HEALTH PERSONNEL DEVELOPMENT STRATEGIC POLICY: VIEWS FROM
HEALTH HR EXPERTS 1

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Abstract

This qualitative study aimed to investigate the situation of manpower development on health in Health Region 9 Comprising Nakhonratchasima, Chaiyaphum, Buriram, and Surin provinces. Documentary reviews and in-depth interviews were used for data collection. Key informants consisted of 26 people who were executives on personal resource development, heads of Personally Resource Development Affairs, and practitioners.

Results of the study revealed that Health Region 9 had the development of manpower on health as follows: 1) Policy and direction of manpower development implementation at the regional and provincial levels. This was under the policy on the service plan system and task management of the Health Region. It was consistent with the direction and main targets of the strategic plan of the Ministry of Public Health. 2) Regarding the managerial administration, it was found that the manpower development plan at the regional level had input data covering the planning process based on the participation of concerned personal in every province mentioned. There were a system and criteria on the recruitment of personnel to attend the development program which was consistent with the service plan. The main budget for manpower development was allocated by the Ministry of Public Health and there were a monitoring system and assessment after attending the program by the main educational institute. 3) For the manpower situation in

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the Health Region, there were 4 main work lines: physician, dentist, pharmacist, and nurse having a higher proportion per population than that of the Country. 4) For system and mechanism supporting, manpower development, it was found that there was movement in the central i.e. the policy on development plan on health service system; the policy on public health task management, the policy on analysis of a number of staff by using FTE; and the policy on indicators of Ministry of Public Health/ the Region Networks of manpower development were under the MOU between the educational institute of both under and not under the supervision of Ministry of Public Health inside and outside the Health Region. These consisted of 3 Medicine study centers, 2 Boromarajonnai College of Nursing, 4 public universities and 1 private university. 5) Regarding Knowledge, Technology, and Excellence Centers, it was found that the regional level had the development of the Excellence Center (Level 1) i.e. The Excellence Center of Nakhonratchasima Maharaj Hospital (Coronary Artery Disease, Cancer Infant, and Trauma. For the provincial level, it was expertise in Good Practice on kidney and COPD, Nakhonratchasima Maharaj hospital, Best Practice on Stroke unit, Buriram hospital and Best Practice on referral to the patients in Surin/Buriram provinces and Refer Back of Chronic disease. For information technology, it was found that agencies of all levels had a data filing system on personnel development by using an excel program.

**Keywords:** Health Personnel Development Strategic Policy, Health Region 9, Human Resources (HR)

**Introduction**

The World Health Organization: WHO has formulated a conceptual framework about the desired health system with 6 main components of the health system (Six Building Blocks of Health System). It comprises health service provision, health personnel, health information system, medicine and medical supplies, health treasury system, and leadership/good governance. This implies that a affairs good health system will deliver health service tasks based on the needs of people. However, it must have a strong mechanism, readiness of personnel to deliver medicine and medical supplies, and an information system as a basis of policy decision-making (World Health Organization, 2010). The capability in all existing health resources managerial administration aims to make people in each country be healthy. In this respect, human resources for health: HRH must rely on knowledgeable personnel having motivational skills and responsibility for health service tasks. Besides, the number of healthcare personnel has an effect on a belter health outcome (Waltanasirichaikul, 2015).

