Policy Analysis of a Thai Plan to Increase the Production of Nurses and the Quality of Nursing Education

Kulwadee Abhicharttibutra, Wipada Kunaviktikul, Orn-Anong Wichaikhum, Wichit Srisuphan, Sue Turale

Abstract: Nursing shortages continue to be a critical issue in many countries despite the efforts of governments, and various nursing and health policies to overcome these. This study used a policy analysis framework and a mixed method approach to collect and analyze data regarding the context, processes, actors and content of the *Plan for Increasing Production and Development of Educational Management in Nursing*, enacted to address nursing shortages in Thailand. Data were obtained from a review of documents, and semi-structured interviews using a questionnaire with 28 key informants involved in the Plan's development and were analyzed using content analysis and Policy Maker software. Findings revealed that the contexts influencing the development of the Plan were: inadequate production of nursing graduates; lack of coordination in producing and utilizing nurses; unachieved quality in nursing education; a requirement to adhere to other national Thai plans; changes in demographic and social structures; economic growth; and the Thai Cabinet resolution on the shortage of professions in 1988. Policy-making processes began with identifying the nursing shortage issue, finding appropriate channels to advance the issue, and making proposals to the Thai Cabinet. Key actors influencing policy development included three nursing deans, the Chair of the Thai Deans' Consortium for Nursing, the University Affairs Board, the Minister of University Affairs, and the Working Subcommittee. Content included goals and strategies for achieving a nurse-to-population ratio of 1:950 and producing competent nurses. Our findings demonstrate the significance of continued nursing workforce policy involvement to help address current nursing shortages and can help inform the future development of nursing workforce policies in Thailand and elsewhere.

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Introduction and significance of study

Studies analyzing nursing workforce policies are significant at a time when the world is experiencing critical nursing shortages, and especially so in developing countries.[1] Many countries that encounter nursing shortages often put this issue on the health policy agenda[2] since shortages challenge health care systems. Failure to deal with such shortages affects improvements in population health, and leads to a demoralized nursing workforce; but effective workforce policy and planning can help nursing workforce stabilization.[3] Unfortunately there is a paucity of nursing and health literature regarding the development of nursing policies in Thailand where this study was set.

In 1993, the Plan for Increasing Production and Development of Educational Management in Nursing (PIPDEMN or 'the Plan') was enacted by the Royal Thai Government, and is the subject of this study. This was the first national plan attempting to solve the nursing shortage by increasing the production of registered nurses (RNs) and improving the quality of nursing education. The PIPDEMN aimed to graduate an additional 5,272 RNs from nursing institutes under the Ministry of University Affairs (MUA) during 1993-2001, however, it resulted in only 4,155 new nurses.[4] This result indicates a need for health policy analysis of the PIPDEMN, so this study aimed to understand how that policy was developed, whether it was implemented effectively, why it did not achieve its expected outcomes,[5] and to outline recommendations to policy makers because the nursing shortage in Thailand continues to be a critical issue. For example, in 2011, 46,161 more nurses were needed over all regions of Thailand[6] and a Thailand Nursing and Midwifery Council (TNMC) analysis demonstrated that to meet the desired nurse-to-population ratio of 1:400 by 2019, there is a current demand for 43,250 new RNs.[7] Thus the Thai nursing shortage is still unresolved and requires urgent attention by policymakers to help ensure sufficient competent nurses are present to address the health needs of the population. Moreover, the findings of this study will assist policy makers in Thailand to understand that a consequent flow-on effect is that a well-developed nursing workforce policy will help reduce costs of health and personnel expenditures as well as improve health care system quality. Failure to correct workforce imbalances is often blamed on health workforce policy formulation[8] but policy development has a direct relationship to policy achievement, for success in implementing a policy may depend on how a policy is developed in the first place.[9]

Policy analysis and health policy analysis

Policy analysis is a descriptive attempt to explain policies and their development and is a special kind of research. Although policy analysis has been used since 1960s, its application in developing countries has been limited.[5] The importance of policy analysis is widely acknowledged in the health sector[5], however most nurses are not yet familiar with or able to understand the importance of being involved in health policy development or analysis. Health policy analysis (HPA) serves as an approach to explain the interaction among institutions that create policy, and their interests and ideas in the processes of public policy.[10] Moreover, HPA helps us to understand: the why and how of policy makers' interests and their decision-making regarding matters like health problems and funding; how context influences the policy process and its outcomes; what are the important processes of a policy; and who are the significant actors in those processes, and how they use their power, position and influence in the various processes of policy making.

Policy analysis draws on concepts from economics, political science, sociology, public administration, and history.[5] There are two types of policy analysis: 'analysis of policy' which refers to the understanding of policy consequences after a policy is made, and 'analysis for policy' which refers to the generation of solutions for solving policy problems.[11]

In the former, there is argument that the traditional policy analysis focuses on the content of policy while neglecting the actors who were involved in policy-making processes, therefore this study sought to address this shortcoming, as well as describe the contexts of the policy process. In this study, actors are individuals or groups at national and local levels who are affected by the context in which they live and work, who use power and position to influence policy-making processes; power is defined as the ability, authority, strength, or force to drive policy, and position indicates the status of actors in the policy-making process. Contexts include both stable and uncertain events influencing actors who set up policy. The process of policy-making refers to how an issue gets on to a government agenda and how that issue proceeds. Content of policy refers to details of policy reflecting all previous dimensions.

