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Model Development of a Seamless Health Service System for a Multidisciplinary Health Area: Cardiovascular Disease

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In the current health stream, there are several organisations developing proposals for the improvement of health service systems, especially for chronic conditions like cardiovascular disease. This research aims to propose a model for improving the quality of multidisciplinary health areas, creating a seamless health service system. The model development consisted of four processes, namely, a study of relevant data and documents, in-depth interviews, group discussions and professional networking teams. This research led to a new service system design for assessing the appropriateness of models used by experts or practitioners in their public health profession. The data were analysed both quantitatively and qualitatively. The results show the new model of health service system development, based on the 3 C Acts: 3 I Support model, which includes (the 3 C Acts) Commitment Approach, Collaborative Care for the Care System, Care System, and, (the 3 I Support) Integration, Information to Improve, Innovation and Continuing Care, attains the best results including efficiency, quality and security to target. The new model was brought to the trial area, and the conclusion from the new health service system development showed improvement of care for patients with cardiovascular disease. It is therefore suggested to develop: more coaching systems, the use of an information program, rehabilitation services after surgery and a cardiovascular disease preparation course in the professional field, so as to increase the capacity of the network to be more effective.

Key words: *Quality development, Health service system, Seamless care, Health area.*

1. Introduction and study Background

Government policy requires all medical institutions to have medical treatment standards, so that people receive quality health services, equally. In cases of complex diseases beyond the capacity of the medical facility, those cases must be referred to a hospital with a higher treatment potential, and once the patient has received the correct care and treatment and the condition is stable, there must exist a system to refer patients back to the source hospital, to rehabilitate continuous treatment. Previously it has been found problematic, as the referral process is not well coordinated, and with the onset of crisis, patients have been delayed. Additionally, the communication of referral information is insufficient, unclear, and there are differences between the information systems and reports of each hospital, despite the use of computer systems in hospitals; each hospital is still diverse and cumbersome in the exchanging and sharing of information between hospitals in the health system (Jantana Siriyothiphan, 2018: 120-135).

Thailand has a rapid and continuous growth of urban areas. The proportion of the city population has tended to rise, with 29% in 2000 and 50% in 2016. This is consistent with the urban population in Asia which tends to increase every year (United Nations, 2014). The urban context is diverse in professions, agencies or partnerships, including government, private and local government organisations, NGOs and civil society groups that will be involved in the health care of urban people. It is found that there are still problems of lack of connection and integration with each other both for health information and resources. Most of them are still parted in their ways in their mission, with no synchronisation between organisations to achieve system integration between professions. The departments that operate are diverse, both within the public health sector and non-health organisations. The public health concept focuses on the health outcomes resulting from the development and improvement of the quality of the service system to deliver standard and safe services to the recipients, improving continuity of care between settings especially with regard to medications (Abdulsattar Mohammad, 2014 and Jennifer L et al., 2016)

In 2016, the report from the American Heart Association found that in America there are 15.5 patients with immediate ischemic heart disease in the more than 20 years old group, and the number multipies as the age increases, both in males and females, with an estimation that every 45 seconds an American will have ischemic heart disease symptoms (Writing Group Members, Mozaffarian D, Benjamin EJ,et al., 2016: 447-454). Comparatively to the the above fact, Thailand's statistics for 2012-2014, the death toll for every 100,000 people by heart and blood vessels disease are found to be highest in the third health area (ie; the lower northern region), with 109.42, 123.51 and 121.49 for each year, respectively, and found to be less in the eigth heath area (in the lower north eastern region), with 43.84, 53.79 and 58.65 for each year, respectively. Their data found the patient rate per 100,000 people with ischemic

heart disease has shown an increasing trend between 2004-2013. The patient rate in 2004 was 185.7 per 100,000 people and in 2013 was 435.18 per people 100,000, which calculates as 2.34 times more. The information in 2014 gives the death toll for heart and blood vessel diseases as 58,681 or 7 per hour by average, calculated as 90.34 per 100,000. In this number there are 18,079 deaths from ischemic heart disease, 2 people per hour on average, calculated as 27.83 per 100,000. It is reasonable to suggest the death rate would increase if no solution is applied. It is estimated that in 2030 or 16 years later there will be 23 million deaths from this disease (Bureau of Non-Communicable Disease, Ministry of public health Thailand, 2016: 4).