Health personnel is an important resource in the health system. Previously, The Ministry of Public Health in Thailand prepared a health personnel strategic plan (2013 - 2016) which was consistent with the National Decade Strategic plan on Health Personnel (2007 - 2016). It aimed to make the Ministry of Public Health has adequate quality health personnel with appropriate distribution for fair and effective health survives. In this matter, health personnel must be developed to be consistent with the needs of the health service development plan. This was under the structure of the separated health region management which was responsive to needs for the health of people at the area and the national levels (Office of Public Health Administration, 2016).
Regarding importance for health personnel and consistency with guidelines for the Twenty Years National Strategic Operation (Public health) leading to the good of “Health people, happy health personnel and sustainable health system” (Baanchuen, 2016), an important mechanism is “People Excellence” on the basis of competency, good attitudes, and happiness. This is together with the development of quality health services to meet the standard by means of connection and collaboration of all concerned parties (Pokpermdi, 2016). In this case, the Ministry of public health must have a systematic personnel development plan with clear guidelines for operation under the structure of separated health region management. Therefore the Boromarajonani College of Nursing at Nakhon Ratchasima and Surin provinces agreed to conduct this study which aimed to investigate the operation on health personnel development in Health Region 9. Obtained data would be beneficial to the formulation policy and planning on the development of health personnel, Ministry of Public Health. The conceptual framework of the study involved situations of health personnel development operation, Health Region 9. This consisted of policy, plan, the structure of the health personnel development, management of health personnel of the Health Region, health personnel situations, system and mechanism supporting health personnel development in terms of health, knowledge, technology, and Excellence center.

Research Methodology

This study passed the consideration by the committee for man research ethics, Naresuan University. It employed qualitative research and documentary review related to the development of health personnel was done. This involved the concept of health personnel development, health system policy, project planning, report data, and research related to health personnel development. Besides, an in-depth interview was conducted with 26 key informants who concerned with health personnel development in Health Region 9 “Nakhinchaiburin region” (Nakhon Ratchasima, Chaiyaphun, Buriram, and Surin provinces). They were executives and administrations on human resource development (12 persons), heads of Human Resource Development Section (8 persons), and provincial of human resource development at the provincial and regional levels (6 persons). The in-depth interview was based on an interview outline passing content validity test by scholars-data triangulation (Chanthawanit, 2003: p.129). Obtained data were analyzed based on content analysis and concept about the managerial administration of personnel development. This comprised planning, structure preparing, supervision/monitoring, and assessment of personnel development.

Results of the Study

1. Policy and direction of personnel development in Health Region 9

According to the documentary review and in-depth interview, it was found that Health Region 9 carried out the task on personnel development under the policy of health service plan. The direction of personnel development was at the provincial and regional levels under the policy of task management in the form of a health region. This was consistent with the direction and goal of the strategic plan of the Ministry of Public Health. It comprised the following: expansion of context of personnel development to be wider than the main profession to coven health caretakers in the community and local wisdoms; planning and development of health personnel to be
consistent with health service system; responsiveness to needs for good health of people; distribution of roles on development planning and sending personnel to target areas; and creating participation of the public/private sectors, the local section, and people of all levels. All of these conformed to the vision “Nakhonchaiburin is a leader at the national level in party network participatory health system management for good health of the public in 2017” The mission in personnel development includes the development potential of health service personnel of all levels to have appropriate competency. That was, they would have the competency in the integrated health system of all levels. It was found that people were satisfied with the service system which they took part in the system preparation. The success indicator was patient refer to external health region which was at zero (Zero Refer Out). The formulation of a strategy on personnel development was on the basis of “Promotion of production, distribution support, maintenance, and personnel development to be adequate for health service provision as well as creating moral support.” The included 4 aspects: the proportion of people per physician in the Nakhonchaiburin area, the proportion of people per nurse in the Nakhonchaiburin area, the proportion of people per sub-district health-promoting capital and percentage of the service provider whose competency was developed based on their profession work line.

Regarding the in-depth interview with key informants, it was found that Health Region9 transferred its policy in the form of top-down systematically. The policy was received by the transfer from the ministry executive to the regional document. This conformed to review related literature which found that the policy formulation was delivered from the central to the region, province, and agencies, respectively. The development of health personnel of the Health Region had the formulation of policy and project plans. In this respect, the inspector of the Ministry of Public Health of each region received the policy from the Ministry of Public Health. Also, the policy transfer was in the form of top-down and it was systematic. There was a strategy committee meeting and a meeting of the committee for the health service region administration. This aimed to prepare a strategic plan at the regional level which was consistent with plan, policy, and strategy on public health. Besides, there was strategy/policy transfer from the health region to the provincial level with the participation of the administrator and the practitioner at the regional level and command was through an official document. For the preparation of a plan, policy, and strategy at the health region level and provincial level, the Health Region9 had formulated task management in the form of the Health Region Committee.

