, when and where they will take place, how it will be done and who does it.

11. Data collection. Data should be collected systematically, precisely and completely.

12. Data analysis. Data should be analyzed and the results should be made known to the people in the community.

13. Outcome of data analysis. The people in the community should discuss and reflect the outcome of the data analysis.

14. Plan implementation. A practical plan should consists of objective, working schedule, fund resource, job description etc.

15. Feasibility of the plan. Assess the opinion of the people and the community leaders how they think the problem could be solved.

16. Pilot project. A small project should be implemented before the actual research project takes place.

17. Other methods. Consider if there are choices to use other methods for the research.

18. Revise planing. Modify the pilot project and improve the plan.

19. Resources. Seek for personnel and funds as resources inside the community before asking for help from the outside.

20. Emphasis on the factors of research plan. The researcher and the people in the community should be aware of the importance of the research plan.

21. Working committee. Set up a working committee, which consist of chairman, secretary etc.

22. Plan execution. After the research plan is implemented in the community the place should be inspected from time to time.

23. Follow up the progress of the research project. Find out whether the activity and process of the research is going on according to the objective of the indicators or not.

24. Evaluation. The researcher and people in the community should evaluate the results of the project during and at the end of the research project.

25. Daily task. The process of the research project should apply to the efforts of solving the daily life problems of the people in the community.

26. PAR in the community. The facilitator should withdraw himself from the research project but still will give assistance to the people in the community while going through PAR for solving complicated problems.

27. Communication. PAR also means that communication between the people in community and the scientists will take place by giving and explaining them the research report.

28. Analysis. Summarize and analyze the outcome of PAR by finding out how efficient the exercise was in problem solving, in the gain of knowledge, how PAR was accepted and became a tool for problem solving in the community.

29. Report. Write the report referring to the objective, procedure, methodology, and activities of PAR, how the problem was addressed, how the community changed during the study, add a conclusion together with suggestions and references etc.

30. PAR and the community. The people should apply PAR in the community without the researcher.

4.6. The Appropriateness of PAR

Asian Institute for Health Development, Mahidol University (2003: 71-72) stated about the appropriateness of PAR in saying that it is a research tool suitable for problem solving which is different from the concept of conventional researches in that for instance in that after going through PAR the people in the community know about

the problems and participate to solve them. They improve their quality of life and their environment.

PAR is the research tool that enables the people to participate in defining the problems, and give them a chance to solve them. In order to get accurate and complete information various sources should be taken into consideration. PAR uses the external and internal triangulation method for data collection.

1. External triangulation method. Comparison of secondary information derived from various sources such as population census survey, governmental statistics, pictures and other media, and information derived from local assessments, etc.

2. Internal triangulation method. PAR uses various techniques for data collection in order to get the accurate information. The following technical tools are used.

2.1 Data are collected from various different groups of people. Due to the difference of perception of each group a comprehensive set of information can be collected.

2.2 Other different techniques can be used for investigation for instance observation by walking through the community, group interview and participation of the people while mapping the area..

2.3 Data can be collected by the professional with different scientific background and by the local people as well using interdisciplinary techniques for collection of information. For instance in the case of family planning the women in the community could be asked by anthropologists and nurses but information can also be obtained by group discussions

Part 5 Study and Research Involved

5.1 Study and Research Related to Indicator Development

Prapapen Suwan (1995) studied provincial public health indicator by using the Delphi Technique in order to formulate indicators useful to evaluate the

achievement of the provincial public health service. The result of the indicator was divided into with 15 indicators assessed the public health service, 30 indicators health behavior 15 indicators the health provider.

The Office of Health Promotion, Health Division of the Ministry of Public Health (1996) formulated 44-health promotion indicators according to the public health plan no. 8 (1997-2001). The indicators are divided into 4 groups that are 16 indicators for Mother and Child Health, 15 indicators for school children and adolescent, 9 indicators for the working force and 4 indicators for the elderly.

Jirut Sriratanabun and et al., (2000) studied the development indicators for assessing the improvement of the quality of hospital services under the hospital accreditation project. During the first period of the study, the indicators were divided into two groups, the optional quality indicator set (O-QIS) and the recommended quality indicator set (R-QIS) which consisted out of 22 indicators such as the total mortality rate within in the hospital, the fatality rate of patients during surgery, the mortality rate of new born, nosocomial infection rate, infection rates after operations, the medicine allergy rate against medical drugs, rate chock reaction after blood transfusion, rate of the patients returning back to the hospital within 28 days, re-surgery rate of patients staying only one day in the hospital, rate of new born with a low birth weight, the accuracy of patient records, satisfaction of out- and inpatients, average of waiting time at the emergency room, average length of stay of patients in hospital according to common diseases, average of weight of inpatient, rate of caesarian section, error rate of diagnostic errors of CT scans patient for with head injuries, meetings of hospital directors with the committee board discussing the improvement of quality for the hospital, the number of health personnel working with the hospital, bed occupancy rate and the asset flow rate.

The optional quality indicator set, O-QIS is divided into three groups with 47 indicators, 25 indicators for clinical quality, 10 indicators for service quality and 12 indicators for the quality of the management.. The indicators are consisting out of 9 quality dimension, competence, effectiveness, appropriateness, safety, continuity, efficiency, clinical quality, service quality and management quality.

Viphada Khunavigtikul and et al., (2000) worked on health care quality indicator for Thai people and came up with of 10 indicators as shown below:-
1). Nosocomial infection rate of the urine system; 2). Tumble, collapse or falls from the bed; 3). Decubitus ulcer rate 4). Lack of skin care; 5). Satisfaction of patients with pain management; 6). The satisfaction of patient with health care; 7). Satisfaction of patients with instructions given by health personnel; 8). The satisfaction of patient with the service provided by of health personnel; 9). The rate of nursing staff versus other health personnel; 10). Service time of the health care institution.

Youngyut Kajorntham and et al., (2000) developed an indicator for measuring the contentment of Thai people. Ten villagers were selected from 4 provinces of the northeastern part of Thailand and participated in a focus group discussion. The contentment indicator of Thai people comprised of 8 factors: life insurance, physical and mental health, a warm family environment, strength of the community, good environment, freedom, pride and the observations morals in the social context.

The Nursing Division (2001) came up with 78 indicators for developing a measure of the quality of the health service and whether the regional hospital, general hospital and community hospital developed according to the hospital accreditation project. The 78 indicators comprised of structure-, process- and outcome indicators. But the hospitals only information of 22 outcome indicators are requested emphasizing on the quality of nursing.

The Nursing Division defined 43 indicators for measuring the quality of nursing in the community. The indicators were divided into 6 groups:- 1). 14 indicators for service management; 2). 3 indicators for service accessibility; 3). 2 indicators for the cost reduction of nursing; 4). 2 indicators for the eligibility for health service; 5). 20 indicators for quality of nursing; 6). 2 indicators for the impression of the health care receivers about services provided.

Angsana Boontham (in Chanin Charoenkul, 2001) suggested to use the following factors for the development of indicators to asses the community health situation:-

1. Community health status: For instance life expectancy, death rate, rate of disabled person, malnutrition; and risk factors of non-infectious diseases.

2. Demographic status: For instances demographic structure of the population, the change of the rate of females over time in the reproductive age range.

3. Health service: For instance manpower, the structures of service places, basic services, family planning services and health insurance opportunities.

4. Environmental conditions: For instance clean water, feces extermination, and waste disposal.

5. Socio-economic characteristics: For instance the economic situation of families, social and economic conditions and education and understanding of economic matters.

The Office of Policy and Planning for Public Health , Ministry of Public Health (2001) formulated for the evaluation of health development indicators for the use of determining the success in the implementation of the national health development plan during the period of the national economic and social development plan number 9 (2002-2006). The indicators were divided into three categories as follow:-

1.The overall goal attainment level consist of 20 indicators

1.1. 16 health status indicators

1.2. 2 indicators measuring the responsiveness to the expectation of the population.

1.3.. 2 fairness indicators

2. 86 indicators were suggested for measuring the strategy level

Strategy no. 1. 13 indicators for the health management system development

Strategy no. 2. 13 indicators for health insurance and service quality development

Strategy no. 3. 15 indicators for measuring basic factors of good health and health promotion development

Strategy no. 4. 20 indicators for measuring the improvement of health behavior and health strength of the people

Strategy no. 5. 7 indicators for measuring information and health technology development

Strategy no. 6. 8 indicators for assessing health personnel management

Strategy no. 7. 10 indicators for measuring the capability the development of competition between the different health services within the country

3. The health service indicator in the provincial level consist of 67 indicators as follow:-

3.1. 21 indicators for accessibility to the health services

3.2. 21 indicators for measuring the quality of health services

3.3. 21 indicators for observing equity

3.4. 16 indicators for efficiency

3.5. 8 indicators for sustainability

3.6. 6 indicators for customer protection

The Social Research Institute of the Chulalongkorn University (2002) developed indicators for measuring the quality of life and social development within communities and for the whole country by using the PAR. The study area was divided into two areas that are municipality- and rural areas. Municipality areas consisted out of industrial areas in the Rayong province, the border area and tourist area in the Chiang Rai province and the areas of dense population in Bangkok: The rural areas consisted out of the river area in the Naan province, the industrial agriculture area in Chiang Mai province, the sea side area in the Songkla province, the agricultural area in the low plain of the Sri Ayuthaya province and the agricultural area in the high plains of the Burirum province. For the development of the indicators 8 main factors had been considered, that is the basic economical situation and economical environment, hygiene, health and public health, perception, understanding and learning, education and human resources, cultural and mental situation, social status of the population, security, freedom and rights, family and community matters. An efficient indicator

should be consistent with the development target and suitable for the people in the community so that they can gain experience within the process of the development. Factors indication sustainability in the process of development is improved self-reliance, setting up of organizations by the people, the participation of people in the development process and equity in the society. There might be differences in the numbers of indicator used in particular areas according to the framework of problems faced. Finally it is up to the researcher to developed indicators that can be used in all areas of the community and also on the national level.

The Office of Nursing under the Department of Medical Service, Ministry of Public Health (2003:4-24) developed a nursing quality indicator for assessing health provider and the community. The national indicators formulated by the experts and scientists included:- 1.)Mixture of different professions among the hospital staff 2.) Nursing hours vs. length of stay in the hospital 3.) Satisfaction with the nursing personnel 4.) Decubitus ulcer rate in the hospital 5.) Nosocomial infection in the hospital 6.) Efficiency in the surveillance of infections 7.) Nosocomial infections of the urine system due to catheterization 8.) Rate of patients returning back to the hospital within 28 days 9.) Satisfaction of the patients with nursing 10.)Average length of stay in the hospital

The community nursing indicator on the national level defined by the Office of Nursing consisted out of 11indicators 1.) Ratio of professional nurses vs. other health personnel 2.) Ratio of professional nurses vs. population 3.) Satisfaction with the nursing personnel 4.) Proportion of hour for home visits 5.) Coverage rate of the of the population for the assessment of the general health status 6.)Health status of the families within the community 7.) Ability of the chronic diseased patient to care for him or herself 8.) Satisfaction of the patient within the community 9.) Decubitus ulcer rate of patients, who stay at home 10.) Decreasing of risk factors in the community 11.) Tumble, collapse and falls of the patients at home

Health Service System Development Institution (2004) formulated 42 indicators for accreditation of the community health center. The indicators are divided into 3 groups:-1.) Service indicators consisted of 8 indicators for community activities ,

15 indicators for community health center activities and 6 indicators for continuum care. 2.) 10 management indicators. 3.) 3 academic indicators.

The Australian Council on Health Care Standards (in Collopy and Balding, 1993) divided the hospital-wide medical indicator into 7 groups: - 1.) Patients injured 2.) Lung emboli after surgery 3.) Fast readmission 4.) Repetition of an operation within a short time span 5.) Nosocomial infections 6.) Use of medicine and control of medical prescriptions 7.) The performance of the hospital personnel

American Nurse Association: ANA (1996) formulated 10 national quality indicators for nursing in the hospital. 1). 2 structure indicators, distribution of professionals among the nursing staff and total nursing care hours provided per patient/day. 2). 2 process indicators, nursing staff satisfaction and decubitus ulcers by the number of decubitus ulcers grade II-IV per total number of patient days. 3). 6 outcome indicators, nosocomial infection rate, number of falls with injuries per total of patient/ days, satisfaction with nursing care, satisfaction with pain management, satisfaction with information provided and the satisfaction of patients with the care in general.

Barbara J. (1997) from the University of Iowa, College of Nursing, 1997 developed outcome indicators for elderly nursing in the community of rural areas and municipalities, which consisted out of six care factors, 1). Self care of patient: daily life activity 2). Quality of life: tools used in daily life 3). Behavior of patient when getting sick or injured 4). Understanding of health matters 5). Caregiver: care provided to the patients directly 6). Health status of caregivers

Marek (1997) (in the Office of Nursing, 2003: 8) proposed 13 outcome indicators for assessing the quality of nurses 1). Freedom 2). A sufficient social and mental status 3). Ability to work 4). Behavior 5). Knowledge 6). Defined duty of the family 7). Safety 8). Control of symptoms 9). Quality of life 10). Target achievement 11). Satisfaction 12). Health service 13). Achievement in problem solving in the field of nursing.

Maryland's Quality Project: QIP in the MHA (1998) used hospital quality indicator that consisted of 1). Acute care inpatient indicators 2). Acute care ambulatory indicators 3). Psychiatric care indicators 4). Long term care indicators 5). Home care indicator

Katrina Burtt (1998) summarized the indicators, which were worked out by the management staff of the American Nurses Association. The nursing safety and quality indicator comprised out of the nosocomial infection rate and patient injury rate. The patient satisfaction indicator consisted out of 1). Patient satisfactions with nursing care 2) patient satisfaction with pain management 3). Patient satisfaction with information provided 4). Satisfaction with the prevention of decubitus ulcers 5). Satisfaction with the mix of registered nurses, LPNs and unlicensed staff caring for patients in acute care settings 6). Satisfaction with total nursing care and nursing hours provided per patient/day.

The Canadian Council on Health Service Accreditation: CCHSA (1999) proposed indicators for assessing the quality of certified health provider. The indicators were divided into two groups 1). Indicator for service delivery: Acute care which consists of the indicator for nosocomial infection rate, complication rate, service for acute patients, services for mother and child health, care for cancer patients, community hygienic services, services for rehabilitation. 2). Indicators for support services comprised out of indicators for environmental management, human resource and information management.

American Nurse Association: ANA (2000) formulated the community and home health care quality indicator for chronic diseased patients, and divided them into 8 groups and each individual group had sub indicators:-

1. Utilization of service. Utilization of service indicators consisted out of indicators related to the number of visits of the patients, time spent for caring, total hour /day for caring chronic diseased patient and the readmission rate of patients within 60 days after being cared for by the community health service.

2. Client/patient satisfaction. The satisfaction indicator comprised of the satisfaction of the patient with the health service.

3. Risk reduction. The risk reduction indicator considered stopping smoking, decrease of hypertension.

4. Increase activities in prevention. The indicator related to prevention were associated with the time the caregiver spent for the daily life activity of the patient at home, the efficiency of the health care provider to care for the patient, the caregiver's reaction to the patient and the frequency it was allowed to provide care to the patient by the caregiver.

5. Level of functioning: Activities of daily life/Use of tools for daily life. The indicator assesses the level of functioning or the activity of the patient by assessing whether he or she uses tools in daily life

6. Psychosocial health indicator.

7. Pain management indicator.

8. Strength of the therapeutic alliance indicator. The indicators is related to the strength of the therapeutic alliance meaning that the continuous communication between patient/family and nurse is measured and the satisfaction of the patient/family with emotional support, health information, decision for treatment and the technical service accessibility.

North Carolina Hospital (2000) defined the weight control quality indicator for chronic diseased patient and the fiber care project for the patient who wanted to loose weight.

Idaho Hospital (2001), **Long Island Hospital** (2000) and **San Diego Hospital** (1998) formulated the risk and accident prevention quality indicator using the number of accidents and collapses of chronic diseased patients in the hospitals.

Tiffany W. and others (2001) defined 10 indicators for assessing the quality of care given to patients with mental disorders and those who live in unsafe communities or to elderly patients in the hospital. The 10 indicators were related to:- 1.) Cognitive and functional screening. 2.) Medication review for dementia

symptoms. 3.) Laboratory testing. 4.) Visualizing the brain and neural system 5.) Cholinesterase inhibitors 6.) Caregiver support and patient safety 7.) Stroke prophylaxis 8.) Depression screening and treatment 9.) Driving privileges 10.) Constrains

The American Nurse Association: ANA (2002) worked on a nursing quality indicators for use at national level and divided those into 8 groups: utilization of services, client/patient satisfaction, risk reduction, increase in protective factors, level of functioning: ADL/LADL, level of functioning: psychosocial status, changes in the severity of symptoms and strength of the therapeutic alliance.

The University of Wisconsin-Madison Center for Health Systems Research and Analysis (CHSRA) (2002) developed a home health care indicator valid for the majority of people in need of home health care. Therefore, many countries use this home health care quality indicator. The indicator assesses the working unit concerning by inspection through a qualified inspector, through quality accreditation of home health care. At present, the 24 home health care indicators had been developed based on accidents patients at home, type of behavior and emotion of patients, clinical management, the intelligence of the patient, defecation and constipation , control of infections, dietary management and feeding, physical functions and skin care for the patient. It is called minimum data set (MDS) for assessing the quality of care for patients.

Sarita L. Karor (2002) developed indicators used by Medicaid services for elderly people mentally handicapped:- 1.) Dignity of patient 2.) Health 3.) Integration and inclusion 4.) Interpersonal relationships 5.) Person-centered services and supports 6.) Culture and language 7.) Rights 8.) Safety 9.) Self determination 10.) Structure

Conclusion

From the investigations about indicator development within Thailand and foreign countries for the assessment of health providers or health units and as well as community services the main features used are education, environment, quality of life, medical sciences and matters of public health, management etc. The Delphi Technique, had been used for the formulation of indicators which include brain storming, participatory action research (PAR), group processes etc. The method used depends on the purpose the indicator finally is used for.

In foreign countries, university- and hospital staff developed health care quality indicators for home nursing.. These indicators considered risks for and prevention of accidents, weight control, control of infectious, skin care etc.

In the year 2000, the American Nurse Association developed structure, process and outcome indicators for the health care of chronic diseased patient and the community nursing. Some of these indicators also are valid for the communities in Thailand under the condition that particular areas must be considered individually due to the situation present there. This implies, that there is a data base and data collection is possible and that there are instruments to measure activities which means that it should be clear what activities are the focus of the study and how these activities are perceived from those involved.

In Thailand, the formulation of public health indicators depends on the achievement of the project or working plan. There was not any working unit yet, that defined indicators for quality assessment of health care for chronic diseased patients. The Office of Nursing of the Ministry of Public Health worked on a nursing quality indicator for the national level and for the community and suggested to use for the indicator the decubitus ulcer rate in patients and the ability of patients to care for her or himself.

5.2. Further Examples of Research Topics Making Use of PAR

Supang Janthavanich (1986) studied the consumption behavior of the population in the central part of Thailand by using the PAR method A research

assistant, who already passed a training course stayed in the village and observed the selected target group and recorded the progress and the obstruction involved. The researcher provided nutritional education and suggestions about dietary intakes and cooperated with nutritionists by measuring the physical development of the people in the community. The researcher, assistant researcher and the villagers, who participated in the group discussions analyzed the information obtained and checked the accurate of it and whether it may be used for the second step of the study.

Yingyung Taewprasert (1986) studied the consumption behavior of the population in the upper land of the northern part of Thailand. The result of the study indicated that the improvements of the nutritional status need a foregoing improvement of the consumption behavior. It was necessary to improve the understanding of nutritional issues, basic experience in coking, income, food seeking and health services related to nutrition to improve the consumption behavior. Promotion of good consumption behavior should continuously be based on fixed targets, clear content of nutritional suggestions, and stimulation by the local development unit. A sufficient income of the population initiates a permanent good consumption behavior development.

Kruawan Hutanuwat (1989: 22-36 in Bunchob Katekovit, 1995) studied the consumption behavior pattern of the rural population in the upper land of the northern part of Thailand in for pregnant woman, breast feeding, infant and preschool children nutrition. PAR was applied for this study. It became clear, that communication in the context of the social, cultural and local economic environment improved the participation of the people in the community and subsequently the staff of the working unit in the local area could improve the consumption behavior of the target group.

Suda Sukomwang (1993) studied the efficiency of a nutrition project by using PAR at the Ban Prabaht School, Muang District, Lampang Province. Among those participating in the project, including teachers from 12 schools, community leaders, and parents of the children, all together 30 individuals, were underweight and 20 children had weight under a given standard. Quantitative and qualitative data were collected. The teachers and the members of the community were interviewed and

asked about lunch meals and the agricultural endurance project. The data were collected before the start and after the completion of project activity which took place for 12 weeks. The lunch meal and agricultural endurance project was set up after the interviews had been completed and data were collected. The vision of the people about the lunch meal and the agricultural endurance project significantly improved to a fair level. The weight of children who suffered from underweight improved.

Bunchob Katekovit (1995) studied the efficiency of PAR related to the behavior of mothers feeding supplementary food to infants at Banbawtana, village no. 5, Mitrapab Sub-District, Muagleg District, Saraburi Province. Fourteen mothers of infants, from newborns up to the age of 1 year, participated in the study, 10 volunteers who were mother of infants age 1 year and 1 public health staff who was the person to give health education to the participants. The study was undertaken for 4 months and the activities consisted of 1). Breast feeding promotion and enhancing good dietary pattern and prevention of nutritional deficiencies, 2). Increase the awareness of the importance of proper food for infants, 3). Feeding the appropriate type of supplementary foods according to infant's age, 4). Enhance the awareness of the importance of breast-feeding and feeding supplementary food according to the age of the infants. The result of this PAR study was, that the knowledge and the vision of the mothers related to breast feeding and supplementary food for infants increased significantly ($P<0.05$).

Suntree Kompeng (1996) studied about the effective of the participatory action research applied to hygienic vocational nursing concerning the loud noise prevention device for the workers in the industrial of woven. The outcome of the research, the number of workers used the loud noise prevention device significantly increased 0.05 as well as after the research project was over. It could say that the participatory action research use for the hygienic vocational nursing could change the behavior of the workers related to the loud noise prevention device.

Manee Chaiteeranuwatsiri (1998) studied the development of the students, families, schools and the communities including environmental issues at the

Banpailom School, Banglane District, Nakornpathom Province. The research was designed as a case study. The study group included students, people in the community schools. The project consisted out of three sub-projects, the green school project, the environment quality control project and quality of life development and community environment project. PAR was applied and the project was conducted for 6 months. Teachers, students, parents, the people in the community and the governmental officer cooperated very well with the project staff. The vision, knowledge and behavior related to environment and quality of life of the students and the people in the community improved, particularly when compared with the period before the project was implemented.

Marisa Kosaeyayothin (2000) studied ecological agricultural methods used by within the border area between Thai and Cambodia by going through PAR. The objective of the research was to observe the change in the economic and social situation and in the environment of the households of farmers before and after PAR. The sample group was farmers from 30 households in the "Tubtimsaim Village 05", Klongkaituean District, Klonghaad District, Sakaew Province. Research instruments were in depth interviews, observation with and without the participation, meetings, group discussions, working material, testing of knowledge and questionnaires. After participating in the research, the understanding and skills for ecological agriculture significantly increased ($p<0.01$), and the economic and social situation as well as the environment improved. The cooperation between the agriculturist and the person involved was continued for the ecological l agriculture even after PAR finished.

Penprapa Sivirot (2000) developed a club management system for the clubs of elderly by using PAR with the objective to have an efficient and active management for the elderly. The group participating consisted out of the committee and the member of the elderly club of Puttamonthon District, Nakornpathom Province. In the trial period of 1 year, the elderly self-care project was a model for the management development with 5 steps for the development: Set up elderly clubs and decide who will participate in the project, design a concept and plan, learn about the process of the study and how to evaluate the results., The outcome should be that the management

should be continuously active. The elderly club development model can be called "Salaya model" which includes 3 guidelines for the practical activities, improvement of the perception of the members of the elderly club about the situation, responsibility and the club development. The result of the elderly club development was that number of the committee decreased, key positions were set up for the committee members for instance chairman, treasurer. The rules for the administration of the elderly club were modified and a permanent office for the club had been established. Besides that, the committee and the elderly club members developed a sense for ownership of the club, dared to make suggestions and express their feelings, became confident with her or his ability, improved team working, leadership and participation within the committees and increased the number of members of the elderly club. Furthermore, the club committee developed a relationship and cooperated with governmental organizations, the local organization and the private sector in the community and the nearby areas.

Kraisuk Sinsuk (2002) investigated using PAR the possibilities for the prevention of drug-addiction in the community. The research took place at Bangprom Sub-District, Bangkontee District, Samutsongkram Province with the objectives of 1). To study the participation process of the people in drug-addicted prevention in the community, 2). To study the factors involved in the participation for drug addicted prevention. 3). To study the social policy for the prevention of drug addiction. The study was conducted in 3 phases, namely the preparation phase, the actual study period and the situation after the study came to an end. The target group included experts, elderly, official leader, community leader, the people in the community, governmental officer, and academic staff in the Bangprom District. The information obtained through PAR was analyzed by observing the objective of the study and a conclusion was drawn which was acceptable for all participants.

The people in the community were stimulated to participate in the study by using PAR. Factors considered inside the community had been: 1). Strength of resources, for instance the human, social, cultural and environmental conditions 2). Communication, 3). Cooperation, 4) process for improving understanding, 5). Sovereignty, 6). Economic security, 7). Peaceful climate in the community. And the factors outside the community were taken care of by academic persons, and similar

units of the other communities. The result of PAR was that the people in the community developed the courage to give comments and exposed their feeling towards the problem. At the end the community was motivated and had the experience to prevent drug addicted. The people in the community developed the power to solve the problem and agree on a community development policy.

William Foote, Whyte and et al., (1991) proposed PAR to the Mondragon company in Spain in 1943. The objective was to enhance the cooperation of the company staff, the cooperation between staff and consumers, between the company staff and the staff bank and the cooperation between the company and the organization for research and development. The company hired a researcher, who explained PAR to the company staff and studied the interdepartmental relationships. At that time industrial anthropology was a topic to be studied, but those doing it had not the knowledge, perception and experience of today. Some of the company staff resisted and objected the researcher; a meeting was held and attended by experts from the fields of anthropology, sociology, economy, finance, social psychology, management and organizational behavior.

Some departments cooperated and formulated a development plan such as conducting a survey, doing interviews and evaluations that did not only included statistical analysis but also decision making which is the basis of experience and the working efficiency. When the company staff encountered problems, the researcher of the company applied PAR by using individual interviews and group discussions dealing with participation and working methods in the future. All that was related to the human behavior theory, the working- and social status. The company research team summarized the outcome of social science experiences gained from PAR and distributed it to all departments as a working model in the future.

Besides the interviews, there were 6 round tables discussions between the management, and the company workers and the research team. The round table discussions were held with 8 persons of various age and derived from various fields and experiences, and two persons from the research team. The discussion was held for 90 minutes each time, and the topics of the discussion reflected the research document, questionnaires, and interviews. Finally the results of the discussions were analyzed.

The participants of the round table discussions exchanged ideas, comments and the expressed their criticism about the working method and problems. The member of the round table discussions wrote a book dealing with working problems and the possibility to apply PAR in the departments. PAR in the departments pointed towards practical solutions without wasting time with theoretical disputes. Besides that the result of PAR were taken as orientation for new staff and the marketing department.

William Foote Whyte and et al., (1991) also a PAR project in the in the Xerox company, USA in 1979 with the objective to decrease the company's expenses, job preservation and increasing the productivity and also improve the quality of working life: (QWL) The company hired Peter Lazes to be the consultant and the researcher. His team: (CST) studied the cost items of the company in order to decrease the expenses of $3.2 million but maintain the same productivity. Lazes spent 1 month for problem identification and worked 2 years (10 days/month) with the staff and the manager of the units. Lazes proposed a PAR project, and concentrated on the participation of the company staff, leaders of the labor union and the company's management team. All of them participated in the group discussions and also individual interviews were conducted with high ranking persons of the company. The group discussions were successful in that the participants decided how to achieve the target.

During the program, the committees, which consisted out of staff of the company attended a meeting every 1-2 weeks and discussed the problems, conducted interviews with 6 persons with working experiences and different working position from individual departments who volunteered. The CST analyzed the efficiency of the machinery, job flowing, expense allocation, job reviewing, working regulation and suggested to increase the working time. The result of the study, was used to formulate a working standard and facilitated an agreement between the company management and the company staff about how many of the staff should be laid off in order to increase the ability of the company to compete. Before releasing staff, the management cooperated with the labor union and observed the principal of fairness in the decision whom to discharge.

In the PAR project, the consultant was the facilitator; he did not influence problem solving. That was different from what consultants did in the past, who analyzed the problem and gave advice how the problem should be solved. Lazes provided training courses for the staff of the company and the management team about problem analysis, management and report writing. This is a good example that PAR is a learning process, in this case for the company staff and the company management, as well as for the consultant/facilitator and the company staff and management. The successful study at the Xerox Company, enhanced trust and respect between the company staff and the management.

Conclusion

From the literature review about PAR it can be concluded, that this is a research tool which can improve or change the behavior of people in an organizations. In addition it can reduce costs and expenses for a company and at the same time increase productivity. The people in the community, organizations and companies can participate in the research and cooperate with the researcher from the first step of the study up to the end of the research. The research evaluation has to be done according to the principals of PAR. It is important that the people in the community, the developer and the researcher participated in the study and have an equal role in it, in particular when it comes to develop and change the community or organization. The researcher has to be the facilitator who activates the people in the community and the developers to improve the community or organization.

Part 6 The Concept and the Research Theory

The researcher has to think about the concept and theory for the study as follows:-

1. The concept of PAR. is a research tool that is used in critical social science that points towards knowledge, experiences and stimulation for the change of the social situation by using the reflexive method and dialectic technique. The target

group participates in brain storming and experience is gained from the study process. The target groups are of interest for the researcher not the study objective. PAR concentrates on gaining and practical experiences for the persons involved in the research activity so that they are able to identify problems, proceed into an activity, and follow up and the evaluation the outcome of the exercise. Therefore, PAR as a research methodology is a mixture between theory and praxis. The interrelationship between the research target and the objective of the developer and the need and experience of the people are shown in the diagram 3.

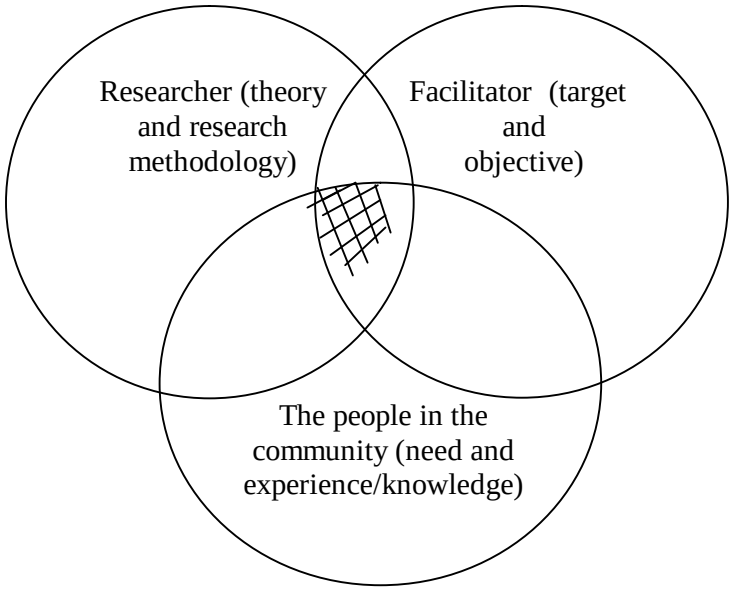

Diagram 3. The relationship between the researcher, facilitator and the people in the community after a PAR study.

2. The concept of quality care according to the theory of Donabedian (1980), quality care is related to 3 main issues 1). The structure of care comprises the human resource, physical tools, management and budgets, 2). The process is related to the health provider, health receiver and the activity of the health personnel and patients as well as the interaction between health personnel and patients. 3). As outcome of the research the health status of the health receiver should be improved indicated by the change of the health status at present and in future and the improvement of the social and mental condition of the patient. The outcome should be an improvement of the health status due to the gain in knowledge, understanding and visions of health issues and change towards a better health behavior of the patient and its impact on the

community. The outcome of the health care can be assessed by proxy indicators, for instance how much advice and information related to health is given to the health receiver. An ultimate outcome measure is the result of the treatment such as decrease of disability, decrease of mortality and the satisfaction of the patient and the family.

Besides that, the researcher may use different outcome indicators for home health care for the chronic diseased patient. These can be categorized into 8 groups according to the concept of the community health care quality indicator of the American Nurses Association:- 1). Utilization of services 2). Risk reduction 3). Enhancement of protective factors 4). Level of functioning: activities within daily life/instrumental use for daily living 5). Level of functioning: psychosocial functioning 6). Changes in the severity of symptoms, 7) Strength of the therapeutic alliance, and 8). Client/patient satisfaction. The researcher may apply this concept to develop the home health care quality indicator for chronic diseased patient, and concentrate on the outcome assessed by proxy- and ultimate indicators and not by structure and process indicators.

Conclusion. In this chapter, the research concept and theory are described divided into 6 parts:-

Part 1. The indicator and health indicator concept and theory.

Part 2. Health care quality for chronic diseased patient.

Part 3. Home health care

Part 4. The participatory action research

Part 5. Study and research involved

Part 6. The concept and research theory.

The literature review in this chapter is useful for the designing the research procedure of the next chapter.

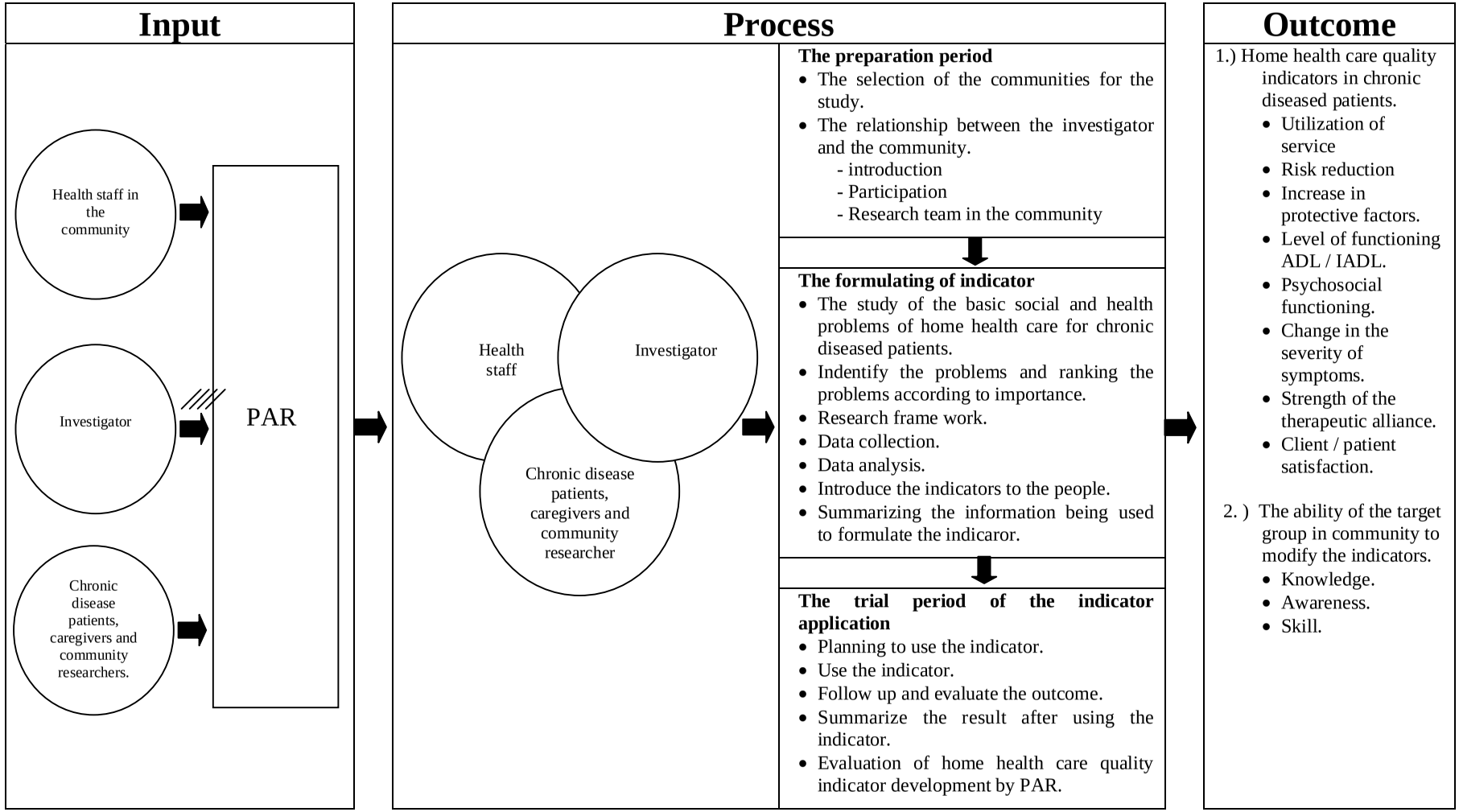

Diagram 4 Conceptual framework of home health care quality indicator development in chronic disease of this research.

CHAPTER III

METHODOLOGY

The study of the development of the home health care quality indicator for chronic disease patients using the participatory action research (PAR) was divided into two parts, the documentation analysis and the field study. In the following the different components of the study will be explained:-

3.1. Area under investigation

3.2. Target group and sample group

3.3. Methodology

3.4. Study tools

3.5. Data collection

3.6. Data evaluation and analysis

3.1. Area under Investigation

The area under investigation was chosen because of the following reasons (Benja Yoddamnuen –Adtikj et al., 2001 : 96 – 97)

1. The area is relevant to the matter, the problem and the objective of the study.

2. The local language used in the area is understood by the investigator.

3. The community is medium sized so that the investigator can easily observe and interview the people in the community.

4. The area is located not too far from Bangkok and convenient to reach by public transportation or private vehicle even in the rainy season. It is easy for the investigator to collect information there.