Examples of policy analysis: In low and middle income countries, like Thailand, HPA is in a stage of infancy and studies tend to be diverse and fragmented, an indication of efforts to build policy analysis capacity within these countries.[12] Many HPA studies use an analytical model[13-15] like that described above. For example, in an analysis of mental health reform in Bosnia, Herzegovina, and Kosovo[13] data was collected from documents and articles relating to health policy and key informant interviews. The contexts of mental health reform were collected, including the history of politics and mental health services, psychiatric epidemiology, and foreign influences on mental health reform. The content was also examined, including underlying principles and implementation characteristics of mental health reform. The process included the timing and pace of reform. Lastly, the actors and their positions and power were analyzed using political mapping[16], which was later included in the Policy Maker software. Political mapping was considered very useful to structure different and extensive qualitative data, and was a suitable method to analyze health reforms in post-conflict areas. Political mapping proved a useful research strategy in the present study.

Another HPA study involved the nursing workforce[14] and analyzed the implementation of a policy for rural allowances in North West province hospitals of South Africa where there were health professional shortages. Here a case study design was used for: document reviews; interviews with seven policy-makers selected by purposive and snowball sampling; and in-depth interviews with 33 hospital managers and health professionals. The study found that there were geographic inequities in health personnel distribution in the country because health workers tend to move to cities. Policy content included the intention of the policy to attract and retain health professionals, including RNs, to work in public health services in rural areas. The process of policy implementation showed problems with the implementation of the rural allowance policy, including lack of evidence to guide policy formulation, restricting eligibility for allowance to doctors and professional nurses, lack of clarity in the definition of rural areas, weak communication, and the absence of a monitoring and evaluation framework. Actors involved came from various government departments.[14]

While nurses are in an ideal situation to understand and recognize the policy determinants of health[17], globally they are less likely to be involved in policy determination[18], hence the focus on analysis of an important policy document in this study in Thailand.

Study questions: With regard to the PIPDEMN this study's questions were:

- What were the contexts that influenced its development?
- What were goals and strategies?
- What were the policy formulation processes? and
- Who were the actors involved in its development and what were their roles?

Methodology

Design: The study design employed a mixed method approach, predominately qualitative, to collect in-depth interview and document data regarding the contexts, content, processes, and actors of the PIPDEMN.

Participants and setting: Thai key informants (KI) of this study included:1) two groups of committee members: the Subcommittee and the Working Subcommittee for Studying the Demand for Nursing Personnel (WSSDNP) who developed the PIPDEMN; and 2) former deans of nursing faculty and directors of nursing colleges who implemented the PIPDEMN. Purposive and snowball sampling techniques[19] were used to identify and gather KI who were eligible, available, and willing to provide information. Interviews were conducted between April 2010-April 2011 at KI offices and homes with 13 members of the Subcommittee and the WSSDNP and 15 former deans of nursing faculty and former directors of nursing colleges. Not all KI involved with PIPDEMN were available for interview due to the passage of time.

Data collection: Both qualitative and quantitative information was collected. Qualitative data was obtained from semi-structured interviews, and broad eight questions were developed in four areas: context, processes, actors, and content, to elicit information concerning the PIPDEMN. The questions were validated by five nursing faculty members, expert in nursing workforce policy, and adjusted according to their recommendations. Three pilot interviews were conducted among actors involved in the policy-making process of other human resource policies, to assess the feasibility of the interviews and improve the questions. Examples of broad questions asked included: "What were the contexts influencing the PIPDEMN?"; "Who was involved in the policy-making process?"; "What were their roles?"; and "What were the policy-making processes?". After informed consent was granted, KI were interviewed in-depth for 60-90 minutes.

Data collection involved the review of 65 documents, including relevant books, official letters, records, government reports, policies and plans, minutes of meetings, memoranda, newspaper, articles, and research reports.

Data analysis: Qualitative and quantitative data from in-depth interviews and documents were analyzed using content analysis through the process of organizing the data, immersing in the data, generating categories and themes, coding the data, offering interpretation through analytic memos, searching for alternative understandings, and writing the report.[20]

The PolicyMaker[21], a Windows-based software program, was used to analyze the power and position of actors involved in the PIPDEMN policy-making process. The power and position of actors were assessed through questionnaires provided within the program using data obtained from interviews and documents. This program allowed the selection of three positions of actors (support, opposition, or non-mobilized), three strengths of position (high, medium, or low), and three levels of power (high, medium, or low).

Ethical considerations: Ethical approval was obtained from the ethics committees of the Faculty of Nursing, Chiang Mai University, Ramathibodi School of Nursing, and the Faculty of Nursing, Mahidol University. Prior to interview, KI were acquainted with the purpose, process, and benefits of participating in this study, and signed a consent form. The confidentiality and anonymity of all informants was assured at all stages of the study.