The results of the care review of patients with heart disease in Thailand have found that the statistics of the patients and death toll from ischemic heart disease increase every year. One part of the cause is patients not accessing health services because they don't know the symptoms that must be treated at hospital (Lertsubin C, et al, 2009: 119-127). The delay of treatment, and unclear procedures cause undiscovered symptom estimation, in itself a problem within the work system, whereby each person only does their own work, compounded by the lack of collaboration between related service institutes (Samphawamana O, et al., 2017: 157-167, Chantarasukri P, et al., 2010: 85-96) in forwarding the patient for treatment in a system which is complicated and strict. This slow access to service means it takes a long time to operate (Locharernkul C, 2007: 176), and the lack of cooperation between hospitals in sending information makes for incomplete, unclear information and insufficient social support (Cooney N, et al., 2014: 25), all of which are obstacles for patients that affect patients' safety (Jeerapat W and Jeerapat K, 2007: 2).

However, the transfer of patients from one agency to another would be more appropriate, as sending information about the patient and the care provided during the service according to the medical problems of the patient, is required. Seamless care is important to the continuity of medication therapy in cases of transition between different health care providers or health care settings. The term health care provider refers to multidisciplinary care, patients, family and caregivers. Furthermore, seamless care initiatives that have been implemented at the ambulatory setting (in home and residential care) and in the hospital setting also include the application of a system of teamwork, to establish and achieve cooperation between members sharing responsibilities especially for chronic diseases such as cardiovascular disease. In this research, physicians, nurses, nurse practitioners, physician's assistants, and/or medical assistants coordinate responsibilities, such as pre-visit planning, expanded intake activities, medication reconciliation, updating patient information, and scribing on the team change over as well (SGIM, 2015).

2. Reserach Objective

For this reason, the researchers chose to study and design a new health care management system that meets the intention of reforming the Thai health care system, and to be practically applied so that people with heart and blood vessel disease can equally access good quality services and thus decrease the death rate. The new paradigm arrangement is required to manage the new health care services, to create a collaborative system between professional teams and service units in other areas as well. The target of such a service is to set a goal for a result of an overall reduction of sickness or death rate, a reduction of maintenance costs and a reduction of waiting time for health care recipients, as well as increase access to services and increase the quality of care. However, there remains the problem that the health service systems of each of Thailand's health areas are very different. As a result, service recipients have been delayed in receiving a service that is not up to standard with attendant problems in the transmission of care continuity.

3. Research Methodology

The first step was to provide a focus group discussion along with the summary of the group discussion and interviews under section 4.1 and 4.2. The research uses the Semi-Structured Interview, applied from the concept of managing the chronic care model by Edward H Wagner, et al, (1999) and (Davy C, et al., 2015). For in-depth interview is based on the group of policy and strategy development experts in the healthcare development system. Sample group is a purposive sample with an additional fifteen interviewees. For the the focus group discussion, the sample group is from the health area consisting of seven provinces, in total 84 persons. Group discussion questions were applied from the concept of managing the chronic care model as well. The second step deals with the design and develop a new system along with three I support as provided in sections 4.3 and 4.5. Whereas key policies to make new choices is covered under third step based on some significant findings and highlights are provided under section 4.5 respectively.

4. Results

The result of the development of the professional network service quality for heart disease in seven provinces of the health area by a focus group discussion can be seen in a summary of the factors of the meeting group chat in the health area of the 7th province of Udon Thani. The subsequent section provides an overall summary of key discussion based on the focus groups.

4.1 Key points through Focus Group Discussion

- Concept of the leader and policy development: The management of all levels of the health area and provincial level are clear in the goal and direction setting of health service system

development, especially for heart and blood vessel disease. They communicate with the operators to understand and comply with area health, aiming to be the first health area of Thailand to have developed the STEMI fast track system, and to set the guidelines for the development of a health service system applying the same approach in every province, to be a prototype in the care and development of health service systems for heart and blood vessel disease, and to develop a comprehensive forwarding system.