5. The investigator has reference persons or representatives in the community; this might be the people in the community or persons who are respected by the people in the community

6. The community is safe and there is no fighting

The community under the investigation was chosen according to the following criteria:-

1. The area is relevant to the subject of the study, the problems to be addressed and the objective of the study. Within the community selected at least 1 year home health care for chronic diseased patient was offered. The people in the area had problems with chronic diseases and never had developed a home health care quality indicator for chronic disease patients before.

2. The area is located not too far for the investigators residence, so that is easy for her to travel there to collect information. This implies that the area is located in the central part of the country. During the preparation phase of this study the investigator collected information about the health care system from a number of provinces in the central part of the country such as Supanburi, Lopburi, Saraburi, Nonthaburi, Patumthani and Ayuthaya province. A home health care system did exist in Supanburi, Saraburi, Lopburi and Patumthani province. Home health care in these provinces had been offered within the municipality only and not in the rural areas. Therefore these four provinces were not suitable for the study. Only two provinces were left to be the study area, i.e. Nonthaburi and Ayuthaya. Both provinces are located not far from Bangkok and convenient to reach. In both provinces home health care were provided to the people within the municipality and outside for more than 1 year.

3. The investigator went to Nonthaburi and Ayuthaya province to explore a number of prospective areas within and outside of municipalities and found two areas which were suitable for study. That was the municipality area, “Somchai Patana Village” under the responsibility of the Community Health Centre, Bangkroy district, Nonthaburi province and the area outside a municipality, was the Bangyai district, Nonthaburi province under the responsibility of the Wiharnpracha Health Station. The reason to choose these two areas were:-

3.1 The areas are most relevant to the topic, problem and objective of the study. 202 (8.71 %) persons from a total of 2,318 persons living in the area under the

responsibility of Wiharnpracha health station (Wat Tonchuaek), Bangyai district, Nonthaburi province were sick of chronic diseases and 89 (44.06 %) chronic diseased patients needed assistance from the health staff of Wiharnpracha health station (Wiharnpracha health station, 2002:1). The area is located in the most infertile part of the Nonthaburi province; and inconvenient to reach due to bad road conditions. Some places of the area can only be reached by boat so that the health staffs have to use this mode of transportation for visiting the patient. The people in this area have only a limited chance to receive appropriate health care. It is essential to provide home health care for the chronic disease patients continuously by the health staff as well as to give advice, health information and consultation to the people in the area, so that they can care for their own health. In the area of "Somchai Patana Village" under the responsibility of the community health centre, 896 (10.27 %) persons from the total population of 8,735 persons were sick of chronic diseases, and 222 (24.78 %) of chronic disease patients continuously needed health services from the health staff within the area (Community Health Centre, Somchai Patana Village, 2002 :3). Some of the patients visit the hospital for treatment. The area is located within the municipality and 80 % of the household are in the residential area of a housing estate. Most of the population in the area go to work and leave the house during working hours. The elderly suffering from the chronic diseases are cared for by employed care givers. It is therefore necessary for the health staff to provide adequate home health care for the chronic disease patients continuously and train care giver as well as instruct them about the appropriate and correct way of caring for the patients. The health staffs also give advice, health information and consultation to the patients, care givers and the people in the area so that they can care more for their own health.

The two areas had problems with the chronic disease patients and home health care for these patients. They also did not have an evaluation system for home health care. They also did not have their own home health care quality indicator. As a result they did not know the real problems and requirements of the patients and their families. The service was inefficient and adversely affected the health of patients. The economic status of the patient and the families was affected, likewise the economic situation was a burden to the hospital and by this also an economic burden for the whole country.

3.2 The community is medium sized such as the area within the municipality under the responsibility of the community health centre, “Somchai Patana Village”. The area covers 1.5 square kilometers with a population size of 8,735 persons within 2,440 households. The area outside the municipality and under the responsibility of the Wiharnpracha health station is 6 square kilometers wide with a population of 2,318 persons and 474 households.

3.3 The communities in two areas are convenient to reach, so that it is easy to collect information even considering the fact that some areas under the responsible of the Wiharnpracha health station can only be reached by boat.

3.4 The community health centre “Somchai Patana Village” and Wiharnpracha health station are located in the centre of the area of interest, the people there are familiar with the health stations and the health personnel, who regular visit the population to provide regular health service. The investigator also is familiar with the health personnel of both health stations, and therefore, it is convenient for her to go there to collect the data.

3.5 The investigator can communicate with the people in the area and collect data because all speak Thai, the official language, and no dialect.

3.6 The environment of the community in the vicinity of the two health stations and the daily life of the people in the area are similar to other areas within and outside of the municipalities of the country.

4. The investigator decided to choose one area within a municipality and another one outside of the municipality as the study area and used the participatory action research involving the people and the health personnel in the areas to participate in the research

The procedure to select the study areas is summarized in the diagram as shown below:-

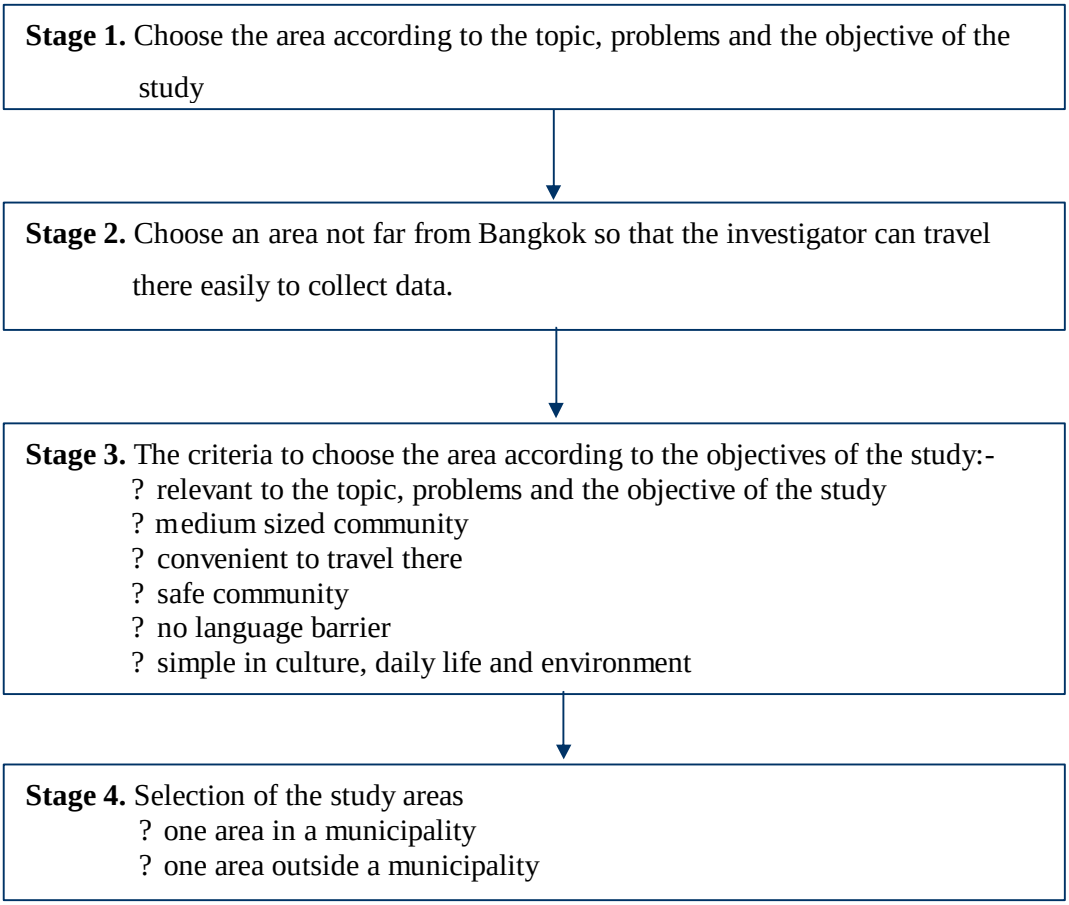

Diagram 5. The procedure of selection the study area

The investigator choose the two areas, one in the municipality and one outside the municipality, not under the impression that the areas are representative for the whole country, but wants to prove that the participatory action research (PAR) can help the people in selected areas to define the home health care quality indicator. It is a local indicator that is suitable and reflects the problems and resources in the area and also can be updated according to the future problems and resources of the communities in the area.

3.2. The Target Group and Sample Group

3.2.1. The Target Group

There are 3 target groups for this study:-

1. The chronic disease patient who stays at home and is cared for by the health personnel in the area for a period of at least 1 year.

2. The care givers who continuously take care for the chronic disease patient at home at least for 1 month and were trained about the appropriate and correct way to do so by the health personnel.

3. The graduated nurses and health personnel who continuously provide home health care to the chronic disease patient for at least 1 year.

The three target groups were willing to cooperate in the study.

3.2.2. The Sample Group

The sample groups were selected from the family records of the chronic diseased patients at the community health centre “Somchai Patana Village” and Wiharnpracha and also by a Snowball Sampling, which means that persons in the area will be selected to participate and contribute with comments and information for formulating the home health care quality indicator for chronic disease patients.

The Sample Size

The area under the responsibility of Wiharnpracha health center consisted of 2 patients , 10 caregivers , 2 health personnels and 5 community leaders.The area under the responsibility of the community health center “Somchai Patana Village ” consisted of 4 patients , 12 caregivers , 2 health personnels , and 4 community leaders.

3.3. Research Method

The participatory action research (PAR) was conducted as documentary and field research:-

3.3.1. Documentary Research. The home health care information was collected from family records at the community health centre and the health station responsible for the area. Information was collected also from the communities. The

information was analyzed in considering the community problems and the home health care problems.

3.3.2. Field Research The participatory action research was conducted in the study area and the procedures were divided into 3 steps:-

1) The preparation period
2) The formulating of the indicator
3) The trial period for using the indicator in the area

The Preparation Period

The preparation period was divided into 2 parts:-

1. The Selection of the Communities for the Study. The investigator selected the communities or the area according to 7 criteria:-

1.1 The areas should be relevant to the topic, problems and the objective of the study

1.2 No language barrier

1.3 The community should be medium sized

1.4 Convenient to reach and located not too far from Bangkok

1.5 The investigator should have reference persons or representatives in the communities.

1.6 The communities should be safe

1.7 The cooperation of the people and the health personnel in the community of study area should be good, the municipalities under the responsibility of the community health centre “Somchai Patana Village”, Bangkroy district, Nonthaburi province and the area outside the municipality under the responsibility of Wiharnpracha (Wat Tonchueak) health station, Bangyai district,Nonthaburi province were selected. The details of the selection process were mentioned above.

2. The Relationship between the Investigator and the Community. The steps to establish a relationship between the investigator and the people in the communities are given below:-

2.1. Introduction. The process of introduction:-

2.1.1. Data collection was permitted by the Mahidol University and the investigator informed the community leader and the public health personnel involved about this.

2.1.2. The investigator met the community leader and the respected persons in the community privately in order to inform them about the objective of the study and asked for their consent and permission to conduct the study in the area.

2.1.3. The investigator met the people being organized in clubs or groups such as the elderly club and the housewife group in order to introduce the investigator. She got information from them and used the opportunity to exchange opinions and experiences about general health problems and home health care. In addition, she briefly explained the principles of participatory action research (PAR) so that the people understood and were willing to participate in the study and accept the investigator.

2.1.4. The investigator and the public health personnel in the area attended meetings to discuss the concept and the objective of the study, the method for data collection, the time conditions, the concept and the principles of PAR.

2.2. Participation. The procedure of the participation:-

2.2.1. The investigator stays in or often visits the communities in order to be familiar with the people there.

2.2.2. The investigator introduced herself to the people of the individual households, in particular to the households being targeted with chronic disease patients, who continuously receive health care from the health personnel in the area at least for 1 year.

2.2.3. The investigator participated in community activities such as cultural festivals, the Thai New Year, and religion ceremonies such as Buddhist lent and helped to bring the patients to the hospital in order to gain the confidence and respect of the people in the study area.

2.2.4. The investigator participated in the activities of the elderly group, exercise group and the housewife group in order to become familiar with the people in the community.

The investigator asked for the permission from the head of the health station to go through the health records of the target groups, who are the chronic disease

patients and being cared for at home by the health staff. The investigator explained the objective of the study and the procedures how to have the patient to participate and how to chooses the individuals, who should participate in the study by giving information and comments about the home health care for chronic disease patients and make comments about the home health care quality indicator for the people in the area. The investigator asked the patients who were willing to participate in the study to sign a consent form before the study took place.

2.3. Research Team in the Community

The Snowball Sampling method was used by the people in the communities to select those who can contribute to the data collection and formulation of the home health care quality indicator for chronic disease patients. They became the community research team. The investigator familiarized the research team and health staffs within the communities about the procedure and the principles of the participatory action research (PAR) so that they understood and adjusted their concept towards the PAR.

The Formulating of Indicator

The actual study or the formulating of indicator is carried out in 7 steps:-

1. The Study of the Basic Social and Health Problems of Home Health care for Chronic Disease Patients: The community profile consists of important factors and problems the people in the community have, such as basic social insufficiencies of the people in the community and problems related to the home health care for chronic disease patients. In order to get the information the following activities had been carried out:-

1.1 The investigator, the community research team and the people in the community collected the basic information of the community from 1) the District Administrative Office, the Public Health Centre, the Health Station and from the community leaders. 2) by using the techniques such as participatory mapping , walking through the community and speaking to the people (community survey) as well as small group discussions. In this way the necessary information from the

community could be obtained such as the social conditions, the economic profile and other important information from the community.

1.2. The investigator, the community research team, the health staffs and the people in the community who are the target group jointly studied the problems concerning the home health care for chronic disease patients and the problems related to home health care in the past and in the present by participating in focus group discussions and collecting information from the family folder of the patients at the health station in the community. The participatory observation and the in-depth interview are also used by the investigator, who accompanied the health staffs providing home health care to patients and their families in order to identify the problems surrounding the home health care.

2. Identify the Problems and Ranking the Problems According to Importance. The investigator and the people in the community participated in ranking the importance of the problems related to home health care in chronic disease patients so that guidelines could be worked out for the formulation of the home health care quality indicator for chronic disease patients. After ranking the problems according to its importance, the investigator, the research team, the health staffs and the people, who are the target group, participated in summarizing the basic information of the community and the problem of the home health care for chronic disease patients. The target group also had been asked to explain the problems about the home health care for chronic disease patients to the investigator.

3. Research Frame Work. The investigator, the community research team and the health staffs participated in group discussions for research planning and identifying research activities. Also the research system such as the objective of the research, the research area, the target groups or sample groups**,** the research method and research tools had been discussed and designed as well as the forms for data collection and the formulation of the home health care quality indicator for chronic disease patients.

4. **Data Collection.** The formulating of home health care quality indicator in chronic disease patient needed the information from the focus group discussions by the community research team, the target group and the health staff, which participated in the focus group discussions. The investigator acted as the moderator. Besides that

the in-depth interview were carried out in cases it was not possible to collect the information needed from the focus group discussions. The data collection consisted out of:-

4.1. Information about important factors concerning the home health care quality indicator in chronic disease patients.

4.2. The important factors in relation to the home health care quality indicator in chronic disease patients had been used to suggest procedures for better home health care for chronic disease patients and were also used to define operational aspects of home health care.

5. **Data Analysis**. The investigator, the community research team and the health staff participated in the data analysis in order to classify the group of the indicators.

6. **Test the Indicators**. The investigator suggested the use of the questionnaire which was needed to work on a model of the indicator. The people in the community have to test the indicator whether it is suitable and practical for the community so that the home health care could be improved.

7. Summarizing the Information being used to Formulate the Indicator. The investigator, the community research team and the health staffs participated in the focus group discussions to summarize the information of the home health care quality indicator for chronic disease patients.

The Trial Period of the Indicator Application

The steps to test the indicator in the communities in the areas under the responsibility of the community health centre and health station were the following:-

1. Planning. The investigator and the people in the community participated in planning how to use the indicator, where and with whom. Also the plan for the working schedule had been discussed.

2. Using. The indicators were applied in the communities in order to test whether the individual indicators are suitable and practical to use in the communities or not.

3. Evaluation. The result of using the indicators in the communities had been evaluated in order to know whether the problems could be solved and to know how many indicators could be used and how many indicators could not be used in the communities.

4. Summarize. The investigator, the community research team and the health staff participated in group discussions so that the results of using the indicator in the communities could be summarized and in order to know how many indicators could be used in the communities.

After achieving to formulate the indicators which could be used in the communities, the investigator, the community research team and the health staffs participated in the evaluation of the home health care indicator development for chronic disease patients by participatory action research (PAR). The points for the evaluation had been:-

1. The participation of the target group to formulate the indicator.

2. The suitability of the indicator in terms of importance , validity and its practical use in the community.

3. The trend to use the indicator by the health staff for instance for the evaluation of the health service etc.

4. The ability of the target group in the community to modify the indicator in future after the investigator and the research team left the area. The indicator should be updated according to the newly emerging problems, situations and resources in the area. The ability of the target group in the community will be evaluated in matters of:-

4.1. The knowledge of the target group to formulate the indicator

4.2. The awareness of the target group to formulate the indicator.

4.3. The skills of the target group to formulate the indicator.

The different steps of the research activities, the research tools and the persons involved in the research are shown in table 1.

1. The preparation period	research instrument/method	persons involved
1.1.communities under investigation		● investigator, health staff and people in the community
1.2 relationship with the community		
1.2.1 introduction		
● meet the community leaders and the senior citizen		● investigator, leader of the community
● meet special groups of people or the individuals of organizations		● investigator, club or organization
● participate in meetings with the health staff		● investigator and health staff within the community
1.2.2. participation		
● stay in or often visit the community		● investigator, people in the community
● the investigator introduce herself to the target group		● investigator, target group
● participate in social activities		● investigator people in the community
● participate in the activities of elderly , exercise and health volunteer group		● investigator, elderly , exercise and health volunteer group
● select the people from the target group	● family folder ● personal form	● investigator, target group
1.3. community research team		
● select the people in the community who can be the community research team	● Snowball Sampling Technique	● investigator, the people in the community, who have the

1. The preparation period	research instrument/method	persons involved
● advise about the procedure and the principle of PAR to the community research team and health staff		qualification for participating in the community research team ● investigator, community research team and health staffs
2. The formulating of indicator	research instrument/method	person involved
2.1. study the basic social conditions and problems related to the home health care for chronic disease patients		
● investigator, community research team and people in the area collect the basic important information of the community	● documents, participatory mapping, explore by walking through the village (community survey) and group discussion	● investigator, community research team and people in the community
● investigator, community research team, people in the community and health staff participate in meetings to discuss the problems concerning the home health care for chronic disease patients	● family folder, participatory observation and group discussion and in-depth interview	● investigator community research team, health staff and people in the community who are the target group
2.2. classify the problem or ranking the importance of the problems	● problem ranking	● investigator, community research team, health staff and the target group
2.3. research frame work	● focus group discussion	● researcher, community research team and health staffs
2.4. data collection		
● investigations about the important factors concerning the indicator	● focus group discussion and in-depth interview	● investigator, community research team, health staff and target group

2. The formulating of indicator	research instrument/method	person involved
● formulating the indicator by using important factors in relation to home health care as well as define operational activities		
2.5. data analysis in order to formulate the indicators	● focus group discussion	● investigator, community research team and health staff
2.6. introduce the indicators to the people in the community	● questionnaires	● investigator, community research team , health staff and people in the community
2.7. indicator quality analysis	● focus group discussion	● investigator, community research team and health staff
3.The trial period of using the indicator	research instrument/method	person involved
3.1. planning to use the indicator in the community		● investigator, community research team, health staff and the target group
3.2. use the indicator in the community		● investigator, community research team, health staff and people in the community
3.3. follow up and evaluate the outcome after the indicators had been used in the community		● investigator, community research team and health staff
3.4. summarize the result after using the indicator in the community	● focus group discussion	● investigator, community research team, health staff and the target group
3.5. evaluation of home health care quality indicator development for chronic disease patients by PAR in matters of:-	● focus group discussion	● investigator community research team and health staffs
● participation of the target group		
● suitability of the indicator for the community	● evaluation form	

3. The trial period of using the indicator	research instrument/method	person involved
● trend to use the indicators by the health staff in the community ● ability of the people in the community to develop the indicator in the future		

3.4. Research Instruments

The instruments used in this study are techniques for data collection and other instruments and convenient devices such as questionnaire and tape recorders.

3.4.1 Data were collected by using a number of different techniques.

3.4.1.1. Participatory Rural Appraisal: PRA used the following techniques:-

1.) Community Survey

2.) Participatory mapping

3.) Ranking

3.4.1.2. Small group discussions

3.4.1.3. Focus group discussions

3.4.1.4. In-depth interviews

3.4.1.5. Participatory observations

3.4.1.6. Questionnaires

3.4.2. The instruments and convenient devices used in the study:-

3.4.2.1. Tape recorder

3.4.2.2. Camera

3.4.2.3. White board or black board or bill board

3.4.2.4. Magic color pen

3.4.2.5. Small stones for giving marks

3.4.2.6. Picture and other equipment for community mapping

3.4.2.7. Record paper

3.4.2.8. Pen and pencil

3.4.2.9. Quesionnaires

3.4.2.10. Accessories such as cookies, snack, sweet, water, souvenir etc.

3.5. Data Collection

The data was collected by using Participatory Rural Appraisal (PRA), small group discussions, focus group discussions, in-depth interviews, participatory observations, questionnaires from October 2003 to May 2004.(8 months)

The questions used in the in-depth interview and focus group discussions are as follow:-

1. Have you ever received home health care from the health staff? If yes, how often in one month?

2. What is the reason why the health staffs come to visits you?

3. What problem did you have with the home health care provided to you and your family by the health staff in the past?

4. What are the health services the health staff provide you and your family while visiting you? Name the activities…..

5. How do you feel about the home health care program as far as the health provider and health staff is concerned? Name the good and the bad points …….

6. What affect has the home health care on you and your family? Name the good and the bad points……..

7. Is the home health care provided to you and your family by the health staffs beneficial for you and your family? What criteria you use to measure the following items: -

7.1. Utilization of service

7.2. Risk reduction

7.3. Increase of protective factors

7.4. Level of functioning (ADL/IADL)

7.5. Level of functioning: Psychosocial functioning

7.6. Change in the illness severity

7.7. Strength of the therapeutic alliance

7.8. Client / patient satisfaction

8. What do you want or what do you expect from the home health care provided by the health staff?

3.6. Collection , and Analysis of Data

The steps of data collection, evaluation and analysis will be as follow:-

3.6.1. Data Collection

Data collection will consider the validity and reliability of the data by using the triangulations:-

3.6.1.1. **Data.** Data were collected from different places, persons, and at different times.

3.6.1.2. **Method.** Using only one method collected the information and additional information was obtained by using small group discussion, focus group discussion or in-depth interviews.

3.6.1.3. Research Team. The data were collected by many members of the research team**.**

3.6.2. Data Analysis

The data were analyzed by using the following procedures:-

3.6.2.1 Analytic Induction The information concerning the background ,social structure, geographic and cultural including the basic social status such as the occupation and social life of the people in the research area were collected and summarized.

3.6.2.2. Typological Analysis. The variables were related to the home health care quality indicator in chronic disease patients. The indicator was evaluated by the outcome indicator. The outcome indicator were divided into proximate outcome and ultimate outcome with the following factors:

1**)** Patient

2) Caregiver

3) The performance outcome of health team

4) Patient and caregiver

The information of the variables mentioned above was derived from the conversations and the comments during the focus group discussions and in-depth interviews. The investigator analyzed the data immediately after collection.

In this chapter, the researcher described the research methodology including the area under investigation, the target and sample group, the research procedures, the research instruments, methods of data collection and the analysis of the data. The result of the study will be discussed in the next chapter.

CHAPTER IV
RESULT

The objective of this study is to develop a home health care quality indicator for chronic disease patients by using participatory action research in selected areas. The study was conducted following three steps: -

1) The preparation period

2) The study process and the formulation of the indicator

3. The trial period by using the indicator in the study area

4.1 The Preparation Period

After the selection of the study area, the investigator established a friendly relationship with the population in the selected communities by following the steps as described below:

1. Introduction

1.1 The investigator met the community leaders and respected persons such as 3 health volunteers connected to the Wiharnpracha health station, 1 teacher being on pension and the head of the housewife group, the leader of the village exercise group, the head of the elderly club and 2 health volunteers of the Somchai Patana Village health centre. The village leaders were informed about the objective of the study and their consent and permission to conduct the study was requested. The investigator received a warm welcome and the permission to conduct the study was kindly given.

1.2 In the area of the Somchai Patana Village the investigator also met the people being organized in clubs or groups such as members of the exercise group and elderly group. In the communities under the responsibility of Wiharnpracha health station the investigator contacted the people from the housewives group and

introduced herself. The housewife group was busy mainly in producing curry paste, preserved eggs and cookies. Members of the housewife group informed the investigator about the situation in the community and the opportunity was used to exchange opinion about general health problem and home health care. The members of the group were informed about the principle of the participatory action research and were asked to participate in the study and accept the investigator. Also the people in the groups friendly welcomed the investigator and assured her that it is their pleasure to participate in carrying out the study and follow the method of PAR.

1.3. The public health personnel in the two areas together with the investigator met in meetings to discuss the content and objective of the study, the method of data collection, the time frame and the concept and the principle of PAR. The public health staff in the two areas cooperated well with the investigator.

2. Participation

Participation was assured by the following steps:-

2.1. The investigator visited the communities under the responsible of Somchai Patana Village health centre for two months regularly on Monday, Wednesday and Friday and the communities under the responsible of Wiharnpracha on Tuesday and Thursday. The investigator also made herself know to the people by participating in the activities and exercises of the group join in cultural- and Thai New Year festivals, marriage –and religious ceremonies such as Buddhist Lent and ordination of monks. This made the investigator being received very well by the people in the two areas.

2.2. The investigator also visited the individual households in particular those with chronic disease patients. She studied the health records of the patients using the family folders which were provided by the staff of the health stations. She also accompanied the health staff on their regular visits paid to chronic disease patients at home. The object of the study was explained to the family members and the patients. After that the investigator visited the patients 2 to 3 times by herself so to become more acquainted to the patients. The patients were informed about the home health care quality indicator and how to participate in the study. In addition group discussion and in-depth interview were performed. Chronic disease patients were divided into two groups, those who were cared at home by care givers and those

whose conditions improved in so far as they were able to participate in exercise groups. Both groups were informed that they are target groups in the study and were asked to sign the consent form before the study took place. Also members of the housewives group and caregivers became the target groups, were willing to participate and signed the consent form. Therefore the target groups consisted out of:-

1. Two chronic disease patients and ten caregivers from Wiharnpracha health station.

2. Four chronic disease patients and twelve caregivers from Somchai Patana Village health centre.

3. Research Team in the Community

The Snowball Sampling method was used by the people in the communities to select those who can contribute to the data collection and formulation of the home health care quality indicator for chronic disease patients. Two persons were selected from the community of Wiharnpracha, one is the teacher on pension and now is a member of the housewives group and public health volunteer and another one is a caregiver who is also a public health volunteer. Two persons were selected from the community of the Somchai Patana Village. One is a former civil servant of the Ministry of Finance and presently a public health volunteer. Another one was former civil servant of the Ministry of Defense and now is a caregiver. All of them had been included into the community research team. The investigator instructed them about the procedure and the principle of PAR so that they could understand and apply the concept accordingly.

4.2 Study Process of the Formulation of the Indicator

The actual study or the formulation of the indicator was carried out in 7 steps:-

1. The study of the basic social and health problems of home health care for chronic diseased patients

2. The identification of the problems and ranking according to importance

3. The design of the research framework

4. Data collection

5. Data analysis

6. Indicator

7. The summary of the information which had been used to formulate the indicator

The details of the 7 steps are given below:-

1. The Study of the Basic Social and Health Problems of Home Health Care for Chronic Disease Patients

The investigator, the community research team and the health staffs responsible for the community collected basic information by using the techniques of:- 1) walking through the community, communicating with the people and performing participatory mapping; 2) small group discussion; 3) in-depth interviews with 5 leaders of Wiharnpracha community and 4 leaders of Scomchai Patana Village and 4) collecting all relevant documents concerning the following points:-

From Wiharnpracha Area

1. Background: The community under the responsible of Wiharnpracha health station (Wat Tonchuaek) consisted out of Moo 1 to 4, Banmai sub-district, Bangyai district, Nonthaburi province. The Banmai sub-district was formed in the reign of the great King Tagsin while Thonburi was the capital of Thailand. The main means of transportation was by boat that time. The important and very old temple "Wat Tonchuaek" was built in 1781(Natruedee Pinngin and et al.,2003:1). The first road of Banmai sub-district was Wat Tonchuaek-Sainoi road built in the period of that time Prime Minister Kuegrit Promoj. It is now the main road for the population of the Banmai community for traveling by car or public transportation instead of boat.

2. Geographic: The area of the community spreads over 6 square kilometers. It is near Bangyai canal in the northern part of Banmai sub-district, near the Ngongprawngai sub-district. It has a common border in the south with the Bangyai sub-district and in the east with Moo 8 with Maenang sub-district, in the west Moo 5 and Moo 7 of Banmai sub-district. The area located in the low plain which is flooded in the rainy season. It is located near a number of canals for instance Tadaeng, Phaikad, Bangyai and Pooyaichan. These canals are either connected with the

Choaphaya or the Nakornchaisri river. In the past people used to travel by boat but now more commonly by car or public transportation.

3. Culture and tradition: The populations of Banmai are Thai, Combodian and Chinese. Due to the vicinity of canals boat racing is common in November or December each year when the water level are high. Another important tradition is the religious ceremony at Wat Tonchuaek on the 8th day of the waxing moon in March. Those participating in the ceremony are bidding for a round bamboo baskets containing fruits or food. The funds of obtain from this are given to Wat Tonchuaek.

4. Social structure:

4.1 Demography. The populations in the area under the responsibility of Wiharnpracha health station amounts to 2,318 individuals, out of those 1,186 are males and 1,132 are females. The population density is 150.5 persons per square kilometer (Wiharnpracha health station, 2003: 5-6). Most of them are living near the canals.

4.2 Family. Usually families in the area consist out of father, mother, children and grand parents. Women moved into the family of their spouses after marriage. The wife should accept and respect the relatives of her husband and vice versa the husband the relatives of his wife. This results in a good relationship between two families.

4.3 Economy. 72.77 % of the population are farmers mainly engaged in orchid growing, 19.67 % are workers, 8.22 % are civil servants and employees of governmental enterprise and 1.23 % are self-employed. The average income is 33,400 Baht/person/year (Wiharnpracha health station, 2003: 7).

4.4 Administration. The majority of the communities under the Wiharnpracha health station are administered by Banmai sub-district Administration Office while some other communities are under the responsibility of the municipality of the Bangyai sub-district. Administrators are the head of sub-district and the village heads.

4.5 Entertainment. The people in the community use to play a game called “Loogchuong” which actually was a children’s play in the past. Two groups are standing in line opposite to each other, the first group throws a ball made of dried grass or soft material folded with a face towel to the other group and if someone of the

group can catch the ball. it is being plaid back trying to hit a member of the first group. If successful the second group gets a score.

4.6 Medical service and treatment. Most of the people in the area prefer modern medicine and only some make use of both modern and traditional medicine. There is one big health station and one primary health centre in the area but no private clinic and drug store.

4.7 Religion. 99.96 % of the people are Buddhist and the rest are Muslims. There is one temple but no mosque in the area.

5. Problem. During the rainy season the lateritic roads are flooded and cannot be used.

Somchai Patana Village

1. Background. Formerly the land of the area under the responsibility of Somchai Patana Village health centre was used for growing orchard. In 1979 Mr. Somchai Thaipadungpanich bought some plots of land and established a housing estate. Most of the people in this residential area moved in from other places. Only a minority of people are living in the area under the responsibility of the health centre of Somchai Patana Village are farmers doing still orchard plantation and living in typical Thai houses. Besides that there are a group of people who moved in from other places and stay along the railroad line.

2. Geography. The area consists out of Moo 5 and some areas of Moo 6 of Bangkroy sub-district, Bangkroy district, Nonthaburi province. 80 % of the households are located in the residential area of the housing estate, 15 % along the railroad and 5 % in the orchard plantation. (Somchai Patana Village, 2003: 6). The northern part of Somchai Patana Village adjoins the Bangkroy-Sainoiwatjan road, the southern part the railroad of Bangplad district, the western part the area of Moo 7 of Bangkroy sub-district and the eastern part Moo 5 of Bangkroy sub-district. A public bus line connects the area with the city of Nonthaburi province, most of the people travel by car or motorcycle. Besides that also hired motorcycles are used to travel from the small lanes to the main roads.

3. Culture and tradition. Traditionally the people celebrate the annual religious ceremonies of the "Lumkongkaram" and "Jansamorsorn" temple. Other traditional festivals are related to the Thai New Year, Buddhist Lent etc. The culture of people in this community is similar to the people in the municipalities. Social connection consists only with the neighbors. About 60 people are going to the health centre for exercising regularly on Monday, Wednesday and Friday. People of this group are closed to each other even they are not neighbor. They together participate in traditional ceremony such as Thai New Year festival. At this occasion they also join with other people of the Bangkroy municipality in exercises.

4. Social structure

4.1 Demography. The area under the responsibility of Somchai Patana Village health centre covers 1.5 square kilometers with a population size of 8,735 person within 2,440 households, 4,189 persons are male, 4,546 persons are female (Somchai Patana Village health centre, 2003: 4). The population density is 5,823.33 persons/square kilometer.

4.2 Family. The family size is usually reduced to consist out of father, mother and children only. In general they moved in from other places and bought a house in the residential area. Member of the family used to go to work or to school in the morning and come back home in the evening therefore the relationship between the members of the family are not so closed. In case a family members is an elderly suffering from the chronic disease and need to be cared for continuously this usually is being done by an employed caregiver.

4.3 Economy. 52.70 % of the people are employees of the factories and companies, 21.13 % are civil servants and employees of governmental enterprise, 20.03 % are workers, housewives and jobless and 6.14 % are farmers (Somchai Patana Village health centre, 2003: 5).

4.4 Administration. The area is under the responsibility of municipality of Bangkroy sub-district and administered by the lord mayor of this sub-district.

4.5 Entertainment. People in the area exercise with the stick and join in aerobic dancing regularly on Monday, Wednesday and Friday from 15.00 h. to 16.30 h. There is a sport competition annually for young people.

4.6 Medical service and treatment. The majority of the people use the modern medicine and only minority of them use both modern and traditional medicine. There is one health centre and two primary community health centers, in addition to two drug stores and three clinics farmers (Somchai Patana Village health centre, 2003: 5). Most of the people are covered by health insurances (Somchai Patana Village health centre, 2003: 4).

4.7 Religion. 99.64 % are Buddhist, 0.25 % are Christian and 0.11 % are Muslims. No temple or church or mosque can be found in the area.

5. Problem. Rubbish bags are not collected in time and are placed in the gardens. Dogs are roaming around in the area and are a nuisance in that they bark continuously and defecate around.

Information about home health care for chronic disease patient had been derived from follow up visits, group discussions and family records. Problems and advances of home health care were elaborated in group discussions. Within the area of Wiharnpracha health station, group discussion had been performed with the so called "curry paste group" and the "health group". The "curry paste group" consisted out of 6 individuals who were caregivers and know each other very well because they participated in the housewife group and met regularly in the house of public health volunteer every Tuesday. The "health group" also consisted out of 6 individuals who were patients and caregivers selected by the investigator from different households located far from each other so that they did not know each other very well.

In the area of "Somchai Patana Village" health centre also two groups had been formed. The first group, named "uncle Kimlai group", consisted out of 9 persons who were familiar with each other since they were patients and caregivers who regularly participated in the exercising group on Monday, Wednesday and Friday. 7 persons made up the "uncle Proy group". They did not know each other before because the investigator selected them from different houses located in different parts of "Somchai Patana Village".

The First Group Discussion

The first group discussion of the "curry paste group" was held on the 4th November 2003 at 10.00 h. to 12.00 h. at the house of health volunteer of the Banmai sub-district.

The first group discussion of the "uncle Kimlai group" was held on the 13th November 2003 at 13.00 h. to 15.00 h at the "Somchai Patana Village" health centre.

The first group discussion of the "health group" was held on the 17th November 2003 at 13.00 h. to 15.00 h at the Wiharnpracha health station.

The first group discussion of the "uncle Proy group" was held on the 18th November 2003 at 13.00 h. to 16.00 h at the"Somchai Patana Village" health centre.

Procedures and results as well as the atmosphere of the group discussions, dealing with problems and benefits of home health care, are described below. Although the investigator already introduced herself to the chronic disease patients and caregivers while visiting them at home, she again introduce herself formally at the beginning of each meeting making clear to the participants that she is only an ordinary member of the group. The research team consisting out of one professional nurse and two public health staffs from the Wiharnpracha health station and one professional nurse as well as one public health staff from Somchai Patana Village health centre were also introduced to the participants. The investigator explained the objective of the meetings and encouraged the members of the groups to discuss the problems and benefits of home health care for chronic disease patients. She also briefly explained the concept and procedure of PAR. All participants had been asked to sign a consent form and asked for permission to record the conversation and take photograph. The members of the groups introduced themselves and talk about the experiences they had while being a chronic disease patient or a caregiver that all should have finished within 10 minutes for each member of the group but some of them did talk for half an hour so the discussion had to be continued in the next time.