The structure of task management and the project proponent on the development of Health Region 9 personnel. According to the review of related literature and the in-depth Interview, it was found that Health Region9 had formulated task management in the form of the Health Region Committee. The structure of the Health Region 9 task administration consisted of the board committee of Health Region Ministry9 and of Public Health the committee of Health Region9. There was an inspector of Ministry of Public Health as Chief Executive Officer: CEO; public health supervision as Deputy Chie; and the Health Region committee developing 4 main tasks and they were Chief Financial Officer (CFO), Customer Service Officer (CSO), Chief Information Officer (CIO), and Chief Human Resource Officer (CHRO). In this matter, there was the office of Health Regions which acted as the secretariat office of the board of committee and the Health Region a committed with regards to the task management on the development of
Health Region 9 personnel having CHRO as the Chief Executive Officer, there was the committee on personnel development. This comprised a person responsible for administration and development of personnel of the provincial office of Public Health, Central hospital, gunnel hospital, as were the director of Borommrajonnani College of Nursing in Health Region 9. There were heads of task groups and practitioners on personnel resource management of Health Region 9. They acted as the secretary, the assistant secretary, and a person responsible for personnel development at the provincial level. Mostly, there was the determination of a personnel development task structure and a person responsible for it was in the personnel Resource Development section and the provincial office of Public Health. In addition, some provincial office of Public Health had the committee for personnel development supervising at the provincial level as shown in the structure of the Health Region 9 task administration (Figure 1).

**Figure 1 Structure of Health Region 9 task management**

2. Managerial administration of the development of health personnel in the health region
According to the review of related literature and the in-depth interview about the managerial administration of health personnel development in the health area, there was consistency as follows:

2.1 Personnel development planning.

Regarding input factor, it was found that there were related input data such as policy and strategy on personnel development at the ministry/regional levels; data on need for training of personnel in health regions of every province; data on problems in implementation; FTA data in accordance with service plan in the province; plan on needs for personnel development of service units of all levels; indication data; budgeting data sources of budgets; and HRD budgeting data in the previous year.

Regarding the process, it was found that the preparation of a personnel development plan at the health region level employed participation of concerned personnel of all provinces in the health region. There was a planning process by holding an action meeting having CHRO as the president. In this case, the personnel Resource Management section of Health Region 9 acted as the secretary. For the preparation of a personnel development plan at the provincial office of the Public Health level, all provincial offices of Public Health in the Health Region prepared a personnel development plan for the hospital. In this case, the Human Resource Management Section and some central hospitals had a planning preparation process and approved the plan based on the participation of the hospital committee.

Regarding output, it was found that, at the regional level, there was a personnel development plan as a whole covering all professions which were consistent with the service plan. The Strategic Goals of the province and the health region comprised a production plan, a training plan, and a continuing education plan in which personnel handed a training in accordance with the plan. In addition, central hospitals and the general hospitals had a personnel development plan based on major fields and an individual which was consistent with the strategic goals of the province/health area and agency context.

Regarding a method for finding training needs, it was found that Health Region 9 had conducted a survey for finding data on needs for the development by agencies having problems in operation as a whole and service plan indicators.

Regarding a method of personnel development, it was found that Health Region 9 employed short and long term training as well as continuing education/specific fields of expertise in specialist physician program and specialist nurse program with the collaboration of inside and outside the health region.

Regarding a system of personnel selection to join the development, it was found that the regional level had a personnel recruitment system for the development program in accordance with service plans. This covered a specific personnel group such as physicians and nurses based on the sequencing of need. In this respect, there were criteria taken into consideration:
1) mainly emphasis on the development of people in five Excellent Center; Field of the blood vessel and heart, the field of cancer, field of a newborn infant, the field of trauma, and the field of transplantation of organs and;

2) whole supporting budgets for personnel development. For the provincial level, there were a recruitment system and criteria for the approval of qualified personnel to join development project covering all levels and professions.