- Structure and development of health service units: The president is a physician from Udon Thani Hospital, specialising in heart disease. There is a council of work, consisting of a variety of professional network representatives from all provinces in the health area, plus a professional nurse as secretary who has graduated the heart disease which the role of which is to plan an integrated operational plan, development of the service system to ensure optimum quality and efficiency, an integration of the information database to provide accuracy and completeness, to coordinate with professional networks as well as coordinate cooperation with government officials, state enterprises and private agencies that are related to drive the integration of the development of the health service system.
- Support factors: Focus on supporting middle-level hospitals (secondary care) and above, to have the potential for a heart and blood vessel disease patient care service, which must have AED, defibrillation Trop T, Infusion pump, INR detector, Plavix medicine, LMWH, SK, and budget support. Receive support from the National Health Insurance Office, area health district office and sub-district fund, to develop personnel potential, and manage the equipment and places, so as to be available to organise local health services. Personnel support suffers under the limitation of manpower but strives for the development of services to people in the area. So, there must be support for the development of various professionals to be available for patient care services of heart and blood vessel disease such as the in the use of special tools, patient management guidelines and case management. There is a development of a central database system of programs such as Ucha for ACS, the development of a database system of the patients receiving Warfarin in program clinics which is linked to all hospitals, the improved storage of quality indicators and management of relevant data through electronic systems. The application of provincial network certification (PNC) to improve the standard for safety and standardised service for patients. In addition, follow-up supervision: that the area health board assesses all provinces' results. Setting the system to have a board/senior at provincial level and for it/them to teach the junior level in both districts and sub district. For this reason, there is a knowledge exchange meeting to learn to take care of patients together, to bring out and understand obstacles in order to create the next development plan.
- The problems in the health zone are summarised as follows: access to the service is delayed. Most patients come to the hospital themselves, there is no EMS call. Access to blood-soluble medicine is delayed; not enough medication available, nor modernised tools and equipment such as AED. Limitations for medication management of such like dual anti-platelet anticoagulant clopidogrel, enoxaparin, carvedilol, losartan, metoprolol etcetera.

Lack of patient care data link from the service unit in each level. Some provinces have problems with forwarding and continual care for heart and blood vessel disease patients. Lack of guidelines on heart restoration after surgery. A-S level hospitals have no established heart failure disease clinics, except Udon Thani hospital. Only at Udon Thani hospital is the level of the hospital centre able to provide open heart surgery; the waiting times for cardiac catheterisation are two weeks to one month, while the waiting time for open heart surgery is one year. Middle-level hospital (secondary care) cannot open Warfarin clinics due to lack of knowledge and skills, and no budget to purchase the Warfarin medication dose and INR detector. The personnel in the sub-district level lack knowledge of heart disease diagnosis. There is a lack of guidelines and tools for group risk screening, including no management system in the risk groups to slow or prevent myocardial infarction. Risk groups lack any knowledge of heart disease and warning symptoms, making for a lack of awareness of, surveillance of, and management of self-care.

- Design of the service system: The Development Board of Health Care Systems develops the treatment guidelines for heart disease, and following the potential of the hospital, defines the following key strategies:
  A) Death rate decrease strategy / death rate strategy: increase access to services by improving the potential of all district hospitals to be able to provide blood-soluble medicine. Adding screening/searching risk group patients in the community.
  B) Strategy to set up a Warfarin clinic in middle-level hospitals (secondary care), support Warfarin medicine and a INR detector in every middle-level hospital (secondary care).
  C) Add a cardiac catheterisation examination service, extend the service hours out of official time, and have a standard to reply to the cardiac catheterisation information within one week after the cardiac catheterisation was checked.
  D) Increase the number of surgical days (open heart surgery) from one day to three days per week, reduce surgical waiting times and reduce forwarding patients outside the health zone.
  E) Establish the Heart Failure Clinic in A level hospitals,
- The link of network working: Building community engagement in service system creation and improving technology supported decision making for both patients and professionals, which service from the home and the community to service places, to take care of our service recipients in the field of heart and blood vessel disease

4.2 Summary of the Group Discussion and Depth Interviews

The following comprises the summary of activities from both in depth interviews and group discussion from the Udon Thani province in the health region. The sample group were both administrators and team leaders. The overall conclusion was that support for linking each level of service system should be as follows;