The Second Group Discussion

The second group discussion was held on the following days:-

20th November 2003 at 10.00 h. to 12.00 h. for the "curry past group"

24th November 2003 at 13.00 h to 15.00 h. for the "health group"

25th November 2003 at 13.00 h to 16.00 h for the "uncle Kimlai group"

28th November 2003 at 13.30 h. to 15.30 h- for the "uncle Proy group"

This time the investigator summarized the result of the first group discussion and informed the participants about the objective of this meeting, in that, besides discussing problems and benefits of home health care further on, they should also be aware of the fact that the information they provide will be used as baseline for the formulation of the home health care indicator.

One member of "uncle Proy group" did not attend the second group discussion because of sickness. Two new members joined the "uncle Kimlai group" they had been chronic disease patients of the "Somchai Patana Village health centre. They had not been considered to be members of the group before, because they seemed to be too sick. But now they claimed that their conditions improved markedly and they are now able to participate in the exercise group and want also to join the group discussion.

In a next step the investigator did show a picture to the groups and asked the participants to interpret the picture. The interpretation differed between the members of the group. The investigator then explained that nobody is wrong, and that the point of view naturally should differ between individuals. So everybody should not be afraid to express their opinions freely and give their individual comments.

The atmosphere of the group discussion of the "curry paste group" was friendly all the time due to the fact that members of this group did know each other very well. Most of them cooperated well while being asked to give comments. Only a few of them seemed not to have own ideas since they followed the comments of others. This problem was solved in asking those who used to follow the ideas of others to speak out first.

The atmosphere within the “health group” was not so friendly in the beginning, due to the fact that the group members did not know each other very well. They refused to comment on the home health care issue with the exception of one person familiar with the health staff. The other participants joined her point of view. The investigator then asked everybody individually to comment. The discussions improved while the members of the group became more familiar with each other.

The “uncle Kimlai group” created a very enjoyable discussion atmosphere because the participants did know each other very well. Most of the comments centered on home health care issues and problems related to health care of chronic disease patients in the hospital were voiced only occasionally. Those deviating from the objective of the discussion had been reminded to discuss home care only.

Although members of the “uncle Proy group” did not know each other very well, anyway they created a very good atmosphere during their discussion. All of them provided comments on the home health care issue with the exception of only one person. While the discussion continued this person was asked to give comments before the others voiced their opinions. Also some members of the group deviated from the objective of the meeting in discussing the problems of health care within the hospitals and health stations, so the investigator had to remind them to keep close to the issue of home health care.

2. The Identification of the Problems and Ranking According to Importance

The information obtained from the group discussions were divided into 5 categories related to problems and benefits in relation to patients, caregivers, family members of the patients, neighbors and other persons near the patient, the health team and the health station. The importance of the problems was indicated in cooperation with the groups. Ranking was done by giving scores to each problem. In reality one score was equal to one small stone given to the person, who mentioned a particular problem. At the end of the discussion the investigator briefly elaborated on the results of the discussion and prepared the participants for the next meeting.

The investigator together with the research team and the public health staff in the area reviewed the problems and benefits of home health care as mentioned by the

participants of the group discussion. Each item was allocated to one of the 5 aspects mentioned above and given a rank order. The results are presented in Table 2 and 3.

Table 2 The benefits of home health care for chronic disease patients in the area under the responsibility of the Wiharnpracha health station and the Somchai Patana Village health centre.

Rank	Benefits of home health care for chronic disease patients of the Wiharnpracha health station	Benefits of home health care for chronic disease patients of the Somchai Patana village health centre
1.	**Patients** 1.1 Receiving advice from the health team about a given illness and what actions had to be taken in case of the occurrence of particular symptoms. 1.2 The patient had not to be admitted at the hospital frequently. 1.3 While staying at home with relatives and offspring's the patient does not feel lonely and remains in a familiar environment. 1.4 The mental health of the patient is better at home than in the hospital, where he observes severe symptoms and even death of other patients. 1.5 It is more convenient for the patients to go through her/his daily activities while staying at home.	1.1 Receiving advice and information from the health team about a given illness and what actions had to be taken in case of the occurrence of particular symptoms. 1.2 The patient does not have to travel to the hospital often and spend money for traveling and food etc. 1.3 The patient feels comfortable while staying at home together with offspring's and relatives in the environment of his home. 1.4 The patient is more at peace at home than in the hospital and is not disturbed by the noise of other patients or their relatives. 1.5 The patients creates a good relationship with the health team, because members of the health team spend more time with her/him at home and are able to advice her/him and explain the proper care for her/his illness, while in the hospital the health team usually has less time to deal with a single patient.
2	**Caregivers** 2.1 Caregivers can provide better care for patients because the health team can train and advice them. 2.2 Caregivers don't have to travel to the hospital and spend money to go there	2.1 Caregivers have more self confidence to care for patients because they are guided and advised by the health team. 2.2 Caregivers don't have to travel to the hospital and back so they can save money

Table 2 (Continued)

Rank	Benefits of home health care for chronic disease patients of the Wiharnpracha health station	Benefits of home health care for chronic disease patients of the Somchai Patana village health centre
	to care for the patients. 2.3 It is more comfortable to care for the patient at home. 2.4 The caregiver can spend more time with the patient staying at home and don't have to travel to the hospital. 2.5 The caregiver can spend also time for other daily activities than just caring for the patient.	and time. 2.3 Within the homely environment the caregivers can relax and are without stress and don't have to spend time for preparing to go to the hospital. 2.4 The health team can monitor the care given to the patient and the results of the care provided while giving morale support to the caregivers and encouraging the patient to follow the advice of the caregivers.
3	**Members of the family or relatives** 3.1 They don't have to spend money for traveling to the hospital. 3.2 They get more information about the health and proper care for the patient from the health team. 3.3 They can go to work while the patient stays at home and is cared for by the caregiver.	3.1 Save the family expenses by not traveling to visit the patient in the hospital. 3.2 They get information and advice how to care for the patient from the health team. 3.3 They can go to work because the patient is at home together with the caregiver. 3.4 They have more time to rest because they don't have to visit the patient often at the hospital 3.5 The relationship between the patient and the members of the family as well with the relatives improves when the patient is staying at home and they can visit him easily. 3.6 The mental health of the family members is maintained in that the health team visits the patient at home and becomes acquainted to the family members, who will consult the health team easily about the health problems of the patient as well as about their own health problems.

Table 2 (Continued)

Rank	Benefits of home health care for chronic disease patients of the Wiharnpracha health station	Benefits of home health care for chronic disease patients of the Somchai Patana village health centre
4.	**Neighbors and persons in the community** 4.1 They can ask the patient and the caregivers for more health information 4.2 They know more about the health station and come into closer contact with the health station in the area.	4.1 They understand more about the importance of health care because they are with the patient and can ask the health team about health problems. 4.2 They get more information and health service from the health station. 4.3 Their concept about the services of the health station improve while the health team is giving good services and advice to the people in the community. 4.4 The general health of the community improves by following the advice of the health team.
5.	**Health team or health station** 5.1 The health team knows more about the problems in the community and cooperates more closely to solve them. 5.2 The reputation of the health team is fine and the members of the team are trusted by the people	5.1 The health team develops a good perception about health problems in the community and the requirements of the people in the area. 5.2 The health team has a good relationship with the people in the area and the people develop a good connection with the members of the team. 5.3 The health team gains more experience while working in the community. 5.4 The number of chronic diseased patients who prefer to be cared at home instead in the hospital increases.

Table 2 (Continued)

Rank	Benefits of home health care for chronic disease patients of the Wiharnpracha health station	Benefits of home health care for chronic disease patients of the Somchai Patana village health centre
		5.5 The number of patients visiting the health station decreases because the peoples in the communities are more aware about health promotion and follow the advice of the health team to prevent illnesses. 5.6 The health team promote and advertise good health and improve the reputation of health providers.

Table 3. The problems of home health care for chronic diseased patients in the area under the responsibility of the Wiharnpracha health station and the Somchai Patana Village health centre.

Rank	Problems of home health care for chronic disease patients of the Wiharnpracha health station	Problems of home health care for chronic disease patients of the Somchai Patana village health centre
1.	**Patient** 1.1 The patient don't follow the advice of the health team and the treatment plan of the doctor 1.2 A paralytic patient is afraid to be mobilized. 1.3 Don't know much about her/his illness and don't react appropriately according to the symptoms of her/his disease. 1.4 Patients are discouraged, fear to die unattended and worry nobody will care for their children. 1.5 Patients are afraid to go to see the doctor or health personal although their	1.1 The patient does not know much about her/his illness and are given inappropriate care. 1.2 Patients don't follow the suggestions of the doctor and the health team in that they don't control their food consumption, don't take medicine according the prescription and don't exercise. 1.3 Patients stay in a dirty, noisy and smelly environment. 1.4 Patients are afraid to go to see the doctor or health personal, don't dare to ask about their illness and how to care for themselves.

Table 3 (Continued)

Rank	Problems of home health care for chronic disease patients of the Wiharnpracha health station	Problems of home health care for chronic disease patients of the Somchai Patana village health centre
	condition is getting worse and blaming the health personal that they often scold the patients. 1.6 Patients don't follow the suggestions of the caregivers and often select a particular person as caregiver, because that one allows the patient to do what she/he wants.	1.5 Patients don't follow the suggestions of the caregivers, complain about them and scold them. 1.6 Patients are depressed, hopeless and want to die. 1.7 Patients don't hold themselves in high esteem, and have the feeling always to depend on others. 1.8 Patients worry to fall, to be left alone, not to recover, to die alone and about the expenses for treatment.
2.	**Caregiver** 2.1 Don't know much about health issues, the illness of the patient and how to care for them properly. 2.2 Don't follow the advice of the doctor and the health team, with the result that the condition of the patient does not improve. 2.3 Don't take good care for the patient despite having enough time to do it. 2.4 The caregiver has another job as well and therefore not enough time for the patient. 2.5 The physical strength of the caregiver is not enough to care for as younger, taller or heavier patient.	2.1 Don't know much about health issues, the illness of the patient and how to care for them properly. 2.2 Don't take good care for the patient despite having enough time to do it. 2.3 Caregiver is not suitable for caring for the patients since she/he has not enough time, have a chronic disease by her/himself, have not enough strength to move the patient, are older than the patient while caring for a adolescent patient. 2.4 The caregiver is under stress and tired. 2.5 The caregiver lacks of courage, is bored, or feels that she/he is left alone with the patient without given appropriate recognition from the family. 2.6 The caregiver scolds and abuses the patient. 2.7 Caregivers being the children of the patient don't have the money for the treatment of the patient. 2.8 In case of caregivers are employed the following problems might occur:

Table 3 (Continued)

Rank	Problems of home health care for chronic disease patients of the Wiharnpracha health station	Problems of home health care for chronic disease patients of the Somchai Patana village health centre
		2.8.1 Pretend to take good care for the patient only when members of the family are around. 2.8.2 Don't take good care for the patients such as dragging them to the bath room. 2.8.3 Watch television instead of caring for the patient. 2.8.4 Eat the food of the patient so that the patient remains hungry.
3.	**Family members or relatives** 3.1 They let the patient feel that they dislike her/him or boring her/him. 3.2 Quarrel about issues related to the patient or quarrel with each other which make the patient understand that she/he is the cause of the quarrel. 3.3 Over the time the number of relatives visiting the patient decreases.	3.1 They argue about the expenses of the treatment and the budget used for caring for the patient. 3.2 Annoy the patient by quarreling about issues related to her/him which makes the patient think that she/he is a burden for the family; turn the television loud, talk loud, turn on the lights while the patient wants to sleep. 3.3 Discourage or hurt the patients by comparing the conditions of the patient with other patients, make the patient feel that she/he is disliked because of her/his disease, talk about some conditions of the patient she/he actually should not know, don't pay attention to the need of the patient or don't care for her/him. 3.4 Expressing stress because of not having a job, don't have money for the family or the budget to pay for the treatment of the patient. 3.5 Drinking alcohol and coming home late makes the patient to worry and puts her/him under stress.

Table 3 (Continued)

Rank	Problems of home health care for chronic disease patients of the Wiharnpracha health station	Problems of home health care for chronic disease patients of the Somchai Patana village health centre
4.	**Neighbor or persons in the community** 4.1 Discourage the patient by making remarks such as" while having this disease you wont recover".	4.1 Express feelings or motions which make the patient believe that she/he is disliked. 4.2 Don't assist the patient by not providing transportation to the hospital in emergency cases, food, assistance in daily affairs and advice. 4.3 Annoy the patient by making loud noises so that she/he cannot find rest.
5.	**Health team or health station** 5.1 Not provide or unwilling to provide good service by addressing the patient with a loud voice and impolite words. 5.2 Not being available at times when the relatives come to the health station asking to visit the patient. 5.3 Refuse to go to see the patient when being asked by the relatives giving the reasons that they don't have time or are too busy. 5.4 Don't check the physical condition of the patient properly, for example treating only one wound on the head while the patient is having many others. 5.5 Provide not the same services to the poor patient as being provided to the rich patient. 5.6 Give less medicine to gold card holders than to patients who pay out of their own pocket.	5.1 Don't give advice and proper information to the patient and caregivers or speak too fast, too short, use complicated words while giving advice. 5.2 Discouraging the patient by using strong words and down to the point expressions. 5.3 Being moody, having impolite manners and using impolite words while addressing the patient or her/his relatives. 5.4 Provide good service only to the rich patient. 5.5 Force the patient to be at will of the health team. 5.6 Refuse to care for the patient or follow up her/his conditions. 5.7 Being wrong in the diagnosis and therefore giving wrong medicine to the patient

In order to address the research problem, the investigator asked the participants of the group discussion to consider the result of the evaluation of the home

health care for chronic disease patients. Evaluation was done by observing the patient, whether she/he appeared to be in good condition, had no decubitus ulcer, did not smell and was active or whether she/he in contrary seemed to be unhappy and in a bad condition, has decubitus ulcers, did smell and was rather passive. The condition of the patient, her/his mood, the presence of ulcers and bad smell as well as her/his mobility served as indicator to assess the improvement or deterioration of the condition of the patient. These indicators applied for the health care of chronic disease patients can be used as home quality indicators for chronic disease patients.

It was the common agreement among all members of the group discussions to use these indicators for the use of the health team, care givers and people in the community to measure the result of home health care for chronic disease patients. The investigator therefore told the participants of the group discussions that they will start to formulate the indicators within the next session.

3. Research Frame Work

After discussing the benefits and problems of home health care for chronic disease patients, the investigator, members of the group, and the health team joined in planning and identifying the research activities. This included the objective of the research, the research area, target and sample group, research methodology and tools as well as the formulation of the quality indicator. In the following the results of the discussions are given:-

3.1 It is necessary to set up home health care indicators for chronic disease patients for each individual community to be the guideline for the home health care quality indicator for chronic disease patients.

3.2 The home health care indicator should be worked out by using the methodology of group discussions. The same methodology should be used to identify the problems of home health care.

3.3 Group discussions for the formulation of the indicators should performed every 1 to 2 weeks for 4 times.

Table 4. Schedule for the group discussions within the areas under the responsibilities of the Wiharnpracha health station and the Somchai Patana Village health centre.

Area	Time / Group	Third	Fourth	Fifth	Sixth
Wiharnpracha	Health	1 Dec. 2003 (13.00 – 15.00)	15 Dec. 2003 (13.00 – 15.00)	22 Dec. 2003 (13.00 – 15.00)	29 Dec. 2003 (13.00 – 15.00)
	Curry paste	2 Dec 2003 (9.00 – 11.00)	9. Dec. 2003 (10.00 – 12.00)	16 Dec. 2003 (10.00 – 12.00)	30 Dec. 2003 (10.00 – 12.00)
Somchai Pattana Village	Uncle Kimlai	2 Dec 2003 (13.00 – 15.00)	18 Dec. 2003 (13.00 – 15.00)	25 Dec. 2003 (13.00 – 15.00)	5 Jan. 2004 (13.00 – 15.00)
	Uncle Proy	12 Dec. 2003 13.00 – 15.00)	19 Dec. 2003 (13.00 – 15.00)	26 Dec. 2003 (13.00 – 15.00)	9 Jan. 2004 (13.00 – 15.00)

3.4 After formulating the indicators with the help of the group discussion the people within the areas of the Wiharnpracha health station and the Somchai Patana Village health centre, who did not participate in the group discussions, had been involved into the investigation as well by using a questionnaire. Fifty questionnaires were distributed in every community. The forms listed down the indicators as agreed upon within the group discussions and the people in the communities had been asked to mark those indicators they can agree upon as well. It was agreed, that a suitable indicator must reach at least 70 marks. People in the areas also met in group discussions as well.

3.5 The indicators found to be suitable were used in the communities for 3 months in order to find out which one would be the best indicators to be used as quality indicators. The investigator joined in with the members with the group discussions and the health staff in designing the forms for recording the condition of the patients. Forms were designed for recording the conditions for each month and for an entire year.

The members of the group discussions had been informed about the results of their attempts by the investigator. They also were made aware of the objectives for the following sessions and when these will take place.

The Third Group Discussions

1 December 2003 at 13.00 – 15.00 h group discussion held for the "health group".

2 December 2003 at 9.00 – 10.00 h group discussion held for the "curry paste group".

2. December 2003 at 13.00 – 15.00 h group discussion held for the "uncle Kimlai group".

12. December 2003 at 13.00 to 15.00 h group discussion held for the "uncle Proy group".

The community research team and the health staff informed the members of the group discussions and summarized the problems faced in caring for chronic disease patients at home. The investigator explained the objectives of the third session of group discussions, which is to find suitable guidelines for caring for the patients so that these can be used for the formulation of the indicators.

The atmosphere of the group discussions was friendly. Each member of the groups proposed guidelines for the home health care in considering the patient, caregiver, member of the family or relatives, neighbour or member of the communities and the health team or health station. The investigator, the community research team and the health staff participated in summarizing the results of the discussions.

Within the first hour of the session the investigator guided the discussions but after that the health staff, who actually is going to be the key person for the development of the indicators, took over as the head of the discussions and the investigator acted as moderator only. She also summarized the result of the discussions and informed the participants of the objectives and time schedule for the next session.

Table 5. Guidelines for the home health care for chronic disease patients in the areas under the responsibility of the Wiharnpracha health station and the Somchai Patana Village health centre.

Rank	Guidelines for health care for chronic disease patients in the area of the Wiharnpracha health station	Guidelines for health care for chronic disease patients in the area of the Somchai Patana Village health centre
1.	**Patient**	
	1.1 The patient should know more about his illness and how to react according the symptoms she/he develops.	1.1 The patient should follow the treatment plan of the doctor or health team in terms of taking medicine, eating the proper food and exercising.
	1.2 The patient should try to care for her/himself as much as possible such as taking a bath, eating, exercising, following the treatment plan of the doctor or health team and prevent the occurrence of complications.	1.2 Communicate with the members of the family or persons in the community, read books and pray.
	1.3 The patient should control her/his emotions and should not become agitated in case her/his conditions are getting worse, such as in the case of hypertension.	1.3 The patient should not become depressed, should accept her/his illness. Reading religious books may help to overcome depression.
	1.4 Talking with family members or people in the community may help to reduce stress.	1.4 The patient should observe her/his condition and go to see the doctor or health team in case it gets worse.
	1.5 The patient should sty in a place, where there is good ventilation, where it is quiet and peaceful. She/he should leave the home at times in order to change the environment which might to improve his mental condition.	1.5 The patient should take care of her/himself as much as possible such as taking a bath or having a meal.
		1.6 The patient should know more about his illness and how to react according the symptoms she/he develops.
		1.7 The patient should stay in a pleasant environment, with no smell, good ventilation and not being confined.

Table 5 (Continued)

Rank	Guidelines for health care for chronic disease patients in the area of the Wiharnpracha health station	Guidelines for health care for chronic disease patients in the area of the Somchai Patana Village health centre
2.	**Caregiver** 2.1 The caregiver should know the illness of the patient so that she/he can care for her/him in a proper and practical way and can react according to her/his conditions. 2.2 The caregiver should strictly follow the treatment plan of the doctor and health team, for instance in giving the patient the required medicine, food, encourage her/him to exercise and provide physical therapy if possible. 2.3 The caregiver should look into the physical and mental wellbeing of the patient in giving some massage, supplying the patient with food she/he likes and which also is good for her/his health, admire the patient who she/his coping with her/his condition and read a book or the newspaper for her/him. 2.4 Work together with the family members for the self-esteem of the patient such as suggesting to family members to give him some money so that the patent can give that to children when they come to see her/him. Let the patient perform simple activities of daily life by her/himself. 2.5 Help the patient to follow the treatment plan of the doctor or the health team by observing her/his problems and condition. 2.5.1 In case the patient is hardly conscious and cannot help her/himself	2.1 The caregiver should help the patient to perform her/his daily activities and follow the treatment plan of the doctor or health team by observing the condition and problems of the patient. 2.1.1 In case the patient is hardly conscious and cannot help her/himself she/he had to be cared for for 24h. 2.1.2 In case the patient is conscious but disabled for about 50%, she/he should be cared for for about 10 to 12 h/day. 2.1.3 In case the patient is more or less fully conscious and she/he can help her/himself more or less, she/he should be cared for for about 2 -3 hours a day. 2.2 Encourage the patient by any means to read books or newspapers or religious scripts and take her/him out for walking if possible. 2.3 Cooperate with the doctor or health team in caring for the patient.

Table 5 (Continued)

Rank	Guidelines for health care for chronic disease patients in the area of the Wiharnpracha health station	Guidelines for health care for chronic disease patients in the area of the Somchai Patana Village health centre
	she/he had to be cared for for 24h. 2.5.2 In case the patient is conscious but disabled for about 50%, she/he should be cared for for about 10 to 12 h/day. 2.5.3 In case the patient is more or less fully conscious and she/he can help her/himself more or less, she/he should be cared for for about 2 -3 hours a day.	
3.	**Members of the family and relatives** 3.1 They should advise the patient to adjust her/his activities by considering her/his illness. 3.2 They should discuss within the family the treatment plan. 3.3 They should take turn in the care of the patient so that not only one person is looking for her/him. 3.4 Please the patient by talking to her/him frequently and don't compare her/his conditions with those from other patients. 3.5 Don't be noisy or quarrel with each other, because the patient might think that she/he is the cause of the dispute, which will make her/him to feel uncomfortable and put her/him under stress. 3.6 Improve the self-esteem of the patient by providing her/him with some money so that she/he can give that to children when they come to see her/him. Let the patient perform simple activities of daily life by her/himself.	3.1 They should care for the patient and help him in her/his daily activities and follow the treatment plan of the doctor or health team. 3.2 They should booster the moral of the patient and not let her/him feel that she/he is a burden for the family. 3.3 To arrange everything in the house in a way that the patient feels comfortable. 3.4 Do not disturb the patient by making a lot of noise. 3.5 Make the patient to feel comfortable; don't let the patient know about the problems of the family. 3.6 Take turn in the care of the patient and share the money for the treatment. 3.7 Family members living far away should come to visit the patient often in order to cheer her/him.

Table 5 (Continued)

Rank	Guidelines for health care for chronic disease patients in the area of the Wiharnpracha health station	Guidelines for health care for chronic disease patients in the area of the Somchai Patana Village health centre
	3.7 Family members living far away should come to visit the patient often in order to cheer her/him.	
4.	**Neighbour or persons in the community** 4.1 They should give advise to the patient and the caregiver to ensure that the patient acts according her/his illness. 4.2 They often should come to visit the patient and talk to her/him. 4.3 They should not be noisy and disturb the patient.	4.1 They often should come to visit the patient and talk to her/him. 4.2 They should encourage the patient by telling her/him about other patients with the same disease, who recovered from it.
5.	**Health team or health station** 5.1 They should make an appointment when they are going to see the patient by letter ort telephone. 5.2 Before visiting the patient they should phone one day in advance and ask about: 5.2.1 the condition of the patient 5.2.2 the requirement of the patient such as medicine and bandage. 5.3 The health team should prepare for medicine and medical tools before the home visit, for instance medicine for headache, bandage, thermometer, stethoscope, sphygmomanometer, syringe to take blood for checking the blood glucose level and cholesterol as well as a balance for taking the weight. 5.4. While visiting the patient the health team should 5.4.1 ask about the symptoms of the	5.1 The health team should observe the following steps before making home visits: 5.1.1 They should make an appointment in advance. 5.1.2 They should make an appointment by telephone 1 to 2 days in advance and ask about the present condition of the patient and her/his needs. 5.1.3 The health team should prepare for medicine and medical tools before the home visit, for instance medicine for headache, bandage, thermometer, stethoscope, sphygmomanometer, syringe to take blood for checking the blood glucose level and cholesterol as well as a balance for taking the weight. 5.2 When the health team comes to visit the patient, the should 5.2.1 be punctual otherwise inform the patient or relatives in advance that they will

Table 5 (Continued)

Rank	Guidelines for health care for chronic disease patients in the area of the Wiharnpracha health station	Guidelines for health care for chronic disease patients in the area of the Somchai Patana Village health centre
	patient and whether other family members or relatives are sick as well; 5.4.2 give advise to the patient and the relatives about the correct handling of the patient according to her/his condition by giving her/him medicine, food, exercise with the patient, provide physical therapy and wound treatment; 5.4.3 care for the patient and also relatives who happens to be sick for instance by cleaning wounds, giving injections, giving medicine according to the treatment plan and the condition of the patient; 5.4.4 Talk and booster the moral of the patient but don't blame her/him or the relatives; 5.4.5 take your time while doing the home visit and adjust the frequency of the home visits to the condition and problems of the patient. 5.4.5.1 In case the patient cannot or can hardly help her/himself and need sophisticated care which cannot be done by the caregiver, it should be to the health team to train the caregiver how to do it for 1 to 2 hours per visit and should continue so for every 1 to 2 days.	be late; 5.2.2 ask about the condition of the patient and whether a family member or relative might be sick as well; 5.2.3 give advise to the patient and the relatives about the correct handling of the patient; 5.2.4 give treatment and handle the patient according to her/his condition; 5.2.5 coordinate with other health units the continuous care for the patient; 5.2.6 contact the patient or the relatives frequently by phone and ask about the condition of the patient and whether it is necessary to visit her/him; 5.2.7 care for the patient according to his condition; 5.2.7.1 In case the patient cannot or can hardly help her/himself and need sophisticated care which cannot be done by the caregiver, it should be to the health team to train the caregiver how to do it for 1 to 2 hours per visit and should continue so for every 1 to 2 days. 5.2.7.2 In case the patient cannot or can hardly help her/himself and need sophisticated care and the caregiver can handle the patient because she/he had been trained by the health team to do so, the health team should spend ? to 1 hour/visit for follow up for every 1 to 2 weeks. 5.2.7.3 In case the patient can care for her/himself or the relatives can do it because the patient is not in need of

Table 5 (Continued)

Rank	Guidelines for health care for chronic disease patients in the area of the Wiharnpracha health station	Guidelines for health care for chronic disease patients in the area of the Somchai Patana Village health centre
	5.4.5.2 In case the patient cannot or can hardly help her/himself and need sophisticated care and the caregiver can handle the patient because she/he had been trained by the health team to do so, the health team should spend ? to 1 hour/visit for follow up for every 1 to 2 weeks. 5.4.5.3 In case the patient can care for her/himself or the relatives can do it because the patient is not in need of sophisticated care, the health team should spend ? hour/visit for follow up every months.	sophisticated care, the health team should spend ? hour/visit for follow up every months.

After the guidelines for the home health care indicator had been discussed, the fourth group discussion was arranged in which the home health care quality indicator was supposed to be formulated.

The Fourth Group Discussion

9 December 2003 at 10.00 – 12.00 h group discussion held for the “curry paste group”.

15 December 2003 at 13.00 – 15.00 h group discussion held for the “health group”.

18. December 2003 at 13.00 – 15.00 h group discussion held for the “uncle Kimlai group”.

19. December 2003 at 13.00 to 15.00 h group discussion held for the “uncle Proy group”.

The investigator explained to the member of the groups the objectives of the fourth meeting and that this time the quality indicators are the topic. The investigator, the community research team as well as the health staff summarized the results of the last meeting about the guidelines for home health care, which should be the basis for the discussion of the present meeting.

The atmosphere of the group discussion was friendly and the members of the groups now were more familiar with each other and preferred to sit next to each other. One member of the “uncle Kimlai group” used to talk privately with her neighbour and had to be reminded that they should join in the overall discussion.

Again the investigator did lead the groups during the first hour and stepped back to let the health staff taking the leading role as the ones finally responsible. The investigator then acted only as the moderator.

After the session the investigator, the community research team as well as the health staff summarized the results derived from the discussion. The information obtained was divided into 4 categories, i.e. patients, care givers, performance of the health team, patient and caregiver. But according to the concept of the study eight additional categories were listed. These are the utilization of the service, risk reduction, the increased importance of protective factors, the level of functioning (ADL/IADL) with the subcategories of psychological functioning, change in the severity of illness, strength of the therapeutic alliance and the satisfaction of the patients and her/his relatives. For then sake of a better understanding of the issue by the people of the communities the investigator, community research team and the health team combined the most important aspects into 4 main points based on the results of the discussion.

Table 6. The important aspects of the home health care quality indicator for chronic disease patients in the areas under the responsibility of the Wiharnpracha health station and the Somchai Patana Village health centre.

Rank	The important aspects of the home health care quality indicator for chronic disease patients in the areas under the responsibility of the Wiharnpracha health station	The important aspects of the home health care quality indicator for chronic disease patients in the areas under the responsibility of the Patana Village health centre
1	**Patient** 1.1 daily activity and self-care of the patient 1.2 level of social relationship 1.3 decubitus 1.4 improvement of the decubitus 1.5 accidents in the house 1.6 returning to the hospital within the same conditions or the same illness as 1 month before 1.7 severity and complication of the disease 1.8 mobility of the patient	 1.1 daily activity of the patient 1.2 capability to care for her/himself 1.3 level of social relationship 1.4 decubitus 1.5 improvement of the decubitus 1.6 accident in the house 1.7 returning to the hospital within the same conditions or the same illness as 1 month before 1.8 severity of the disease 1.9 complication of the disease 1.10 decrease of pain and indisposition 1.11 smelling and dirty patient 1.12 smoking 1.13 level of blood pressure of a patient suffering from hypertension 1.14 glucose level of a patient suffering from diabetes
2	**Caregiver** 2.1 time spend for caring for the patient/day 2.2 efforts to create a pleasant environment at home	 2.1 Proper and appropriate care for the patient 2.2 supporting the patient to care for her/himself 2.3 average time to spend to care for the patient/day/person 2.4 efforts to create a pleasant environment at home

Table 6 (Continued)

Rank	The important aspects of the home health care quality indicator for chronic disease patients in the areas under the responsibility of the Wiharnpracha health station	The important aspects of the home health care quality indicator for chronic disease patients in the areas under the responsibility of the Patana Village health centre
3.	**Performance of the health team** 3.1 number of home visits/months 3.2 time spend for one home visit 3.3 efficiency of the home visiting program, the patients in need were visited by the health team	 3.1 number of home visits/months 3.2 time spend for one home visit 3.3 efficiency of the home visiting program, the patients in need were visited by the health team
4	**Caregiver and patient** 4.1 satisfaction with the home visit	 4.1 satisfaction with the home visit

After outlining the home health care quality indicator for the chronic diseased patient, the fifth group discussion was set for discussing the details in the use of the indicator.

The Fifth Group Discussion

16 December 2003 at 10.00 – 12.00 h group discussion held for the "curry paste group".

22 December 2003 at 13.00 – 15.00 h group discussion held for the "health group".

25 December 2003 at 13.00 – 15.00 h group discussion held for the "uncle Kimlai group".

26 December 2003 at 13.00 to 15.00 h group discussion held for the "uncle Proy group".

The members of the groups had been welcomed and then briefed of the main results of the forgoing session, which dealt with the quality indicator. The groups were then briefed by the investigator about the objective of the fifth group discussion. Again the atmosphere was very friendly and everybody cooperated well with the investigator, community research team and health staff. Because one of the health staff of the

“uncle Kimlai-“ and the “uncle Proy group” dropped out of the project since they wanted to continue their studies, the investigator introduced the successors to both groups. Again the investigator led the discussion fro one hour and then left it to the health staff to continue. An individual discussion group had one set of the list of the health care quality indicators. Two sets of the lists of the indicators were available in each community under study. The health staff summarized the results of the discussions and informed the members of the discussion groups about the objectives of the sixth meeting.

The investigator, community research team and the health staff selected one set of the home health care quality indicator for each area under study. The sixth group discussion focused on the satisfaction of the caregiver and patient with the home visit program.

The Sixth Group Discussion

29 December 2003 at 13.00 – 15.00 h group discussion held for the “health group”.

30 December 2003 at 10.00 – 12.00 h group discussion held for the “curry paste group”.

5 January 2004 at 13.00 – 15.00 h group discussion held for the “uncle Kimlai group”.

6 January 2004 at 13.00 to 15.00 h group discussion held for the “uncle Proy group”.

The objective of the sixth group discussion was to define the qualification of the health team conducting home visits. The basis for the discussion was the satisfaction of the patient and the caregiver with the qualification of the health team.

The atmosphere during the discussion was very friendly. However the members of the “curry past group” could not concentrate very well because of a 5 year old child, being the nice of one member of the group. The babysitter of the child had to go to the hospital. The problem was solved by the investigator in that the housewife group was asked to care for the child during the discussion. The health staff, which

was around at the fifth session also joined the sixth one. The investigator acted as moderator. The health staff briefed the group about the qualification of the health team. The session was continued by asking the members of the groups to provide a questionnaire to those patients, caregivers and people in the communities, who did not participate in the group discussion. In this way the home health care quality indicator for chronic disease patients were evaluated by a greater public. The forms then were given back to the investigator and the health staff.

Each formal group had one set of the protocol of the discussions about the qualification of the health team, which means that two sets existed in each of the two areas under investigation. The investigator, the community research team and the health staff took one set from each area and draw the conclusion out of the sets concerning the satisfaction of the patients and caregivers with the visits of the health team (details are given in the annex)

The home health care quality indicator for chronic disease patients had been divided into four categories concerning the patient, caregiver, member of the family or relative, health team or health station. The total number of indicators differed between the two areas under study, in that for the area under the responsibility of the Wiharnpracha health station 14 indicators had been developed while there had been 22 indicators for the area under the responsibility of the Somchai Patana Village health centre. The indicators are shown in the following table.

Table 7 Home Health Care Quality Indicators before Testing with General Population in the Responsible Area of Wiharnpracha Health Center comparing to the Responsible Area of Somchai Patana Village Community Health Center

Rank of Indica-tors	Indicators in the responsible area of Wiharnpracha Health Center	Rank of Indica-tors	Indicators in the responsible area of Somchai Patana Village Community Health Center
	Category1: Patient Indicators		**Category 1: Patient Indicators**
1.	Rate of improvement on doing activity of daily living and self health care of patients	1.	Rate of better performing on activity of daily living of patients
2.	Rate of better performance on social relation of patients	2.	Rate of improvement of abilities on self control and self health care of patients
3.	Prevalence rate of pressure sore in patients with chronic diseases	3.	Rate of better performance on social relation of patients
4.	Rate of wound healing in patients with chronic diseases	4.	Prevalence rate of pressure sore in patients with chronic diseases
5.	Rate of home accident in patients with chronic diseases	5.	Rate of wound healing in patients with chronic diseases
6.	Rate of readmission in hospital with the same symptom or same disease within one month without any planning	6.	Rate of home accident in patients with chronic diseases
7.	Rate of recurrent of diseases and/or complications in patients	7.	Rate of readmission in hospital with the same symptom or same disease within one month without any planning
8.	Rate of improvement of body and extremity movement in patients who had problem on physical movement.	8.	Rate of recurrent of diseases in patients with chronic diseases
		9.	Rate of recurrent of complications in patients with chronic diseases
		10.	Rates of reduction of level of pain and uncomfortable in patients with chronic diseases.
		11.	Rates of bad odor and dirty body in patients with chronic diseases.

Table 7 (Continued)

Rank of Indica-tors	Indicators in the responsible area of Wiharnpracha Health Center	Rank of Indica-tors	Indicators in the responsible area of Somchai Patana Village Community Health Center
		12.	Prevalence rate of refraining from smoking in patients with chronic diseases who are former smokers.
		13.	Rate of normal blood pressure in patients with high blood pressure
		14.	Rate of having normal blood sugar in patients with Diabetes Mellitus
	Category 2: Caregiver Indicators		**Category 2: Caregiver Indicators**
9.	Means of duration that caregiver provided care to each patient per day	15.	Rate of proper and correctly cares on activities of daily living for patients with chronic diseases by caregivers
10.	Rate of family that has rearranged and improved environment for patient with chronic disease	16.	Rate of encouragement, promote, and support the patients to perform self health care by caregivers
		17.	Means of duration that caregiver provided care to each patient per day
		18.	Rate of family that has rearranged and improved environment for patient with chronic disease
	Category 3: Indicator on the performance outcome of health team		**Category 3: Indicator on the performance outcome of health team**
11.	Means of visits per month that each patient with chronic disease received home health care from the health team	19.	Means of visits per month that each patient with chronic disease received home health care from the health team
12.	Means of visiting time that each patient with chronic disease receive home health care from the health team per visit	20.	Means of visiting time that each patient with chronic disease receive home health care from the health team per visit

Table 7 (Continued)

Rank of Indica-tors	Indicators in the responsible area of Wiharnpracha Health Center	Rank of Indica-tors	Indicators in the responsible area of Somchai Patana Village Community Health Center
13.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team	21.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team
14.	**Category 4: Patient and Caregiver Indicators** Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team	22.	**Category 4: Patient and Caregiver Indicators** Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team

5. Presentation of Indicators to the Community: The indicators were tested by general population.

In this process, the researcher, the community researchers, and local health personnel had prepared ranking questionnaire to assess the home health care quality indicators in chronic diseases of each area. The details of this assessment are in appendix.