Study rigor and trustworthiness were addressed throughout by using a number of techniques. For example a triangulation technique[22] was applied to verify findings by gathering and analyzing data using different methods and sources. Every KI was asked the same broad questions, and qualitative and quantitative data were gathered from interviews and documents. Moreover, member checks were conducted giving all KI the chance to review and verify the accuracy of their own transcript and the themes of the study. An audit trail was established with a systematic

collection of audio-recordings, interview transcripts, documents, and products of data analysis so that all the sources in every step of this research could be examined.

Results

Findings are presented as synthesized from both qualitative and quantitative data by summarization in four components: contexts, processes, actors, and content, with only an occasional quote from the actors due to word constrictions of this article.

Contexts: Contexts were events that influenced and motivated the actors to drive the nursing shortage problem onto the government's agenda (see **Table 1**):

Process: This refers to the phase of policy-making where decision are made, resulting in new public laws or amendments to existing laws. The formulation process of the PIPDEMN included two phases:

Phase I: Placing the nursing shortage issue onto the government's agenda through the Ministry of Public Health (MoPH). This was the original unsuccessful phase of trying to influence government to deal with the issue, occurring around May 1990. The development process of the PIPDEMN is shown in **Figure 1**:

Phase II: Taking issue to the government through the MUA. After an unsuccessful Phase 1, the issue was proposed to the Thai Cabinet by the MUA and finally approved on May 11, 1993 (see **Figure 2**).

Table 1 Contexts influencing the PIPDEMN in Thailand

Contexts	
Inadequate production of nursing graduates	• 56 public and private educational institutes graduating nurses. • The production capacity of these institutes was less than country's demand.
Lack of coordination in producing and utilizing nurses	• Lack of coordination and planning between institutes about nursing demand. • Lack of coordination between institutes and hospitals employing the graduates.
Unachieved quality and quantity of nursing instructors/nursing education	• There were not enough instructors with appropriate qualifications to meet workforce production. For example, the ratio of nursing instructors to students required for institutional accreditation was 1:8-1:4, whereas the ratio of nursing instructors to students in nursing institutes under the MoPH was 1:19. • The ratio of nursing instructor in nursing educational institutes was underachieved compared to the requirement for institutional accreditation, especially for doctoral degree. For example, the ratio of nursing instructors who graduated with bachelor, master, and doctoral degrees as required by the MUA was 2.0 : 5.5 : 2.5, and as required by the TNMC was 3.5 : 6.0 : 0.5. However, the ratio of bachelor to master to doctoral degrees of nursing for instructors of institutions affiliated with the MUA was 1.3 : 8.3 : 0.4; of nursing institutions affiliated with the MoPH, 8.1 : 1.6 : 0.02; of nursing institutions affiliated with the Ministry of Defense, 5.9 : 2.5 : 0.1; of nursing institutions affiliated with the Ministry of the Interior, 5.9 : 4.1 : 0; of nursing institutions affiliated with the Bangkok Metropolis, 4.2 : 5.4 : 0.1; of nursing institutions affiliated with the Red Cross Society, 3.8 : 6.1 : 0.1; and of private nursing institutions, 4.0 : 5.7 : 0.2.

	Contexts
The need for PIPDEMN to adhere to both the 7th National Economic and Social Development Plan and 7th Health Development Plan	• The 7th National Economic and Social Development Plan aimed to offer access to the public health service, especially for the elderly, the disabled and children by developing quality and efficiency of service facilities. • The 7th Health Development Plan aimed to: increase the number and competencies of human resources for health; improve compensation regulations; examine directions for appropriate welfare and income, and decrease the brain drain from public to private sector.
Changes in demographic and social structures	• Increased demand for RNs resulted from increased: population, numbers of elders, and numbers of nurses in industrial factories; an increased development of infrastructure; and accessing of health care services by populations using national health insurance system. • Changes in society, such as improved educational levels and economic status of the population, having significant impacts on health services.
Economic growth	• An increased number of private hospitals caused a flow-on demand for nurses to work in private sector.
Thai Cabinet resolution on the shortage of professions	• Cabinet identified shortages in various professions, starting with engineering, taking steps to increase production of these, and providing compensation to prevent a brain drain from public to private sectors. • This induced actors to also drive nursing as a shortage profession.

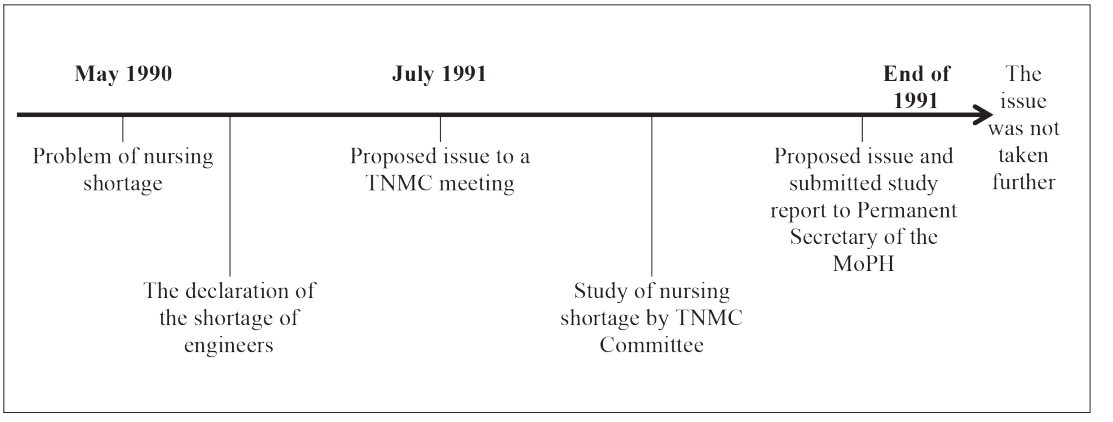

Figure 1 The development process of the PIPDEMN (Phase I)