1. Leaders or Executives had a policy to develop a clear health service system. The policy transferred to practice through executive and specialised staff. It believed that health field will be the first state service in Thailand to develop STIMI Fast track and network hospitals in each province. The direction of health system development is the same. Udon Thani province, which has a hospital centre, is the main leader in care and in the development of cardiovascular health services that connect the cardiac care system. Udon Thani Hospital is set to become the first cardiac centre to provide comprehensive cardiac care services.
2. Collaboration and communication in the team needs to not only work between professional networks in the same group but also between multidisciplinary fields, with the need to communicate in a "sibling" style and cooperate outside professional networks.
3. The development of personnel at all levels to ensure continuous quality and specialised knowledge in cardiovascular services. There were nurses, the secretary of the care team and the doctor is the president in most hospitals in health field. Nurses working in the care of patients with chronic heart disease need to have knowledge case management skills and coordination skill and good team communication in order to care for and provided services that were complicated.
4. Strategic development of organisation quality was a supportive factor to adjusting the work that led to having the quality of health services suitable for the local context. Many executives provided the same opinion that "[m]ost hospitals have operations in quality Assurance by Hospital Accreditation. The goal of quality development is to keep the patient under significant observation, teamwork and continuous development. The critical process is problem analysis, plan review, patient care and continuous risk monitoring."
5. The implementation of people in the centre with responsibility for both the sick and healthy. The development of health services must meet the needs of the target audience and communicate effectively.
6. Working with the Health System Framework (HSF) of the World Health Organisation (WHO) (2010) to manage the development of the health service system consisted of policy and governance, service delivery, human development, information technology, drugs and equipment, and finance. The Ministry of Health said that the "[d]irection of development plan for health service system must be linked to the Ministry of Public Health's policies and strategies in each health zone. Resource management is required and invested for the highest value." One of administrators said, "The allocation of materials, supplies, drugs, supplies and technologies have to be reasonable for each level of service and the potential for service. If something is managed by common purchasing, it will make a high negotiation power. If everybody has their own healing or buying medicines and supplies, it will be no standard then costs a lot. In the other hands if we jointly define and frame together, it will have medicine and quality medical products used at the provincial level or level of health at the same standard price."
7. Coaching, motivation and confidence in providing good quality service is a factor that supports the development of the health service system. For driving the policy into action,

workers in many provinces commented that "encouraging the team to build up morale and teaching the team in a simple and easy way will bring good results to the target audience."

This study can explain the issue in the development of a health service system in the health field.

A. View of the management of the organisation. Most health care district administrators did not care about planning and direction for development of health service system in the concrete health field. They focused only on success indicators. The system of referrals between the various services is not effective. There is lacking a financial liquidity; some services have financial problems. The budget allocated from outside agencies is limited to public health. There is no central database system to be able to analyse basic information and to use it. The medical records are not accurate and incomplete. Use of information technology is insufficient for communication. The final issue is, there is no continuous monitoring and evaluation system. No hospital or high-tech expertise centre in the health field.
B. Perspective on the organisation of the service system of workers at each level as follows: Staff is limited. The lack of knowledge management and the skills with which to develop a health service system, a lack of planning for staff development at the sub-district and district level. Staff lack skills in using information technology. Human resource development is not conducive to personnel development. There is a lack of morale. Team members lack good relationships. Communication coordination delays exist and communication is incomprehensible. There is no connection at each level of service. There is lack of proper planning and absence of motivation from supervisors.
C. From the view on health service recipients, the problem is as follows: Patients need to travel to distant health care facilities and are lacking in knowledge and decision making, including self-care.
D. Perspective of other service units, that is, non-governmental organisations that provide health services. The problems are stated as follows: The private sector views that "healthcare partnerships should focus on public service investments, which is patient services more than a source of financing for buildings, because the source of public money comes from people's taxes, the reduction of conflict or the mistrust of money to the private sector." The perspective of academics is that "government agencies that perform health do not have summary evaluation to be a public document. The work is still lacking in transparency.” In addition: There is a lack of cooperation from various sectors to join the health service.

4.3 Design and Develop a New System

Option 1. System is developed by applying Seamless Care Theory, which is a concept/policy for action. The operation of the professional network is to solve health problems; this reflects an opportunity for the state agency, whereby a system can be implemented using the existing

strengths of the system and set to achieve good results for the recipient with cardiovascular disease who is a patient of the public health system.

1.1 The development of service systems according to the capabilities of service units at various levels relies on the structure, personnel, budget, location and materials, tools / utensils and measuring the development of health services according to WHO's Health System Framework, the WHO (2010).

This health development focuses on planning for the actual operation to achieve the highest efficiency. It is a proposal from an analysis of supporting factors and weaknesses which were problems to improving the concept of chronic care system (CCM) and the development of health services. The researchers set a simple, understandable form: The 3 C Act: 3 I Support model, explained as follows.

The 3 C Acts: 3 I Support model is a model that supports the development of a quality health care system, firstly consisting of 3 C Acts: Commitment, Collaborative, Care.