After "the Home Health Care Quality in Chronic Disease Indicator Assessment Form" of each area were developed, the members of the discussion group distributed the assessment form and the details of indicators of each area to patients. Caregivers and the general population, who did not participate in developing indicators, examined the importance of the indicators and practical possibility of the indicators. The importance of the indicators was considered that those indicators could be used to upgrade and solve problems of home health care in chronic diseases or not. The practical possibility was considered that the health personnel or the health team could use those indicators to measure in the real situation or not. The researcher explained all details of the assessment to all members who distribute the questionnaires. In addition, the researcher explained

the details in the assessment form to members of clubs and agencies in the communities who were willing to answer the questionnaires. The duration for answering the questionnaires is one week per one person. One hundred and twenty questionnaires were distributed in the responsible area of Wiharnpracha health center and Somchai Patana Village community health center, sixty questionnaires in each area.

Not only the assessment forms were assessed by the general population who stay at home, but also they were assessed by members of the physical exercise club and the elderly club in the responsible areas of Somchai Patana Village community health center, and by the members of housewives in the responsible area of Wiharnpracha health center. In addition, each group was not the participants of the study and discussed about indicators together one time. Members of the two areas agreed that those indicators were important, suitable to those areas, and had the practical possibility at high level (more than 70% for each indicator).

After receiving the assessment forms that the general population in the communities answered back, the researcher, the community researchers, and local health personnel inspected and analyzed the assessment forms. There were 109 completed questionnaires that were suitable for further analyses, 53 were from Wiharnpracha health center and 56 were from Somchai Patana Village community health center. The duration that the general population used to inspect the indicators were two weeks from 15th to 30th January 2004. The conclusion of the assessment of home health care quality indicators in chronic diseases of each area are in Table 8.

Table 8 Results of Assessment of the Quality Home Health Care Indicators in Patients with Chronic Diseases by People in the Responsible Area of Wiharnpracha Health Center (N=53)

Rank of Indica-tors	Lists of Indicators	Importance of Indicators					
		High		Medium		Low	
		n	%	n	%	n	%
1.	**Category 1: Patient Indicators** Rate of improvement on doing activity of daily living and self health care of patients with chronic diseases	51	96.23	1	1.89	1	1.89
2.	Rate of better performance on social relation of patients	51	96.23	2	3.77	0	0
3.	Prevalence rate of pressure sore in patients with chronic diseases	52	98.11	0	0	1	1.89
4.	Rate of wound healing in patients with chronic diseases	49	92.45	3	5.66	1	1.89
5.	Rate of home accident in patients with chronic diseases	52	98.11	1	1.89	0	0
6.	Rate of readmission in hospital with the same symptom or same disease within one month without any planning	50	94.34	3	5.66	0	0
7.	Rate of recurrent of diseases and/or complications in patients with chronic diseases	52	98.11	1	1.89	0	0
8.	Rate of improvement of body and extremity movement in patients who had problem on physical movement.	50	94.34	3	5.66	0	0
9.	**Category 2: Caregiver Indicators** Means of duration that caregiver provided care to each patient per day	49	92.45	4	7.55	0	0
10	Rate of families that has rearranged and improved environment for patients	48	90.57	4	7.55	1	1.89

Table 8 (Continued)

Rank of Indica-tors	Lists of Indicators	Importance of Indicators					
		High		Medium		Low	
		n	%	n	%	n	%
	Category 3: Indicator on the performance outcome of health team						
11.	Means of visits per month that each patient with chronic diseases received home health care from the health team	47	88.68	5	9.43	1	1.89
12.	Means of visiting time that each patient with chronic disease receive home health care from the health team per visit	46	86.79	7	13.21	0	0
13.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team	43	81.13	8	15.09	1	1.89
	Category 4: Patient and Caregiver Indicators						
14.	Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team	51	96.23	2	3.77	0	0

The results in Table 8 reveals that people in the responsible area of Wiharnpracha health center have opinions that the most important home health care quality indicators in chronic diseases are the prevalence rate of pressure sore in patients and the rate of home accident (98.11%). The less important indicator of high level is the rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team (81.13%).

Table 9 Results of Practical Possibility Assessment of Quality Home Health Care Indicators in Patients with Chronic Diseases by People in the Responsible Area of Wiharnpracha Health Center (N=53)

Rank of Indica-tors	Lists of Indicators	Importance of Indicators					
		High		Medium		Low	
		n	%	n	%	n	%
1.	**Category 1: Patient Indicators** Rate of improvement on doing activity of daily living and self health care of patients with chronic disease	43	81.13	8	15.09	2	3.77
2.	Rate of better performance on social relation of patients	47	88.68	3	5.66	3	5.66
3.	Prevalence rate of pressure sore in patients with chronic disease	50	94.34	3	5.66	0	0
4.	Rate of wound healing in patients with chronic diseases	49	92.45	2	3.77	2	3.77
5.	Rate of home accident in patients with chronic diseases	51	96.23	2	3.77	0	0
6.	Rate of readmission in hospital with the same symptom or same disease within one month without any planning	48	90.57	4	7.55	1	1.89
7.	Rate of recurrent of diseases and/or complications in patients with chronic diseases	48	90.57	4	7.55	1	1.89
8.	Rate of improvement of body and extremity movement in patients who had problem on physical movement.	50	94.34	2	3.77	1	1.89
9.	**Category 2: Caregiver Indicators** Means of duration that caregiver provided care to each patient per day	47	88.68	4	7.55	2	3.77
10	Rate of families that has rearranged and improved environment for patients	45	84.90	6	11.32	2	3.77

Table 9 (Continued)

Rank of Indica-tors	Lists of Indicators	Importance of Indicators					
		High		Medium		Low	
		n	%	n	%	n	%
	Category 3: Indicator on the performance outcome of health team						
11.	Means of visits per month that each patient with chronic diseases received home health care from the health team	51	96.23	2	3.77	0	0
12.	Means of visiting time that each patient with chronic disease receive home health care from the health team per visit	52	98.11	1	1.89	0	0
13.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team	50	94.34	2	3.77	1	1.89
	Category 4: Patient and Caregiver Indicators						
14.	Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team	49	92.45	3	5.66	1	1.89

The results in Table 9 reveals that people in the responsible area of Wiharnpracha health center have opinions that the most important practical possibility of the home health care quality indicators in chronic diseases is the means of visiting time that each patient with chronic disease receive home health care from the health team per visit (98.11%). The less important practical possibility of the indicator of high level is the rate of improvement on doing activity of daily living and self health care of patients with chronic disease (81.13%).

Table 10 Results of Assessment of the Quality Home Health Care Indicators in Patients with Chronic Diseases by People in the Responsible Area of Somchai Patana Village Community Health Center (N=56)

Rank of Indica-tors	Lists of Indicators	Importance of Indicators					
		High		Medium		Low	
		n	%	n	%	n	%
	Category 1: Patient Indicators						
1.	Rate of better performing activity of daily living of patients.	48	85.71	8	14.29	0	0
2.	Rate of improvement of abilities on self control and self health care of patients	48	85.71	8	14.29	0	0
3.	Rate of better performance on social relation of patients	50	89.29	6	10.71	0	0
4.	Prevalence rate of pressure sore in patients with chronic diseases	55	98.22	1	1.78	0	0
5.	Rate of wound healing of patients with chronic diseases	51	91.07	5	8.93	0	0
6.	Rate of home accident in patients with chronic diseases	54	96.43	2	3.57	0	0
7.	Rate of readmission in hospital with the same symptom or same disease within one month without any planning	49	87.50	6	10.71	1	1.79
8.	Rate of recurrent of diseases in patients with chronic diseases	52	91.89	4	7.14	0	0
9.	Rate of recurrent of complications in patients with chronic diseases	45	80.36	10	17.86	1	1.78
10.	Rates of reduction of level of pain and uncomfortable in patients with chronic diseases.	48	85.71	8	14.29	0	0
11.	Rates of bad odor and dirty body in patients with chronic diseases.	50	89.29	4	7.14	2	5.57

Table 10 (Continued)

Rank of Indica-tors	Lists of Indicators	Importance of Indicators					
		High		Medium		Low	
		n	%	n	%	n	%
12.	Prevalence rate of refraining from smoking in patients with chronic diseases who are former smokers.	51	91.07	5	8.93	0	0
13.	Rate of normal blood pressure in patients with high blood pressure	50	89.29	6	10.71	0	0
14.	Rate of having normal blood sugar in patients with Diabetes Mellitus	52	92.86	4	7.14	0	0
15.	**Category 2: Caregiver Indicators** Rate of proper and correctly cares on activities of daily living for patients with chronic diseases by caregivers	51	91.07	4	7.14	1	1.78
16.	Rate of encouragement, promote, and support the patients to perform self health care by caregivers	52	92.86	3	5.36	1	1.78
17.	Means of duration that caregiver provided care to each patient per day	51	91.07	2	3.57	3	5.36
18.	Rate of family that has rearranged and improved environment for patient with chronic disease	53	94.64	2	3.57	1	1.79
19.	**Category 3: Indicator on the performance outcome of health team** Means of visits per month that each patient with chronic diseases received home health care from the health team	55	98.22	1	1.78	0	0
20.	Means of visiting time that each patient with chronic disease receive home health care from the health team per visit	51	91.07	3	5.36	2	3.57

Table 10 (Continued)

Rank of Indica-tors	Lists of Indicators	Importance of Indicators					
		High		Medium		Low	
		n	%	n	%	n	%
21.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team	43	76.79	13	23.21	0	0
	Category 4: Patient and Caregiver Indicators						
22.	Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team	55	98.22	1	1.78	0	0

The results in Table 10 reveals that people in the responsible area of Somchai Patana Village community health center have opinions that the most important home health care quality indicators in chronic diseases is the prevalence rate of pressure sore in patients, means of visits per month that each patient with chronic diseases received home health care from the health team, and the rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team (98.22%). The less important indicator of high level is the rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team (76.79%).

Table 11 Results of Practical Possibility Assessment of Quality Home Health Care Indicators in Patients with Chronic Diseases by People in the Responsible Area of Somchai Patana Village Community Health Center (N=56)

Rank of Indica-tors	Lists of Indicators	Importance of Indicators					
		High		Medium		Low	
		n	%	n	%	n	%
	Category 1: Patient Indicators						
1.	Rate of better performing activity of daily living of patients.	43	76.79	10	17.86	3	5.36
2.	Rate of improvement of abilities on self control and self health care of patients	40	71.43	16	28.57	0	0
3.	Rate of better performance on social relation of patients	47	83.93	7	12.50	2	3.57
4.	Prevalence rate of pressure sore in patients with chronic diseases	54	96.43	2	3.57	0	0
5.	Rate of wound healing of patients with chronic diseases	53	94.64	3	5.36	0	0
6.	Rate of home accident in patients with chronic diseases	53	94.64	2	3.57	1	1.78
7.	Rate of readmission in hospital with the same symptom or same disease within one month without any planning	43	76.78	10	17.86	3	5.36
8.	Rate of recurrent of diseases in patients with chronic diseases	44	78.57	8	14.29	4	7.14
9.	Rate of recurrent of complications in patients with chronic diseases	43	76.79	11	19.64	2	3.57
10.	Rates of reduction of level of pain and uncomfortable in patients with chronic diseases.	40	71.43	10	17.86	6	10.71
11.	Rates of bad odor and dirty body in patients with chronic diseases.	48	85.72	6	10.71	2	3.57

Table 11 (Continued)

Rank of Indica-tors	Lists of Indicators	Importance of Indicators					
		High		Medium		Low	
		n	%	n	%	n	%
12.	Prevalence rate of refraining from smoking in patients with chronic diseases who are former smokers.	45	80.36	10	17.86	1	1.78
13	Rate of normal blood pressure in patients with high blood pressure	55	98.22	1	1.78	0	0
14.	Rate of having normal blood sugar in patients with Diabetes Mellitus	54	96.43	2	3.57	0	0
15.	**Category 2: Caregiver Indicators** Rate of proper and correctly cares on activities of daily living for patients with chronic diseases by caregivers	47	83.93	7	12.50	2	3.57
16.	Rate of encouragement, promote, and support the patients to perform self health care by caregivers	43	76.79	12	21.43	1	1.78
17.	Means of duration that caregiver provided care to each patient per day	50	89.29	4	7.14	2	3.57
18.	Rate of family that has rearranged and improved environment for patient with chronic disease	51	91.07	3	5.36	2	3.57
19.	**Category 3: Indicator on the performance outcome of health team** Means of visits per month that each patient with chronic diseases received home health care from the health team	50	89.29	4	7.14	2	3.57
20.	Means of visiting time that each patient with chronic disea se receive home health care from the health team per visit	52	92.86	4	7.14	0	0

Table 11 (Continued)

Rank of Indica-tors	Lists of Indicators	Importance of Indicators					
		High		Medium		Low	
		n	%	n	%	n	%
21.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team	53	94.64	3	5.36	0	0
22.	**Category 4: Patient and Caregiver Indicators** Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team	54	96.43	2	3.57	0	0

The results in Table 11 reveals that people in the responsible area of Somchai Patana Village community health center have opinions that the most important practical possibility of the home health care quality indicators in chronic diseases is the rate of normal blood pressure in patients with high blood pressure (98.22%). The less important practical possibility of the indicator of high level are the rate of improvement of abilities on self control and self health care of patients and the rates of reduction of level of pain and uncomfortable in patients with chronic diseases. (71.43%).

The results after people in the responsible areas of Wiharnpracha health center and Somchai Patana Village community health center assessed the importance and the practical possibility of home health care quality indicators in chronic diseases reveal that all indicators are important and have the practical possibility at the high level (more than 70%) which pass all criterion. Hence, numbers of indicators of both areas before and after the assessment by population in the areas are equal: 14 indicators for Wiharnpracha health center and 22 indicators for Somchai Patana Village community health center.

4.3 The Trial Period of the Indicators Application

The purposes of testing the indicators in the responsible areas are: to examine the practical possibility of each indicator in terms of measurability and validity. Every step of testing the indicators in each area was implemented with community including planning for testing the indicators, testing the indicators, monitoring, evaluation, and conclusion of final indicators. The steps of implementation are as following:

1. Planning to Test the Indicators

The researcher, community researcher, and health personnel in the area plan to test the indicators in the area together one time. The implementation plans are:

1.1 The duration for testing the indicator in the area was February to April 2004.

1.2 Persons who tested the indicators were the health team, community researcher, and the researcher.

1.3 There were 16 patients in the responsible area of Wiharnpracha health center and 14 patients of Somchai Patana Village community health center that received regular visit from the health team who were targets of indicator testing. Each patient was evaluated according to the indicators three times (once a month).

1.4 The database record form of a patient for each visit should be ready before testing the indicators with patient.

1.5 The database on home health care in patient with chronic disease and the home health care quality measurement in chronic diseases should be summarized monthly. The home health care quality measurement in chronic diseases should be summarized according to indicators annually to compare the result of each month.

1.6 Home health care quality measurement in chronic diseases for each indicators should be made to be a standard measure and be comparable with the results of each month. This should be useful for further development of home health care quality in chronic diseases.

The community research team and the researcher have developed the individual database on home health care in patient with chronic disease, the monthly summary of database and result of home health care quality measurement in chronic disease, and the annual summary form of home health care quality measurement in chronic disease as shown in the appendix respectively.

The criteria of each home health care quality in chronic diseases was set by using means of the prevalence rate of that condition or means of each indicator after the indicators have been tested for three months and evaluated to be the final indicators.

2. Testing of the Indicators in the Areas According to the Plan

The health team in the area, rese archer, and community researcher tested the indicators by followed-up the patients at home to assess conditions of patients according to the database three times per case (one visit/month/case). The monthly database of each patient was collected, combined together for each indicator, and calculated according to the formula provided. The formula and definitions are in the appendix.

Results of the calculation of each indicator in each area (three times for each area) are shown in Table 12.

Table 12 Percentage and Means of the Results of Measurement Quality Home Health Care in Patients with Chronic Diseases and Means in the Responsible Area of Wiharnpracha Health Center between February and April 2004

Rank of Indica-tors	Indicators	Quality Home Health Care in Patients with Chronic Diseases			Means
		February	March	April	
	Category 1: Patient Indicators				
1.	Rate of improvement on doing activity of daily living and self health care of patients with chronic diseases (%)	43.75	43.75	50.00	45.83
2.	Rate of better performance on social relation of patients (%)	50.00	56.25	56.25	54.17
3.	Prevalence rate of pressure sore in patients with chronic diseases (%)	0	0	0	0
4.	Rate of wound healing in patients with chronic diseases (%)	100	100	100	100
5.	Rate of home accident in patients with chronic diseases (%)	0	0	0	0
6.	Rate of readmission in hospital with the same symptom or same disease within one month without any planning (%)	6.25	0	0	2.08
7.	Rate of recurrent of diseases and/or complications in patients with chronic diseases (%)	0	6.25	0	2.08
8.	Rate of improvement of body and extremity movement in patients who had problem on physical movement (%)	43.75	43.75	50	45.83
	Category 2: Caregiver Indicators				
9.	Means of duration that caregiver provided care to each patient per day (hours)	18.89	19.12	19.12	19.04

Table 12 (Continued)

Rank of Indica-tors	Indicators	Quality Home Health Care in Patients with Chronic Diseases			Means
		February	March	April	
10.	Rate of families that has rearranged and improved environment for patients (%)	75.00	87.50	93.75	85.42
11.	**Category 3: Indicator on the performance outcome of health team** Means of visits per month that each patient with chronic diseases received home health care from the health team (number of visit)	1.12	1.06	1.06	1.08
12.	Means of visiting time that each patient with chronic disease receive home health care from the health team (minutes)	32.18	30.62	30	30.93
13.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team (%)	100	100	100	100
14.	**Category 4: Patient and Caregiver Indicators** Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team (%)	83.33	80.95	84.61	82.96

Table 12 reveals that the highest means of home health care quality in chronic diseases during February – April 2004 are the rate of improvement of wound healing in patient and the rate of the coverage of home health care in patients with chronic diseases

according to the appointment by the health team (means = 100%). The lowest means are the prevalence of pressure sore, the rate of home accident of the patients, and the rate of readmission in hospital with the same symptom or same disease within one month without any planning (means = 0%).

Table 13 Results of Measurement Quality Home Health Care in Patients with Chronic Diseases and Means in the Responsible Area of Somchai Patana Village Community Health Center between February and April 2004

Rank of Indica-tors	Indicators	Quality Home Health Care in Patients with Chronic Diseases			Means
		February	March	April	
	Category 1: Patient Indicators				
1.	Rate of better performing activity of daily living of patients (%)	42.86	50.00	42.86	45.25
2.	Rate of improvement of abilities on self control and self health care of patients (%)	35.71	42.86	42.86	40.47
3.	Rate of better performance on social relation of patients (%)	42.86	57.14	50.00	50.00
4.	Prevalence rate of pressure sore in patients with chronic diseases (%)	0	0	0	0
5.	Rate of wound healing of patients with chronic diseases (%)	100	100	100	100
6.	Rate of home accident in patients with chronic diseases (%)	0	0	0	0
7.	Rate of readmission in hospital with the same symptom or same disease within one month without any planning (%)	0	0	0	0

Table 13 (Continued)

Rank of Indica-tors	Indicators	Quality Home Health Care in Patients with Chronic Diseases			Means
		February	March	April	
8.	Rate of recurrent of diseases in patients with chronic diseases (%)	0	0	0	0
9.	Rate of recurrent of complications in patients with chronic diseases (%)	0	0	0	0
10.	Rates of reduction of level of pain and uncomfortable in patients wit h chronic diseases (%)	**	**	**	-
11.	Rates of bad odor and dirty body in patients with chronic diseases (%)	7.14	7.14	0	4.76
12.	Prevalence rate of refraining from smoking in patients with chronic diseases who are former smokers (%)	100	100	100	100
13.	Rate of normal blood pressure in patients with high blood pressure (%)	75.00	75.00	75.00	75.00
14.	Rate of having normal blood sugar in patients with Diabetes Mellitus (%)	50.00	50.00	50.00	50.00
15.	**Category 2: Caregiver Indicators** Rate of proper and correctly cares on activities of daily living for patients with chronic diseases by caregivers (%)	78.57	85.71	85.71	83.33
16.	Rate of encouragement, promote, and support the patients to perform self health care by caregivers (%)	78.57	85.71	85.71	83.33
17.	Means of duration that caregiver provided care to each patient per day (hours)	22.78	22.78	22.78	22.78

** Some patients were unconscious that could not evaluate pain and uncomfortable.

Table 13 (Continued)

Rank of Indica-tors	Indicators	Quality Home Health Care in Patients with Chronic Diseases			Means
		February	March	April	
18.	Rate of families that has rearranged and improved environment for patients with chronic diseases (%)	85.71	85.71	92.86	88.09
19.	**Category 3: Indicator on the performance outcome of health team** Means of visits per month that each patient with chronic diseases received home health care from the health team (number of visits)	1.29	1.21	1.21	1.24
20.	Means of visiting time that each patie nt with chronic disease receive home health care from the health team per visit (minutes)	32.28	32.50	31.07	31.95
21.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team (%)	100	100	100	100
22	**Category 4: Patient and Caregiver Indicators** Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team (%)	81.48	84.61	82.60	82.90

Table 13 reveals that the highest means of home health care quality in chronic diseases during February – April 2004 are the rate of wound healing of patients who had wound, the prevalence rate of refraining from smoking in patients with chronic diseases

who are former smokers, the rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team (means = 100%). The lowest means are the prevalence rate of pressure sore in patients with chronic diseases, the rate of home accident in patients with chronic diseases, the r ate of readmission in hospital with the same symptom or same disease within one month without any planning , the rate of recurrent of diseases in patients with chronic diseases, the rate of recurrent of complications in patients with chronic diseases (means = 0%)

3. Monitoring and Evaluation of the Indicator Testing in the Areas

After monitoring and evaluation of the indicator testing in the areas with researcher team of each area, we found that there were 13 in dicators out of 14 previous indicators that were measurable in the area of Wiharnpracha health center. For the indicator on the duration that caregiver provided care to each patient per day , most of caregivers reply that they used 24 hours to provide thos e care including time that they did their daily work, such as vegetable farming and orchid farming. The farmers did their farm around their home area and came back to care for the patient two to three hours per one time. Caregivers counted the total time that they were with the patients in the same houses/areas to be caring time. Hence, the researcher and community research team had opinion that the indicator on the duration that caregiver provided care to each patient per day should be separated into two indicators: 1) duration that caregiver provided direct care to each patient per day and 2) duration that care -giver was with the patient, but did not provide direct care to each patient per day. The research team had opinion that the duration in the sec ond criteria was also important to mental health of the patient. They would feel that they were not leave alone. Details of the two new indicators are in appendix. In conclusion, after testing of the indicators, there were 15 indicators in the responsible area of Wiharnpracha health center.

Among 22 indicators that were tested in the responsible area of Somchai Patana Village community health center, there was one indicator that could not collected data. That was the indicator on level of pain and uncomfortable of patient because some patients were in unconscious stage that could not speak or respond to the environment.

Caregivers or relatives could not provide this information to the health tem. This indicator is not suitable to measure pain an d uncomfortable in every patient. In addition, level of pain is depend on other factors, such as endurance, perception of pain, and mental health of each patient. Hence, the indicator on level of pain and uncomfortable of patients was cut out of the lists after the testing. Another indicator, the duration that care-giver provided care to each patient per day, the research team were agree that it should be changed to the means of duration that caregiver provided direct care to each patient per day. This is because most of caregivers in the responsible area of Somchai Patana Village community health center were hired to take care of the patients that they would stay with the patients all time. The research team had an opinion that the we should measure on ly the duration that caregivers provided direct care to the patients instead of the total time because caregivers were with the patients all time. Hence, the indicator on caregiver was changed to measure the means of duration that caregivers provided dire ct care to the patient per day instead of the means of duration that caregivers provide to each patient per day. So after the testing, one indicator was cut out of the lists, there were 21 indicators left for the responsible area of Somchai Patana Village community health center.

4. Conclusion of the Final Indicators

After testing the indicators in two areas, the research team had concluded the final indicators. There were 15 indicators for the responsible area of Wiharnpracha health center and 21 indi cators for the responsible area of Somchai Patana Village community health center as shown in Table 14.

Table 14 Final Indicators after Testing in the Responsible Area of Wiharnpracha Health Center Comparing to the Responsible Area of Somcha i Patana Village Community Health Center

Rank of Indica-tors	Indicators in the Responsible Area of Wiharnpracha Health Center after Testing	Rank of Indica-tors	Indicators in the Responsible Area of Somchai Patana Village Community Health Center after Testing
	Category 1: Patient Indicators		**Category 1: Patient Indicators**
1.	Rate of improvement on doing activity of daily living and self health care of patients	1.	Rate of better performing on activity of daily living of patients
2.	Rate of better performance on social relation of patients	2.	Rate of improvement of abilities on self control and self health care of patients
3.	Prevalence rate of pressure sore in patients with chronic diseases	3.	Rate of better performance on social relation of patients
4.	Rate of wound healing in patients with chronic diseases	4.	Prevalence rate of pressure sore in patients with chronic di seases
5.	Rate of home accident in patients with chronic diseases	5.	Rate of wound healing in patients with chronic diseases
6.	Rate of readmission in hospital with the same symptom or same disease within one month without any planning	6.	Rate of home accident in patients with chronic diseases
7.	Rate of recurrent of diseases and/or complications in patients	7.	Rate of readmission in hospital with the same symptom or same disease within one month without any planning
8.	Rate of improvement of body and extremity movement in patients who had problem on physical movement.	8.	Rate of recurrent of diseases in patients with chronic diseases
		9.	Rate of recurrent of complications in patients with chronic diseases
		10.	Rate of bad odor and dirty body in patients with chronic diseases.
		11.	Prevalence rate of refraining from smoking in patients with chronic diseases who are former smokers.

Table 14 (Continued)

Rank of Indica-tors	Indicators in the Responsible Area of Wiharnpracha Health Center after Testing	Rank of Indica-tors	Indicators in the Responsible Area of Somchai Patana Village Community Health Center after Testing
		12.	Rate of normal blood pressure in patients with high blood pressure
		13.	Rate of having normal blood sugar in patients with Diabetes Mellitus.
	Category 2: Caregiver Indicators		**Category 2: Caregiver Indicators**
9.	Means of duration that caregiver provided direct care to each patient per day.	14.	Rate of proper and correctly cares on activities of daily living for patients with chronic diseases by caregivers.
10.	Means of duration that caregiver provided indirect care to each patient per day.	15.	Rate of encouragement, promote, and support the patients to perform self health care by caregivers.
11.	Rate of families that has rearranged and improved environment for patients with chronic diseases.	16.	Means of duration that caregiver provided direct care to each patient per day.
		17.	Rate of family that has rearranged and improved environment for patient with chronic disease.
	Category 3: Indicator on the performance outcome of health team		**Category 3: Indicator on the performance outcome of health team**
12.	Means of visits per month that each patient with chronic diseases received home health care from the health team.	18.	Means of visits per month that each patient with chronic diseases received home health care from the health team
13.	Means of visiting time that each patient with chronic disease receive home health care from the health team per visit.	19.	Means of visiting time that each patient with chronic disease receive home health care from the health team per visit
14.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team.	20.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team.

Table 14 (Continued)

Rank of Indica-tors	Indicators in the Responsible Area of Wiharnpracha Health Center after Testing	Rank of Indica-tors	Indicators in the Responsible Area of Somchai Patana Village Community Health Center after Testing
	Category 4: Patient and Caregiver Indicators		**Category 4: Patient and Caregiver Indicators**
15.	Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team.	21.	Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team.

The comparison of numbers of indicators in each area before the inspection of general people, after the inspection of the general people, and after the tes ting in the two areas are shown in Table 15.

Table 15 Comparing Numbers of Indicators in the Responsible Areas of Wiharnpracha Health Center with Somchai Patana Village Community Health Center before and after Testing in General Population and a fter Testing in the Responsible Areas

Areas / **Indicator Categories**	**Responsible Area of Wiharnpracha Health Center**			**Responsible Area of Somchai Patana Village Community Health Center**		
	Before Inspected by the General People	After Inspected by the General People	After Testing in the responsible area	Before Inspected by the General People	After Inspected by the General People	After Testing in the responsible area
Category 1	8	8	8	14	14	13
Category 2	2	2	3	4	4	4
Category 3	3	3	3	3	3	3
Category 4	1	1	1	1	1	1
Total	14	14	15	22	22	21

Table 15 shows that numbers of indicators of the responsible area of Wiharnpracha health center before and after the inspection of general people and after testing in the area 14, 14, and 15 respectively while those of the r esponsible area of Somchai Patana Village community health center are 22, 22, and 21 respectively.

After the testing of indicators three times in each area, the researcher, community researcher, and public health personnel in the area discussed about means of each result of home health care quality in chronic diseases and set the criterion to evaluate home health care quality in chronic diseases of each area. In addition, they were also set the criterion for the practical possibility of each area. The cri terion were set to be a bit higher than the means for the development of home health care quality in the area. Those criterion can be adjusted to suit problems and resources of the areas.

After the criteria of each indicator was set, the conclusion of ind icators, formula for each indicator were made. The criterion for evaluate home health care quality

indicators for the area of Wiharnpracha health center and Somchai Patana Village community health center after the testing are shown in Table 16 and 17 resp ectively.

Table 16 Final Quality Home Health Care Indicators and Quality Criteria in the Responsible Areas of Wiharnpracha Health Center (15 Indicators)

Indicator Categories	Rank and Indicators	Formula	Criteria
Category 1: Patient Indicators	**Indicator 1** Rate of improvement on doing activity of daily living and self health care in patients with chronic diseases	Total patient with chronic diseases who had better performance on doing activity of daily living and self health care within one month ——————————— X 100 Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	50%
	Indicator 2 Rate of better performance on social relations in patients with chronic diseases	Total patient with chroni c diseases who had improvement of social relations within one month ——————————— X 100 Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	50%

Table 16 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 3 Prevalence rate of pressure sore in patients with chronic diseases	Total patient with chronic diseases who had pressure sore within one month ——————————— X 100 Number of patients with chronic diseases who were at risk of pressure sore in the same period	0%
	Indicator 4 Rate of wound healing in patients with chronic diseases	Total patients with chronic diseases who had wound healing within one month ——————————— X 100 Total patients with chronic diseases who had wound in the same period	100%
	Indicator 5 Rate of home accident in patients with chronic diseases	Number of patients with chronic diseases who had home accident within one month ——————————— X 100 Number of patients with chronic diseases who were at risk of home accident in the same period	0%

Table 16 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 6 Rate of readmission in hospital with the same symptom or same disease within one month without any planning	Number of patients with chronic diseases who had to readmit in hospital with the same symptom or same disease without any planning after discharged from hospital within one month ——————————— X 100 Total number of patients with chronic diseases who were discharged from hospital to stay at home in previous month	0%
	Indicator 7 Rate of recurrent of diseases and/or complications in patients with chronic diseases.	Number of patients with chronic diseases who had of recurrent of diseases and/or complications within one month ——————————— X 100 Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	0%

Table 16 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 8 Rate of improvement of body and extremity movement in patients who had problem on physical movement.	Number of patients with chronic diseases who had improvement of body and extremity movement within one month ——————————— X 100 Total number of patients with chronic diseases who had problem on physical movement in the same period	50%
Category 2: Caregiver Indicators	**Indicator 9** Means of duration that caregiver provided direct care to each patient per day.	Sum of means of hours per day that caregivers provided direct cares to each patient within one month ——————————— Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	4 hours/day
	Indicator 10 Means of duration that caregiver provided indirect care to each patient per day.	Sum of means of hours per day that caregivers provided indirect cares to each patient within one month ——————————— Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	12 hours/day

Table 16 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 11 Rate of families that has rearranged and improved environment for patients with chronic diseases.	Number of families that has rearranged and improved environment for patient with chronic disease within one month ——————————— X 100 Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	100%
Category 3: Indicator on the performance outcome of health team	**Indicator 12** Means of visits per month that each patient with chronic disease received home health care from the health team.	Sum of visits that each patient received home health care from the health team within one month ——————————— Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	1 visit/ month
	Indicator 13 Means of visiting time that each patient with chronic disease receive home health care from the health team per visit.	Sum of minutes per visit that the health team provide home health care to each patient within one month ——————————— Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	30 minutes/ visit

Table 16 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 14 Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team.	Number of patients with chronic diseases who received home health care from the health team according to the appointment within one month ——————————— X 100 Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	100%
Category 4: Patient and Caregiver Indicators	**Indicator 15** Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team.	Number of sampling patients with chronic diseases or caregivers who had the combined scores of services provided by the health team within one month at the level of satisfaction ——————————— X 100 Number of patients with chronic diseases or caregivers who were sampling to answer the questionnaires in the same period	80%

Table 16 shows the final home health care quality indicators after testing in the responsible area of Wiharnpracha health center including 4 categories: category 1 patient indicators (8 indicators); category 2 caregiver indicators (3 indicators); category 3 performance outcome of health team indicators (3 indicators); and category 4 patient and caregiver indicators (1 indicator) to be the total of 15 indicators.

Table 17 Final Quality Home Health Care Indicators and Quality Criteria in the Responsible Areas of Somchai Patana Village Community Health Center (21 Indicators)

Indicator Categories	Rank and Indicators	Formula	Criteria
Category 1: Patient Indicators	**Indicator 1** Rate of better performing on activity of daily living of patients	Number of patients with chronic diseases who had better performance on doing activity of daily living within one month ——————————— X 100 Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	50%
	Indicator 2 Rate of improvement of abilities on self control and self health care in patients with chronic diseases.	Number of patients with chronic diseases who were able to do self control and self health care within one month ——————————— X 100 Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	50%

Table 17 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 3 Rate of better performance on social relations in patients with chronic diseases.	Total patient with chronic diseases who had improvement of social relations within one month ——————————— X 100 Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	60%
	Indicator 4 Prevalence rate of pressure sore in patients with chronic diseases.	Total patient with chronic diseases who had pressure sore within one month ——————————— X 100 Number of patients with chronic diseases who were at risk of pressure sore in the same period	0%
	Indicator 5 Rate of wound healing in patients with chronic diseases	Total patients with chronic diseases who had wound healing within one month ——————————— X 100 Total patients with chronic diseases who had wound in the same period	100%

Table 17 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 6 Rate of home accident in patients with chronic diseases	Number of patients with chronic diseases who had home accident within one month ——————————— X 100 Number of patients with chronic diseases who were at risk of home accident in the same period	0%
	Indicator 7 Rate of readmission in hospital with the same symptom or same disease within one month without any planning	Number of patients with chronic diseases who had to readmit in hospital with the same symptom or same disease without any planning after discharged from hospital within one month ——————————— X 100 Total number of patients with chronic diseases who were discharged from hospital to stay at home in previous month	0%
	Indicator 8 Rate of recurrent of diseases in patients with chronic diseases	Number of patients with chronic diseases who had of recurrent of diseases within one month ——————————— X 100 Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	0%

Table 17 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 9 Rate of recurrent of complications in patients with chronic diseases	Number of patients with chronic diseases who had of recurrent of complications within one month ——————————— X 100 Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	0%
	Indicator 10 Rates of bad odor and dirty body in patients with chronic diseases.	Number of patients with chronic diseases who had bad odor and dirty body within one month ——————————— X 100 Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	0%
	Indicator 11 Prevalence rate of refraining from smoking in patients with chronic diseases who were former smokers.	Number of patients who refrained from smoking within one month ——————————— X 100 Total number of former smokers in the same period	100%

Table 17 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 12 Rate of normal blood pressure in patients with high blood pressure	Number of patients with high blood pressure who had normal blood pressure within one month ——————————— X 100 Total number of patients with high blood pressure in the same period	80%
	Indicator 13 Rate of having normal blood sugar in patients with Diabetes Mellitus.	Number of patients with diabetes who had normal blood sugar within one month ——————————— X 100 Total number of patients with diabetes in the same period	80%
Category 2: Caregiver Indicators	**Indicator 14** Rate of proper and correctly cares on activities of daily living for patients with chronic diseases by caregivers.	Numbers of caregivers who were able to do proper and correctly cares for patient on activities of daily living within one month ——————————— X 100 Total numbers of caregivers who were the target group of home health care in the responsible area in the same period	100%

Table 17 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 15 Rate of encouragement, promote, and support the patients to perform self health care by caregivers	Number of caregivers who encouraged, promoted, and supported the patients to correctly perform self health care within one month ——————————— X 100 Total number of caregivers who took care of patients who were the target group of home health care in the responsible area in the same period	100%
	Indicator 16 Means of duration that caregiver provided direct care to each patient per day.	Sum of means of hours per day that caregivers provided direct cares to each patient within one month ——————————— Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	4 hours/ day

Table 17 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 17 Rate of families that has rearranged and improved environment for patients with chronic diseases.	Number of families that had r earranged and improved environment for patients within one month ——————————— X 100 Total number of families who were the target group of home health care in patients with chronic diseases in the responsible area in the same period	100%
Category 3: Indicator on the performance outcome of health team	**Indicator 18** Means of visits per month that each patient with chronic disease received home health care from the health team	Sum of visits that each patient received home health care from the health team within one m onth ——————————— Total patients with chronic diseases who are the target group of home health care in the responsible area in the same period	1 visit/ month
	Indicator 19 Means of visiting time that each patient with chronic disease received home health care from the health team per visit	Sum of minutes per visit that the health team provide home health care to each patient within one month ——————————— Total patients with chronic diseases who received home health care from the health team in the responsible area in the same period	30 minutes/ visit

Table 17 (Continued)

Indicator Categories	Rank and Indicators	Formula	Criteria
	Indicator 20 Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team.	Number of patients with chronic diseases who received home health care from the health team according to the appointment within one month ——————————— X 100 Total patients with chronic diseases who were the target group of home health care in the responsible area in the same period	100%
Category 4: Patient and Caregiver Indicators	**Indicator 21** Rate of Satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team.	Number of Sampling patients with chronic diseases or caregivers who had the combined scores of services provided by the health team within one month at the level of satisfaction ——————————— X 100 Number of patients with chronic diseases or caregivers who were sampling to answer the ques - tionnaires in the same period	80%

Table 17 shows the final home health care quality indicators after testing in the responsible area of Somchai Patana Village community health center including 4 categories: category 1 patient indicators (13 indicators); category 2 caregiver ind icators (4 indicators); category 3 performance outcome of health team indicators (3 indicators); and category 4 patient and caregiver indicators (1 indicator) to be the total of 21 indicators.