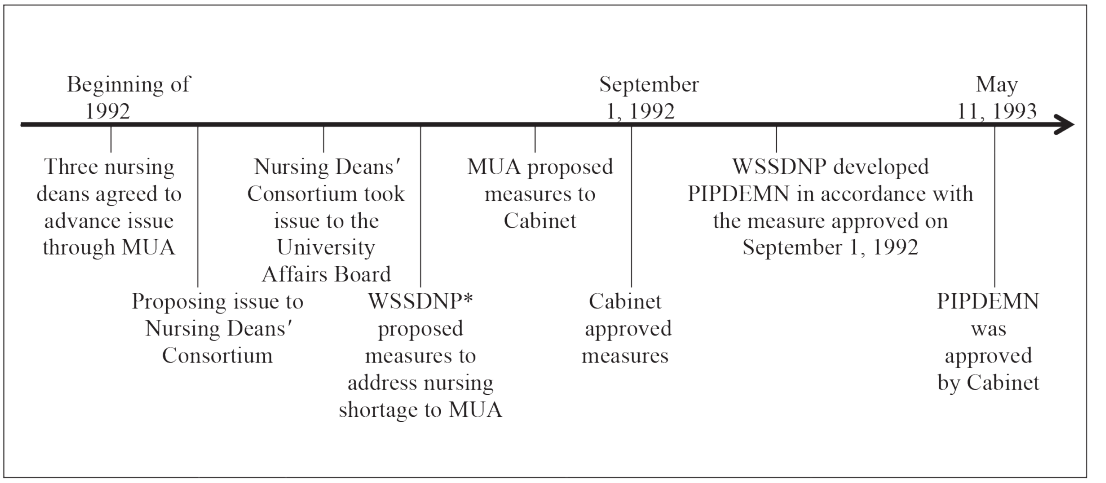

Figure 2 The development process of PIPDEMN (Phase II)

Note: * The WSSDNP was appointed by the MUA board to study the demand of nursing workforce. This Committee also developed the urgent and long-term measures for addressing the problem of nursing shortage.

Actors were individuals or groups involved in the PIPDEMN and who were classified under the two policy phases described above:

Phase I Actors: Initially, the actors strongly involved in the development of the PIPDEMN were members of TNMC Committee who recognized and became aware that the nursing shortage should be addressed by government officially as a shortage policy. For example, one informant proposed the issue to the TNMC Committee because:

> We were in trouble. Nurses were moving from public to private hospitals. There were severe shortages so nursing should be included as a shortage profession.

Other actors included the TNMC itself, which approved raising the issue of the nursing shortage, the Vice-President of the TNMC who proposed the issue to the MoPH, and the Permanent Secretary of the MoPH who considered that the nursing shortage was not critical and did not forward the issue to the Minister of Public Health. The position and power of these actors, analyzed by PolicyMaker software, are shown in **Table 2.**

Table 2 also shows that the actors influencing the policy had different degrees of power and position. Position indicates the actors' roles in supporting or opposing the policy. A high degree of power indicates the substantial influence of actors over the development of the policy, whereas a low degree of power is relatively powerless in influencing the policy.

Phase II Actors: After the earlier failure to successfully gain government recognition of the nursing shortage, various significant actors were involved in lobbying and policy-making processes of the PIPDEMN. Analysis showed the following actors to have medium to high power in influencing policy:

1. Nursing deans who concluded that the issue be proposed to Cabinet through the MUA;
2. Chair of Thai Deans' Consortium for Nursing who proposed the issue to the Consortium in order to carry it forward to the University Affairs Board and the Minister of University Affairs, respectively;
3. The University Affairs Board which appointed the Subcommittee and the WSSDNP to study the demand for a nursing workforce, and put forward the measures and the PIPDEMN to the MUA;

4. The Minister of University Affairs who brought the issue to the Cabinet;

5. The Subcommittee and the WSSDNP that had significant roles in studying the demand for nursing personnel, which then indicated the shortage of nurses. For example an informant from the Subcommittee explained:

The duties were assigned to collect data intensively so as to get accurate and precise data. The contexts of education and service of the public and private sectors as well as the relevant agencies were incorporated for planning the policy.

Moreover, the Subcommittee arranged seminars for public hearings, and created urgent and long-term measures and the PIPDEMN;

6. The Thai Cabinet, which was the most important actor in making the decision to approve the PIPDEMN; and

7. Ministers and other leading actors involved in giving recommendations to the Cabinet about the PIPDEMN included: the Director of the Bureau of the Budget, the Minister of Finance, the Minister of Public Health, the Secretary-General of the National Economic and Social Development Board, and the Secretary-General of the Office of the National Education Commission (See **Table 3**).

