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Future Directions for Community Nursing in Thailand: A Competency-Based Model for Subdistrict Health Promoting Hospitals Following Decentralization; A Mixed-Methods Study

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Abstract

Introduction: The decentralization of Subdistrict Health Promoting Hospitals (SHPHs) to Provincial Administrative Organizations (PAOs) in Thailand represents a significant structural reform with direct implications for nurses working in primary healthcare settings. This study aimed to develop a competency model for nurses employed in SHPHs under PAO jurisdiction, ensuring alignment with decentralization policies and local health system needs.

Methods: A mixed-methods design was used in 2 phases. Phase 1 employed qualitative methods to explore current nursing roles through in-depth interviews and thematic analysis. Phase 2 involved developing the competency model using quantitative data and the Delphi technique with expert consensus.

Results: Findings from phase one indicated that nurses continue to play a vital role in community-based health promotion and care for vulnerable populations. Following decentralization, nurses have adapted to new responsibilities involving local workforce coordination, budgeting, and health information systems, necessitating expanded competencies. The competency model delineates stratified expectations by facility size: small SHPHs require generalist proficiency for autonomous service delivery; medium SHPHs necessitate specialized and collaborative competencies for programmatic functions; and large SHPHs demand advanced skills in systems management, strategic planning, and specialized care to align with institutional complexity.

Conclusion: Although nurses' core responsibilities in primary care remain central, decentralization has introduced new demands requiring advanced clinical, technological, data management, and interprofessional collaboration competencies. These expanded roles have strengthened nurses' contributions to local health governance under the PAO system.

Keywords: Competency-based education, Health care reform, Health systems plans, Primary health care, Public health nursing, Rural health services

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Introduction

Decentralization in public administration is widely recognized as a strategy to enhance national development by transferring authority from central to local governments. The objective is to ensure that public services are more responsive and contextually aligned with the socio-geographical characteristics of local communities, thereby facilitating more targeted and effective solutions to public needs.[1,2] In Thailand, health sector decentralization has been implemented in accordance with the Decentralization Plan and Process Act of 1999, which outlines a framework for the transfer of public health functions to local administrative organizations.[3] Between 2021 and 2024, the Thai government transferred the administrative oversight of 4,275 Subdistrict Health Promoting Hospitals (SHPHs) to Provincial Administrative Organizations (PAOs).[4] Each SHPH is required to employ at least one professional nurse to provide frontline services.[5]

SHPHs are the most community-embedded units in Thailand's primary healthcare system. Nurses in these settings play pivotal roles in delivering proactive and community-centered health services, in line with national public health policies. Their primary responsibilities span 5 domains: (1) health promotion, (2) curative care, (3) health service support, (4) system development in alignment with primary care models, and (5) support for research and development in primary care services.[6,7] Effective delivery of these services necessitates nursing competencies that are both role-specific and contextually appropriate.[8]

Although the Thailand Nursing and Midwifery Council has delineated a national competency framework for community nurses, the administrative transition of SHPHs from the Ministry of Public Health to the Ministry of Interior, via PAOs, may result in altered role expectations, accountability structures, and required competencies.

Such changes may impact both the quality of services and population health outcomes.[5, 9]

The existing competency framework—developed under the Ministry of Public Health—emphasizes holistic, continuous care across the preventive, promotive, curative, and rehabilitative domains.[10] However, the new governance structure under PAOs presents unique operational demands, such as the development of subdistrict health plans, health data management, and care for complex patient populations.[11, 12] These new responsibilities may not align fully with the previously defined competencies.[9, 13]

Consequently, nurses working in SHPHs under PAO jurisdiction must undergo systematic upskilling and reskilling to ensure alignment with future healthcare policies, national standards, and local service demands.[13, 14] Furthermore, the development of an updated competency model is essential for supporting the success of decentralized healthcare reform. A well-defined and context-sensitive model will facilitate the equitable provision of standardized primary healthcare services, strengthen local nursing systems, and enhance the capacity of PAOs to manage community health services sustainably.[15]

Methods

This mixed-methods study was conducted in 2 sequential phases to develop a contextually appropriate competency-based model for community nurses working in Subdistrict Health Promoting Hospitals (SHPHs) under the governance of Provincial Administrative Organizations (PAOs) in Thailand. The study protocol is summarized in Figure 1.