This was consistent with service plan of the province and the health region based on agency context as follows: 1) there were a recruitment system and criteria for the approval of qualified personnel to join the development program through profession club network and 2) there were a recruitment system and criteria for the approval qualified personnel through the agency board.

2.2 Monitoring and assessment after the development of project implementation.

Regarding the regional and provincial levels, it was found that there was an assessment of the development program. Results of the assessment and expenses of the program were reported to Praboromarajchanok Institute for Health Development within the time interval asset. Also, there was a monitoring and assessment system after the project implementation by the main educational institute preparing all curricular programs. For agencies at the provincial level, there was monitoring and assessment as required by KPI. Some central hospitals had a monitoring system after the development of project implementation conducted by the HA Quality Service Development section. Besides, some general hospitals had an assessment of personnel after the development project implementation which was done by the Personnel Resource Development Section.

2.3 Budget allocation on personnel development.

It was found that sources of the personnel development budget of Health Region 9 were; 1) the main budget from Ministry of Public Health comprising the personnel development budget from Praboromarajchanok institute for Health workforce development and the budget from the health service unit; 2) the budget from National Health Security office, and 3) the budget from Thai Health Promotion Foundation. With regard to the budget allocation criteria on personnel development, it was found that Health Region 9 had criteria of budget allocation for personnel development by the health region board. Part of the budget allocation was for HRD in 4 provinces, 700,000 baht each; 400,000 baht for each Provincial Office of Public Health and 300,000 baht for each provincial hospital. Also, it was found that the Provincial Office of Public Health had a guideline for budget allocation based on sequencing g importance and needs.

3. Situations of personnel in the Health Region

According to documentary review related to situations about personnel in the health area, it was found that Health Region 9 had a proportion of patient beds per population of 10,000 on 20.24 which was lower than the nation's average score (20.6). Meanwhile, Chaiyaphum province was found to be the lowest (16.97).
Health Region 9 classified the personnel data group into 5 groups depending on position: government official, government employee, Ministry of Public Health employee, permanent employee, and a temporary employee with a total of 32,847 persons. The government Official position had the highest number of personnel most (16,245), followed by the Ministry of Public Health employee position (12,957), the temporary employee position (2,440), the permanent employed position (720), and the government employee position (494), respectively. For registered nurse proportion, it was found to be higher than that of the country. Interestingly, registered nurses were still in need since it should have 2,980.81 persons (Table 1). Also, specialist physicians were also in shortage, especially in the M2 level hospital.

Table 1 An analysis of officer capacity rate (4 work lines) in Health Region 9

<table>
<thead>
<tr>
<th>Professional</th>
<th>Office capacity</th>
<th>Actual number</th>
<th>No of shortage</th>
<th>Proportion per population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>2,008.53</td>
<td>1,594</td>
<td>-414.58</td>
<td>1:4,225</td>
</tr>
<tr>
<td>Dentist</td>
<td>633.35</td>
<td>457</td>
<td>-176.35</td>
<td>1:14,736</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>1,441.23</td>
<td>724</td>
<td>-717.23</td>
<td>1:9,301</td>
</tr>
<tr>
<td>Registered nurse</td>
<td>11,779.81</td>
<td>8,799</td>
<td>-2,980.81</td>
<td>1:765</td>
</tr>
</tbody>
</table>

Source: Office of Health Region 9: Personnel data (30 September 2016)

4. System and mechanism supporting the personnel development

According to an analysis of documentary review and the in-depth interview about system and mechanism supporting the personnel development in Health Region 9, the following are found.

The system and mechanism supporting the personnel development or the operation in the center consisted of the following: 1) the development plan policy of the health service system (service plan); 2) the policy on public health task management in the form of health region; its structure consisted of Chief Human Resource Officer (CHRO) responsible for developing personnel in the health region; 3) the policy on an analysis of officer capacity rate by using FTE (Full Time Equivalent) as the frame for the computation; 4) the policy and indicator of Ministry of Public Health/region on the basis of work performance quality; and 5) supporting budget sources i.e Praboromarajchanok Institute, Ministry of Public Health, National Health Security Office and Thai Health Promotion Foundation.