After the community research team and the researcher had final ized the home health care quality indicators in chronic diseases in both areas, those indicators were

introduced to patients with chronic diseases and people in communities in various ways, such as through health personnel who visited patients at home, com munity researcher and public health volunteer distributed to families that are interested in this matter, and disseminate to groups or organizations in the communities, such as physical exercise group, elderly groups, and housewife group. The purpose of t he dissemination is to provide opportunity to people to use these indicators to inspect home health care services provided to patients with chronic diseases by the health personnel.

The Evaluation of Home Health Care Quality Indicator Development for Chronic Disease Patient by Participatory Action Research (PAR)

After succeeding in developing the indicators, which could be used in the communities, the investigator together with the community research team and the health staff participated in evaluating th e home health care quality indicator for chronic diseasedpatients by participatory action research (PAR). The evaluation focused on the following points:

1. The participation of the target group to develop the indicators.

2. The usefulness of the indicator s in terms of importance and practicability in the community.

3. The motivation of the health staff to use the indicators.

4. The ability of the people in the community to adjust the indicators to changing conditions in future. Their ability will be evalua ted by looking into the knowledge of the people how to modify the indicators and the awareness and skill of the target group to develop the indicators further on.

By investigating these points, the following was found:

1. The Participation of the Target Group to Develop the Indicators

The investigator, the community research team, the people and the health staff of both study areas participated well in the home health care quality indicator development for chronic diseased patients.

1.1 People in the community. The investigator together with the community research team and health staff evaluated the cooperation of the people in the community.

The people in the community of the Wiharnpracha health station, who are the members of the "health group" participated regularly in the group discussion although they had to go to work in the farm or the orchard, and their houses were quite far away from the health station where the discussion took place. The members of the "curry paste group" also regularly participated in the group discussion although they had to cook the curry paste, cookies, preserved eggs, were engaged in dress making and worked in the farms and orchards. They cooperated well with the investigator, community research team and health staff in planning the schedule for the group discussions. They made good comments and had a clear cut view about important points and could identify the problems related to the home health care. The indicators were eventually applied in the communities. To find out about the feasibility of the indicators a questionnaire had been distributed to the people in the communities, who did not participate in the group discussions. The questionnaire was later collected and returned back to the investigator.

Patients, who did not yet recover and caregivers, being the target group within the area of the Somchai Village health centre joined in group discussions. The patients belonged to the exercise group. After the first meeting they suggested to accept two additional members to participate in the group discussion. All of them attended the meetings regularly except of one person, who fall sick and had to go to the hospital. They cooperated very well with the investigator, the community research team and the health staff in planning the schedule of the discussions. They made good comments and had a clear cut view about important points and could identify the problems related to the home health care. The indicators were applied in the communities. To find out about the feasibility of the indicators a questionnaire had been distributed to the people in the

communities, who did not participate in the group discussions. The questionnaire was later collected and returned back to the investigator.

The following procedure for the applicatio n of the indicator in the communities had been used. The research team of the particular communities together with the investigator and the local health staff defined the criterion for the home health care quality indicator for chronic disease patients. Th e criterions were used to assess the improvement of the patient and the performance by the caregivers. The evaluation was done by the investigator together with the respective community research team and the health staff.

The community research team, healt h volunteers and members of community organizations joined hand with the investigator to apply the indicators. The people in the communities used the indicators to evaluate the performance of the health team, who paid home visits to the chronic disease pat ients.

In conclusion it can be stated, that the people in the areas under the responsibility of the Wiharnprache health station and the Somchai Patana Village health centre cooperated very well with the investigator, the community research team and the health staff. This seems to be very promising for the further development of the home health care quality indicator in future.

1.2 Health Staff in the Community

The investigator and the health staff in the communities evaluated the cooperation of the health staff of the Wiharnprache health station and the Somchai Patana Village health centre who participated in the study.

The health staff of the Wiharnprache health station and the Somchai Patana Village health centre cooperated well with the investigator an d the community research team in selecting the target group, arrange for suitable places and provide black boards needed for going through the group discussions. They also provided transportation to the members of the group to travel to the meeting place. During the meetings they took minutes and summarized the results of the discussions so that the members of the groups could clearly recognize what the conclusion of their discussions had been. The health staff

of the Wiharnprache health station and the So mchai Patana Village health centre also was willing to listen to the opinion of the members of the group and let them have a free hand in giving comments. The health staff supported the member of the discussion groups very well and by recording and taking videos during the discussions as well as providing snack and drinks, so that it was very convenient for the participants to join the meetings. In case one of the health staff could not attend the meetings because of other duties, someone else was asked to replace the one who could not come. While visiting the patient at home, the health staff discussed the issue of the indicators with the patients and suggested to the patients as well as to the people in the community, when they met for some community activities, to consider certain indicators. The indicators had been applied in the communities in order to find out, whether they are of practical use. The health staff also distributed the questionnaire to those people in the communities, who did not participa te in the group discussion. They also collected the forms again and gave them to the investigator. The health staff also took records about the patients by observing her/his condition and attitudes and the performance of the caregivers. The collected the information obtained during the home visits by following the criterions of the indicators as worked out before.

2. The Usefulness of the Indicators in Terms of Importance and Practicability in the Community.

The indicators were proposed to the people in the communities. They tested the importance and practicability of the indicators. The indicators were scrutinized by the people in the communities by means of a questionnaire and focus group discussions had been held with the exercise-, elderly- and housewife groups, who did not participate in the former group discussions. The result was that finally in the Wiharnpracha area 14 and in the Somchai Patana Village area 22 indicators had been singled out to be practical and useful. But when the indicators had been really used some of them had to be neglected, because a feasible definition of the indicators was missing, so for instance the appropriate time to care for the patient. The definition of these indicators had to be formulated more precise by consulting the chronic disease patients and their relatives. After the patient „

caregiver and relative had a better perception of the indicator than these indicators could be used. Another problem occurred with the indicator measuring pain and feelin g uncomfortable. The indicator proved to be not suitable especially in the community of the Somchai Patan Village because a number of patients had been unconscious, and consequently could not express pain and indisposition. Another problem with this indicator is, that it depends very much of the individual tolerance level and the mental condition of the patient. Finally it was decided, not to use the indicator at all. At the end of the exercise only 21 suitable indicators were selected for the Somchai Patan a Village area and 15 for the Wiharnpracha area.

3. The Motivation of the Health Staff to Use the Indicators

The investigator and the health staff attempted to establish the willingness of the health staff within the communities to use the indicators. F or this purpose data had been collected and the patient record system had been investigated. The result was that the health staff followed the indicators which were applied in the communities. The system of recording the condition of the patients was modif ied to be in line with the indicators. The investigator, community research team as well as the health staff participated in the focus group discussion. As a result of the focus group discussion, it was understood, that the indicators are useful for the pa tients and the health team, since better care as before was provided to the patients due to the fact that the health team paid home visits to the patients observing the defined criterions for the indicators. The health team can use the indicators to evaluate the quality of the home health care provided to the chronic diseased patient. In case the criterions of the indicators are not valid enough then it is the responsibility of the health team to modify the indicators to be more efficient. The use of the in dicators in the communities should be like this in future.

4. The Ability of the People in the Communities to Modify the Indicators in Future

The indicators should be always modified according to newly emerging situations and problems and also when ther e are other resources available. The ability of

the people in the communities to modify the indicators had been evaluated by using the following methods:

4.1 The Understanding of the Target Group to Develop the Indicator

Two health staff from the Wiharnpra cha health station and another two from the Somchai Patana Village health centre had been selected by the investigator to be with the target group. Their performance had been evaluated by the investigator and by themselves. Topics of interest for the evaluation had been about their perception of the indicator issues and the method of participatory action research. The result was that they had a good perception of the theoretical aspects of the indicators and also the specific understanding about the structure, procedure and outcome of the development of indicators. They did know about ways and means to deal with participatory action research. The investigator however enhanced their knowledge about the method, so that they got a better insight in it.

4.2 The Awareness of the Target Group to Develop the Indicators

The next target group being the people in the communities had been evaluated by the investigator and the health staff. The investigator also evaluated the performance of the health staff and they also evaluated themselves. The actual evaluation focused on the awareness und understanding of the target groups about the importance of the indicators. The result was that the target groups had been very interested in the issue, expressed enthusiasm towards it and cooperated well in the development of the indicators. They realized that the indicators are important tools for evaluating the home health care quality for chronic diseased patients. The health staff used the indicators for evaluating the home health care and the people of the community did so the home health care provided by the health staff. Besides that the indicators should be modified according to newly emerging problems and situations in the field of economy or technology and also when there are other resources available.

In conclusion: The target group being the people in the communities as well as the health staff are aware of and understand the importance of indicator development.

4.3 The Skills of the Target Group to Develop the Indicator

One health staff who was trained to become the facilitator of the third to sixth group discussions was evaluated by the investigator and did this also for herself. The result of the evaluation was that she had a good perception about how to develop a home health care quality indicator for chronic disease patients. While acting as the facilitator of the third group discussion she did observe the guidelines and during the fourth session she gained more self-confidence to be the facilitator of the discussion. During the fifth and the sixth meeting she performed very well in that she appropriately interpreted the comments of the members of the group and stressed the important points which came up during the discussions.

The investigator also trained the commun ity research team to be the facilitators of group discussions. Since they participated in the discussion just from the beginning they did understand the procedures how to develop the home health care indicator for chronic disease patients very well. They a ll are willing to cooperate with the health staff to improve the indicators. They had been of the opinion, that if the discussions would be conducted more often, even the participants of the meetings could act as facilitators for the discussions finally.

In the fifth group discussion a new health staff participated in the Somchai Patana Village health centre because the former one took a study leave. The investigator explained to this staff the procedures of how to develop indicators by means of group discussions and gave her materials to read about the methodology of participatory action research. It is the believe of the investigator that the people in the community have the ability to modify the indicator in future after the investigator and the research team are no longer available because one health staff in each community was trained to conduct group discussions for the formulation of the development of indicators.

In conclusion: The health staff has the skills to modify the indicators in future but the people in the community cannot, but they are willing to cooperate with the health staff to do so.

Conclusion of chapter 4. Prior to the actual study during the preparation phase the investigator developed a good conduct with the community leaders, spec ial groups of the people or individuals as well as with organizations such as for the elderly, exercise - and health volunteer groups within the area of investigation. All of them cooperated well with the investigator in selecting the target groups and the research team. For the process of developing the indicator the investigator, the research team as well as the people in the communities studied the basic social conditions and the problems related to the home health care for chronic diseased patients. The basic and important informations of the communities had been collected. The problems concerning the home health care had been discussed in length, the problems had been classified and ranked according to importance, the research frame work had been defined, and data had been collected and analyzed so to be in the position to develop the indicators. For the Wiharnpracha health station 14 and for the Somchai Patana Village health centre 22 indicators had been developed. The indicators had been introduced to t he people in the communities and the quality of the indicators had been assessed. After a trial period, during which the indicators had been used the investigator, the community research team, the health staff and the target group used the indicators overa ll. Some indicators could not be used and others had to be modified. Finally 21 indicators had been applied in the Somchai Patana Village area and 15 in the Wiharnpracha area. The home health care quality indicator development for chronic disease patients by participatory action research had been evaluated and the result was that the target groups were enthusiastic to participate in the group discussions. The target groups were aware and understand the issue of indicators. The people in the community had th e ability to modify the indicators being helped to do so by the health staff in the communities, because those had the skills to develop the indicators. The people in the communities lacked the skills to develop the indicators but they are willing to cooperate with the health staff very well.

The results as given in chapter 4 will be discussed in the following chapter.

CHAPTER V
DISCUSSION

The discussion will deal with the results under 4 aspects:-

1. Home health care quality indicator development for chronic disease patient by participatory action research.

2. Comparison between the home health care quality indicators for chronic diseased patient as developed in the areas under investigation and home health care quality indicators for chronic disease patient as used internationally.

3. Comparison between the home health care quality indicators for chronic disease patient used in the areas under investigation and in the overall national context.

4. Comparison between the home health care quality indicators for chronic disease patient as developed and used in the non-municipality area of this study with the quality indicator used in the municipality area of this investigation.

5.1. The Results of Home Health Care Quality Indicator Development for Chronic Disease Patient by Participatory Action Research

The results of conducting participatory action research for the development of the home health care quality indicator had been as follows:-

1. The Achievements of the Home Health Cares Quality Indicator Development for Chronic Disease Patients by Participatory Action Research

It was found that the health staff in the areas under investigation is able to be the leader to modify the home health care indicator because the investigator explained to them all about the indicator development and how to conduct PAR in detail. Also the documents concerning the indicator and PAR had been provided to them as the

guidelines about how to develop the home health care quality indicator. Therefore the health staffs had the information and were aware about how to formulate the indicator. They know about the principles and the scientific background for indicator development and PAR. They also know the ways and means to deal with the specific process of PAR and how to evaluate and develop the home health care quality indicator by participatory action research (Chapter 4). The procedures applied followed the philosophy and principles of what is called “cognitive domain” as explained by Pathra Nikmanon (1995: 41-44), Arom Petchuen (1984: 40-42) and Paisal Wangphanich (1983: 30-31). The main point of this issue is that the cognitive ability of a person as well as the person’s intellectual capacity is able to analyze and reflect the specific matters and processes and is able to recognize the underlying theory of the whole process. The investigator didn’t train the community research team in the procedures to formulate the indicators by PAR but they did participated in the group discussion very well and are willing to cooperate with the health staff to modify the home health care quality indicator in future.

While evaluating the awareness of the health staff and the community research team about the necessity to develop the indicators it was recognized that they were very attentive, had great interest, perceived the issue very well, did also cooperate well and were very much encouraged to work on this matter. They realized the value and importance of the indicator for the patient well-being in the community. They also know that the indicators should be updated regularly. Details had been mentioned while describing the evaluation of the indicator development by participatory action research (Chapter 4). The issue relates to what has been described by Pathra Nikmanon (1995: 50 - 55), Arom Petchuen (1984: 43) and Paisal Wangphanich (1983: 32) as “affective domain”, which relates to the interest, attitude and adjustment a person gives to the attempts to solve a problem. An appropriate “affective domain” requires that the persons involved are able to recognize the problems correctly, give attention to the underlying issues, respond appropriately to the problems in the attempt to solve them, and judge correctly about the value and characterization of the problems. Only those persons can deal with the issue of the “affective domain”, whose emotions and morals are such, that they can open their

minds so that they can fully perceive the complexity of the issues related to the problems.

As mentioned above, the health staff will be able to be the leader of group discussions aiming to modify the indicator further on. The investigator set the frame of the group discussions for the health staff, for instance by giving them the information about the nature of the indicators, and the perception of the members of the group discussions towards the indicator and the procedures how to formulate the indicators. She trained them to conduct the group discussion accordingly.

Training of the health staffs took place until they had the confidence and experience to conduct the group discussions by themselves. They finally could adapt to the ideas and comments of the members of the group discussions. Details about this had been mentioned while dealing with the evaluation of the skills of the target groups who cooperated in the development of the indicators (see Chapter 4). The concept applied here, follows of what had been mentioned by Pathra Nikmanon (1995: 55-57) Arom Petchuen (1984: 43-44) and Paisal Wangphanich (1983: 32-33) as the “psycho-motor domain“. The “psycho-motor domain“ identifies the learning attitude of persons to acquire the skills to take appropriate actions and are ready for a guided response to deal with a problem by using new techniques and innovative responses in order to be able to deal with a complex situation. This requires that the person in charge have the confidence to conduct the appropriate activities without being reluctant. The person also must develop the ability to adapt methods appropriately so that she/he has the means to take appropriate actions. The health staffs fulfilled all these requirements, so that they could develop the skill to direct group discussions meaningful.

The community research teams had not been trained to conduct group discussions due to the limited time available for this study. However the research teams had been of great help because they continuously reflected the content of the group discussions, for instance by identifying the problems mentioned and helped in ranking the problems according to importance, and helped to define the guidelines for the development of the indicators. Another reason not to train the community research teams for guiding group discussions was that the issue is related to health, so the investigator chooses to train the health staff instead under the impression, that they are

the more appropriate group to conduct group discussions, because of their professional background and experiences in home health care for chronic diseased patients.

The people in the community could not be trained to conduct the group discussions but they participated in the research procedure from the beginning throughout the entire research project. They also participated in the meeting to discuss the health problems in the community and the problems of home health care for chronic diseased patient, helped in identifying and ranking the problems according to their importance. They participated in the group discussions and assisted in defining the guidelines for home health care for chronic disease patients. They also contributed to the design of the research framework, formulation of the indicators according to the defined guidelines, helped in applying the indicators in the area and in the evaluation of the indicator development by participatory action research. In the process of indicator formation, the people participated in the focus group discussions and gave comments about the indicators. In their attempts the people were supported by the investigator and the health staff in order to enable individuals such as members of the family and population groups in communities to carry out activities aiming to improve health. The investigator and the health staff followed the concept as mentioned by Somrueng Yaengkratog and Rujira Mungklasiri (2002: 38 and 113) in encouraging the people to participate in planning and decision making with the support of the health staff. This was helpful for the whole community since everybody had the chance to be informed.

The important factors which made the participatory action research to be successful were the good relationship between the investigator and the people in the community and their acceptance of the investigator's suggestion to conduct the research in the area. By no means tried the investigator and the health staff to dominate the people but always appreciated their comments and did accept the results of the discussions. The investigator only acted as the facilitator or catalytic agent so that the people in the community could give comments freely and let the research procedure proceed smoothly and flexible as possible by adjusting to the emerging problems and the requirements of the people in the community. The investigator and health staffs selected the house of the health volunteer to be the place for the group discussions since that was convenient for the member of the group. Besides that, the

investigator defined the variables to be analyzed within 8 categories, such as utilization of the service, risk reduction, increase in protective factors, level of functioning, ADL/IADL level of functioning, psychosocial functioning, changes in the severity of the illness, strengthening of the therapeutic alliance and client/patient satisfaction. But when the people in the community and health staffs analyzed the variables of the indicator, they had to reduce the issue into 4 categories that is patient, caregiver, the performance of the health team, and the relation between patient and caregiver. This categorization was easier to understand and more practical.

The approach of PAR is completely different from that of pure science. In the latter the people are passive subjects or at best can participate only in a limited way in the research procedures according to the assignment of the researcher. They have to wait for the result of research. The investigator in pure science is a professional expert and project designer, data collector; interpreter of the information collected and is the one, who advises the organization or the people. The researcher in this case has an overall influence over the research process.

But for PAR, the members of the organizations or groups participate in data collection and are directly involved in setting up the plans for future activities. Pantyp Ramasoota (2002: 59) pointed towards the perception that PAR is a research tool that directly involves the people in the research, while formerly they were used only to be passive research subjects. PAR changes their role to be participants within the research process just from the beginning to the end of the project. They might for instance participate in selecting the study area, make a list of problems encountered and collect evidence and data for identifying the problems, the underlying factors and study tools. The assessment and the outcome of PAR will be made known to the people. Komol Sudprasert (1994: 8-9); Smith (1997: 173-253) and William Foote Whyte and et al., (1991: 20-21)mentioned that PAR is a research tool that enables the people to participate in group discussions for the formulation of the indicators, and that the investigator only acts as participant, facilitator and catalytic agent to encourage the members of the group discussion to give comments or voice their ideas, such as in case of this study, about the topic related to the home health care indicator for chronic diseased patient. PAR uses the reflexive method and is a dialectic technique, while the people are the target of the research and participate in the development of the concept.

They develop a sense of ownership and provide information and will benefit from the outcome of the research.

PAR uses the triangulation method for data collection. In order to get accurate information the following techniques might be applied:

1. Information is collected from a variety of different groups of people. For instance in this study the information used to formulate the home health care quality indicator had been derived from the chronic disease patients, their caregivers, by suitable individuals through group discussions and by the health staff.

2. Other techniques used for identifying the problems of home health care and ranking them according to importance, so that the guidelines can be worked out for the formulation of the indicators for chronic disease patient are to observe the situation by walking through the community, conduct group interviews, and let the people participate while mapping the area. Also the participation of the people in group discussions is of great importance.

3. Summarizing the information obtained is being used to formulate the indicator. The investigator, the community research team and the health staff participated in the focus group discussion to summarize the information of the home health care quality indicator for chronic disease patient. Therefore, it could be proved in this survey as well, that the triangulation method used in PAR is a suitable and creditable techniques for data collection, by following the suggestions given by Pongphan Trimongkonkul and Suphab Chattraporn (2002: 208-209), who used for the PAR approach the triangulation method for data collection to get precise and complete information.

The study of the home health care quality indicator development for chronic disease patient by participatory action research is a qualitative research method because various techniques are used for the collection of information, such as in-depth interviews, focus group discussions, group discussions, and collecting further information from documents found in the community. The information obtained by qualitative research is summarized and used for the formulation of the home health care quality indicator for chronic disease patient in the communities. This process is in accordance with the basic theory, that information had to be collected first then analyzed and adjusted to general principals. Information should not just be collected

for the purpose to verify criterions or a certain theory. The investigator had to be flexible and accept the reality as being displayed in the information obtained. Members of the community knows best about the real local situation as Pongphan Trimongkonkul and Suphab Chattraporn (2002: 16-18), Benja Yoddumneun-Adtic and Phanee Wongeak (2003: 3-6) pointed out. The objectives of qualitative research is to make people understand the circumstances which influence the behavior of individuals and interpret the findings in accordance with the existing situation, without controlling for a number of other variables. The result of the research affects the reactions of the individuals involved, has an effect on the social environment and results in the proper analysis of the matter. Also the Office of Nursing, Ministry of Public Health (2003: 31), considers the participatory action research as a suitable research tool for outcome development.

2. The Problem Concerning the Home Health Care Quality Development for Chronic Disease Patient by Participatory Action Research

The study of the basic social and health problems of the people in the area of "Somchai Patana Village found that the rubbish bags are thrown at the back yard of the community and that some people raised dogs in the house, its barking disturbed the neighbors and its feces polluted the front area of the neighbor's house (Chapter 4). The roads in the community of Wiharnpracha health station are the gravel roads and are flooded in the rainy season so that some areas can not be reach by car and the health team have to visit them traveling by boat. The chronic disease patients living in the infertile area under the responsibility of Wiharnpracha health station could not come to visit the health station during the rainy season. The chronic diseased patients in the area under the responsibility of "Somchai Patana Village" health centre are being cared for by employed caregivers. The people in these two areas under investigations had problems with the home health care for chronic disease patients. They were lacking a good and appropriate evaluation system for identifying the problems with the home health care for chronic disease patients. They did not have their own home health care quality indicator. They used the community health care quality indicator as suggested by the Ministry of Public Health, which is the only one being used nation wide. Obviously it is essential to have an efficient home health care system for chronic diseased patient and an evaluation system which uses an appropriate quality indicator

for each individual area. The investigator asked for the cooperation of the people under the responsibility of the Wiharnpracha health station and the community heath centre “Somchai Patana Village” to help to develop a home health care quality indicator for the chronic disease patient using the method of participatory action research (PAR). PAR aims in particularly to help the poor and unfortunate people, who otherwise have no chance in the society to identify the problems related to the social and economic environment and find ways to solve them. PAR is the research tool that includes practical approaches and consideration for reasonable improvements of the situation and for social learning. It provides guidelines for the development of a standard which could be used by the political elite and governmental organizations; and might help to improve the cultural and social status and also the economic status of the community. If there is no time constrain for the study, the investigator can follow the process of PAR which involves the cooperation of the people in the community and the research team to participate in group discussions dealing with the social-, economic-, political-, administrative- and cultural problems in the community. Kamol Sudprasert (2002: 8-9), Pongphan Trimongkonkul and Suphab Chattraporn (2002: 206-210) said, that PAR alters persons and the social situation from domination to independence. The people gain wisdom by going through the PAR process, which is a tool for studying and creating the development of common sense. Decisions are made by those participating in PAR so that they can solve those problems, which are related to social and economic unfairness and liberate the people from ties and let them gain experience. PAR is suitable to help in the development or change of the society from suppression to freedom. The people in the community participate in the process from the first step throughout the entire research project such as being involved in selecting the study area, identifying and ranking the problems according to importance, in information collection and in the analysis of information, and in using the result of the analysis in the evaluation and the application of the results (Kemmis and Wilkinson, 1998: 23-24).

Because of the limited time available for the study, the investigator used the concept of the community health care quality indicator for chronic disease patients, who need care at home as formulated by the American Nurse Association, to formulate the home health care quality indicator for chronic disease patient for the

communities under investigation in this project. In fact this procedure is not entirely in accordance with the concept of PAR. The attempt was suitable for the collection of information but the people in the community should have had more freedom to express their own ideas and made comments about their problems and the situation they are in, without any limitations. The information obtained by following the American Nurse Association attempt however is valid and an appropriate tool to discover the real situation and identify the existing problems (Pantyp Ramasoota, 2002: 62). Besides that PAR is an ongoing research tool without a time limitation. By going through a PAR project is not possible to follow a previously made plan and try to predict the outcome of the research. This is because the PAR depends on the interaction between the people and the researcher who does not control the research process or setting up a research project (Pantyp Ramasoota, 2002: 66). The investigator even defined the variables which were needed for the formulation of indicators that are the 8 categories namely utilization of the service, risk reduction, increase in protective factors, level of functioning, ADL/IADL, level of functioning,: psychosocial functioning, changes in the severity of the illness, strength of the therapeutic alliance and client/patient satisfaction. But when the people in the community and health staff, who participated in the group discussion, analyzed the variables, they cut down the 8 factors into 4, namely patient, caregiver, the performance of the health team, and the relationship between patient and caregivers. This was done because it was easier for those involved in this research to understand the issue and go through the project. The investigator appreciated, respected and acknowledged the experience of the people and accepted the results of the group discussion. The way knowledge is perceived and communicated by the people is different from what an academic person would do. Therefore, the next study should not be under time constrain and the people participating in the PAR process should have the freedom to express their ideas and comments about their problems more freely.

Another problem encountered during the research procedure was, that the investigator had to provide a car for the member of group discussion from the Wiharnpracha health station, to travel to the place where the discussion took place due to the fact that the members of the group somehow had been too handicapped to travel

by public transportation. Some of them lived far away and did not have an own vehicle to travel to the place of the group discussion. To provide a car is not according to the rules of PAR, since the investigator should only act as the participant, facilitator and catalytic agent to stimulate the people to express their ideas and give comments about their problems and situation (Pongphan Trimongkonkul and Suphab Chattraporn 2002: 210). So the next time only those people should be asked to participate in the group discussion, who don't have physical problems and can travel to the meeting place. Another problem was that the members of the focus group discussion are chronic diseased patient and caregiver who care for the patients because most of the chronic diseased patients could not walk. In order to have a homogeneous group according to the principals of PAR, in the next study the selection of the members for the group discussions should be separated in a group of patients and a group of caregivers, besides considering sex, age, occupation, residence, marital status, number and age of children. This will help to get more information's from each group. According also to Benja Yoddumneun-Adtic and Phanee Wongeak (2000: 25), the members of the focus group discussions should be homogeneous for instance as far as sex, age, occupation, residence, marital status, number and age of children are concerned. Other problems encountered had not been so important and did not affect the result of the research. This related to the fact, that appointments were made between the community research team and the health staffs, and that at certain times health staff could not participate in the focus group discussion because she/he had to attend an urgent meeting, or was sick, or did bring her child along. The problems occurred while conducting the focus group discussions and were solved with the cooperation of the investigator, the people and the health staff. Supang Janthavanich (2000: 70) pointed out that PAR, as a research methodology, is a mixture between theory and praxis. It involves the interrelationship between the research target and the objective of the developer and the need and experience of the people.

The result of home health care quality indicator development for chronic diseased patient by participatory action research can only be used in the area under the investigation, since the information was obtained by using the techniques for qualitative research. The objective of this type of research is to understand the behavior of individuals and interpret that in accordance with the situation found

without controlling for variables as well. Pongphan Trimongkonkul and Suphab Chattraporn (2002: 16-18) and Benja Yoddumneun-Adtic and et al., (2001: 38) stated that it is the aim of qualitative research to understanding the social circumstances and interpret the events related to the behavior of the people by using a holistic approach which offers services to the people to improve the physical, mental; emotional, social and spiritual wellbeing. The information obtained from a case study is not an ideographic approach and the interpretation of the findings is not based on a defined hypothesis. The findings are analyzed on the basis of an inductive- or grounded theory. The information which should be collected and analyzed includes the background, social structure, geographic and cultural environment, and the basic social status such as occupation and social life of the people in the area under research. Therefore the results of this study can only be used in the area under investigation. This is different from the approach of a quantitative research project, of which the results could be used as reference as well. Pongphan Trimongkonkul and Suphab Chattraporn (2002: 13-15), argued, that the result of a quantitative research can be used as an executive summary and rule and can be generalized, in case it is reasonable, can be proved elsewhere, is referable and explains as well as predict the behavior of the human beings.

In conclusion: The achievement of the development of the home health care quality indicator for chronic diseased patient by participatory action research is that, the health staff, who participated in the research, to a certain extent has the ability to modify the indicators in future after the investigator left the area, because the people in the communities and health staff participated in the project process from the first step throughout the entire research project. They participated in selecting the study area, identified the problems and ranking them according to importance, defined the research framework, and helped in data collection and analysis. Besides that, the investigator made the health staff aware of the principles of indicator development and PAR and trained them in conducting focus group discussions. The community research teams were not trained for this issue but they participated in the project process from the first step to the end of the research project, and did understand the procedures of formulating indicators by PAR. They are willing to cooperate with the

health staffs to modify the indicators. The details of this had been mentioned in chapter 4

5.2. The Comparison between the Home Health Care Quality Indicator for Chronic Disease Patient used in the Investigation Area and the International Home Health Care Quality Indicator for Chronic Disease Patient

As mentioned in chapter 2, the investigator used the concept of the community health care quality indicator for chronic disease patients who need care at home. The indicators were formulated by the American Nurses Association and divided the variables of the indicators into 8 groups as it shown in the chapter entitled "the problem of home health care quality indicator development for chronic disease patient by using PAR". But when the investigator applied this concept to the focus group discussion, the result was that 4 groups for the indicators had been identified namely patient, caregiver, the performance of health team, patient and caregiver because in the opinions of the participants 8 categories were inconvenient for practical use and not suitable to apply in their areas. The American Nurses Association formulated the sensitive indicators for caring in order to use the data of those indicators for formulating the national indicator. The indicators are divided into structure indicator, procedure indicator and outcome indicator. While the target groups in the investigation areas formulated only the outcome indicator to use as the tool for measuring, screening or the indication for follow up the home health care quality indicator development for chronic disease patient in terms of caring, service, supporting and the performance of the staffs involved. The procedures of the formulation of home health care indicator development for chronic disease patient of the American Nurses Association started with the advisory committee for community-base of non-acute care indicator to review the literature about the indicators from various sources and with the help of experts. The focus group discussion is set up for the final step, which consisted out of staff of the advisory committee for community-base non-acute care indicators, had been representatives from the American Nurses

Association and other experts. But for the area under the investigation, the investigator, health staffs and the people in the community who are patients and caregiver participated in focus group discussion in order to identify the problem, define the guideline and formulate the indicator. The indicators were introduced to the people in the community in terms of importance and practical use, the indicator had been applied in the communities for 3 months in order to test whether the individual indicators are suitable and practical to use in the community. The investigator and health staff did not dominate the people in the community who participated in the focus group discussion, but the investigator acted as the facilitator, and catalytic agent and encouraged the participants to express their attitude about the problem, accept the results of the focus group discussion concerning the variables of the indicator, which they divided into 4 groups. The investigator trusts the ability of the people to modify the indicators.

The American Nurses Association formulated 8 indicators according to the biomedical method which emphasizes on risk reduction, and level of functioning: activities of daily life/use of tools for daily life, increased activities in prevention, service utilization and strength of the therapeutic alliance. The concept of the biomedical method is that when the organs of the body are not properly functioning; that might affect the movements of the body and reduce the quality of life (Mallika Muttigo, 1998: 2: Chanin Charoenkul, 2002: 21: Gomart Juengsathiensab, 2002: 4). The people in the communities in the area of investigation formulated the indicators and divided them by applying a mixture of methods used in the health sector non-professionals and in the field of the professional health sector, which involved the patient, caregiver and health team. It does not focus on the cause and the symptom of the patient but emphasize on the persons involved within the social network of the patient. The people in the community have a meaningful perception about health and illness within the social context (Pimpawan Preedasawas and et al.k, (1987: 95-96) The method used by non-professional health sector workers includes four levels, namely patient, family of the patient, social network of the patient and people in the community such as the leader of the community. Besides that the people in the community divided the indicator according to social significance. Mallika Muttigo, (1998: A) and Thaweethong Hongwiwat (1985: 240 -242) stated that health problems

cannot be only considered to be of biomedical nature but they are also closely linked to social and cultural difficulties. Therefore the attitude, behavior and the culture of the people in the community should be studied as well. In order to understand the behavior of humans it needs to study every aspect of human life for instance the physical-, psychological- and cultural aspects as well as the issues related to the changing of the social-, economic-, and political environment. To solve the problem, the services provided should adopt a holistic approach, which offers services to the people in relation to their physical, mental, emotional, social, and spiritual needs. Gomart Juengsathiensab, (2002: 4) mentioned that the modern vision related to health, the illness of the people are related to the social environment. The severity of illness also depends on the social conditions, in that different treatment must be given to different social strata of the population. The efficiency of illness prevention and treatment depends on the social environment and the knowledge about the technology used for the health care of the people. The illness of the patients therefore is not only to be considered under a biological aspect but the social environment is important as well.

5.3. Comparison between the Home Health Care Quality Indicators for Chronic Disease Patient as Developed in the Areas under Investigation and Home Health Care Quality Indicators for Chronic Disease Patient as used Nationally

Within this study 15 home health care quality indicators for chronic disease patient had been developed in the area of Wiharnpracha health station and 21 indicators in the area of “Somchai Patana Village” health centre as mentioned in chapter 4. The Ministry of Public Health developed 3 health care indicators related to home health care for chronic disease patients. These are the ability of the chronic disease patient to care for her/himself, the decubitus rate and how often the patient falls down. The objectives of these three indicators are to measure the quality of nursing in the community nationwide. But the objective of this study is, to develop indicators in the area under investigation, which are suitable to measure and evaluate

home health care quality for chronic disease patient. Another difference between this attempt and the attempt of the ministry is that the nursing teams of the Ministry of Public Health review the literature to find appropriate indicators, and that experts and professional staff went through the relevant literature to set up the indicator, tested them in four areas, and after that summarized the results of the trial. Finally the policy for using the indicators throughout the whole country had been defined. But the procedure to formulate the indicators in the area under the investigation not only involved the investigator, but the health staff and the people in the communities, who were patients and caregivers. The indicators were formulated and developed by using participatory action research and using a number of different techniques such as participatory mapping, focus group discussion, in-depth interview, participatory observations and questionnaires to collect information. The process focused on the people in the communities and their comments and not on the ideas and perception of the investigator. The policy how to develop indicators and the management of the indicators used in this investigation differs in many aspects from the national indicators in that the suitability of the indicators within the communities had been tested, and for the development of the indicators, the resource in the communities had been used and the people were invited to participate. The following aspects had been discussed in detail:-

1. The Suitability of the Indicator within the Community

As mentioned before, the nursing team, experts and professional from the Ministry of Public Health set up the indicators used throughout the entire country without having sufficient information about particular problems and demands of the people in individual areas. The indicators therefore may not be suitable for the people since they and the health staff had no say in the formulation and development of the indicators. The way the national indicator was introduced also violated the objective of the national health development plan, issue number 5, which emphasis the decentralization of health care. The basis for improving health should consider the local situation, and should be done with the active participation of the provincial health office, which should give the responsibility to solve the problems (The Committee of National Health Development Plan Number 9, Ministry of Public Health, 2001: 8). Besides that, the attempt taken by the ministry is not in accordance

with the public health development plan, strategy no. 3, which demands a reform of the health management techniques to improve the health system, so that the most appropriate service can be provided to the people by observing the local situation as well as the ability of the people to participate in and consider the social circumstances (The Committee of National Health Development Plan Number 9, Ministry of Public Health, 2001: 11).

The indicators used in a municipality area and in an area outside the municipality of Nonthaburi province were developed by the local people who did understand the culture, social environment and problems in the areas. The indicators therefore should be suitable for the local areas. According to the theory of social- and humanitarian sciences, health and illness are significantly linked to the social environment and considering the social situation is as important as the application of the medical system, when it comes to solve health problems. Therefore the attitude and the culture of people in the communities should be studied. In order to understand the attitude of humans, it needs to study every aspect of human life, such as the physical, psychological and cultural situation as well as the factors related to a changing social-, economic- and political environment. Moreover, the severity of illness also depends on the local environment and cultural background of the patient (Thaweethong Hongwiwat (1985: 240-242) and Mallika Muttigo (1998: A). The illness of the patients is not only to be considered under a biological aspect but also the social conditions and cultural aspects are important as well., The efficiency of illness prevention and treatment also depends on the social environment and the knowledge about the technology used for the health care of the people (Benja Yoddamnuen (1980: 2-3) and Pimpawan Preedasawas and et al. (1987: 4-5).To solve health problems needs to consider the social situation as well.

Therefore the indicators used in the areas under the investigation are the most suitable ones because of reasons mentioned above.

2. Resources used in the community

The national home health care quality indicators for chronic diseased patient were formulated without the participation of the people in the area. This is not according to the requirements of the National Health Development Plan Number 9, (2002: 6) since the people in the area did not participate in the activities to improve the

health situation by using the resources available in a particular area (The Committee of National Health Development Plan Number 9, 2001: 11).