Table 2 The actors influencing the PIPDEMN (Phase I)

Name	Level	Sector	Position	Power
Member of TNMC Committee	Regional	Professional	High Support	Low
TNMC Committee	Regional	Professional	High Support	Medium
Vice-President of TNMC	Regional	Professional	High Support	Medium
Permanent Secretary of MoPH	National	Governmental	Medium Opposition*	High

Note: * Opposition means disagree and do not proceed with proposing nursing shortage issue to Cabinet.

Table 3 Actors influencing the PIPDEMN (Phase II)

Name	Level	Sector	Position	Power
Group of Nursing Deans	Local	Non-Governmental	High Support	Medium
Chair of Thai Deans' Consortium for Nursing	National	Professional	High Support	Medium
University Affairs Board	National	Governmental	High Support	High
Minister of University Affairs	National	Political	High Support	High
Subcommittee and WSSDNP	Regional	Governmental	High Support	Medium
Thai Cabinet	National	Political	High Support	High
Minister of Relevant State Agencies	National	Political	Medium Support	Medium

Content: This refers to the goal and strategy of the policy. The PIPDEMN put forward two goals:

The quantitative goal: In 1990, there were 41,132 nurses in the Thai health care system, a nurse-to-population ratio of 1:1,392. The goal of the PIPDEMN was to achieve a nurse-to-population ratio of 1:950 by 2001 or 68,292 nurses, based on findings of a 1990 study conducted by the Planning Division, Office of the Permanent Secretary, MUA. Comparing the 2001 demand of nurses with the number of nurses practicing in the healthcare system, and adding 5% for student attrition rate, there was an aim to increase production from regular production of 6,203 nurses during 1993-1998.

Data obtained in this study revealed that the strategies used for increased production of nurses were that:

1) Public nursing institutes, including nine faculties of Nursing under the MUA and the Red Cross College, increase production by 85% of 6,203 (5,272 nurses), and private nursing institutes to increase production by 15% of 6,203 (931 nurses);

2) Faculties of nursing under the MUA and the Red Cross College were planned to produce 527 nurses during 1993-1994, 791 nurses during 1995-1996 and 1,318 nurses during 1997-1998.

The qualitative goal was to prepare competent nurses who could provide high quality care consistent with the situation and public health policy. The strategy used was improving educational quality. To achieve this, nursing institutes would receive government support for essential facilities such as textbooks, journals, materials, and buildings; a subsidy budget for increased production; and a capital budget for urgent needs. Furthermore, nursing instructors' qualifications were to be developed in 11 MUA nursing faculties and nine MoPH colleges by the provision of government grants for continued education at master and doctoral levels, and grants for attending short training courses, and for inviting experts from abroad.

Discussion

Triangulated findings from qualitative and quantitative data demonstrated that the significant context influencing the PIPDEMN was the inadequate production of nursing graduates. This led to shortage of nurses, thus affecting demand and supply. Moreover, 56 institutes could not produce enough nursing graduates to meet the demand caused by factors, such as: an increasingly aged population, economic growth leading to an increased number of private hospitals requiring more nurses; and the brain drain of nurses from the public health system into the private health sector. The latter was partly due to the economic growth and the expansion of the private health system.[23] This finding is consistent with Lethbridge[24] who claimed that a private sector operated by local, national, or international organizations affects the recruitment and the retention of health workforce in the public sector, and results in the movement of health workforce from public to private sectors. Moreover, an educational accreditation enforcement affects workforce policy. We also found that unachieved quality in Thai nursing education affected the production of nurses because of an inadequate number of nursing instructors educated sufficiently to closely supervise learners and teach in clinics and hospitals to enhance nursing care.

Processes. The findings of this study showed that the formulation process started from the problem of nursing shortage, then developed as a proposal and research study, and resulted in the PIPDEMN being presented to government. This process was consistent with a USA model of policy-making[25], where the policy formulation phase is initiated by an emergence of problems, and advances to specific legislative proposals. Moreover, the development of the PIPDEMN by the MUA was supported by the Office of the Health Care Reform Project[26] who claimed that the human resource policy and planning in the past was often created by the MUA or the institutes that were responsible for workforce production.

Significantly, the policy-making process described in this study took about three years to complete, during which most time was spent on trying to push nursing shortages on to the government agenda. This indicated the strong commitment and patience of nurse leaders trying to solve the issue, and improve nursing education through to resolution in a national policy. Moreover, consuming a long time in the policy formulation phase may have been due to a lack of precise, valid, and up-to-date data, requiring nurse researchers to generate contemporary evidence regarding the nursing workforce situation. Such data is significant because the development of human resource for health policy needs sound data which is obtained from wide-ranging sources as well as having accurate projection and solutions.[27]

The Actors influencing the PIPDEMN can be classified into two phases. In Phase I, collectively and individually the TNMC members were aware of the issue of the nursing shortage. Of importance was one member's aim to place the issue on the government's agenda through the Minister of Public Health. She proposed the issue to the TNMC at a time when it was affiliated with the MoPH. However, the permanent secretary of the MoPH opposed her motion by discontinuing the issue with the Minister of Public Health. This might have been because he had a different perception about the nursing shortage. Although individual officials may be in the same division, they might have different perspectives on the same problem and solutions because they have different missions, history, background, experiences, and interests.[28]