1. Creating a Commitment Approach is to target shared care for targeted outcomes in shared care in professional networking teams. 1.1 Creating a team communication agreement in a variety of channels to increase speed. It may use the telephone line, fax or internet in the consultation to delivering results for ongoing care. 1.2 Professional Networking Team Targeting is to increase access to service recipients by determining the results of the operation and planning for follow-up evaluation of patient care in a professional network team.
2. Collaborative; collaborate with the professional network to joint care for patients. Each team's role in teamwork must be defined. 2.1 Organising a professional networking team has been seen in the community hospital in emergency rooms at the community hospital level. A forwarding system link to provincial hospitals when healing until symptoms are resolved, so patients receive continuous treatment for rehabilitation after surgery / treatment, in cardiovascular and community clinics. 2.2 There is a healthy volunteer network which makes the service easier and increases patient satisfaction. They also understand the care and there are options to make decisions, affect treatment, and for behaviour change.
3. Caregiving, reviewing, searching for problems according to a patient's condition, evaluation of social environment, problem analysis, designing patient care activities. 3.1 Review of access to patient services in particular; risk groups that do not know the urgent need to rush to the hospital; problems; care and supervision of complications. Patient problems are not diagnosed correctly by reviewing the medical records together in the network team. 3.2 Professional network service providers have a process to develop a guideline for cardiovascular and vascular diseases care, linking between health care facilities at all levels within the province and the health field. 3.3 Increasing patient perception

information by promoting important symptoms with which to report to the hospital, which includes the 1669 emergency medical access system being also available to reduce the waiting time for access to services, to provide patients with fast and safe services. Knowledge is provided to the people, such as through audio CDs, media knowledge, stickers, home tracking to access health information and health services. The patients have knowledge decision for self-management. 3.4 Adding a monitoring system coordinated with the professional networking team, together with community partners in the community. 3.5 It reflects data on access to targeted services and other issues to patients in the area; acknowledge developing a seamless healthcare system of professional networks in the field of cardiovascular health.