The home health care quality indicators in this study were formulated and developed by the health staff and the people in the communities by using the participatory action research (PAR). They participated in the research project by identifying the problems, selecting the procedures to solve the problems, and discussing as well as interpreting the outcome of the trial run. By using PAR the requirements of the people can be identified and the weak points and problems of a health care system can be recognized together with constrains of the social environment. The outstanding benefit of PAR is, that the information obtained, is based on the experiences of the people who participate not only in theory but also in the real research activity. The health staffs and the people in the community have ability and skills to formulate the indicators for the chronic disease patient in the communities under survey within an optimum time span. Economic wise it is human nature to get the highest benefit out of a small investment. Man therefore will behave in such a way that she/he is benefiting from the society and this will ensure the survival of society (Niyaphan (Polwattana) Wannasri, (1998: 153) The attitude of people relates to their role in society. But their role also is defined by the way they serve the society and how they benefit from the society and how other people see their role within the society (Niyaphan(Polwattana) Wannasri, (1997: 153 -154). It is the choice of the people, what goods they want to consume. They will select goods, from which they think that they will have the most benefit out of it, but their selection is under the control of social rules. This follows the economic concept that the people will try to make the best use of the limited resources and get the most benefit of a given situation in order to receive an optimum of satisfaction (Ratana Saikanit and Chonlada, Jamornkul, 1985, 2 -3).

From what has mentioned above follows, that the participation of people in the development and formulation of indicators is the best way for them, to use the limited resources and get the most benefit out of the situation, although the process cannot be claimed to be a pure scientific approach.

3. Participation of the People in Caring for Health

The people do not participate in the formulation of the national home health care quality indicator for chronic disease patient. That violates the objective of the National Health Development Plan Number 9. The plan supports the concept that people should care for their own health, and for the health of the members of their families and for the health of the people in the community. The people are able to follow this concept as far as basic health problems of daily life are to be solved and in terms of health promotion (The Committee of the National Health Development Plan Number 9, 2001: 6 and 18). The new concept of public health focus on the participation of people to care for their health and the health of the members of their families with the support of the health personnel, who should provide the necessary information and perception to enable the people to strengthen health promotion for their own benefit (Health Systems Research Institute, 1998: Samrueng Yaengkratoak and Ruejira Mangklasiri, 2002: 113).

In the process of the formulation and development of the home health care quality indicators for chronic disease patient by participatory action research in the areas under the investigation, the people in the communities and particularly the community research team participated in the research project from the first step throughout the entire research project. They participated in classifying the problem, designing the research framework, collecting information, introducing the indicators to the people in the community, testing the indicator in the community and evaluating the home health care quality indicators for chronic disease patient by participatory action research. According to the new paradigm for the public health system, the cooperation to improve health of the people and to provide health information should come from different levels of the health personnel. They should stand side by side with the people, so that the people can care for their health and create a beneficial social environment, which makes them immune against sickness. According to the new concept of health care reform (WHO (1981: 50) and WHO/UNICEFC (1978: 4 and 50), the people, the family and the community are the basic units in the social context. All of them are responsible to care for their own health. The people are the main player in health development and they will most benefit from the development. Therefore it is their duty, to participate in health development and it depends on their

participation, whether they will benefit or not. Participation in issues of the new concept of public health will enable the people to get rid of unfairness and inequity in the social- and economic environment and will bring them in the position to care for themselves. Finally the community and the society will be powerful (WHO. 1981: 59 - 62) as well as White (1992: 18) and Prachya Waesarach (1985: 8).

The home health care quality indicators development for chronic disease patient by participatory action research is a research method that supports the people to participate in the improvement of the health system and requires that they not just only follow the advice of the health staff. The participation of the people is a new paradigm within the public health system and it is another mean for the reformation of the health care system.

4. Empowerment of the People

The people did not participate in the formulation of the national home health care indicator for chronic disease patients. They had no chance to gain experience or information and they had no voice in the discussion. In contrary the new concept of health reform wants that the people should have the ability to care for their health and for the health of the family members under normal conditions and under the assumption that they have to deal with ordinary and easy to control health problems. The family members and the people in the community had been empowered in such a way, that they understand health issues, make the decisions and set the plan to participate in health activities with the support of the health staff, who acts as the facilitators. According to the new concept of increasing the ability and strength of the people and the communities, not only the people in the governmental sector should have the ability to formulate the indicators but the people in the community should also have the knowledge, ability and skills to formulate and develop indicators. The method of focus group discussion was used for the formulation and the development of the home health care quality indicators for chronic disease patients. The investigator only acted as catalytic agent who encouraged the people, and the members of the focus group to discuss the general problems of the community, and the problems of home health care for chronic diseased patient, and to set up the guidelines for home health care for chronic diseased patient. The people gave comments, discussed the topics related to the home health care in the way a meeting of academics

would do, but they never did this before. They distributed the knowledge and experience gained to those people in the communities, who did not participate in the focus group discussion. The people in the community had been empowered to have a say in health care. They also developed confidence in the identification and analysis of the situation and were able to solve the problems. The new public health method therefore differs from the old perception, in which the health staff is the decision maker, and the patients are in compliance with the advice of health staff or under the authoritative influence of the health staff similar to a parent - child relationship. Under the old system, the patients and the people are only the health receiver with the understanding that they will recover or become healthier only when they follow the suggestions of the health staff. The health staff should not be of the opinion, that lack of knowledge and experience of the people is an obstacle for health development.

The participation of the people in the formulation of the home health care quality indicator for chronic disease patient follows the suggestion of Pongphan Trimongkonkul and Suphab Chattraporn, 2002: 201 -206; Pantyp Ramasoota (2002: 62), Smith (1997: 173) and Suk Bling and Mok Suen (1998: 21). PAR is in accordance with the theory of social science and applies a methodology suitable for the procedures of a study in the field of critical social science, which emphasize critical reflection about the knowledge, belief, encouragement and empowerment of the people. Through this methodology social conditions can be improved. By using the “reflexive method” and dialectic techniques, the people, who are the target subject of the research, participate in the development of a concept, provide the necessary information, develop a sense of ownership and will benefit from the outcome of the research. Therefore, the people who are patients and caregiver cooperate with the health staff to achieve the goal to improve health care.

5. Coverage of the Indicator

According to the policy of the Ministry of Public Health the home health care indicators, which had been formulated by the ministry for evaluating the home health care for chronic disease patient, should be applied throughout the whole country, so that a general assessment is possible, how home health care for chronic diseased patient work throughout the entire country. But the people in the area under this investigation formulated the home health care quality indicator for chronic

disease patient by participatory action research differently, so that the indicators can only be used in the areas under investigation as mentioned already in chapter 5

5.4 Comparison between the Home Health Care Quality Indicators for Chronic Disease Patient as Developed and used in the Non-Municipality Area of this Study with the Quality Indicator used in the Municipality Area of this Investigation

There are 15 indicators used in the area outside the municipality of Bangyai, Nonthaburi province under the responsibility of the Wiharnpracha health station and 21 indicators used in the area under the responsibility of “Somchai Patana Village” health centre, within the municipality of Bangkroy, Nonthaburi province. The indicator related to caregiver as used in the “Somchai Patana Village” health centre, focused on the daily activities of patients that should be cared for properly by the caregivers. Other indicators emphasized the performance of the caregivers in terms of assistance and support provided to the patient and whether the patient could care for her/himself. 60 % of patients were cared for by employed caregivers (Somchai Patana Village health centre, 2003: 4). Most of the people in this area came from small families and moved in from different places, and eighty percent of households in the area where located in a housing estate and the owners bought their houses from the company, which developed the compound (Somchai Patana Village health centre, 2003: 6). The active proportion of the population work outside the house as employee, civil servants and the staff of governmental enterprise, and the elderly relatives who suffered from chronic diseases stayed at home and being cared for by employed caregivers. But the patients in the area of Wiharnpracha health station were cared for by the members of the family or relatives (Wiharnpracha health station, 2003: 5 – 6) because the population in this area are the local people and have extended families with quite a number of family members (Wiharnpracha health station, 2003: 5). They earn a living by farming, and flower growing near their houses and at the same time care for relatives suffering from chronic diseases. It is essential for the people in the

communities to have a home health care quality indicator for chronic disease patient in order to measure the performance of the caregivers.

In the area of the Wiharnpracha health station the caregivers spend 24 hours with the patients. The caregivers go to work in the field near the houses and come back from time to time to see for the patients. In the evening and during the night they stay with the patients. Therefore, the community research team defined the time the caregivers spend with the patient as the time span they directly provided care to the patient such as helping in the daily activities and the time spend for providing indirect care to the patient for instance when staying at home with the patient, talking with them, and staying overnight with the patient. But the community research team of "Somchai Patana Village" health centre only defined the time spend for providing direct care to the patient, because it was the duty of the employed caregiver to care for the patient while the relatives of the patient go out for work.

The community research team of the two areas under the investigation formulated the indicators based on the information derived from the social conditions, the families, the economic situation and the occupation of the people in the particular areas. Necessarily different categories of indicators for the two different areas had been developed. There are also different roles and duties of the caregivers in the individual areas due to the differences in the environment and social structure. Benja Yoddamnuen and et al., (1986: 9 and 28) hinted towards the fact that each society consists out of sub-social systems or social groups such as families and relatives, groups with different levels of education, different public health conditions, different economic levels and occupations, political- and governmental circumstances and different religions and belief systems. The attitudes of the people in the society are related to the sub-social systems as well as the attitudes are related to health issues such as health promotion, and disease prevention in order to maintain the good health. The people in the society develop the methods for providing care and the role of the caregivers according to the social environment (Mallika Mattigo 1999: 1). Health and illness of the people are closely related to social issues. People may learn how to maintain health and prevent illness under the environmental conditions they live and the cultural context but depend largely on the social conditions, in that different

treatment and health promotion must be given to different social strata of the population.

The indicators related to the patients in the area of Wiharnpracha health station concentrate on the mobilization of the patients due to the fact that 10 out of 16 patients are paralyzed (Wiharnpracha health station, 2003: 1). But in the area of "Somchai Patana Village" health centre the indicators do not focus on the mobilization of patients, although there are 9 patients out of 14 patients who are partly paralyzed but they still can perform daily activities and are able to care for themselves.

In addition, the indicators used in the area under the responsibility of "Somchai Patana Village" health centre emphasized on the measurement of blood pressure and blood glucose. This was because from 14 patients, 10 were suffering from hypertension and 9 from diabetes and some had problems to move ("Somchai Patana Village" health centre, 2003: 1-15). The indicators used in the area of Wiharnpracha health station did not concentrate on those aspects despite the fact that there had been patients who also suffered from hypertension and diabetes. Because the health team used to monitor the condition of the patients when they had high blood pressure or high blood glucose level, a specific indicator for these conditions was felt not to be necessary.

The population in the area under the responsibility of the Wiharnpracha health station consisted out of Thai, Cambodian and Chinese. Therefore the culture and social environment are different from the population in the area of "Somchai Patana Village" health centre who moved in the area from various places to live in the compound of "Somchai Patana Village". Consequently, the people and the public health personnel of those two areas participated in setting up home health care quality indicators for chronic disease patients in order to have suitable and efficient indicators, which made it possible, to understand the problems in each of the areas well. The severity of illness also depends on the environment and the culture the patient is living in, and largely depends on the social conditions (Benja Yoddamnuen and et al., (1980: 2-5). The definition of the severity of illness depends on the social environment and culture of the people in a particular area (Mallika Mattigo (1999: 3).

In conclusion: The discussion of the result of the investigation had been divided into 4 aspects:-

1. Home health care quality indicator development for chronic disease patient by participatory action research.

2. Comparison between the home health care quality indicators for chronic disease patient as developed in the areas under investigation and home health care quality indicators for chronic disease patient as used internationally.

3. Comparison between the home health care quality indicators for chronic disease patient used in the areas under investigation and in the overall national context.

4. Comparison between the home health care quality indicators for chronic diseased patient as developed and used in the non-municipality area of this study with the quality indicator used in the municipality area of this investigation.

The result of the discussion is useful information for the research recommendations in the next chapter.

CHAPTER VI
CONCLUSIONS AND RECOMMENDATIONS

The objective of the study is to develop home health care quality indicators for chronic disease patients by participatory action research (PAR) for the use of health team, as tools to evaluate the quality of home health care for chronic disease patients in the areas under study. Points used for the evaluation of the study results had been:-

1. The participation and enthusiasm of the target groups to formulate the indicators;
2. The suitability of the indicators in terms of their importance and practical use in the communities;
3. The motivation to use the indicators by the health staffs in future;
4. The ability of the target groups to modify the indicators in future.

There are 3 target groups involved in this study:-

1. The chronic disease patients who stay at home and are cared for by the health personnel in the area for a period of at least 1 year.
2. The caregivers who continuously take care for the chronic disease patient at home at least for 1 month and who were trained in the appropriate and correct way to do so by the health personnel.
3. The graduated nurses and health personnel who continuously provide health care to the patient at home for at least 1 year.

The sample groups were selected by using the family folder and Snowball Sampling method. The people in the community selected those who could contribute to the collection of information and the formulation of the home health care quality indicators for chronic disease patients. The sample group of the Wiharnpracha health

station consisted of 2 patients, 10 caregivers and 2 health staffs. Four patients, 12 caregivers and 2 health staffs had been the sample group of the “Somchai Patana Village” health centre. The sample groups participated in the focus group discussions.

Instruments used in this study are techniques for the collection of information such as Participatory Rural Appraisal, small group discussions, focus group discussions, in-depth interviews, participatory observation and questionnaires. The instruments and appropriate devices used in the study had been tape recorders, cameras, white boards or black boards or bill boards, magic color pens, small stones for giving marks, pictures and other equipment for community mapping, recording papers, pens, pencils and other items such as cookies, snack, sweet, water and souvenir.

Information was collected from October 2003 to May 2004. The information had been derived from focus group discussions of the four sample groups, two groups from Wiharnpracha health station and the other two groups from “Somchai Patana Village” health centre. The information was analyzed by using the following procedures:-

Analytic induction: The information in the research areas had been collected and summarized included the background of the communities, social structure, geographic and cultural circumstances, and basic demographic and social factors such as occupation and social life of the people.

Typological analysis: The variables under study were related to the home health care quality indicators for chronic disease patients. The indicators were evaluated as outcome indicators. The outcome indicators were divided into proximate outcome and ultimate outcome indicators. The ultimate outcome indicators were divided into 4 groups of indicators related to the patients, caregivers, the performance of the health team, and the relationship between patients and caregivers.

6.1. Summary of the Study Results

The researcher summarized the results of the study following 3 steps:-

1. Prior of study or the preparation period
2. Study process or the formulation of the indicator
3. After the study or in the trial period of using the indicator

1. Prior of Study or the Preparation Period

The investigator selected the communities, established a relationship with the people in the community and explained to them the objective of the study. She selected the target groups, i.e. patients and caregivers, altogether 12 persons from the area under the responsibility of Wiharnpracha health station, and 16 persons from the community of “Somchai Patana Village” health centre. The Snowball Sampling method was used to select the community research teams, one community research team for the community of Wiharnpracha health station and one for the community of “Somchai Patana Village” health centre. Each community research team consisted out of 2 persons. The two health staff was selected from the communities which participated in the study.

2. Study Process or the Formulation of the Indicator

The actual study or the formulation of indicator had been carried out in 7 steps. 1) The study of the basic social and health problems of home health care for chronic diseased patients. 2). The identification of the problems and ranking of the problems according to importance. 3) The design of the research framework. 4). The collection of information. 5). The analysis of the information. 6) The formulation and evaluation of the indicators. 7.). Summarizing the information which had been used to formulate the indicator.

1. The study of the basic social and health problems of home health care for chronic disease patients. The investigator, the community research team as well as the people in the community collected the basic information from the District Administrative Office, the Public Health Centre, the Health Station and from the community leaders, by using techniques such as participatory mapping, walking through the community and talking with the people as well as small group discussions. Through this the necessary information from the communities could be obtained including the social conditions, the economic profile, political- and demographic structure of population, family structures, entertainment possibilities, medical issues and treatment procedures as well as the different religions the people belonged to. The information was also collected from the family folders of the patients. The investigator, the community research team, the health staffs and the people in the community studied the problems concerning the home health care for chronic disease patient by participating in focus group discussions. The result of the focus group discussions identified very well the good points and the problems of home health care for chronic diseased patients and had been related to 4 aspects, namely the patient, caregiver, neighbors or people in the community and the health team.

2. Identification of the problems and ranking the problems according to importance. The investigator and the people in the community of Wiharnpracha health station participated in ranking the importance of the problems related to home health care for chronic disease patient. The patients had problems related to 6 issues, the caregivers to 5 issues, the members of the family or relatives to 3 issues, the neighbors to 1 issue and health team to 6 issues. The investigator and the people in the community of “Somchai Patan Village” health centre participated in ranking the importance of the problem related to home health care for chronic disease patient. The patients had problems related to 9 issues, the caregivers to 8 issues, the members of the family or relatives to 5 issues, the neighbors to 3 issues and the health team to 7 issues.

The people in the two areas under study had the problems with chronic disease patients and the home health care for them. They were lacking a good and logic evaluation system for the assessment of home health care for chronic disease patients. They did not have their own home health care quality indicator. It therefore

was a necessity to define the tools to formulate home health care indicators for these chronic diseased patients in the communities.

3. Research framework. . The investigator, the community research team and the health staffs participated in group discussions for research planning and identifying research activities. Also the objective of the research, the research areas, the target- or sample groups, the research methods and research tools had been discussed and designed as well as the forms for the collection of information and the formulation of the home health care quality indicators for chronic disease patient by participatory action research. Group discussions were held 4 times from December 2003 to January 2004. The indicators were applied in the communities for 3 months (February to April 2004).

4. Collection of information. The information derived from the focus group discussions had been used for the formulation of home health care quality indicators for chronic disease patients. In the area under the responsibility of Wiharnparcha health station, the information obtained from the focus group discussions were derived from 5 groups, that are patients, caregivers, members of the family or relatives, neighbors or people in the communities, and the health team. There are 5 issues of information related to patients, 5 issues of information concerning caregivers, 7 issues related to members of the family or relatives, 3 issues related to neighbors or people in the community and 4 issues concerning the health team. In the area under the responsibility of the “Somchai Patana Village” health centre, the information obtained from the focus group discussion were related to 5 issues concerning the patients, caregivers, members of family or relatives, neighbors or people in the community, and the health team. There are 7 issues of information related to patients, 3 issues of information concerning caregivers, 7 issues related to members of family or relatives, 2 issues involved neighbors or people in the community and 5 issues concerning the health team.

5. Analysis of information. The investigator, the community research team and the health staff participated in the analysis of the information in order to classify the groups of indicators. Indicators were assigned to patients, caregivers, the performance of health team, the relationship between patients and caregivers. There are 14 indicators for the communities of Wiharnparcha health station, 8 indicators

related to patients, 2 indicators to caregivers, 3 indicators to the performance of the health team and 1 indicator to the relationship between patients and caregivers. There are 22 indicators for the communities of “Somchai Patana Village” health centre, 14 indicators concerning the patients, 4 indicators the caregivers, 3 indicators the performance of health team and 1 indicator the relationship between patients and caregivers.

6. Indicators. The people in the community who did not participate in the focus group discussion answered a questionnaire concerning the home health care indicators in order to find out whether they considered the indicator is suitable and practical for the use in the community or not. The result of the questionnaire was that the indicators are suitable and practical.

7. Summarizing the information being used to formulate the indicator. The investigator, the community research team and the health staffs participated in the focus group discussions to summarize the information of home health care quality indicators for chronic disease patients.

3. After the Study and the Trial Period of the Indicator Application

The following steps had been taken to test the indicators in the communities in the areas under the responsibility of the community health centers and health stations:-

1. Planning. The investigator and the people in the community participated in planning to use the indicators by applying them to those chronic diseased patient who had to be cared for at home 3 times/person from February 2004 to April 2004. The patient’s condition had been recorded on a monthly basis and through one record from assessing the condition throughout one year by using the home health care quality indicators for chronic disease patients. The criterions for the home health care quality indicators for chronic disease patients were set up by using the information derived from the trial phase.

2. Using. The indicators were tested with 16 chronic disease patients in the community of Wiharnpracha health station and 14 chronic disease patients in the community of “Somchai Patana Village” health centre for three times/person.

3. Evaluation. The indicators used for chronic diseased patient were evaluated and it was found that, there is one indicator out of 14 used in the community of Wiharnpracha health station which was not practical, because the definition of the indicator since the appropriate time spend for caring the patients was not given. So the investigator and community research team modified the indicator in such a way that the time spend for providing direct care to the patient and the indicator related to the time spend for providing indirect care to the patient was defined. Finally there had been 15 indicators used in the community of Wiharnpracha health station. Among 22 indicators used in the community of “Somchai Patana Village” health centre, one indicator related to the measurement of the pain of the patient. That indicator could not be used because some patients had been unconscious. So there were only 21 indicators used in this community. Besides that the indicator concerning the time spend for caring patient was modified to be the time spend for providing direct care to the patients.

4. Summary. The investigator, the community research team and the health staffs participated in focus group discussion so that the results of using the indicator in the communities could be summarized. It was found that 15 indicators are suitable and practical for the community of Wiharnpracha health station and 21 indicators for the community of “Somchai Patana Village” health centre. Altogether there are 36 indicators used in the communities.

The Evaluation of the Home Health Care Quality Indicator Development for Chronic Disease Patient by Participatory Action Research (PAR)

After achieving to formulate the indicators which could be used in the communities, the investigator, the community research team and the health staff participated in the evaluation of the home health care quality indicator development for chronic disease patient by participatory action research (PAR). The important points for this part of the study are:-

1. The participation and enthusiasm of the target groups to formulate the indicator. The people and the health staff in the communities participated in the research procedure from the first step to the end of the research project.

2. The suitability of the indicator in terms of importance and its practical use in the community. The people who had not been the original target groups answered questionnaires concerning the home health care indicators. All of the 36 indicators used in the communities had been found suitable and practical with a score of ? 70%. The chronic disease patients, members of the family or relatives had the good perception about the home health care indicators.

3. The motivation to use the indicators by the people in the community and by the health staffs. Home health care was improved after applying the indicators as found out by going through the records of the chronic disease patients who had been cared at home, and after the evaluation of the health service.

4. The ability of the people in the community to modify the indicator in future after the investigator left the area. The indicator should be updated in case new problems emerge; the situation change or additional resources are available. The ability of the people and the health staffs in the communities had been evaluated in order to find out whether they have the knowledge and ability to formulate indicators, and whether they are aware and understanding the importance of the indicators. The community research team did not have the skills to formulate indicators but did understand the procedures of formulating the indicator by participatory action research and were enthusiastic to cooperate with the health staff to formulate the indicator.

6.2. Research Recommendations

The health staffs and the people in the communities under the investigation participated in the formulation of home health care quality indicator for chronic disease patient and proved have the ability to develop the home health care quality indicator for chronic disease patients. The approach of this study is different from what has been done by the American Nurse Association and the Ministry of Public Health in Thailand. The experts and staffs of the American Nurse Association formulated the indicators that are being used internationally: The experts and

professional staff of the Ministry of Public Health set up the national indicator which had to be used throughout the whole country. The indicators used in the area under the responsibility of "Somchai Patana Village" health centre (municipality area) are different from the indicators used in the area under the responsibility of Wiharnpracha health station (area outside the municipality) due to the difference in social structure and economic situations. From the researcher the following recommendations based on this study are given:-

Using the Results of the Study

The result of the study could be applied in formulating the policy of health care indicators, to conduct further scientific research and to use the indicators in a practical way.

A. Policy

1. The management of the Ministry of Public Health should set up the policy about the home health care for chronic diseases according to the need of the people in the particular areas. Health care should be decentralized and more responsibility should be given to the provincial health office. The people should participate in the development of home health care. The policy related to home health care should not follow only one model for all areas of the country but should be applied by using various models which are then adjusted to the particular conditions of a given area. Individual provinces should select home health care quality indicators for chronic disease patient most suitable for the area of a particular province.

2. The management of the Ministry of Public Health should set up a policy more suitable for the role of the health staff, which should provide health services according to the requirement of the people, and under the consideration of the social, the cultural problems in the area. The ability and the experience of the people in the areas should be used to develop a suitable home health care. The health staffs should not be the core element of the health care system. The Ministry of Public Health should support the health care reform in a way that it responds to the real health

problems and the requirement of the people. It should support the people to participate in the formulation of the home health care quality indicator for chronic diseased patients.

3. The management of the provincial health office should define the health care policy for the people within the provincial boundaries and support the people to take over responsibility as well in the formulation of their own home health care quality indicators for chronic disease patient. Since the people and the health staff in the respective areas understand best the culture, beliefs, the social and economic status as well as the health problems of the people in the area, their participation in the development of indicators will result in the formulation of suitable and practical ones.

4. The management of the provincial health office should select the indicators from all areas of the provinces and choose the one which can be used within the majority of the districts. These indicators will be those used on provincial level. The indicators should be formulated by the local people in the rural areas as well as in the municipality and outside the municipality in the suburban areas, in areas with a high density and in industrial areas.

5. The management of the provincial health office should define the health care policy for the health provider and support them to improve the health information system so that always correct and most recent information is available and can be used for the development of the home health care quality indicators for chronic disease patients. The provincial health information system and the health information system of the individual health providers should be informative and based on the home health care quality indicator for chronic disease patients.

B. Scientific

1. The management of the provincial health office should support the instructors who are responsible for the home health care quality indicators for chronic disease patient so that they are able to provide the health staff correct and suitable information about the problems in the area. The following should be provided to the instructors:-

- Participation in meetings concerning the home health care for chronic disease patient and in participatory action research.
- Training courses about the home health care quality indicator for chronic disease patient by participatory action research.
- Field trips to the area where suitable and practical home health care quality indicator for chronic disease patient are in use.

2. The management of the provincial health office and the instructors should support the health staff particularly in remote areas so that it is able to develop the home health care quality indicator for chronic disease patients. The following should be provided to the health staff:-

- Participation in meetings related to home health care for chronic disease patient and participatory action research.
- Training course about the home health care quality indicator for chronic disease patient by participatory action research.
- Field trips to the area where the suitable and practical home health care quality indicator for chronic diseased patient are in use.
- Consultation and instructions about the health records of the chronic disease patients, the development of home health care quality indicators for chronic disease patient, and participatory action research.

3. The management of the provincial health office and the instructors should convince the health staffs to propose the results of using suitable and practical indicators in the areas to the provincial health office. This is one of the means to motivate and encourage the health staffs to improve their performance.

4. The management of the provincial health office and the instructors should support research activities in the field of home health care quality indicator development for chronic disease patient in order to improve the performance of the health staff and the improvement of home health care for chronic disease patients.

5. The instructor should use the home health care quality indicators for chronic disease patient to measure the performance of the health staff in order to activate the health staff and to modify the home health care quality indicator for

chronic disease patient as well as improve the home health care for chronic disease patients.

C. Practical

1. In order to help the health staff in the area to use the home health care quality indicator for chronic disease patient to measure and evaluate the home health care provided to the chronic disease patients, the people in the area should participate in the formulation of home health care quality indicator for chronic disease patient by participatory action research.

2. The health staff should record the condition of the chronic disease patients correctly and in a proper way and in the line of the defined home health care quality indicator for chronic disease patient. The health records and indicators should be updated whenever new problems emerge, and the economic situation and social factors change.

3. The health staff should strengthen their abilities to provide home health care for chronic disease patients by visiting patients in areas where suitable and practical indicators are in use, they should attend the training courses, the scientific meetings, study materials related to home health care for chronic disease patients, and the home health care quality indicator development for chronic disease patients.

4. The health staff in the areas where the suitable and practical indicators are in use should know about the indicators and gain more experiences about them. This will help them to assist staff in areas where such indicators are not yet common.

5. The health personnel should change their concept from the idea that the people have to follow their advice when they want to have a good health and that the health personnel are the main public health leaders into the perception that the people are the participant of the public health system. The people should cooperate with the health personnel to develop the health care system further on. So the people should participate in the home health care quality indicator development for chronic disease patient by participatory action research from the first step throughout the entire research project. The people therefore will develop indicators which suite their real needs and can solve the problems in the area.

Recommendations for Further Studies

1. Further studies should use participatory action research (PAR) to develop the home health care quality indicator for chronic disease patients without a pre-formulated concept or advance prediction.

2**.** The home health care quality indicator development for chronic disease patient by participatory action research should be conducted free of any restrictions so that the people in the community have the freedom to express their ideas and comments about their problems and situation without limitations. The information obtained using this method is more valid and more suitable to discover the real situation and problems. The researcher or other powerful persons should not influence the process.

3. The home health care quality indicator development for chronic disease patient by participatory action research should be used in the area under the responsibility of the provincial hospital, the general hospital, the community hospital, the health station and health centre.

4. The home health care quality indicators for chronic disease patient of the community of Wiharnpracha health station are different from the home health care quality indicators for chronic disease patient of the community of “Somchai Patana Village” health centre, since the basic structure of the society and economic conditions in both communities are not the same. Therefore, the home health care quality indicator development for chronic disease patient by participatory action research should be considered to be used in a variety of different areas such as in communities with a high population density, in rural areas and in industrial areas.

5. The home health care quality indicator development for chronic disease patient by participatory action research used in the municipality area (Somchai Patana Village” health centre) and the area outside the municipality (Wiharnpracha health station) were formulated by using the method of focus group discussions. The groups should be clearly classified and homogeneous in either being a group of patients or a group of caregivers. This will help to get specific information from a particular group.

6. A comparison should be made between indicators developed by using participatory action research and indicators developed by other means.

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APPENDIX

Personal Form of Focus Group Participants

Home Health Care Quality Indicator Development in Chronic Disease

Name……Last Name……Age……years

Sex ☐ Female ☐ Male

Occupation ☐ Farmer/gardener

☐ Government Officer/Business Enterprise

☐ Merchant

☐ Business man

☐ Other (specify)……

Education

☐ No School

☐ Grade 4 or Grade 6

☐ Grade 7-12

☐ Certificate

☐ Bachelor Degree

☐ Higher than Bachelor Degree

Characteristic of Participant

☐ Current chronic patient receiving home health care

☐ Former chronic patient receiving home health care within one year (not receive any home health care at present).

☐ Current care giver for chronic patient.

☐ Former care giver for chronic patient (used to be within one year, but not now).

☐ Local health personnel

Ability to travel to join the group

☐ Be able to come by herself/himself.

☐ Be able to come, but need transportation

☐ Impossible to come

Informed Consent Form

Study on “Home Health Care Quality Indicator Development in Chronic Disease for Health Team by Participatory Action Research.”

Date ..... Month ..... B.E. .....

Before signing the consent form to participate in this study, I have been explained and fully understood about the objective of the study, methodology, danger or symptoms that would occur during the study, including the advantages of the study.

Researcher has promised to answer all questions, that I am curious, truthfully until everything was clear and meet my satisfaction.

I have a right to cancel the participation of this study any time. The participation of this study is voluntary. The cancellation will not effect any treatment that I will receive in the future. The researcher has promised to keep my personal data secretly. They will use it to produce result of the study. The data that will be shared with other organizations will be for the reason of technical reference.

The researcher guarantees that if there is any danger happened to me as a result of this study, I will receive a standard treatment for free. In addition, I will receive income or disabled compensation during the duration that I receive the treatment.

The researcher guarantees that if there is any additional data that has an impact to the study, I will be fully informed immediately.

I have read all the sentences above with clearly understood and signed this consent

Signature.....Participant

Signature.....Witness

Signature.....Witness

In case the participant is illiterate, the consent has to be made under his/her full conscious and indicate that he/she could not read and write, but the researcher has read all sentences in the consent form to him/her until fully understood and print his/her thumb on the consent form willingly.

Signature.....Participant
(or print his/her thumb)
Signature.....Witness
Signature.....Witness

In case the participant is under 20 years old, he/she must be allowed to participate in the study by a legal parent/guardian.

Signature.....legal parent/guardian
Signature.....Witness
Signature.....Witness

In case the participant could not make decision (for example, he/she is in unconscious condition), the legal care taker or a parent or a closed relative will sign the consent for him/her.

Signature.....Legal care taker/parent/relative
Signature.....Witness
Signature.....Witness

NO. 208/2003

Documentary Proof of Ethical Clearance
The Committee on Human Rights Related to Human Experimentation
Mahidol University, Bangkok

.....

Title of Project: Home Health Care Quality Indicator Development in Chronic Disease for Health Team by Paticipatory Action Research

Principle Investigator: Mrs. Orawan Katekaew

Name of Institution: Faculty of Social Sciences and Humanities

Approved by the Committee on Human Rights Related to Human Experimentation

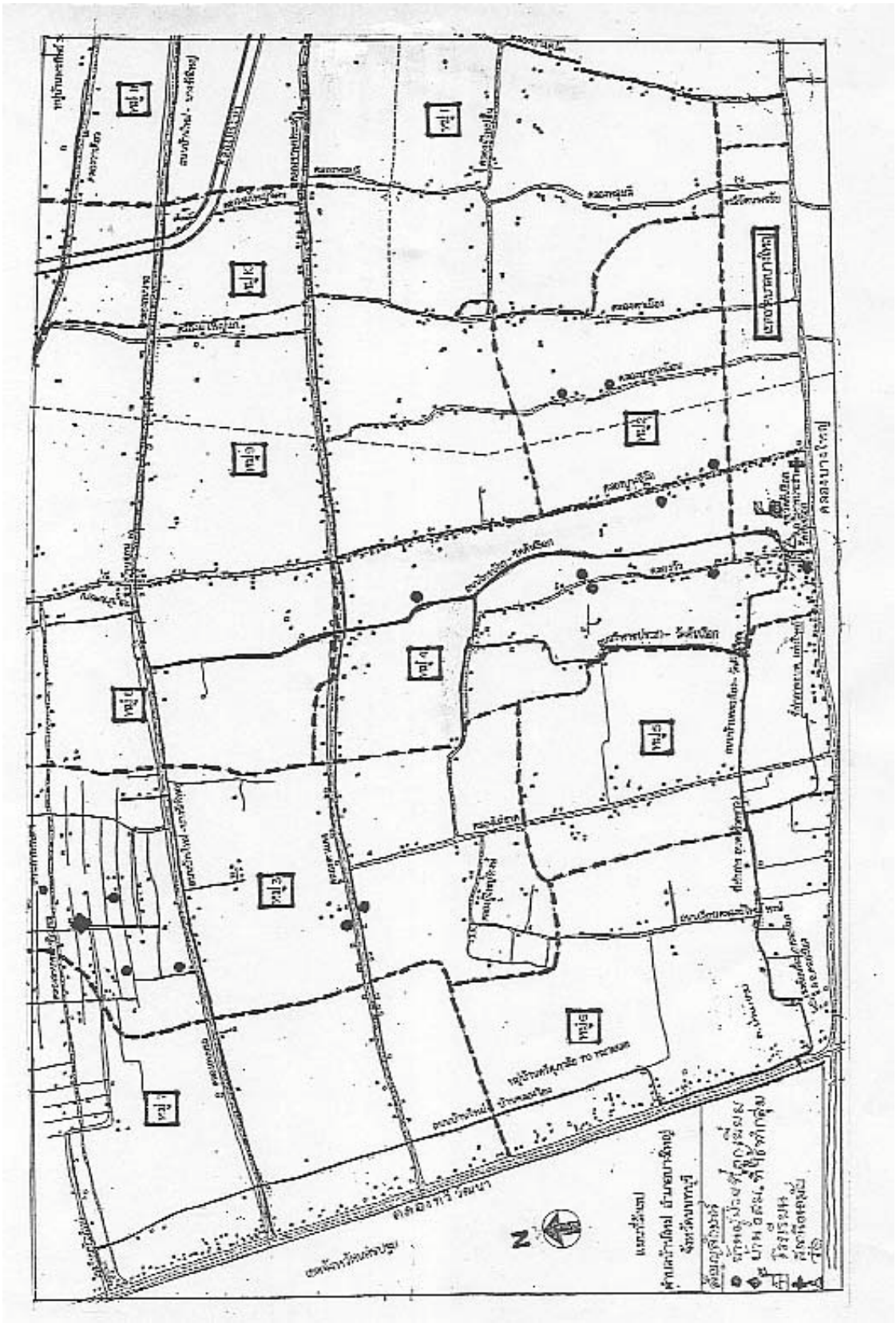
Signature of Chairman: _____

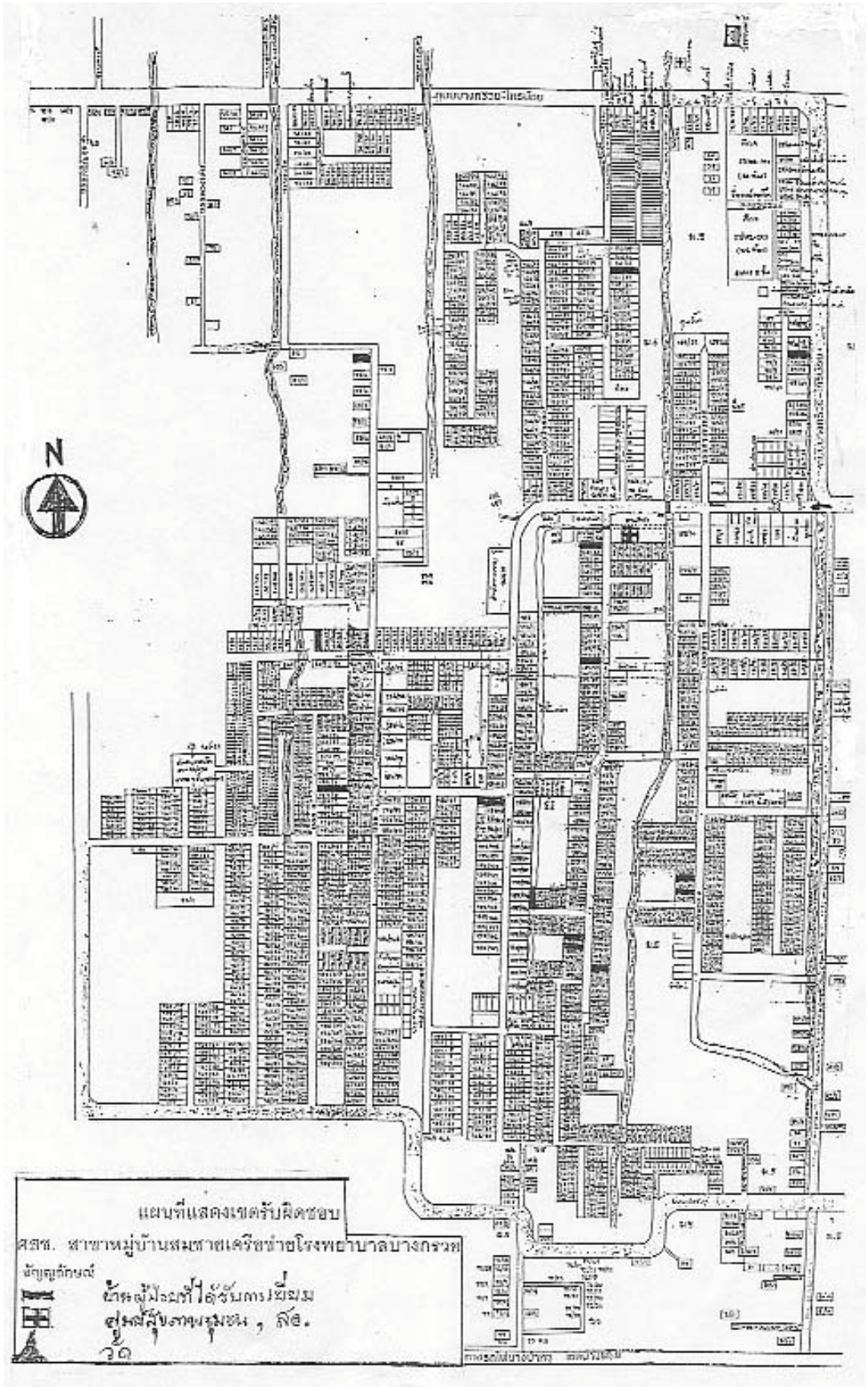
(Professor Dr. Srisin Khusmith)

Signature of Head of Institute: _____

(Professor Dr. Pornchai Matangkasombut)

Date of Approval: 30 DEC 2003

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สัญญลักษณ์
ร้านญี่ปุ่นที่ได้รับการปรับปรุง
ศูนย์ปฏิบัติการชุมชน , สช.
วัด

The patients with Chronic Diseases Received Home Health Care from the Health Team

1. An area under the responsible of Wiharnpracha health center (16 Persons)

1.1 Paralysis with hyertension 5 persons

1.2 Paralysis with diabetes 3 persons

1.3 Paralysis with diabetes and hypertension 2 persons

1.4 Gout 1 person

1.5 Diabetes with pressure sore 1 person

1.6 Heart 2 persons

1.7 Cancer of liver 2 persons

2. An area under the responsible of Somchai Patana Village community health center (14 Persons)

2.1 Paralysis with hypertension and diabetes 9 persons

2.2 Paralysis with hypertension 1 person

2.3 Diabetes with pressure sore 1 person

2.4 Gout 1 person

2.5 Heart 1 person

2.6 Paralysis with chronic pressure sore 1 person

These patients could not go to health center by themselves and needed home health care from the health team.