In Phase II significant actors worked to achieve the initiation and eventual acceptance of PIPDEMN as policy, including the deans of faculties of nursing who used political competence to influence political processes. Such leadership and political skills are significant for ensuring patient care safety and quality of health care delivery.[29] Moreover, most actors in Phase II were situated inside government and are important at different stages of the policy-making process. During agenda-setting, administrators, especially in the Cabinet, were important because they had the authority to approve or reject the policy. The Minister of University Affairs had a significant role in proposing the policy, and the Minister of Relevant State Agencies made recommendations regarding it. The findings of this study are supported by Kingdon[30], who found that 94% of his informants stressed the importance of the administration or visible actors, namely the prime minister, staff in the executive office, and the prime minister's political appointees in departments and bureaus. He emphasized that the chances of a subject rising to a government's agenda are enhanced if that subject is pushed by people who are visible actors.

This study also found that the University Affairs Board, the Subcommittee for Studying the Demand for Nursing Personnel, and the WSSDNP were civil servants who had significant roles in developing the proposal and the final PIPDEMN. This is congruent with the Office of the Health Care Reform Project[26] statement that claimed that most human resource policies in the past were developed by civil servants and approved as policy by the Cabinet. However, there is an argument that civil servants do not influence agenda-setting as much as executive branch officials. Their major roles are in implementing and administering existing programs and they are not concerned with agenda items because they have little time left for pushing new ideas.[30]

The actors in this study are consistent with those found involved in policy analysis of human resources for health in Palestine; key institutional actors included government agencies such as the Ministries of Health and Higher Education, health professional bodies; human resources for health education and training institutions; employers and service providers; health services consumers; and international agencies.[31]

Content: According to the PIPDEMN, the quantitative goal to have a nurse-to-population ratio

of 1:950, or a total of 68,292 nurses by 2001 by increasing nurse students has been confirmed in studies elsewhere, for example, in a systematic review.[32] In fact, there are many methods to recruit nurses into a system besides increasing production, such as broadening recruitment of males, mature entrants, and minorities; attracting potential returners back to the profession; and importing nurses from other countries.[33] Since two main methods to address the nursing shortage were recruitment and retention, the goals of the PIPDEMN did not cover all strategies needed for addressing the nursing shortage. Human resource policy and planning in the past was created under a different policy, with most policies being devised to address urgent problems rather than long-term and future problems. In other words, policies focused only on production.[26] Therefore, the method of retention should be added in the content of the policy, because, as Heinz[34] review of hospital nurse staffing and patient outcomes demonstrated, nursing shortages are associated with a wide range of issues, including various adverse outcomes. Therefore, Heinz recommended enhancing both nurse recruitment and retention.

In summary, the content of a nursing workforce policy should cover all strategies for addressing nursing shortages at both national and local levels, and these strategies should be done throughout the career pathways. This is supported by Ulrich[35] who studied the views of nurses on the nursing shortage and proposed strategies at pre-nursing school, nursing school, entry into practice, reentry into practice, and in the practice setting.

Limitations

Our analysis of the PIPDEMN provides understanding regarding the context, actors, process, and contents of nursing workforce policy in Thailand. Moreover, it provides good evidence for action for further developing the nursing workforce policy in Thailand. However, one study limitation was the length of time it took for the policy to be analysed after its implementation and which resulted in the unavailability of some KI. In addition, the viewpoints of individuals who were affected by the Plan, such as students and nursing instructors, were not investigated. Recommendations for further study are to include all stakeholders involved in a policy formulation and policy development; conduct policy analysis on other nursing workforce policies to highlight benefits and limitations learned in terms of context, processes, actors, and content which will contribute to driving future nursing workforce policy; and conduct policy analysis by comparing nursing workforce policy with other health professions or other fields nationally or internationally to draw on more extensive experience and relevant data.

Implications for nursing and policy making

Findings showed that there were many contexts influencing the Thai nursing shortage. Policy makers should monitor the circumstances of policy-making continuously and pay attention to address current and future problems of a competent and sufficient nursing workforce. Moreover, a national committee or a national mechanism should be formed to be responsible for formulating and planning nursing workforce policies as well as doing the consultation, cooperation, direction, and research about nursing workforce.

In addition, important actors, at both national and local levels, and from public and private sectors, should be included in nursing policy-making processes. To increase the abilities and involvement of nurses in policy-making, educational institutes should develop master and doctoral programs with policy courses in order to create knowledge, strong leadership and commitment for the profession. In addition, post-registration courses should be developed

to provide necessary skills for involvement in the policy-making process in areas such as human resource planning, leadership, political competence, politics and legislative process, policy development, consultation, coordination, negotiation, and lobbying.

Furthermore, professional organizations should establish a nursing research center or information center to provide evidence in every aspect of nursing workforce across all levels and in real time. This can reflect any crisis in the nursing workforce and channel information to enhance public perception and knowledge. Moreover, nursing organizations can create research collaboration and networking with other health disciplines, to share common beliefs as well as to bring good information and different perspectives that constitute strong evidence for a policy and to describe the magnitude of a problem.