The system and mechanism supporting the process were: 1) the implementation monitoring system for the personnel development project from the inspector through the health region board, and 2) operation in the form of networks on personnel development in the health region. It was found that there was an MOU between the regional/provincial levels and educational institutes both inside and outside Health Region 9. For example (Regional level), the MOU between the health region and Nakhon Ratchasima Boromarajonni Nursing College and MOU between the health region and Suranaree University of Technology Phramongkutklao College of Medicine (Physician Production Program). For the provincial level, the following were found: 1) Burirum province had professional club networks of all professions. In this respect, the Provincial Office of Public Health could manage various tasks inducing HRD through the profession club network. 2) Nakhon Ratchasima Provincial Office of Public had an MOU on
Medical Statistics program between the Health Region Office and Kanchanapisek College; an MOU on Excellent Medical Production with Maharat Nakhon Ratchasima Hospital and Surin hospital. Meanwhile, Maharat Nakhon Ratchasima Hospital had an MOU with Ramathibodi hospital and Khonkaen University; 3) Chaiyaphum province had an MOU with Phraboromnajchanok Institute Chaiyaphum Rajabaht University, Khonkaen University, and Suranaree University of Technology.

5. Knowledge, Technology and Excellence Center

According to the documentary review and the in-depth interview about knowledge, technology, and Excellence Center in Health Region 9, the following were found to have consistency:

5.1 Health Region 9 had the development of the Excellence Center for 5 fields in accordance with service plan policy: 1) Excellence Center level 1 - that of Maharat Nakhon Ratchasima Hospital in the fields of blood vessel and heart diseases, cancer, newborn infant, and trauma; 2) Excellence Center level 2 - that of Maharat Nakhon Ratchasima Hospital in the fields of organ transplant action; that of Chaiyaphum, Buriram, and Surin hospital in the fields of blood vessel and heart disease, cancer, newborn infant, and traumas; 3) Excellence Center level 3 - that of Chaiyaphum, Barina, and Surin hospitals in the field of organ transplantations (Table 2).

Table 2 Levels of the Excellence Center development based on 5 fields in Health Service Region 9

<table>
<thead>
<tr>
<th>Five Excellence Centers</th>
<th>Nakhon Ratchasima M.hospital</th>
<th>Chaiyaphum hospital</th>
<th>Buriram hospital</th>
<th>Surin hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood vessel and heart</td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 2</td>
<td>Level 2</td>
</tr>
<tr>
<td>Cancer</td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 2</td>
<td>Level 2</td>
</tr>
<tr>
<td>New born infant</td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 2</td>
<td>Level 2</td>
</tr>
<tr>
<td>Trauma</td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 2</td>
<td>Level 2</td>
</tr>
<tr>
<td>Organ transplantation</td>
<td>Level 2</td>
<td>Level 3</td>
<td>Level 3</td>
<td>Level 3</td>
</tr>
</tbody>
</table>

5.2 There were main educational institutes, in Health Region 9 producing graduates and holding training under Office of the Permanent Secretary, Ministry of Public Health: Medical Education center at Maharat Nakhon Ratchasima Hospital, Buriram hospital, Surin hospital, Nakhon Ratchasima Boromarajonani Nursing College, and Surin Boromarajonani Nursing College. In addition, there were main educational institutes collaborating in graduate production in Health Region 9 i.e. Saranaree University of Technology, Nakon Ratchasima Rajabhat University, Chaiyaphan Rajabhat university, Buriram Rajabhat University and Wongchawalitkud University (Table 3)
Table 3 Main educational institutes in producing and training public health personnel in Health Region 9