Home Health Care Quality Indicator Assessment Form in Chronic Disease (Wiharnpracha Health Center)

Explanation

This assessment form is used to check the degree of importance (help to solve local problems) and practical possibility (measurability) of the 14 Home Health Care Quality in Chronic Disease Indicators. Wiharnpracha health center will use these indicators to evaluate the quality of home health care after a health team provides home health care to the patient with chronic disease and family. These indicators will measure the quality of home health care in terms of numbers. The numbers will be used to compare monthly output of the health center and to further develop home health care service in chronic disease in the future.

Would you please check these indicators how they are appropriate to your area by marking (✓) in the columns of the important of the indicators and the practical possibility according to your opinion (one opinion per one item) as the following example.

Rank	Lists of home health care quality indicators in chronic diseases	Important of indicator			Possibility to practice		
		High 3	Mode -rate 2	Little 1	High 3	Mode -rate 2	Little 1
1.	Rate of better performing activity of daily living and self health care in patients with chronic diseases.	✓				✓	
2.	Prevalence of pressure sore in patient with chronic disease.	✓			✓		

Rank	Lists of home health care quality indicators in chronic diseases	Important of indicator			Possibility to practice			Suggestion for each indicator
		High 3	Mode -rate 2	Little 1	High 3	Mode -rate 2	Little 1	
1.	**Category 1 : Patient Indicator** Rate of better performing on activity of daily living and self health care in patient with chronic disease.							
2.	Rate of better performance on social relation in patients with chronic diseases.							
3.	Prevalence rate of pressure sore in patients with chronic diseases.							
4.	Rate of improvement of pressure sore in patients with chronic diseases.							
5.	Rate of home accident in patients with chronic diseases.							
6.	Rate of readmission in hospital with the same disease within one month without any planning.							
7.	Rate of recurrent of disease and/or complication.							

Rank	Lists of home health care quality indicators in chronic diseases	Important of indicator			Possibility to practice			Suggestion for each indicator
		High 3	Mode-rate 2	Little 1	High 3	Mode-rate 2	Little 1	
8.	Rate of improvement of body and extremity movement in patients with chronic diseases who had problem on physical movement.							
	Category 2: Caregiver Indicators							
9.	Means of duration that caregivers take care of patients with chronic diseases at home (hour/case/day)							
10.	Rate of family that rearranged and improved environment in family for patient with chronic disease.							
	Category 3: Indicators for achievement assessment of the health team							
11.	Means of home health visit in patients with chronic diseases by the health team (visit/case/month).							

Rank	Lists of home health care quality indicators in chronic diseases	Important of indicator			Possibility to practice			Suggestion for each indicator
		High 3	Mode-rate 2	Little 1	High 3	Mode-rate 2	Little 1	
12.	Means of duration that patients with chronic diseases received home health care from the health team (Min/visit/case).							
13.	Rate of coverage of home care follow-up according to the appointment by the health team.							
	Category 4: Patient Indicators and Caregiver Indicators							
14.	Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team							

Home Health Care Quality Indicator Assessment Form in Chronic Disease (Somchai Patana Village Community Health Center)

Explanation

This assessment form is used to check the degree of importance (help to solve local problems) and practical possibility (measurability) of the 22 Home Health Care Quality in Chronic Disease Indicators. Somchai Patana Village community health center will use these indicators to evaluate the quality of home health care after a health team provide home health care to the patient with chronic disease and family. These indicators will measure the quality of home health care in terms of numbers. The numbers will be used to compare monthly output of the health center and to further develop home health care service in chronic disease in the future.

Would you please check these indicators how they are appropriate to your area by marking (✓) in the columns of the important of the indicators and the practical possibility according to your opinion (one opinion per one item) as the following example.

Rank	Lists of home health care quality indicators in chronic diseases	Important of indicator			Possibility to practice		
		High 3	Mode -rate 2	Little 1	High 3	Mode -rate 2	Little 1
1.	Rate of better performing activity of daily living in patients with chronic diseases.	✓				✓	
2.	Prevalence of pressure sore in patients with chronic diseases.	✓			✓		

Rank	Lists of home health care quality indicators in chronic diseases	Important of indicator			Possibility to practice			Suggestion for each indicator
		High 3	Mode-rate 2	Little 1	High 3	Mode-rate 2	Little 1	
3.	Means of duration that patients with chronic diseases received home health care from the health team.		✓		✓			
	Category 1: Patient indicators							
1.	Rate of better performing on activity of daily living in patients with chronic diseases.							
2.	Rate of improvement of abilities on self control and self health care in patients with chronic diseases.							
3.	Rate of better performing on social relation in patients with chronic diseases.							
4.	Prevalence rate of pressure sore in patients with chronic diseases.							
5.	Rate of improvement of pressure sore in patients with chronic diseases.							
6.	Rate of home accident in patients with chronic diseases.							

Rank	Lists of home health care quality indicators in chronic diseases	Important of indicator			Possibility to practice			Suggestion for each indicator
		High 3	Mode-rate 2	Little 1	High 3	Mode-rate 2	Little 1	
7.	Rate of readmission in hospital with the same disease within one month without any planning.							
8.	Rate of recurrent of disease in patients with chronic diseases.							
9.	Prevalence rate of complications in patients with chronic diseases.							
10.	A decrease rate of pain or any uncomfortable in patients with chronic diseases.							
11.	Rates of bad odor and dirty body in patients with chronic diseases.							
12.	Prevalence rate of refraining from smoking in patients with chronic diseases who were former smokers.							
13.	Rate of normal blood pressure in patients with high blood pressure.							
14.	Rate of normal blood sugar in patients with Diabetes Mellitus.							

Rank	Lists of home health care quality indicators in chronic diseases	Important of indicator			Possibility to practice			Suggestion for each indicator
		High 3	Mode -rate 2	Little 1	High 3	Mode -rate 2	Little 1	
	Category 2: Caregiver Indicators							
15.	Rate of correctly care on activity of daily living to patients with chronic diseases by caregivers.							
16.	Rate of encouragement, promote, and support the patients to perform self health care correctly by caregivers.							
17.	Means of duration that caregivers used to take care of patients with chronic diseases. (hours/case/day).							
18.	Rate of family that has rearranged and improved environment for patient with chronic disease.							
	Category 3: Indicator on the performance outcome of health team.							
19.	Means of home health care that the health team provided for each patient (time/case/month).							

Rank	Lists of home health care quality indicators in chronic diseases	Important of indicator			Possibility to practice			Suggestion for each indicator
		High 3	Mode -rate 2	Little 1	High 3	Mode -rate 2	Little 1	
20.	Means of duration that patients with chronic diseases received home health care from the health team (minutes/time/case)							
21.	Rate of the coverage of home health care that patients received according to the appointment by the health team							
	Category 4: Patient and Caregiver Indicators							
22.	Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team							

Individual Database on Home Health Care in Patient with Chronic Disease (Wiharnpracha Health Center)

Patient's First Name…….……Last Name……

Age……Years, Diagnosis…….…….

Address…….

……...

Telephone…….

Rank	Indicators	Unit of measure	Month											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Category 1: Patient indicators													
1.	Patient can perform activity of daily livings, can control himself/herself, and can perform a better self-health- care	Yes/No												
2.	Patient has a better performing on social relations.	Yes/No												
3.	Patient has pressure sore.	Yes/No												
4.	Patient has an improvement of wound healing (especially for that who previously had wound).	Yes/No												
5.	Number of time that patient had accident in his/her house.	Time/ month												
6.	Number of readmission in hospital with the same symptoms or same disease within one month without any planning.	Time/ month												
7.	Patient had recurrence of disease and/or complications.	Yes/No												

Rank	Indicators	Unit of measure	Month											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
8.	Patient had better movement of body and extremities (especially that who had problem on physical movement).	Yes/No												
	Category 2: Caregiver Indicators													
9.	Means of duration that caregiver provided direct care to patient per day.	Hour/ day												
10.	Means of duration that caregiver provided indirect care to patient per day.	Hour/ day												
11.	Caregiver has managed and improved family environment for patient.	Yes/No												
	Category 3: Indicator on the performance outcome of health team.													
12.	Number of visits per month that the patient received home care follow-up from the health team.	visit/ month												
13.	Time of home care follow-up that the health team provided to each case per one visit.	Minute/visit												
14.	Health team provided home care follow-up according to the appointment schedule.	Yes/No												

Individual Database on Home Health Care in Patient with Chronic Disease (Somchai Patana Village Community Health Center)

Patient's First Name…….……Last Name……

Age……Years, Diagnosis…….……..

Address……

……...

Telephone……

Rank	Indicators	Unit of measure	Month											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Category 1 : Patient Indicators													
1.	Patient has an improvement on performing activity of daily livings.	Yes/No												
2.	Patient has ability to do self control and self health care.	Yes/No												
3.	Patient has a better level of social relations.	Yes/No												
4.	Patient has pressure sore.	Yes/No												
5.	Patient has an improvement of wound healing (especially for that who previously had wound).	Yes/No												
6.	Number of time that patient had accident in his/her house.	Time/ month												
7.	Number of readmission in hospital with the same symptoms or same disease within one month without any planning.	Time/ month												

Rank	Indicators	Unit of measure	Month											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
8.	Patient has recurrence of disease.	Yes/No												
9.	Patient has complications.	Yes/No												
10.	Patient has bad odor and dirty body.	Yes/No												
11.	Patient refrains from smoking (especially patient who is a former smoker).	Yes/No												
12.	Patient with hypertension has normal blood pressure.	Yes/No												
13.	Patient with Diabetes Mellitus has normal blood sugar.	Yes/No												
	Category 2: Caregiver Indicators													
14.	Caregiver takes care of patient on activity of daily living properly and correctly.	Yes/No												
15.	Caregiver encourages, promotes, and supports patient to perform self health care.	Yes/No												
16.	Means of duration that caregiver take care of patient per day.	Hour/ day												
17.	Caregiver has managed and improved the environment in family for patient.	Yes/No												
	Category 3: Indicator on the performance outcome of health team													
18.	Number of visits per month that the patient received home care follow-up from the health team.	Visit/ month												

Rank	Indicators	Unit of measure	Month											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
19.	Time of home care follow-up that the health team provided to each case per one visit.	Minute/visit												
20.	Health team provided home care follow-up according to the appointment schedule.	Yes/No												

Monthly Summary Form of Database and Result of Home Health Care Quality Measurement in Chronic Disease, Month……
(Wiharnpracha Health Center)

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
	Category 1: Patient Indicators				
1.	**Rate of improvement on doing activity of daily living and self health care of patients with chronic disease** Total patients with chronic diseases who have better performance on doing activity of daily living and self health care ——————————— ×100 Total patients with chronic diseases who are the target group of home health care program	……..	……..	….percent	50 percent
2.	**Rate of better performance on social relation in patients with chronic diseases** Number of patients with chronic diseases who have better performance on social relations ——————————— ×100 Total patients with chronic diseases who are the target group of home health care program	……	……..	….. percent	50 percent

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
3.	**Prevalence rate of pressure sore in patients with chronic diseases** Total number of patients with chronic diseases who have pressure sore ——————————— ×100 Total number of patients with chronic diseases who are at risk of pressure sore	……	……	….....percent	0 percent
4.	**Rate of wound healing in patients with chronic diseases** Total number of patients with chronic diseases who have improvement of wound healing ——————————— ×100 Total number of patients with chronic diseases who had wound	……..	……..	…...percent	100 percent
5.	**Rate of accident at home in patients with chronic diseases** Total number of patients with Chronic diseases who had home accident ——————————— ×100 Total number of patients with chronic diseases who are at risk of home accident	……..	……..	….. percent	0 percent

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
6.	**Rate of readmission in hospital with the same symptom or same disease within one month without any planning** Total number of patients with chronic diseases who were readmitted in hospital with the same symptom or the same disease within one month without any planning ——————————— ×100 Total number of patients with chronic diseases who were discharged from hospital in previous month	……..	……..	….. percent	0 percent
7.	**Rate of recurrent of disease and/or complication in patients with chronic diseases** Total number of patients with chronic diseases who have recurrented of diseases and/or complications ——————————— ×100 Total number of patient with chronic diseases who are the target group of home health care program.	……..	……..	….. percent	0 percent

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
	Category 2: Caregiver Indicators				
8.	**Rate of improvement of body and extremity movement in patients with chronic diseases who had problem on physical movement.** Total number of patients with chronic diseases who have improvement of body and extremity movement ——————————— ×100 Total number of patients with chronic diseases who have physical movement problems	……..	……..	….. percent	50 percent
9.	**Means of duration that caregiver provided direct care to each patient per day** Sum of means of hours that caregiver provide direct care to each patient —————————— Total number of patients with chronic diseases who are the a target group of home health care	……..	……..	..hours/day	4 hours/ day
10.	**Means of duration that caregiver provided indirect care to each patient per day** Sum of means of hours that caregiver provide indirect care to each patient —————————— Total number of patients with chronic diseases who are the target group of home health care	……..	……..	..hours/day	12 hours/ day

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
11.	**Rate of family that managed and improved environment for patients with chronic diseases** Total families that rearranged and improved environment for the patients ——————————— ×100 Total families who are the target group of home health care program	……..	……..	…...percent	100 percent
	Category 3: Indicator on the performance outcome of health team				
12.	**Means of visits per month that patients with chronic diseases received home care from the health team** Total number of visits that each patient received home care from the health team ——————————— Total number of patients with chronic diseases who are the target group of home health care	……..	……..	…….visit/ month	1 visit/ month
13.	**Means of hours per visit that each patient with chronic diseases received home care from the health team** Sum of minutes that the health team provided home care for each patient ——————————— Total number of patients with chronic disease that received home care from the health team	……..	……..	…..minutes/ visit	30 minutes/ visit

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
14.	**Rate of coverage of home health care follow-up according to appointment by the health team** Total number of patients with chronic diseases that received home health care follow-up according to appointment by the health team ——————————— ×100 Total number of patients with chronic diseases that are the target group of home health care program	……..	……..	…....percent	100 percent
15.	**Category 4: Patient and Caregiver Indicator** **Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team** Number of sampling patients or care givers who had the combined scores of services provided by the health team at the level of satisfaction ——————————— ×100 Total number of patients with chronic disease or caregivers who were sample of the study	……..	……..	…...percent	80 percent

Monthly Summary Form of Database and Result of Home Health Care Quality Measurement in Chronic Disease, Month……
(Somchai Patana Village Community Health Center)

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
	Category 1: Patient Indicators				
1.	**Rate of better performance on activity of daily living of patients** Number of patients with chronic diseases who have better performance of activity of daily living ——————————— ×100 Total number of patients with chronic diseases that are the target group of home health care program	……..	……..	….....percent	50 percent
2.	**Rate of improvement of abilities on self control and self health care in patients with chronic disease** Total number of patients with chronic diseases who are able to improve self-control and do self health care ——————————— ×100 Total number of patients with chronic diseases that are the target group of home health care program	……	……..	…...percent	50 percent

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
3.	**Rate of improvement of social relation in patients with chronic diseases** Total number of patients with chronic diseases who have improvement of social relations ——————————— ×100 Total number of patients with chronic diseases that are the target group of home health care program	……	……	….percent	60 percent
4.	**Prevalence rate of pressure sore in patients with chronic diseases** Total number of patients with chronic diseases who have pressure sore ——————————— ×100 Total number of patients with chronic diseases who are at risk of pressure sore	……..	……..	..... percent	0 percent
5.	**Rate of wound healing in patients with chronic diseases** Total number of patients with chronic diseases who have wound healing ——————————— ×100 Total number of patients with chronic diseases who have wound	……..	……..	…...percent	100 percent
6.	**Rate of home accident in patients with chronic diseases** Total number of patients with chronic diseases who get home accident ——————————— ×100 Total number of patients with chronic diseases who are at risk of home accident	……..	……..	…...percent	0 percent

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
7.	**Rate of readmission in hospital with the same symptom or same disease within one month without any planning** Total number of patients with chronic diseases who are readmitted in hospital with the same symptom or the same disease within one month without any planning ——————————— ×100 Total number of patients with chronic diseases who were discharged **from hospital in previous month**	……..	……..	…...percent	0 percent
8.	**Rate of recurrent of disease in patients with chronic diseases** Total number of patients with chronic diseases who experience recurrent of diseases ——————————— ×100 Total number of patients with chronic diseases who are the target group of home health care program.	……..	……..	…...percent	0 percent
9.	**Prevalence rate of complications in patients with chronic diseases who had complications** Total number of patients with chronic diseases who have complications ——————————— ×100 Total number of patients with chronic diseases who are the target group of home health care program.	……..	……..	…...percent	0 percent

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
10.	**Rates of bad odor and dirty body in patients with chronic diseases.** Total number of patients with chronic diseases who have bad odor and dirty body ——————————— ×100 Total number of patients with chronic diseases who are the target group of home health care program	……..	……..	….. percent	0 percent
11.	**Prevalence rate of refraining from smoking in patients with chronic diseases who are former smokers.** Total number of patients with chronic diseases who refrain from smoking ——————————— ×100 Total number of patients with chronic diseases who are former smokers	……..	……..	…...percent	100 percent
12.	**Rate of normal blood pressure in patients with high blood pressure** Total number of patients with hypertension who have normal blood pressure ——————————— ×100 Total number of patients with hypertension who are the target group of home health care program	……..	……..	….. percent	80 percent

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
13.	**Rate of normal blood sugar in patients with Diabetes Mellitus** Total number of patients with diabetes who have normal blood sugar ——————————— ×100 Total number of patients with DiabetesMellitus who are the target group of home health care program	……..	……	….. percent	80 percent
14.	**Category 2 : Caregiver Indicators** **Rate of proper care on activity of daily living to patients with chronic diseases by caregivers.** Total number of caregivers who correctly take care of patients on the activity of daily living ——————————— ×100 Total number of caregivers who take care of patients who are the target group of the home health care in the responsible area within one month	……..	……..	….. percent	100 percent
15.	**Rate of encouragement, promote, and support the patients to perform self health care correctly by caregivers** Total number of caregivers who encourage, promote, and support the patients to perform self health care correctly ——————————— ×100 Total number of caregivers who take care of patients who are the target group of home health care in the responsible area within one month	……..	……..	….. percent	100 percent

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
16.	**Means of duration that caregivers used to provide direct care of each patient with chronic disease per day** Sum of means of hours per day that caregivers used to provide direct care to each patient ——————————— Total number of patients with chronic diseases who are the target group of home health care program	……..	……..	……hours/ day	4 hours/ day
17.	**Rate of family that has rearranged and improved environment for patient with chronic disease** Total families that has rearranged and improved environment for patients with chronic diseases ——————————— ×100 Total families that are the target group of home health care program	……..	……..	…...percent	100 percent
	Category 3: Indicator on the performance outcome of health team				
18.	**Means of visits per month that patients with chronic diseases receive home health care from the health team** Sum of visits that each patient receive home health care from the health team ——————————— Total number of patients with chronic diseases who are the target group of home health care program	……..	……..	….....visit/ month	1 visit/ month

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
19.	**Means of visiting time that each patient with chronic disease receive home health care from the health team per visit** Sum of minutes per visit that health team provide home health care follow-up for each patient with chronic disease ——————————— Total number of patients with chronic diseases who receive home visits from the health team	……..	……..	….... Minutes/ visit/case	30 Minutes/ visit/case
20.	**Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team** Total patients with chronic disease who receive home health care from the health team according to the appointment ——————————— ×100 Total number of patients with chronic diseases who are the target group of home health care program	……..	……..	…...percent	100 percent

Rank	Category and List of Indicators	Numbers		Rate of Occurrence or Means	Criteria
		Nomi-nator	Deno mina-tor		
	Category 4: Patient and Caregiver Indicators				
21	**Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team** Number of sampling patients or care givers who had the combined scores of services provided by the health team at the level of satisfaction ——————————— ×100 Total number of patients with chronic diseases or caregivers who were sampling to answer the questionnaires	……..	……..	….....percent	80 percent

Annual Summary Form of Home Health Care Quality Measurement in Chronic Disease, Year…….

(Wiharnpracha Health Center)

Rank	Indicators	Unit of measure	Month											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Category 1: Patient Indicators													
1.	Rate of better performance of patients on doing activity of daily living and self health care	50 percent												
2.	Rate of improvement of social relation in patients with chronic diseases	50 percent												
3.	Prevalence rate of pressure sore in patients with chronic diseases	0 percent												
4.	Rate of improvement of wound in patients with chronic diseases	100 percent												
5.	Rate of accident at home in patients with chronic diseases	0 percent												
6.	Rate of readmission with the same symptom or same disease within one month without any planning	0 percent												
7.	Rate of recurrent of disease and/or complications in patients with chronic diseases	0 percent												
8.	Rate of improvement of body and extremity movement in patients with chronic diseases who had problem on physical movement	50 percent												

Rank	Indicators	Unit of measure	Month											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Category 2: Caregiver Indicators													
9.	Means of duration that caregivers used to provide direct care of each patient with chronic disease per day	4 hours/ day												
10.	Means of duration that caregivers used to provide indirect care of each patient with chronic disease per day	12 hours/ day												
11.	Rate of family that has rearranged and improved environment for patient with chronic disease	100 percent												
	Category 3: Indicator on the performance outcome of health team													
12.	Means of visits per month that patients with chronic diseases received home care from the health team	1 visit/ month												
13.	Means of visiting time that each patient with chronic disease received home health care from the health team per visit	30 minutes/visit												
14.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team	100 percent												

Rank	Indicators	Unit of measure	Month											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Category 4: Patient and Caregiver Indicators													
15.	Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team	80 percent												

Annual Summary Form of Home Health Care Quality Measurement in Chronic Disease, Year…….

(Somchai Patana Village Community Health Center)

Rank	Indicators	Unit of measure	Month											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Category 1: Patient Indicators													
1.	Rate of improvement of performance of patients on doing activity of daily living.	50 percent												
2.	Rate of ability on self control and self health care of patients with chronic diseases	50 percent												
3.	Rate of improvement of social relation in patients with chronic diseases	60 percent												
4.	Prevalence rate of pressure sore in patients with chronic diseases	0 percent												
5.	Rate of wound healing in patients with chronic diseases	100 percent												
6.	Rate of home accident in patients with chronic diseases	0 percent												
7.	Rate of readmission with the same symptom or same disease within one month without any planning	0 percent												
8.	Rate of recurrent of disease and/or complication in patients with chronic diseases	0 percent												
9.	Prevalence rate of complications in patients with chronic diseases	0 percent												
10.	Rate of bad odor and dirty body of patients with chronic diseases	0 percent												

Rank	Indicators	Unit of measure	Month											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
11.	Rate of refraining from smoking in patients with chronic diseases who are former smokers	100 percent												
12.	Rate of normal blood pressure in patients with high blood pressure	80 percent												
13.	Rate of normal blood sugar in patients with Diabetes Mellitus	80 percent												
	Category 2: Caregiver Indicators													
14.	Rate of proper and correctly care on activity of daily living to patients with chronic diseases by caregivers.	100 percent												
15.	Rate of encouragement, promote, and support the patients to perform self health care correctly by caregivers	100 percent												
16.	Means of duration that caregiver used to provide direct care of each patient with chronic disease per day	4 hours/ Day												
17.	Rate of family that has rearranged and improved environment for patient with chronic disease	100 percent												
	Category 3: Indicator on the performance outcome of health team													
18.	Means of visits per month that patients with chronic diseases received home care from the health team	1 visit/ month												

Rank	Indicators	Unit of measure	Month											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
19.	Means of visiting time that each patient with chronic disease receives home health care from the health team per visit	30 minutes/visit												
20.	Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team	100 percent												
	Category 4: Patient and Caregiver Indicators													
21.	Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team	80 percent												

Home Health Care Quality Indicators in Chronic Diseases (Wiharnpracha Health Center)

Category 1: Patient Indicators

Indicator 1: Rate of improvement on doing activity of daily living and self health care of patients with chronic diseases

Formula:

$$\frac{\text{Total patients with chronic diseases who had improvement of performance on doing activity of daily living and self health care within one month}}{\text{Total patients with chronic diseases who are the target group of home health hare within one month}} \times 100$$

Practical Definition: Patients with chronic diseases who had better performance on doing activity of daily living are defied as patients with chronic diseases that are the target group of home health care by the health team in the responsible area.They perform various activities, such as, personal health care, eating, sleeping, toileting, activities of daily living, occupational work, performing self care, complication prevention, and observe abnormal symptoms according to the health care plan. They also have to solve basic health problems, do physical exercise on the degenerate part of the body, do health promotion, and self emotional control.

Type of Indicator: Ultimate Outcome

Data Source: Patient family history file , patient and caregivers interviews , and observation.

Support Data: Improvement of the patients can observe from the following criterion:

"Patients have an improvement on self-care, such as tooth brushing, eating, and walking."

"Patients have an improvement on self-managing according to medical advice, such as taking medication on time, muscle exercise and training."

"Patients start to do some work as usual, such as doing occupational work, and writing."

Criteria: 50 percent

Indicator 2: Rate of improvement of social relation in patients with chronic diseases

Formula:

$$\frac{\text{Total number of patients with chronic diseases who have improvement of social relations within one month}}{\text{Total number of patients with chronic diseases that are the target group of home health hare within one month}} \times 100$$

Practical Definition: Patients with chronic diseases who have improvement of social relations are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and have an improvement of social relations or social interaction. Those relations are communication with all persons who are family members or non-family members, an increase of smiling and good emotion, the improvement of role performance and adjusting to social and environment.

Type of Indicator: Ultimate Outcome

Data Source: Patient family history file, patients and caregivers interviews, and observation.

Support Data: "Patient has an improvement of emotion and an increasing of conversation."

"Patient has an improvement of physical appearance and smiling."

"Patient who has never spoken to anyone starts to speak with somebody."

Criteria: 50 percent

Indicator 3: Prevalence rate of pressure sore in patients with chronic diseases

Formula:

$$\frac{\text{Number of patients with chronic diseases who have pressure sore within one month}}{\text{Total patients with chronic diseases who are at risk of pressure sore within one month}} \times 100$$

Practical Definition:

Nominator: Patients with chronic diseases who have pressure sore are defied as patients with chronic diseases who are the target group of the home health care by the health team in the responsible area and have pressure sore. The pressure sore may be presented as red or dark red color at that area, unhealing wound , or deep wound reaching muscle, tendon, periostium, or bone.

Denominator: Patients with chronic diseases who are at risk of pressure sore are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area. The patients could not help themselves, could not turn themselves in bed, or could do very little, or stay in bed for a long time. In addition, the patients may have numbness on the upper and lower limbs that need health care from other persons.

Type of Indicator: Ultimate Outcome

Data Source: Patient family history file, patients and caregivers interviews, and observation

Support Data: "Patient who receives good care should not have pressure sore while staying in bed for a long period of time."

"Patient who has pressure sore means he/she didn't move or care-givers didn't frequently turn the patient."

Criteria: 0 percent

Indicator 4: Rate of improvement of wound healing in patients with chronic diseases

Formula:

$$\frac{\text{Number of patients with chronic diseases who had wound healing within one month}}{\text{Total numbers of patients with chronic diseases who had wound within one month}} \times 100$$

Practical Definition

Nominator: Patients with chronic diseases who have wound healing are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and have an improvement of any wound healing. Those wounds are operating wound, infectious wound, non-infectious wound, pressure sore, or others. The improvement of wound healing would has characteristic of red color, less odor, less debris, less inflammation or stable, less swelling, and has a smaller hole/size.

Denominator: Total patients with chronic diseases who had wound are defied as patients with chronic diseases who are the target group of home health care by the health team in a responsible area and had any kind of wound within one month. The wound includes operating wound, infectious wound, non-infectious wound, pressure sore, accidental wound, or others.

Type of Indicator: Ultimate Outcome

Data Source: Patient family history file, patients and caregivers interviews, and observation

Support Data: "Patient who has wound having the progress of wound healing, which shows a sign of shallow of the wound and less odor."

"The size of the wound is smaller and no debris."

"Patient with swelling wound and pain has less wound swelling and pain."

Criteria 100 percent

Indicator 5: Rate of home accident in patients with chronic diseases

Formula

$$\frac{\text{Numbers of patients with chronic diseases who experience home accident within one month}}{\text{Total numbers of patients with chronic diseases who are at risk of home accident within one month}} \times 100$$

Practical Definition

Nominator: Patients with chronic diseases who experience home accident are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and experience home accident. The accident includes falling in bathroom, falling while walking, falling from bed, burning from fire or hot water, being cut by sharp utensil, being hurt by hazardous chemical agent, being charged by electricity, obstruction of food in trachea, and other kinds of home accident.

Denominator: Patients with chronic diseases who stay at home and are at risk of home accident are defied as patients with chronic diseases who are targets of home health care by the health team in the responsible area and are a risk of home accident while they are receiving home care. The patients include those who paralyze, have blur vision, no sensation at the body and extremities, semiconscious, unconscious, unable to help themselves or able to help themselves a little, have convulsion, severe headache, and other symptoms that are risks of home accident.

Type of indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation

Support Data: "If the patient receives a good care from caregiver, home accident, such as fallings, fish bone obstruction, and accident in the bathroom, should not occur."

"Patient with chronic disease had home accident because caregiver did not managed environment, such as left something obstructs the walk way, let the patient take care of himself/herself without supervision."

Criteria 0 percent

Indicator 6: Rate of readmission in hospital with the same symptoms or same disease within one month without any planning.

Formula:

$$\frac{\text{Numbers of patients with chronic diseases who are readmitted in hospital with the same symptoms or same disease within one month without any planning after were discharged from hospital in previous month}}{\text{Numbers of patients with chronic diseases who were discharged from hospital and stay at home in previous month.}} \times 100$$

Practical Definition

Nominator: Patients with chronic diseases who are readmitted in hospital with the same diseases within one month without any planning after were discharged from hospital in previous month are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and have abnormal or recurrent of symptoms that needed readmission in hospitals or community health centers after being discharged from hospital within one month without any plans or appointments.

Denominator: Total patients with chronic diseases who were discharged from hospital and stay at home in previous month are defied as total patients with chronic diseases who are the target group of home health care by the health

team in the responsible area and were discharged from hospital to be cared at home in previous month.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation

Support Data: "Patient who was discharged from hospital for continuing home care and had recurrent of symptom before the next appointment may be as a result of bad caring or wrong practice."

"If the patient receive good care from the health personnel and care-giver, there will not be recurrent of disease and they will not be readmitted in hospital or health center."

Criteria: 0 percent

Indicator 7: Rate of recurrent of disease and/or having complications in patients with chronic diseases

Formula:

$$\frac{\text{Numbers of patients with chronic diseases who have recurrent of diseases and/or complications within one month}}{\text{Total numbers of patients with diseases who are the target of home health care in the responsible area within one month}} \times 100$$

Practical Definition: Patients with chronic diseases who have recurrent of diseases and/or complications are defied as patients with chronic diseases who are the target group of home health care by the health team the responsible area and have more symptoms of the current disease or complications. For example, a patient with respiratory disease has symptoms of apnea, more frequent cough and tired. Patient with high blood pressure has more headache, an increase of blood pressure, more edema, and less urination. Patient with diabetes has

an increase of blood sugar, no sensation at the end of fingers and toes, and blur vision. Patients with these symptoms may be admitted to hospitals or not admitted to the hospital for treatment.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation

Support data: **"**Patient who receives good care will not have recurrent of disease**."** "Patient who has an improvement of disease or symptom would not have any complication or new disease."

Criteria: 0 percent

Indicator 8: Rate of improvement of body and extremity movement in patients with chronic diseases who had problem on physical movement.

Formula

$$\frac{\text{Numbers of patients with chronic diseases who had improvement of body and extremity movement within one month}}{\text{Total number of patients with chronic diseases who had problems on physical movement within one month}} \times 100$$

Practical Definition

Nominator: Patients who had improvement of body and extremity movements are defied as patients with chronic diseases who were the target group of home health care by the health team in the responsible area and had improvement of body and/or extremity movement.

Denominator: Patients with chronic diseases who had problems on physical movement are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and had problems on body movement (one part of the body or every part of the body), including those who are hemiplegia, paraplegia, paralyze, stiff joint,

unconscious, unable to help themselves or able to help themselves a little, numbness on some parts of the body.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation.

Support data:"Patient who were paralyze starts to moves arm and legs."

"Patient, who has never walked, starts to walk."

"Patient starts to move his/her arms and can feed himself/herself more than usual."

Criteria: 50 percent

Category 2: Caregiver Indicators

Indicator 9: Means of duration that caregiver provided direct care to each patient per day

Formula:

$$\frac{\text{Sum of means of hours per day that caregiver provided direct care to each patient within one month}}{\text{Total numbers of patients with chronic diseases who are the target group of home health care in the responsible area within one month}}$$

Practical Definition: Means of hours per day that caregiver provides direct care to each patient defies as hours per day that caregiver provides direct care to a patient who is the target of home health care in the responsible area. Those cares include total daily care or help to manage self care on activity of daily living, such as bathing, eating, walking, muscle training. Caregiver should

provide direct care to patients with chronic diseases at home according to symptoms or problems of each patient at least 4 hours per day.

Type of Indicator: Proximate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation.

Support Data: "If caregivers provide adequate time to care for the patients, the patients will have better conditions."

"Caregivers who use sense of humor to talk with patients, provide patients with their favorite food, will make the patients feel more happy than those who were left alone."

"Caregivers who provide adequate time for the patients will make the patients feel happy and recover faster than those who were left alone."

Criteria: 4 hours/day

Indicator 10: Means of duration that caregiver provided indirect care to each patient per day

Formula:

$$\frac{\text{Sum of means of hours that caregivers provided indirect care to each patient with chronic disease within one month}}{\text{Total patients with chronic diseases who are the target group of home health care in the responsible area within one month}}$$

Practical Definition: Means of hours that caregiver provides indirect care to each patient with chronic disease defies as hours per day that caregivers take care of the patients with chronic diseases who are the target group of home health care in the responsible are. Those cares include being with the patients, talking with the patients, prevention of any danger and complications for

safety of the patients while they are at home (not including direct care). Caregivers should provide indirect care to the patients for at least 12 hours per day.

Type of Indicator: Proximate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation.

Support Data: "Caregivers who provide adequate time to patients and talk with patients would make the patients feel not lonely and happy."

"Caregivers who observe symptoms of the patients would help to prevent recurrent of diseases and increase chance of recover from those diseases."