Conclusion

The PIPDEMN was a national nursing workforce policy aimed at increasing the number and quality of nurses. This important policy emerged from the problem of the nursing shortage in Thailand. The main contexts leading to the problem were the inadequate production of nursing graduates as well as the increasing demand for nurses caused in part by the increase in the number of private hospitals following economic growth. The policy-making process of the PIPDEMN took three years, from the arising of the issue as policy, and success in driving this policy to its conclusion was due to the collaboration among many actors.

Since there are only a relatively small number of studies on policy analysis in Thailand and elsewhere, there is a need to strengthen the field of human resource policy analysis[12] and the ability of nurses to engage in this form of research. Lessons learned from this study can contribute to the development of the new nursing workforce policy in order to solve the current and future nursing shortage in Thailand.

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References

1. World Health Organization. Wanted: 2.4 million nurses, and that's just in India [Internet]. 2013[cited 2013 July 20]. Available from: http://www.who.int/bulletin/volumes/88/5/10-020510/en/.
2. Buchan J, Calman L. The global shortage of registered nurses: An overview of issues and actions. Geneva: International Council of Nurses; 2004.
3. O'Brien-Pallas L, Hayes L. Challenges in getting workforce research in nursing used for decision-making in policy and practice: A Canadian perspective. J Clin Nurs. 2008; 17: 3338-46.
4. Deans' Consortium for Nursing. The primary conclusion: The implementation of the increased production project and the instructor development project. Bangkok: Ministry of University Affairs; 2001. [in Thai]
5. Walt G, Gilson L. Reforming the health sector in developing countries: The central role of policy analysis. Health Policy Plan. 1994; 9(4): 353-70.
6. Office of the Permanent Secretary, Ministry of Public Health. Allocation of health workforce using geographic information system [internet]. 2011[cited 2011 December 31]. Available from: http://203.157.240.14/gis/report/pop_officer.php.
7. Srisuphan W, Sawangdee N. The proposed policy for solving the shortage of nurses in Thailand. Thai J Nurs. 2012; 27(1): 5-12. [in Thai]
8. Egger D, Adams O. Imbalances in human resources for health: Can policy formulation and planning make a difference? n.d. [cited 2011 June 1]. Available from: http://www.who.int/hrh/en/HRDJ_3_1_04.pdf.

9. World Health Organization, Western Pacific Region. Health policy development. 2006 [cited 2011 June 30]. Available from: http://www.wpro.who.int/publications/PUB_9290612312.htm.
10. Walt G, Shiffman J, Schneider H, Murray SF, Brugha R, Gilson L. Doing health policy analysis: Methodological and conceptual reflections and challenges. Health Policy Plan. 2008; 23: 308-317.
11. Oner MA, Saritas O. A Systems approach to policy analysis and development planning: Construction sector in the Turkish 5-year development plans. Technol Forecast Soc Change. 2005; 72: 886-911.
12. Gilson L, Raphaely N. The terrain of health policy analysis in low and middle income countries: A review of published literature 1994-2007. Health Policy Plan. 2008: 1-14.
13. De Vries AK, Klazinga NS. Mental health reform in post-conflict areas: A policy analysis based on experiences in Bosnia Herzegovina and Kosovo. Eur J Public Health. 2006; 16(3): 246-51.
14. Ditlopo P, Blaauw D, Bidwell P, Thomas S. Analyzing the implementation of the rural allowance in hospitals in North West province, South Africa. J Public Health Policy. 2011; 32: 80-93.
15. Taegtmeyer M, Martineau T, Namwebya JH, Ikahu A, Ngare CW, Sakwa J, et. al. A qualitative exploration of the human resource policy implications of voluntary counseling and testing scale-up in Kenya: Applying a model for policy analysis. BMC Public Health. 2011; 11:812.
16. Reich MR. Applied political analysis for health policy reform. Curr Issues Public Health. 1996; 2: 186-91.
17. Reutter L, Duncan S. Preparing nurses to promote health enhancing public policies. Policy Polit Nurs Pract. 2002; 3(4): 294-305.
18. Richter MS, Mill J, Muller CE, Kahwa E, Etowa J, Dawkins P, et.al. Nurses' engagement in AIDS policy development. Int Nurs Rev. 2013; 60: 52-8.
19. Burns N, Grove SK. The practice of Nursing Research: Conduct, critique, and utilization. 5th ed. St. Louis (MO): Elsevier Saunders; 2005.
20. Marshall C, Rossman GB. Designing qualitative research. 4thed. Thousand Oaks: Sage; 2006.
21. Reich MR, Cooper DM. PolicyMaker: Computer-assisted political analysis. Software and manual. Brookline(MA): Polimap; 2011
22. Andrew S, Halcomb EJ. Mixed methods research for nursing and the health sciences. West Susses, United Kingdom: Blackwell Publishing; 2009.
23. Jindawatana A, Jindawatana W, Sirikanokwilai N. Human resource for health planning. Health Syst Res J. 1996; 4(3): 226-34. [in Thai]
24. Lethbridge J. Public sector reform and demand for human resources for health. Hum Resour Health. 2004; 2(15): 1-8.
25. Longest BB. Health policymaking in the United States. 3rd ed. Chicago (IL): HAP; 2002.
26. Office of the Health Care Reform Project. Report of policy framework and strategies for health manpower. Bangkok: Health System Research Institute; 2003. [in Thai]
27. Egger D, Lipson D, Adams O. Achieving the right balance: The role of policy-making processes in managing human resources for health problems. 2000 [cited 2011 November 11]. Available from: http://www.who.int/hrh/documents/en/right_balance.pdf.
28. Tantivess S, Kessomboon N, Laongbua C. Introducing government of patients on essential medicines in Thailand, 2006-2007: The analysis with key lessons learned and recommendations. Nonthaburi: International Health Policy Program; 2008.
29. Ferguson SL. An Activist looks at nursing's role in health policy development. J Obstet Gynecol Neonatal Nurs. 2001; 30(5): 546-51.
30. Kingdon JW. Agendas, alternatives, and public policies. 2nd ed. New York (NY): Addison-Wesley Educational Publishers; 2003.
31. Hamdan M, Defever M. Human resources for health in Palestine: A policy analysis. Part II: The process of policy formulation and implementation. Health Policy. 2003; 64, 261-73.
32. Chopra M, Munro S, Lavis JN, Vist G, Bennett S. Effects of policy options for human resources for health: An analysis of systematic reviews. The Lancet. 2008; 371: 668-74.
33. Buchan J. Evidence of nursing shortages or a shortage of evidence? J Adv Nur. 2006; 56(5): 457-8.
34. Heinz D. Hospital nurse staffing and patient outcomes. Dimens Crit Care Nurs. 2004; 23(1): 44-50.
35. Ulrich B. The nursing shortage and potential solutions: An overview. Nephrol Nurs J. 2003; 30(4): 364-76.