<table>
<thead>
<tr>
<th>Main education institutes</th>
<th>Nakhon Ratchasima</th>
<th>Chaiyaphum</th>
<th>Buriram</th>
<th>Surin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under the supervision of the Ministry of Public Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Education Center</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Boromajonani Nursing College</td>
<td></td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not under the supervision of the Ministry of Public Health</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suranaree University of Technology</td>
<td></td>
<td></td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Rajabhat University</td>
<td></td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Wongchacalitkul University</td>
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<td>√</td>
</tr>
</tbody>
</table>

5.3 Specialty at the provincial level

Nakhon Ratchasima province had Good Practice on kidney disease and COPD (Maharat Nakhon Ratchasima Hospital)

Buriram province had Best Practice on Stroke unit (Buriram hospital) and MCH Node (Nangrong, Lampaimat, and Satuek districts)

Chaiyaphum province had Best practice on integrated elderly care-taking (Educational trip at Nongbuaraway and Khon Sawan districts)

Surin had best practice or patient refer with the collaboration with Buriram province and Refer Back chronic disease patients through data sending (Real-Time through Program Thai Refer)

5.4 Information technology on database management program used for filing data on personnel development

The regional level - There was systematic personnel development data filing (physician profession and followed by the dentist profession). This was a thorough information system program for public health personnel management (HROPS). It was the central program of the Personnel Management Section, Office of the Permanent Secretary, Ministry of Public Health.

The provincial-level - Most agencies had a system of data filing on personnel development by using the Excel program developed by the agencies. However, the data filing was base on a specific aspect, not as a whole. In some provinces, the Provincial Office of Public Health had developed the program for filing HR data covering the whole province.

Discussions
Health Region 9 had a direction of personnel development at the regional and provincial levels under the policy on health service development plan (Service Plan) and the policy on separated health region task management. This was consistent with the direction and main goals of the strategic plan of the Ministry of Public transfer was in the form of systematic top-down. The task management structure at the regional level was consistent with the health region structure. That was, there was the health region board on personnel development. Also, agencies of all levels had formulated the structure and clearly designated a person responsible for personnel development tasks.

The personnel development plan at the regional level had concerned input data such as the policy and strategy on personnel development at the ministry/ regional levels; data on training needs of every province in the health region; FTE data in accordance with the Service Plan in the province; needs for personnel development plan of service units of all levels; indicator data budget data, etc. There was the process of a plan preparation by holding an action meeting with the participation of concerned personnel of every province in the health region. For the preparation of a personnel development plan at the regional level, there was the Personnel Resource Development section, Provincial office of Public Health and Central / general hospitals in the health region responsible for it.

The personnel recruitment system to join the development project had criteria focusing on Peoples Excellent center in accordance with the Service Plan. For the provincial level, the recruitment and criteria cornered all fields of profession relevant to the service plan of the province and the health region depending on agency context. The main budget on personnel development of the health region was from the Ministry of Public Health. In this respect, Praboromrajachanok institute had allocated the budget to the health regions for 7 million baht each, Meanwhile, Health region 9 had allocated it to provinces in the region for 700,000 baht each. Regarding the situations in health personnel in Health Region 9 based on an analysis of office capacity rate: physician, dentist, pharmacist, and register nurse, it was found that its proportion per population was higher than that of the country.

However, it still lacked registered nurses that it should have at least 2,980.81 persons. Likewise, it also lacked specialist physicians in M2 level hospitals; particularly of orthopedics, followed by surgeon, internist and pediatrician (Existing actual number of 14.29, 17.34, 20.43, and 35.71 percent, respectively).