4.4 Three "I" Support: Integration, Information, Innovation.

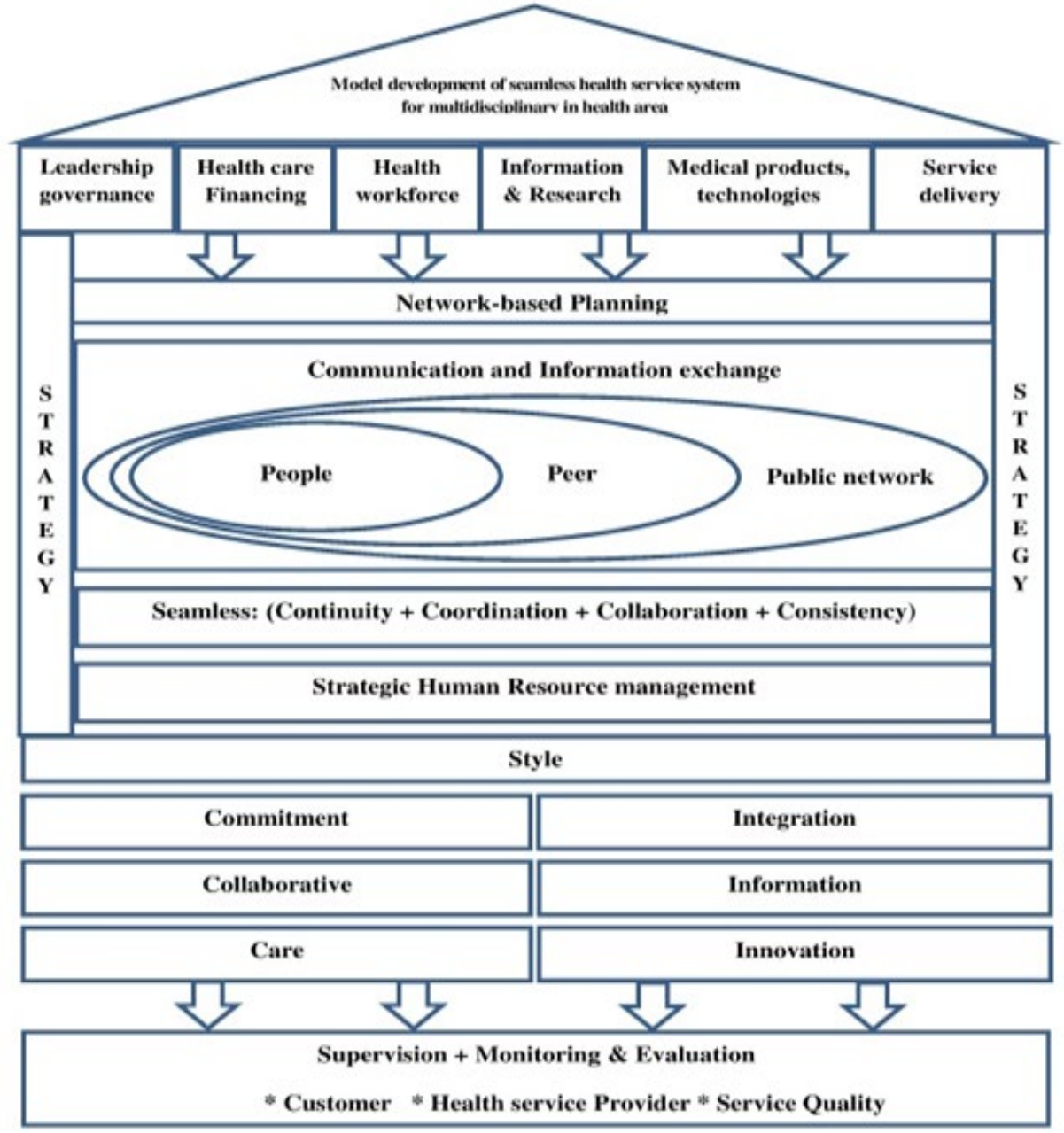
4. Both vertical and horizontal integration is needed between the professional network, whether physicians, nurses, pharmacists, physiotherapists, nutritionists, medical science staff who perform tests in the Thai traditional medicine laboratory, etc., or integration of interoperability of professional vertical network from primary level through to secondary and tertiary levels; which is able to work from home, from the symptomatic patient to the local service unit, to the district hospital and care, and beyond. The capacity to be referred to the provincial hospital or specialised hospitals, when healing, until the symptoms are resolved, to receive continuous treatment, that there is a coordinated care link after treatment to rehabilitate after surgery / treatment in the cardiovascular clinic, or at home. 4.1 To use the brotherhood teaching, transfers the knowledge both in theory and in practice. The multidisciplinary team consists of physicians, nurses, pharmacists, nutritionists and physical therapists. 4.2 There is a consultation system to provide care for patients with heart disease and stroke and to promote confidence in the new service system in the care of patients with cardiovascular disease.
5. Using information in the area to analyse in order to: understand common space problems and improve service system development; to enhance service provision of service units in every network by the development of teams and a service system for each profession, ready to provide people with health services of a standard quality, a seamless link service which reduces waiting time; reduce the rate of illness. Mortality is a major problem for each health care network. The system has a policy of developing secondary primary care services and holistic health services for the general public to access basic services and quality by integration.
6. Development of innovation, health care strengthening and health promotion will lead to the health of the people for best results, efficiency, quality and security to the target.

4.5 Key policies to Make New Choices

PPP Health Partnership Policy for Health Service Development. The Ministry of Public Health has been reformed. There are additional important policies, such as a health policy to develop a decentralised agency, and the role of health care to the people. The quality management system focusing on other policies is the primary service policy of the District Health System (DHS), Family Care Team (FCT) and Family Care Clinic (PCC). The policies focus on providing services to protect family health, medical treatment including physical rehabilitation. There are doctors and professionals who specialise. (Patricia M. Davidson, Phillip J. Newton, Thitipong T., G. Paull and Cheryl Dennison-Himmelfarb, 2015). Targeted service recipients want to receive high-quality, cost-effective services in the healthcare system. This requires a lot of resources so people can access such services with no need to travel, with cost reduction, no queues and reduced waiting times. PPP Health Partnership Policy Proposals for the Development of Health Services to enhance the efficiency of health services. This issue is of major concern to the people. The cost of health benefits is to the benefit of the people. It must be clear policy. Health issues that require complex therapies use expensive modern medical equipment, specialised physicians and other professional personnel. It uses PPP patterns such as heart disease, kidney disease, cancer, etcetera.