การวิเคราะห์นโยบายเกี่ยวกับแผนเพิ่มการผลิตและพัฒนาการจัดการศึกษาสาขาวิชาพยาบาลศาสตร์ของประเทศไทย

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บทคัดย่อ: การขาดแคลนพยาบาลเป็นภาวะวิกฤตในหลายประเทศ แม้ว่าจะมีความพยายามแก้ปัญหาจากรัฐบาลและการกำหนดนโยบายทางการพยาบาลและสุขภาพหลายฉบับ การศึกษาครั้งนี้ใช้กรอบแนวคิดการวิเคราะห์นโยบายและการวิจัยแบบผสมเพื่อรวบรวมและวิเคราะห์ข้อมูลเกี่ยวกับบริบท กระบวนการ ผู้มีบทบาท และสาระของแผนเพิ่มการผลิตและพัฒนาการจัดการศึกษาสาขาวิชาพยาบาลศาสตร์ซึ่งกำหนดขึ้นเพื่อแก้ปัญหาการขาดแคลนพยาบาลในประเทศไทย ทำการรวบรวมข้อมูลจากการทบทวนเอกสาร และการสัมภาษณ์โดยใช้แบบสัมภาษณ์แบบกึ่งโครงสร้างในผู้ที่เกี่ยวข้องในการกระบวนการกำหนดนโยบายจำนวน 28 คน วิเคราะห์ข้อมูลโดยใช้การวิเคราะห์เนื้อหา และโปรแกรมโพลิซีเมคเกอร์ ผลการการวิจัยพบว่า บริบทที่มีผลต่อการกำหนดแผนได้แก่ การผลิตบัณฑิตพยาบาลไม่เพียงพอ การขาดการประสานงานระหว่างการผลิตและการใช้พยาบาล คุณภาพการศึกษาพยาบาลที่ไม่เป็นไปตามเป้าหมาย การต้องยึดแผนระดับชาติอื่นๆ การเปลี่ยนแปลงโครงสร้างประชากรและสังคม การเติบโตทางเศรษฐกิจ และมติคณะรัฐมนตรีเกี่ยวกับวิชาชีพขาดแคลน กระบวนการกำหนดนโยบายเริ่มจากปัญหาการขาดแคลนพยาบาล การค้นหาช่องทางที่เหมาะสมเพื่อนำเสนอข้อเสนอ และการนำเสนอประเด็นต่อคณะรัฐมนตรี ผู้มีบทบาทสำคัญในกระบวนการกำหนดนโยบายประกอบด้วย คณบดีคณะพยาบาลศาสตร์ 3 คน ประธานที่ประชุมคณบดีคณะพยาบาลศาสตร์ คณะกรรมการบริหารทบวงมหาวิทยาลัย รัฐมนตรีว่าการทบวงมหาวิทยาลัย และคณะอนุกรรมทำงาน สาระของแผนประกอบด้วยเป้าหมายและกลยุทธ์ในการเพิ่มสัดส่วนพยาบาลต่อประชากร และการผลิตพยาบาลที่มีสมรรถนะ ผลการศึกษาครั้งนี้แสดงให้เห็นถึงความสำคัญของการมีส่วนร่วมอย่างต่อเนื่องในการกำหนดนโยบายกำลังคนทางการพยาบาลเพื่อช่วยแก้ไขปัญหาการขาดแคลนพยาบาล และสามารถใช้ในการพัฒนานโยบายกำลังคนทางการพยาบาลในอนาคตในประเทศไทยและที่อื่นๆ

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คำสำคัญ: การวิจัยแบบผสม การขาดแคลนพยาบาล กำลังคนทางการพยาบาล การวิเคราะห์นโยบาย ประเทศไทย

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