The system and mechanism supporting the personnel development based on the input factor was the operation in the central. This included the following: 1) policy on a health service system development plant (Service Plan); 2) policy on separated health region management; 3) policy on an analysis of office capacity rate by using FTE for the computation; 4) policy and indicate of Ministry of Public Health/the health region based on quality of the management of health personnel development, and 5) supporting budget source i.e. Prabenomanajchanek Institute, Ministry of Public Health, and budgets from agencies. This was followed by the National Health Security office and some were from the Thai Health Promotion Foundation. The mechanism supporting the process included: 1) the monitoring system of the personnel development project implementation them Health care and the inspector through a health region.
board meeting; and 2) network operation on Health Region 9 personnel development at the regional and provincial levels; an MOU with educational institutes inside and outside Ministry of Public Health/inside and outside Health Regions 9. The strong point was profession club networks of Buriram province. That was, the Provincial Office of Public Health could well manage various tasks, including HRD. In addition, there was many higher education institute in Health Region 9: 3 Medical Education Center, 2 Boromarajonani College of Nursing, 4 public universities, and 1 private university.

The 5 Excellent center development was consistent with plan policy to achieve the indicator "Patient Refer outside the health region to be zero" (Zero Refer Out). This included Level 1 Excellent Center: Excellent center of Maharat Nakhon Ratchasima Hospital (Fields of blood versed and heart, cancer, newborn, infant, and trauma. Besides, there were specialties at the provincial level – "Good Practice" on kidney disease and COPD of Maharat Nakhon Ratchasima Hospital” Best Practice on stroke unit of Buriram hospital and MCH Node in Nangrong, Lampaimat, and Satuck districts, Buriram province, Chaiyaphum had “Best Practice” on integrated elderly health care in Nongbualaway and Khonsawan districts. Also, Surin had "Best Practice" on chronic patients refer back.

Information technology or the program on database management used for filing of personnel development data. It was found that the filing system was for a specific matter, not as a whole in general. There was only a database on continual training with complete and DIV program which was a database of health personnel. However, it had not been developed in terms of HRM and HRD databases.

Health Region 9 continually carried out the tasks on health personnel in the region which was consistent with the policy and direction of health personnel of the Ministry of Public Health. However, it was found that there were limitations at the level of the ministry, region and province. These were from internal and external factors. For the internal factor, it involved the policy such as operational structure of Service Plan; HRD at the ministry level had not been connected yet; policy on personnel development of the health region was not continual, the health region policy put the importance on the development personnel in the fields which are in shortages, etc. The limitation arose from internal factors on managerial administration included HRD personnel still lacked systematic HRM knowledge; there was no systematic monitoring/assessment of personnel who had been developed; monitoring/assessment after the personnel development was mostly conducted by the main education institute; inadequate supporting budgets; budget allocation was not consistent with needs and problems of the area; agencies could not send its personnel to attend training based on a fixed number due to lack of the personnel; personnel did not pass the examination or due to their personal tasks, etc. This made the main educational institute be enabled to offer the development course.

In addition, our analysis of office capacity rate by using FTE was not consistent with context of big central hospitals, produced personnel had no position, production of specialist nurses was inadequate, the Health Nurse-Practioner program was inappropriate with context of big central hospital serving complicated diseases, and the system of data filing on personal development was for a specific matter. The limitations arose from external factors in terms of
system and mechanism supporting the personnel development included: there was no main educational institute offering a course needed to be developed; the consideration of quota for training by the profession council did not meet true needs and the nursing council did not realize the importance of members in regional areas, etc.

To reduce the limitations as mentioned and increase efficiency in health personnel development in the health region, the Ministry of Public Health should formulate a policy connecting with the service plan and HRD at the ministry level. Concerned agencies at the ministry level should prepare a long term plan and planning could be mutually done by Infrastructure Development Plan and Personnel Development Plan section. Besides, the policy formulation on personnel development must be clear at all levels. In this respect, all executives in the health region should be in their position continually for at least 3-4 years for the continuity of the policy on personnel development and other policies. In addition, the health region should formulate a policy at the regional level focusing on personnel development based on the situation de personnel shortage.

The health region should prepare a plan on personnel development at the regional level and it can be mutually done by CHRO and CSO. Also, it should have massacre on an assessment of worthiness in budget spending. Data filing should be done as a whole in the same manner the country. Besides; the Ministry of Public Health should develop a program for HRD data filing in the same manner throughout the country. Agencies of all levels should have a current personnel database of all work lines. It should have a clear personnel capacity rate plan and a clear personnel development plan. This will be important data for the administrator to consider or make a decision on personnel development.