Community empowerment in health care for cardiovascular disease. A community is important for health care especially cardiovascular, which often results from behaviour and behaviours can protect or reduce the risk of, and severity of disease. The patient groups who are cured with medicine, surgery, or by reducing complications, can live with quality life, according to the National Health Security Office Health Insurance. The emphasis is on health care of self at a primary level, extending the service to other levels, promoting health care before illness (both individual and those at risk) or care when sick while in a medical facility, and when they return home within the community. People need to have knowledge and understanding of correct practice, to match their problems in terms of social, economic, environmental, space needs, demographics;, by creating a network for civil society, the community, the people's charitable foundation and the development of self as a dependence of their own. The idea is to develop a community empowerment network to support the development of the health service system. The mechanism of cooperation in the operation has the same goal to share resources, participate in health promotion activities, as well as collaborate with the health unit within the group. There are also groups of people with public minds who want to group in the same way with sacrifice of faith and ready to exemplify. After returning the information to the staff in the health region and providing an alternative proposal, a targeted choice of options can be implemented in the area to achieve the highest efficiency. This proposal is from an analysis of supporting factors and weaknesses that present a problem; to adjust and develop health services for the performance is called 3 C Acts: 3 I Support model, as shown in Figure 1.

Figure 1. Model development of seamless health service system for a multidisciplinary health area



For the second meeting activity, after applying the pattern of healthcare developing system in the issue of cardiovascular disease in the area for one month, the researcher used questionnaires. The result of the information is examined for the propriety of a healthcare developing service system in the field of health in cardiovascular disease can be concluded as follows in Table 1: The researcher found that in the sample group many people have made suggestion toward the quality of the healthcare developing system, in overall and in each part. The medium proprieties on working have two parts which are the part of developing policy and supporting resources and the part of developing the clinical technology.

Table 1: Characteristic data for the mean and standard deviation of propriety level of healthcare developing system in the field of health in the issue of cardiovascular disease in several parts

(N=50)

Healthcare developing system in the field of health in the issue of Cardiovascular disease	The level of propriety		
	$\bar{x}$	S.D.	Interpretation
The part of developing policy and supporting resources	3.21	0.34	Medium
The part of developing the service organization	4.23	0.26	High
The part of supporting self-management	4.09	0.46	High
The part of designing the service system	3.75	0.36	High
The part of supporting of making decision	4.01	0.35	High
The part of developing the clinical technology	3.46	0.41	Medium
The part of connecting integration	3.95	0.35	High
Total	3.81	0.18	High

Discussion

The study, including with the ideal base of synthesis form and improvement of healthcare system, found that: the improvement of strategy on New Public Management is the increase of the effect from the government administrative section, the main point of which is successful work. This is the idea of innovating the governmental system based on Result Based Management (RBM) and public health that emphasises the result of healthcare from the development of the service system. The standard service and its safety are delivered to customer. The Chronic Care Model (CCM) is used to develop the service system to have more efficiency and created the new healthcare developing system so that the target group can access a standard service equally, while also reducing the death rate by adding the connecting system between professional network teams and local public health in other areas. (Heather L Stuckey, Alan M Adelman & Robert A Gabbay, 2011)

The idea of the 3 C Act: 3 I Support model is to bring the ideas or policy in to use from the workers in a bottom-up approach, especially in relation to the states. The process of stimulating the usage of public policy to become more effective can happen if 1) the policy is not ambiguous, 2) the project can bring this policy to use easily, 3) the leader can control the usage of the policy effectively, and 4) the prevention of its use from external factors can be intervened against in the policy process (Benjamin F, 2007, Rungsrisawat, S. & Jermsittiparsert, K., 2019).

The form of the healthcare developing system is cumulative, gathering in strength from the improvement of healthcare in case management into an integrated form, which can then reach the target group. When a patient's condition goes over the limit of services available, he/she needs higher treatment, The main point of the healthcare developing system is to review the

improvement of the system continuously by using the developing processes in hospital to support the conduction which covers planning, following the plan, examining, and improving the system properly (NHS England, 2017 and Kenneth N. Wanjau, Beth Wangari Muiruri and Eunice Ayodo, 2012).

From analysis and synthesis, the researcher demonstrates the ways of improvement on the healthcare developing system in the field of cardiovascular disease by considering the level of people, peers, and the public network, which can be concluded as follows:

1. Structure: using the Health System Framework from WHO (2010) is one of the important factors for management in the healthcare developing system and is to be emphasised toward the goal/ result of targeted patient group. The director has to manage the resources from internal and external organisation to develop to get the most benefits.
2. Strategy: Several strategies need to be in place, which are: 1) Network-based Planning, that is, creating the professional network team in such a way as to improve the ways of conducting healthcare service, by determining the role, responsibility, knowledge and skills of the team; 2) Communication and Information Exchange, whereby the director has to be clear in an idea or policy in order to communicate with the three target groups (people-peer-public network) in every channel. Also, the director needs to follow and evaluate the results to continue improvements; 3) Seamless Strategy, which involves connecting to each level of health facilities, with an emphasis on continuous care, coordination, and collaboration from organisations, community, and public networks to create consistency; and 4) Strategic Human Resource Management, the management strategy to be used with a group of professional networks in the field of health (Polawat Witoolkollachit, 2017).
3. A pre-determined style has to be understood according to the desires and expectations of the target group in every level and the procedure that has been developed be applied to the proper area. The process of using the policy into context uses the 3 C Acts: 3 I Support model to support the healthcare developing system. The 3 C Acts: Commitment, Collaborative, Care is used to: 1) create the agreement, determine the goal of care taking for the patient by using the Commitment Approach; 2) build team collaboration; 3) organise the care system of the target patient, review, search for the problems, and create the activity of care for the patient. The 3I support: Integration, Information, Innovation is: 1) the integration of cooperation in both the vertical and horizontal levels, the horizontal being the connection between professional networks team, and the vertical being the connection of the public network from primary, secondary, and tertiary, and which includes specifically the health centre or from a patient's house to the level of facilities; 2) the problem information, tobe able to understand the areas that need to be improved; 3) the emphasis on continuous improvement and the creation of innovation in healthcare, the result to health including effectiveness, quality and safety toward the target group.

4. Supervision will help with advice, improvement, evaluation, cooperation and to conduct the target group continuously in order to improve and develop the healthcare system. The goal is good quality of service, safety, for people to equally reach services, and for the sytem to connect into the lifestyle of the community by using resources effectively and supporting the related persons responsible for the healthcare service system.

Conclusions

The author believes that the development of network management system that links each service level is important. Whether it be a referral system for rehabilitation upon returning home, there needs to be the development of guidelines for achieving safe patient care. The healthcare system should be accessible not only during the acute phase, but also during longitudinal follow-up, to ensure lifelong care, and there needs to be development of the health service system in this health area. Focusing on organisational development for excellence, there are three important issues that 3I will support (however, the development of health services is even better): 1) information: information analysis used to improve the services of the service units in the network at all levels; 2) integrate into the network of government and private sectors, local or public, linking the development of the primary health service system for primary and tertiary care services. To support the development of the Health Service Development Plan (HSDP), the District Health System (DHS) is an important mechanism for the management of the health area. Meanwhile, to be able to respond to real needs according to the problem, in the context of the area; and 3) innovation to improve the work, it is also accepted as a fruitful mechanism. Continuing innovation, strengthening and health promotion will lead to better health outcomes for the pe. As a model for improving the quality of a seamless healthcare system of professional networks. In the field of health to develop more effective.

From the result, the healthcare developing system which has no connection with professional network about cardiovascular disease needs to apply properly. However, there is still needed the additional clearness of policy developing and supporting resources, to help people understand the transformation and stimulate support in the healthcare developing system. To develop the system, it is very important to bring together the resources from any organisation for the best benefit and also to develop the technology system. The executives, and those at every level of the healthcare service, can use the structural health idea, which consists of six components for analysing the important factors for managing the resources in internal and external organisation to achieve the best benefits and developing system. In addition, the executives and management at every level of healthcare services should integrate their information, to better analyse and understand problems and to improve the system generally, in order to gain the potential of administrative service at every level. Additionally, the executives and management at every level of healthcare services may use the four strategies

of Network-Based Planning, Communication and Exchange of data, Seamless, and Strategic Human Resource Management, to develop the form of the healthcare service system for other chronic issues. Finally, the executives and management at every level of healthcare services should analyse the expectations of the target group and design the system to suit their needs. This could be achieved by using supervision to suggest, improve, evaluate, and operate by transcribing the lessons learnt from conducting innovative work using story telling power (R2R) to develop and improve the context of the target group. This could work like a network system by connecting the government sector, the private sector, the local sector, and citizens in primary, secondary and tertiary stages of the overall service, to support and propel the significant health policies.

However, the staff system should be developed to gain the potential and efficiency of the network, and should also develop the after-servicing system, for example, the areas of treatment, surgery, home and community care, should make a curriculum about cardiovascular disease for other health professions such as for nutritionists and physiotherapists, to support the service system for patients, and should extend the result to apply in other chronic diseases. In addition, they should include more private sectors to be part of the healthcare developing system or public private partnership to gain efficiency of health management in such areas as problems solving, the complex diseases that use the higher level of health facilities from the tertiary levels, and more. These suggestions have to be implemented using the expertise of physicians and those from other specific professions, to help build in cost-effectiveness for people using the health service.

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