Criteria 12 hours/day

Indicator 11: Rate of families that has rearranged and improved environment for Patients with chronic diseases

Formula:

$$\frac{\text{Numbers of families that have arranged and improved environment for patients with chronic diseases within one month}}{\text{Numbers of total families that are the target group of home health care in the responsible area within one month}} \times 100$$

Practical Practice: Families that have arranged and improved environment for patients with chronic diseases defy as families of patients with chronic diseases who are the target group of home health care by the health team in the responsible area and have arranged environment and equipments to suit the patients' conditions and medical care plan. The managed environment should be clean, tidy, odorless, noiseless, good ventilation, no pet that could transmit the communicable disease, no blockage on the walk way, or other according to the patients' conditions.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation.

Support Data: "Patient's room should be clean, odorless, and has good ventilation, which is a duty of caregiver to take care in order to provide fresh air to the patient and to help the patient to recover soon."

"Pet should be out of patient's room because pet's hair inhalation may cause recurrent of the disease."

"Patient who has problem on walking or movement, caregiver should arrange the suitable bed or mattress for patient to prevent falling."

Criteria: 100 percent

Category 3: Indicator on the performance outcome of health team

Indicator 12: Means of visits per month that each patient with chronic diseases receive home health care from the health team

Formula:

$$\frac{\text{Sum of visits that each patient receive home health care from the health team within one month}}{\text{Total numbers of patients with chronic disease that are the target group of home health care in the responsible area within one month}}$$

Practical Definition: Number of visits that each patient receive home health care from the health team defies as number of visits that each patient with chronic disease who is the target of home health care in the responsible area and receive home care from the health team in each month. Number of visits should be related to symptom and problems of each patient. The health team should provide home visit to each patient with chronic disease at least once a month.

Type of Indicator: Proximate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation.

Support Data: "Frequent health visit by health personnel would make the patient and relatives feel not disregard, improve mental health, and recover from the disease.".

Criteria 1 visit/month

Indicator 13: Means of visiting time that each patient with chronic disease received home health care from the health team per visit

Formula:

$$\frac{\text{Sum of minutes per visit that the health team provided home health care for each patient within one month}}{\text{Total numbers of patients with chronic disease who received home health care visits}}$$

Practical Definition: Minutes per visit that the health team provided home health care for each patient defies as means of visiting time in minute that the health team provided home care to each patient with chronic disease who is the target of home health care in the responsible area per visit. The home care includes nursing care, prevention of diseases, health promotion, and rehabilitation. The visiting time should be appropriate with the symptom and problems of each patient that should be at least 30 minutes per case.

Type of Indicator: Proximate Outcome

Data Sources: Patient family history file and patients and caregivers interviews

Support data: "A proper time of home visit would increase a good feeling of patient and relatives and help the patient to recover from the disease."

"Health education from health personnel would influence patient's practice because the patient will follow their advice more than caregivers'. Hence,

the recommendation is “health personnel should provide enough visiting time to give health education to the patient and relatives”.

“Home visit provides special time to patient and relatives to ask about the disease and proper care from health personnel because the health center or hospital setting does not provide privacy environment for conversation like home.”

Criteria 30 minutes/visit

Indicator 14: Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team

Formula:

$$\frac{\text{Number of patients with chronic diseases who received Home health care according to the appointment within one month}}{\text{Total number of patients with chronic diseases who are the target group of home health care in the responsible area within one month}} \times 100$$

Practical Definition: Patients with chronic diseases who received home health care according to the appointment from the health team are defied as patients with chronic diseases who are the target group of home health care by health team in the responsible area and received continuing home health care visit according to the appointment. Those visits include nursing care, prevention of diseases, health promotion, and rehabilitation.

Type of Indicator: Proximate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation.

Support Data: “Health personnel do home visit showing her attention to provide a good care to the patients.”

"If there were health personnel visit every patient who stay at home for continuing care, it would make the patients feel delight. They and their relatives would feel that they are not lonely, knowing what they have done is right or wrong. If it is possible, we would like the health personnel to visit all patients who are staying at home (if it is possible)".

Criteria: 100 percent

Category 4: Patient and Caregiver Indicator

Indicator 15: Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team

Formula:

$$\frac{\text{Numbers of sampling patients or caregivers who had combined scores of services provided by the health team at the level of satisfaction within one month}}{\text{Total numbers of patients with chronic disease or caregivers who were sampling to answer the questionnaires within one month}} \times 100$$

Practical Definition:

Nominator: Number of sampling patients or care-givers who had combined scores of services provided by the health team at the level of satisfaction is defined as patients with chronic diseases or caregivers who are the target group of home health care by the health team in the responsible area. They were sampling to answer the questionnaire on satisfaction of the services of the health team every six months. The sum of satisfaction scores on home health care in each patient with chronic diseases on the level of satisfaction (according to the assessment criteria of the questionnaire) means it is over 80 percent. The criterion of the assessment are as following:

Total score below 70% means Low satisfaction

Total score 70-79.99% means Fair satisfaction

Total score 80-89.99% means High satisfaction

Total score 90-100% means Very high satisfaction

Denominator: Total number of patients with chronic diseases or caregivers who were sampling to answer the questionnaires is defined as patients with chronic diseases or caregivers who are the target group of home health care by the health team in the responsible area. They were sampling to answer the questionnaires and had the qualification of good conscious, literacy, and willing to answer the questionnairs.

Type of Indicator: Ultimate Outcome

Sources of Data: Results of satisfaction assessment of local health center

Support Data: "If the health personnel provide a good care to patients and relatives, they will satisfy with that person"

"Health personnel who work with service mind, not because of their duty, the patients and relatives will love them."

"Patient would like health personnel who provide the good treatment and care."

"Patients like the health personnel who devote their time to the patients and relatives."

Criteria: 80 percent

Questionnaire for patient or caregiver on satisfaction of the home health care services of the health team (health personnel) (Wiharnpracha Health Center)

Explanation

This assessment form used to assess the satisfaction of patients or caregivers toward the home health care services of health team in the responsible area. You can rate your satisfaction of home health care services that you receive as you want. Please answer the questions faithfully because your opinion is valuable to improve the home health care services of the health team. Your answer will be kept as a secret and it will not affect you. It will only be used for the service assessment as a whole.

Please mark ✓ in a space to answer each question according to your opinion on the level of satisfaction

Criterion for assessment:

☺ means You are satisfy with the results of home health care services provided by the health team (health personnel) at the level of very high satisfaction (4 points)

☺ means You are satisfy with the results of home health care services provided by the health team (health personnel) at the level of high satisfaction (3 points)

😐 means You are satisfy with the results of home health care services provided by the health team (health personnel) at the level of very fair satisfaction (2 points)

☹ means You are satisfy with the results of home health care services provided by the health team (health personnel) at the level of little satisfaction (1 points)

Data of person who answer the questionnaire

1. You are…….

☐ patient

☐ caregiver who is a cousin of the patient

☐ caregiver who is not a cousin of the patient

Rank	List of assessment of the health team (health personnel)	Level of satisfaction			
					
1.	Smiling to welcome the patient and relatives				
2.	Talk and give encouragement to the patient and relatives				
3.	Being punctual to provide the services				
4.	Being kind and sacrifice				
5.	Being friendly with patient and relatives				
6.	Provide services to patient and all relatives equally				
7.	Accommodate the patient and relatives				
8.	Communicate and coordinate with patient, his/her family, and other agencies.				
9.	Provide enough time to patient and relatives for consultation.				
10.	Provide opportunity to patient and relatives to participate in decision making on treatment and care.				
11.	Follow-up patient according to the appointment continuously.				
12.	Provide knowledge about the disease, advice and teach practical care to patient and relatives.				
13.	Announce the services of health center to people in the responsible area continuously.				
14.	Ask about symptoms, examine the patient thoroughly and provide good treatment and care.				
Total points					

Other suggestions.....….

Home Health Care Quality Indicators in Chronic Diseases (Somchai Patana Village Community Health Center)

Category 1: Patient Indicators

Indicator 1: Rate of improvement on doing activity of daily living of patients with chronic disease

Formula:

$$\frac{\text{Total patients with chronic diseases who improvement of performance on doing activity of daily living within one month}}{\text{Total patients with chronic diseases who are the Target group of the Home Health Care in the responsible area within one month}} \times 100$$

Practical Definition: Patients with chronic diseases who had better performance on doing activities of daily living are defied as patients with chronic diseases that are the target group of home health care by the health team in the responsible area. They perform various activities, such as eating, sleeping, toileting, occupational work, and other activities of daily living.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation.

Support Data: "Patients have an improvement on self-care, such as eating, and bathing."

"Patients start to do some work as usual."

"Patients sleep well, no restlessness, do not disturb or were less disturb caregivers."

Criteria: 50 percent

Indicator 2: Rate of ability to do self care and self control of patients with chronic diseases

Formula:

$$\frac{\text{Total patients with chronic diseases who can do self care and self control within one month}}{\text{Total patients with chronic diseases who are the target group of home health care in the responsible area within one month}} \times 100$$

Practical Definition: Patients with chronic diseases who are able to do self care and self control are defied as patients with chronic diseases that are the target group of home health care by the health team in the responsible area. They can control and do self care in various ways, including follow the medical care plan, prevent complications, observe abnormal symptoms, solve basic health problems, and control their emotion.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation.

Support Data: "The quality can be observed from the patients that they can do activities according to the health personnel's advice, such as doing physical exercise, taking medication, refraining from alcohol and smoking."

"Evaluate from the observation of patients when they have abnormal symptoms, they know what to do next."

Criteria: 50 percent

Indicator 3: Rate of improvement of social relation in patients with chronic diseases

Formula:

$$\frac{\text{Total numbers of patients with chronic diseases who have improvement of social relations within one month}}{\text{Total number of patients with chronic diseases that are the target group of the home health care within one month}} \times 100$$

Practical Definition: Patients with chronic diseases who have improvement of social relations are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and have an improvement of social relations or social interaction. Those relations include communication with all persons who are family members or non-family members, an increase of smiling and good emotion, an improvement of role performance and adjusting to social and environment.

Type of Indicator: Ultimate Outcome

Data Source: Patient family history file, patients and caregivers interviews, and observation.

Support Data: "Patient look freshy, has an increase of conversation, being in a good mood, and turn his/her face to visitor."

"Patient has an improvement of physical movement, sitting other than sleeping in bed, smiling, and wants to go out for relaxation."

Criteria: 60 percent

Indicator 4: Prevalence rate of pressure sore in patients with chronic diseases

Formula:

$$\frac{\text{Numbers of patients with chronic disease who had pressure sore within one month}}{\text{Total patients with chronic disease who were at risk of pressure sore within one month}} \times 100$$

Practical Definition:

Nominator: Patients with chronic diseases who have pressure sore are defied as patients with chronic diseases who are the target group of the home health care by the health team in the responsible area and have pressure sore. The pressure sore may be presented as red or dark red color at that area, unhealing wound, or deep wound reaching muscle, tendon, periostium, or bone.

Denominator: Patients with chronic diseases who are at risk of pressure sore are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area. The patients could not help themselves, could not turn themselves in bed or could do very little, or stay in bed for a long time. In addition, the patients may have no sensation at the body and extremities that need health care from other persons.

Type of Indicator: Ultimate Outcome

Data Source: Patient family history file, patients and caregivers interviews, and observation.

Support Data: "The quality of care could be observed that the patient who has stayed in bed for a long time has no pressure sore."

"Patient who paralyze or has numbness on some part of the body should not have pressure sore."

Criteria: 0 percent

Indicator 5: Rate of improvement of wound in patients with chronic diseases

Formula:

$$\frac{\text{Number of patients with chronic diseases who had wound healing within one month}}{\text{Total numbers of patients with chronic diseases who had wound within one month}} \times 100$$

Practical Definition

Nominator: Patients with chronic diseases who had wound healing are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and had an improvement of any wound healing within one month.Those wounds are operating wound, infectious wound, non-infectious wound, pressure sore, or others. The improvement of wound healing would has characteristic of red color, less odor, less debris, less inflammation or stable, less swelling, and has a smaller hole/ size.

Denominator: Total patients with chronic diseases who have wound are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and have any kind of wound. The wound includes operating wound, infectious wound, non-infectious wound, pressure sore, accidental wound, or the others.

Type of Indicator: Ultimate Outcome

Data Source: Patient family history file, patients and caregivers interviews, and observation.

Support Data: "Patient who has wound have the progress of wound healing, which shows a sign of shallow of the wound, less swelling, and less odor."

"The size of the wound is smaller and no debris."

"Patient with pressure sore has red color of wound and has a progress of smaller size of wound."

Criteria 100 percent

Indicator 6: Rate of home accident in patients with chronic diseases

Formula

$$\frac{\text{Numbers of patients with chronic diseases who experienced home accident within one month}}{\text{Total numbers of patients with chronic diseases who were at risk of home accident within one month}} \times 100$$

Practical Definition

Nominator: Patients with chronic diseases who experienced home accident are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and experienced home accident. The accident includes falling in bathroom, falling while walking, falling from bed, burning from fire or hot water, being cut by a sharp utensil, being hurt by hazardous chemical agent, being charged by electricity, obstruction of food in trachea, and other kinds of home accidents.

Denominator: Total patients with chronic diseases who were at risk of home accident are defied as patients with chronic diseases who are a target group of home health care by the health team in the responsible area and are a risk of home accident while they are receiving home care. The patients include those who paralyze, have blur vision, no sensation at the body and extremities, semiconscious, unconscious, unable to help themselves or able to help themselves a little, have convulsion, severe headache, and other symptoms that are risks of home accident.

Type of indicator: Ultimate Outcome

Data Sources: Patient family history file

Support Data: "If the patient who stays at home receives a good care, he/she will not fall while he/she is trained to walk.."

"Quality of care can be observed by: patient must have no falls, no fall from the bed, no slip in the bathroom, no throat obstruction while he/she is eating, no electricity shock, no cut from sharp utensil, and do not exposing to chemical agents."

Criteria 0 percent

Indicator 7: Rate of readmission in hospital with the same symptoms or same disease within one month without any planning.

Formula:

$$\frac{\text{Numbers of patients with chronic diseases who are readmitted in hospital with the same symptoms or same disease within one month without any planning after were discharged from hospital in previous month}}{\text{Numbers of patients with chronic diseases who were discharged from hospital and stayed at home in previous month.}} \times 100$$

Practical Definition

Nominator: Patients with chronic diseases who are readmitted in hospital with the same symptoms or same disease within one month without any planning after were discharged from hospital in previous month are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and have abnormal or recurrent of symptoms that needed readmission in the hospitals or the community health centers after being discharged from hospital within one month without any plans or appointments.

Denominator: Total patients with chronic diseases who were discharged from hospital and stayed at home in previous month are defied as total patients with chronic diseases who are the target group of home health

care by the health team in the responsible area and were discharged from hospital to be cared at home in previous month.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation.

Support Data: "Improvement of the patients means patient who was discharged from hospital should not be readmitted before the next appointment."

"If the patients receive good care from the health personnel and caregiver, there will not be recurrent of disease and readmitted in the hospital."

Criteria: 0 percent

Indicator 8: Rate of recurrent of disease in patients with chronic diseases

Formula:

$$\frac{\text{Numbers of patient with chronic diseases who have recurrent of diseases within one month}}{\text{Total numbers of patients with diseases who are the target group of home health care in the responsible area within one month}} \times 100$$

Practical Definition: Patients with chronic diseases who have recurrent of diseases are defied as patients with chronic diseases who are the target group of home health care by the health team the responsible area and have more symptoms of the current disease (not include additional disease or complications). For example, a patient with respiratory disease has symptoms of apnea, more frequent cough and tired. Patient with high blood pressure has more headache. Patient with diabetes has a decrease of

sensation at the end of fingers. Patients with these symptoms may be admitted to hospitals or not admitted to the hospital.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation

Support data: "Patient with chronic disease should not have any severe symptoms." "Patient with lung disease should not have more apnea"

Criteria: 0 percent

Indicator 9: Prevalence rate of complications in patients with chronic diseases

Formula:

$$\frac{\text{Numbers of patient with chronic diseases who had complications within one month}}{\text{Total numbers of patients with diseases who are the target group of home health care in the responsible area within one month}} \times 100$$

Practical Definition: Patients with chronic diseases who had complications are defied as patients with chronic diseases who are the target group of home health care by the health team the responsible area and have additional symptoms or complications within one month. For example, a patient with diabetes has pressure sore. Patient with chronic obstructive pulmonary disease has cold. Patients with these symptoms may be admitted to hospitals or not admitted to the hospital.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation

Support data: "If the patients with chronic diseases received good care, there should not be additional complication or disease."

Criteria: 0 percent

Indicator 10: Rates of bad odor and dirty body in patients with chronic diseases.

Formula:

$$\frac{\text{Numbers of patients with chronic diseases who have bad odor and dirty body within one month}}{\text{Total numbers of patient with chronic diseases who are the target group of the home health care program within one month}} \times 100$$

Practical Definition: Patients with chronic diseases who have bad odor and dirty body are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and have dirty body and bad odor all over the body or some part of the body due to bad care. In addition, their utensils and environment are also dirty and have bad odor.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation

Support data: "Quality of care can be observed by: there is no bad smell while staying near the patient, the patient and utensil are clean.

Criteria: 0 percent

Indicator 11: Prevalence rate of refraining from smoking in patients with chronic diseases who are former smokers.

Formula:

$$\frac{\text{Total number of patients with chronic diseases who refrained from smoking within one month}}{\text{Total number of patient with chronic diseases who used to smoke within one month}} \times 100$$

Practical Definition

Nominator: Patients with chronic diseases who refrained from smoking are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and refrain from smoking within one month after used to smoke for a period of time.

Denominator: Total patients with chronic diseases who used to smoke are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and used to smoke for a period of time.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation

Support data: "Quality of home health care can be observed by: former smokers refrain from smoking or reduce numbers of cigarette periodically due to health personnel's advice."

"Good caregivers will control patients who used to smoke to refrain from smoking while they are sick."

"Quality can be observed by: the patient can do self control on refraining from smoking according to health personnel's advice about no smoking"

Criteria: 100 percent

Indicators 12: Rate of normal blood pressure in patients with high blood pressure

Formula

$$\frac{\text{Numbers of patients with hypertension who have normal blood pressure within one month}}{\text{Total patients with hypertension within one month}} \times 100$$

Practical Definition

Nominator: Patients with hypertension who have normal blood pressure are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and have a measure of blood pressure after resting for 15 minutes equal to or less than 140/90 mm.Hg.

Denominator: Total patients with hypertension are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area, used to have a measure of blood pressure after resting for 15 minutes more than 140/90 mm.Hg., and were diagnosed by the doctor that they have had high blood pressure.

Type of Indicator: Ultimate Outcome

Data Sources: 1. Patient family history file
2. Record of patients with hypertension

Support data: "Quality of home health care can be observed by: patients who used to have hypertension have normal blood pressure or can control blood pressure at a normal level."

Criteria: 80 percent

Indicator 13: Rate of normal blood sugar in patients with Diabetes Mellitus

Formula:

$$\frac{\text{Numbers of patients with diabetes who have normal blood sugar within one month}}{\text{Total patients with diabetes within one month}} \times 100$$

Practical Definition

Nominator: Patients with diabetes who have normal blood sugar are defied as patients with chronic diseases who are the target group of home health care by the health team in the responsible area and have a measure of blood sugar after fasting after midnight less than 120 mg/dl.

Denominator: Total patients with diabetes are defied as patients with chronic diseases who are the target group of home health care by the health team in

the responsible area, used to have a measure of blood sugar after fasting after midnight more than 120 mg/dl and were diagnosed by the doctor that they have had diabetes.

Type of Indicator: Ultimate Outcome

Data Sources: 1. Patient family history file
2. Record of patients with diabetes

Support data: "Quality of home health care can be observed by: patients who used to have diabetes can control blood sugar at a normal level."

"Patients with diabetes must control themselves by not eating sweet and control blood sugar at normal level."

Criteria: 80 percent

Category 2: Caregiver Indicators

Indicator 14: Rate of proper care on activity of daily living to patients with chronic diseases by caregivers.

Formula:

$$\frac{\text{Numbers of caregivers who correctly take care of patients on activities of daily living within one month}}{\text{Total numbers of caregivers who take care of patients who are the target group of the home health care in the responsible area within one month}} \times 100$$

Practical Definition: Caregivers who correctly take care of patients on activities of daily living are defied as caregivers who take care of patients who are the target group of home heath care by the health team in the responsible area and are able to provide proper care to the patient on activities of daily living.Those cares include bathing, sleeping, toileting, doing some occupation activity, and performing daily activities.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation

Support data: "Caregivers can take proper care on activities of daily living for the patients, such as cooking food for specific disease and bathing"

"Caregivers encourage and stimulate the patients to do activities by themselves, such as washing, brushing, eating, and bathing"

Criteria: 100 percent

Indicator 15: Rate of encouragement, promote, and support the patients to perform self health care correctly by caregivers

Formula:

$$\frac{\text{Number of caregivers who encourage, promote, and support the patients to perform self health care correctly within one month}}{\text{Total numbers of caregivers who take care of patients who are the target group of home health care in the responsible area within one month}} \times 100$$

Practical Definition: Caregivers who encourage, promote, and support the patients to perform self health care correctly are defied as caregivers who take care of patients who are the target group of home health care by the health team in the responsible area, encourage and support the patients to perform self health care. Those cares include solving basic health problem, exercise to prevent regenerate of the body, health building, mental care, and other health cares

Type of Indicator: Proximate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation

Support data: "Quality of care can be observed that caregivers can take care of patients according to health personnel's advice."

"Caregivers must help and control patients to do self care as they could, such as taking medication and physical exercise according to health personnel's advice."

"After receiving advice from health personnel, caregivers can provide care to the patients correctly. This would make the patients recover soon."

Criteria: 100 percent

Indicator 16: Means of duration that care-givers used to provide direct care of each patient with chronic disease per day

Formula:

$$\frac{\text{Sum of means of hours per day that caregivers used to provide direct care for each patient within one month}}{\text{Total number of patients with chronic diseases who are the target group of home health care in the responsible area within one month}}$$

Practical Definition: Means of hours per day that caregivers used to provide direct care for each patient defies as duration (hours) per day that caregivers used to provide direct care to patients with chronic diseases who are the target group of home health care in the responsible area and support the patients to do self care.Those cares include bathing, feeding, walking training, and muscle training.Caregivers should provide direct care to the patients according to their symptoms and health problems at least four hours per day per case**.**

Type of Indicator: Proximate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation.

Support data: "Caregivers take time to care for the patients, not abandon the patients, the patients will improve mental health and recover soon."

"Caregivers talk to patients will help to reduce loneliness, the patients will recover soon."

"Caregivers teach and support the patients according to health personnel's advice will help the patients to recover soon."

Criteria: 4 hours/day

Indicator 17: Rate of family that has rearranged and improved environment for patient with chronic disease

Formula:

$$\frac{\text{Numbers of families that has rearranged and improved environment for patients within one month}}{\text{Total number of patients with chronic diseases who are the target group of home health care in the responsible area within one month}} \times 100$$

Practical Definition: Families that has rearranged and improved environment for patients are defied as families of patients with chronic diseases who are the target group of home health care by the health team in the responsible area. The family has rearranged environment and utensils to accommodate the patient and coordinate with the health care. Those include cleanliness, tidiness, good ventilation,odorless, quite, no pet that can be transmit the disease in patient's room, no obstructive thing on the walk way, and others according to patient's problem and sickness.

Type of Indicator: Ultimate Outcome

Data Sources: Patient family history file, patients and caregivers interviews, and observation

Support data: "Quality of care can be observed by observing whether caregivers have rearranged the environment for the patients or not, such as adjusting the height of patient's bed, adding bed side rail for patient with

unconscious, clear obstructive thing on the walk way, taking pet out of the patient's room."

"Patient's room has good ventilation, clean, no bad smell, and no mosquito."

Criteria: 100 percent

Category 3: Indicator on the performance outcome of health team

Indicator 18: Means of visits per month that each patient with chronic diseases receive home health care by the health team

Formula:

$$\frac{\text{Sum of visits that each patient received home health care from the health team within one month}}{\text{Total numbers of patients with chronic diseases who are the target group of home health care in the responsible area within one month}}$$

Practical Definition: Number of visits that each patient received home health care from the health team means number of visits that each patient with chronic disease who is the target of home health care in the responsible area receiveed home health care follow-up in each month. The number of follow-up visit should be appropriate with the symptoms and health problems of the patient. The health team should have follow-up visit for each patient at least once a month.

Type of Indicator: Proximate Outcome

Data Sources: Patient family history file, patients and caregivers interviews

Support Data: "Follow-up visit by the health personnel will help the patient to follow the health personnel's advice because the patient respect and believe in health personnel more than his/her caregivers or relatives."

"Follow-up visit provides opportunity for health personnel to give health education to patient and caregiver about the practice for disease that he/she has. Good health practice will help the patient to recover soon."

Criteria 1 visit /month

Indicator 19: Means of visiting time that each patient with chronic disease receive home health care from the health team per visit

Formula:

$$\frac{\text{Sum of minutes per visit that the health team provide home care follow-up to each patient within one month}}{\text{Total number of patients with chronic disease who receive home care follow-up from the health team in the responsible area within one month}}$$

Practical Definition: Minutes per visit that the health team provide home care follow-up to each patient means number of minutes per visit that the health team used to provide health care follow-up to each patient with chronic disease who is a target of home care in the responsible area per visit. The health care follow-up includes medical and nursing care, prevention of diseases, health promotion, and rehabilitation. The duration of each follow-up visit should be should be appropriate with the symptoms and health problems of each patient. The health team should have follow-up visit for each patient at least 30 minutes per case.

Type of Indicator: Proximate Outcome

Data Sources: Patient family history file, patients and caregivers interviews

Support Data: "Appropriate follow-up visit time will provide opportunity for health personnel to give health education to the patient and caregiver that would make them understand, practice, and recover soon."

"Follow-up visit and talking with patient and caregiver will encourage them to ask questions, understand their condition and practice that would help the patient to recover soon."

Criteria 30 minutes/visit

Indicator 20: Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team

Formula:

$$\frac{\text{Number of patients with chronic diseases who receive home care follow-up according to the appointment within one month}}{\text{Total number of patients with chronic diseases who are the target group of home health care in the responsible area within one month}} \times 100$$

Practical Definition: Patients with chronic diseases who receive home care follow-up according to the appointment mean patients with chronic diseases who are the target group of home health care by the health team in the responsible area and receive continuing home health care follow-up according to the appointment.Those cares include medical and nursing care, prevention of diseases, health promotion, and rehabilitation.

Type of Indicator: Proximate Outcome

Data Sources: Patient family history file, patients and caregivers interviews

Support Data: "Health personnel from health center provide follow-up visit to every patient who stay at home will improve mental health of the patients and relatives and help the patients to recover soon."

"Frequent home visits from health personnel from the health center to lots of patients will provide good results to the patients than no home visit from any health personnel form health center."

Criteria 100 percent

Category 4: Patient and Caregiver Indicators

Indicator 21 Rate of satisfaction of patients with chronic diseases or caregivers toward performance of the health team

Formula:

Number of sampling patients with chronic diseases or caregivers who had sum of satisfaction scores of services provided by the health team at the level of satisfaction within one month

——————————————————— X 100

Number of patie Number of sampling patients with chronic diseases or caregivers who had sum of satisfaction scores of services provided by the health team at the level of satisfaction within one month

Practical Definition

Nominator: The sampling patients with chronic diseases or caregivers who had sum of satisfaction scores of services provided by the health team at the level of satisfaction are defied as patients with chronic diseases or caregivers who are the target group of home health care by the health team in the responsible area. They were sampling to answer the questionnaire on satisfaction on services of the health team every six months. The sum of satisfaction on home health care in each patient with chronic diseases at the level of satisfaction (according to the assessment criteria of the questionnaire) means it is over 80 percent. The criterion of the assessment are as following:

Total score below 70% means Low satisfaction

Total score 70-79.99% means Fair satisfaction

Total score 80-89.99% means High satisfaction

Total score 90-100% means Very high satisfaction

Denominator: Patients with chronic diseases or care-givers who were sampling to answer the questionnaires are defined as patients with chronic diseases or care-givers who are the target group of home health care by the health team in the responsible area. They were sampling to answer the questionnaires and had the qualification of good conscious, literacy, and willing to answer the questionnairs.

Type of Indicator: Ultimate Outcome

Sources of Data: Results of satisfaction assessment of local health center

Support Data: "Quality can be observed whether the patients and relatives satisfy with performance of health personnel or not. What is the level of satisfaction? If the level of satisfaction is high means good quality."

"Patients and relatives will satisfy with health personnel that can treat them successfully, have good relationship, and friendly with them."

Criteria: 80 percent

Questionnaire for patient or caregiver on satisfaction of the home health care services of the health team (health personnel) (Somchai Patana Village Community Health Center)

Explanation

This assessment form used to assess the satisfaction of patients or care-givers toward the home health care services of health team in the responsible area. You can rate your satisfaction of home health care services that you receive as you want. Please answer the questions faithfully because your opinion is valuable to improve the home health care services of the health team. Your answer will be kept as a secret and it will not affect you. It will only be used for the service assessment as a whole.

Please mark ✓ in a space to answer each question according to your opinion on the level of satisfaction.

Criterion for assessment:

☺ means You are satisfy with the results of home health care services provided by the health team (health personnel) at the level of very high satisfaction (4 points)

☺ means You are satisfy with the results of home health care services provided by the health team (health personnel) at the level of high satisfaction (3 points)

😐 means You are satisfy with the results of home health care services provided by the health team (health personnel) at the level of very fair satisfaction (2 points)

☹ means You are satisfy with the results of home health care services provided by the health team (health personnel) at the level of little satisfaction (1 points)

Data of person who answer the questionnaire

2. You are…….

☐ patient

☐ caregiver who is a cousin of the patient

☐ caregiver who is not a cousin of the patient

Rank	List of assessment of the health team (health personnel)	Level of satisfaction			
					
1.	Smiling to welcome the patient and relatives				
2.	Talk and give encouragement to the patient and relatives				
3.	Being punctual to provide the services				
4.	Being kind and sacrifice				
5.	Having endurance to do the duty				
6.	Being active and energetic to do the duty				
7.	Being friendly with patient and relatives				
8.	Provide services to everyone equally and do not look down the indigenous				
9..	Being helpful and accommodate the patient and relatives				
10.	Having good communication and coordination with patient and relatives				
11.	Having good communication and coordination with other agencies.				
12..	Provide enough time to patient and relatives to discuss about the problems and symptoms				
13.	Willingly listen to the problems of patient and relatives				
14.	Provide opportunity to patient and relatives to make decision on medical care				

Rank	List of assessment of the health team (health personnel)	Level of satisfaction			
					
15.	Provide continuing cares to patient and relatives according to the appointments				
16.	Provide knowledge and advice to patient and relatives				
17.	Explain the patient about their diseases				
18.	Provide health information to people continuously, such as service information of the community health center				
19.	Provide good treatment and care according to the standard of care, such as carefully examination and correctly treat the patients according to the diagnosis				
Total points					

Other suggestions.....

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Comparison of Quality Home Health Care Indicators in Chronic Diseases Among the Level of International, National, Urban, and Rural Area

Rank	Topics	International level (The American Nursing Association)	National level (Ministry of Public Health)	Urban Area (Somchai Patana Village Community Health Center)	Rural area (Wiharnpracha Health Center)
1.	Objective of setting indicators	To set indicators that sensitive to nursing care and use to be the National database to link to the structural indicators, process indicators, and outcome indicators or community outcomes.	To use as outcome indicators of national community nursing services that reflect the direct quality of Nursing Sensitivity Outcome.	To use as measurements, screening, or signals on monitoring, evaluation, and improve quality of home health care in patients with chronic diseases in the areas of patient care, services, supportive services, and the continuing work of agencies related to the patients in the study areas.	
2.	Process of setting the indicators	The Advisory Committee for Community-base Nonacute Care Indicator of the American Nursing Association set the process of setting the indicators by reviewing literatures, inspection of indicators by	The process started with reviewing literatures by Nursing specialists in the Ministry of Public Health to draft the indicators, workshop of the specialists to set up the indicators, pre-test of the	The indicators were set by three parties: the researcher, health personnel, and local people (patients with chronic diseases and caregivers). Problems and criteria to provide home health care are identified to set the indicators and details by using the Participatory Action Research (PAR). The indicators were inspected by people who do not involve with the indicator setting process in terms of	

Rank	Topics	International level (The American Nursing Association)	National level (Ministry of Public Health)	Urban Area (Somchai Patana Village Community Health Center)	Rural area (Wiharnpracha Health Center)
		specialists, doing focus group discussion by the staff of advisory committee , and discussion of the ANA representatives and specialists on the sensitivity of each indicator to community Setting	indicators in 4 settings, and workshop of specialists to finalize the indicators.	important and practical possibility of the indicators. Then, the indicators were tested in the study areas for three months to test reliability and set the criteria of each indicator before further implementation.	
3.	Classifica-tion of category and indicator	The indicators were classified into three types: structural indicators, process indicators, and outcome indicators. There are 8 clusters: • Service Utilization • Risk reduction • An increase of protective factors • Level of functioning : ADL / IADL Level of psycho-social function	The quality community nursing indicators are 11 outcome indicators. • Rate of professional nurses and other health personnel • Rate of professional nurses and population • Job satisfaction of professional nurses • Hours of home visiting	Setting only outcome indicators by divided into two clusters: the Proximate Outcome and the Ultimate Outcome. There are four categories of these indicators: patient indicators, caregiver indicators, performance of the health team indicators, and patient and caregiver indicators. Of which, the two study areas have unequal numbers of indicators as following:	

Rank	Topics	International level (The American Nursing Association)	National level (Ministry of Public Health)	Urban Area (Somchai Patana Village Community Health Center)	Rural area (Wiharnpracha Health Center)
		• Changes in severity of symptoms • Strength of the therapeutic alliance • Client patients satisfaction	• Coverage of assessment of the population health condition • Family health conditions in the community • Quality of life of patients with chronic diseases* Satisfaction of services users in the community • Prevalence rate of pressure sure at home* • Reduction of risk factors in the community • Rates of falls at home in patients with chronic diseases*(* Indicator related to home health care in chronic diseases)	There are 21 indicators as following: • 13 Patient Indicators • 4Caregiver Indicators • 3 Perfor-mance outcome Indicators • 1 Patient and Caregiver Indicator (Details are in Appendix I)	There are 15 indicators as following: • 8 Patient Indicators • 3Caregiver Indicators • 3 Perfor-mance outcome Indicators • Patient and Caregiver Indicator (Details are in Appendix I)

Quality home health care indicators in chronic diseases of the urban and rural areas classified into 8 categories according to the International Indicators using as the study Framework

Rank	Category name (International level)	Indicators of rural area	Indicators of urban area
1.	Service Utilization	• Rate of readmission in hospital with the same symptom or same disease within one month without any planning • Means of visits per month that patients with chronic diseases receive home health care from the health team • Means of visiting time that each patient with chronic disease receive home health care from the health team per visit	• Rate of readmission in hospital with the same symptom or same disease within one month without any planning • Means of visits per month that patients with chronic diseases receive home health care from the health team • Means of visiting tine that each patient with chronic disease receive home health care from the health team per visit
2.	Risk reduction	• Rate of home accident in patients with chronic diseases	• Rate of home accident in patients with chronic diseases • Prevalence rate of refraining from smoking in patients with chronic diseases who are former smokers. • Rate of family that has rearranged and improved environment for patient with chronic disease
3.	Increasing of protective factors	• Means of duration that caregiver provided direct care to each patient per day	• Means of duration that caregiver provided daily care to each patient per day

Rank	Category name (International level)	Indicators of rural area	Indicators of urban area
		• Means of duration that caregiver provided indirect care to each patient per day	• Rate of encouragement, promote, and support the patients to perform self health care correctly by caregivers • Means of duration that caregiver provided direct care to each patient per day
4.	Level of functioning : ADL / IADL.	• Rate of improvement on doing activity of daily living and self health care of patients with chronic disease • Rate of improvement of body and extremity movement in patients with chronic diseases who had problem on physical movement.	• Rate of better performing on activity of daily living in patients with chronic diseases. • Rate of improvement of abilities on self control and self health care in patients with chronic diseases. • Rates of bad odor and dirty body in patients with chronic diseases
5.	Level of psycho-social functions	• Rate of better performance on social relation in patients with chronic diseases	• Rate of better performance on social relation in patients with chronic disease
6.	Changes of severity of illness	• Prevalence rate of pressure sore in patients with chronic diseases • Rate of wound healing in patients with chronic diseases • Rate of recurrent of diseases and/or complications in patients with chronic diseases	• Prevalence rate of pressure sore in patients with chronic diseases • Rate of wound healing in patients with chronic diseases • Rate of recurrent of diseases in patients with chronic diseases • Rate of recurrent of complications in patients with chronic diseases

Rank	Category name (International level)	Indicators of rural area	Indicators of urban area
			• Rate of normal blood pressure in patients with high blood pressure • Rate of having normal blood sugar in patients with Diabetes Mellitus
7.	Strength of the therapeutic alliance	• Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team	• Rate of the coverage of home health care in patients with chronic diseases according to the appointment by the health team
8.	Client / patients satisfaction	• Rate of Satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team	• Rate of satisfaction of patients with chronic diseases or caregivers toward home health care provided by the health team

BIOGRAPHY

NAME Mrs. Orawan Katekaew

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INSTITUTION ATTENDED

Khon Kaen University,
1974 –1978: Bachelor of Sciences (Nursing and Midwifery)
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1984 – 1987: Master of Education (Nursing Administration)
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2000 – 2005: Doctor of Philosophy (Medical and Health Social Science)

POSITION AND OFFICE

1978 – 1983, Uttaradit Nursing College
Position: Instructor
1983 – 1991, Nakorn-Srithammaraj Nursing College
Position: Instructor
1991 – 2002, Nursing Division, Office of the Permanent Secretary, Ministry of Public Health, Nonthaburi
Position: Nursing Technical Officer
2002 – Present, Bureau of Nursing, Department of Medical Service, Ministry of Public Health, Nonthaburi
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