One factor contributing to the success of the management of health personnel development by the health region is complete put data. This enhances the good formulation of the strategy on health personnel development of the region and the province. HRD personnel of the health region must be a professional group and all concerned sectors must participate in the preparation of a personnel development plan of all levels of agencies. It should have an adequate budget for personnel development. The personnel development plan must meet the needs of personnel with a good coordination system between the project proponent, training participant, training venue, and supporting section. Also, it should have a monitoring system on personnel development through a meeting of the health region board. Importantly, executives must contribute to the success of personnel development.

That is, they must put the importance on the personnel development policy, monitor, and supervise operational outcomes of HRD. Besides, the executives should do the following: immediate problem-solving, accessibility to the data source at the mining level, perception of needs and practitioner support to understand HRD tasks, perception of problems and providing assistance, etc.

Furthermore, should have a system and mechanism supporting personnel development. For instance, the Ministry of Public Health keeps the policy on HRD budgeting support for the health region every year. Also, it should have the separation of budgets for providing a scholarship supporting the nurse production program. Praboromaraichanok Institute should adjust the nurse
production policy to meet the needs of the health region to reduce the severe shortage of health personnel. All levels of agencies should focus on the personnel keeping policy. That is the agencies must have a clear personnel development and progress management system. Reasonable fringe benefits must be offered to the physician, dentist, pharmacist, and registered nurse. This is particularly on the registered nurse found to be in severe shortage. Importantly, empowerment and morale support be practiced so that this person will be happy and proud of their work life.

Suggestions

Suggestions for the health region

1. Agencies of all levels in the health region should do the following in order to reduce limitation in personnel development;
   - Executives collaborate with other main institutes by themselves in the case of the main institute cannot office the curricular program.
   - In the case of the specialist personnel production is inadequate, prepare MOU with the main institute.
   - Hold at in-house training for target personnel so that they will have a better chance to pass the examination.
   - In the case of those who pass the examination cannot join the development program due to personnel matters, others should be selected to replace it.
   - Improve the plant during the year to make data be updated in the case of no one applies to study or attend training in various programs.
   - Have a measure on an assessment of the worthiness of budget spending.
   - Provide a monitoring and assessment system of personnel who have passed the development program.
   - Policy on morale support for personnel to be happy and proud of their work-life.

2. Big central hospitals should analyze officer capacity rates based on their content. This is by means of a comparison with a median in the case of FTE is used for the analysis and found not to be consistent with the agency context.

Policy suggestions for the Ministry of Public Health.

1. Prescribe the strategy and policy on personnel development to be important as a priority at the ministry, regional, and provincial levels.
2. Prescribe the strategy and policy on personnel development to be clear and consistent of all levels.
3. Prescribe the health region structure in which CHRO is in a long-term position and the inspector and administrative committee of HRD at the regional level.
4. Connecting Service plan and HRD operational structures at the Ministry level.
5. It should have the policy to make big central hospitals of the Ministry of Public Health be able to product nurses. This can be done by the affiliation with Praboromarajchanok Institute and Nursing College to reduce personnel shortage.
6. Ministry of Public Health must maintain the policy on HRD supporting budget continually every year. Also, it must have a criterion on supporting budget which consistent with the health region context.

7. Boromarajchanek Institute should adapt the production policy to meet the needs of the health region. This is because a quality personnel development system is the development of a person to meet needs.

8. Ministry of Public Health should develop a program for HRD database management to be in the same base throughout the country.

**Suggestions for further research**

It should have a study on health personnel development situations covering all health regions; a guideline for health personnel development under the 20-year development place of the Ministry of Public Health; role development of Nursing Colleges under the supervision of Praboromoraichanok Institute under the 20-year plan of the Ministry of Public Health; and a guideline for development to connect health personnel development planning and health service system development plan at the ministry level; under the 20-year development plan of the Ministry of Public Health.

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