Phase 1 – Nursing Task Analysis

A qualitative approach was employed using structured observations and in-depth interviews with professional nurses working in SHPHs to explore actual nursing tasks in current practice. Participants were purposively sampled from SHPHs across Kanchanaburi Province, with eligibility requiring at least six months of experience under PAO jurisdiction. Observational data were recorded using a standardized checklist, and interview transcripts were analyzed thematically to identify key functional domains and task categories. The findings served as the foundation for competency item development in Phase 2.

Phase 2 – Competency Model Development

This phase comprised 2 sub-phases: 1) Expert Consensus via Delphi Technique. A panel of 38 experts—including academic professionals, SHPH nurse colleagues, and service users—was selected using purposive sampling. Experts participated in 4 iterative rounds to evaluate each competency item using a 5-point Likert scale. Consensus was considered achieved when: (1) the median score was ≥ 4.0, (2) the interquartile range (IQR) ≤ 1.0, and (3) ≥ 75% of panelists rated the item 4 or 5. And 2) Cross-Sectional Survey of Nurse Competencies. A structured questionnaire based on Delphi results was administered to all 508 SHPH nurses in Kanchanaburi Province using total population sampling. Inclusion criteria required participants to have at least 6 months of continuous experience at their SHPH and consent to participate. Respondents self-assessed their competency on a 3-point Likert scale: (1) Unable to perform, (2) Partially able, and (3) Proficient. Descriptive statistics (mean, frequency, percentage, and standard deviation) were used to analyze competency levels and identify existing gaps.

Results

Part 1: Analysis of Current Nursing Roles in SHPHs under PAO Administration

A pilot study was conducted in Prachinburi Province to explore the current nursing roles and tasks performed in

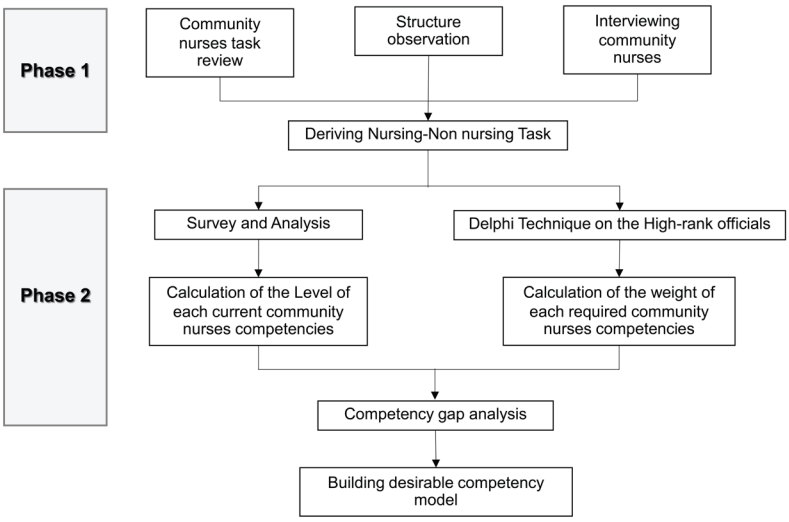

Figure 1. Study design and procedural flow for developing the SHPH nurse competency model

SHPHs under PAOs. Data were collected using structured observations, in-depth interviews, and document reviews of nursing task descriptions and records. A total of 17 nurses participated in the study, representing SHPHs of three different sizes—large (L), medium (M), and small (S).

The findings revealed that most nursing tasks remained consistent with those performed prior to the decentralization. However, the emphasis and prioritization of specific tasks varied across settings. Based on initial classification, the nursing work in PAO-governed SHPHs comprised 45 distinct activities, organized into 10 functional domains, as follows: 1) Primary care services, 2) Health promotion and disease prevention, 3) Rehabilitation and follow-up care, 4) Maternal and child health, 5) Mental health services, 6) Community outreach and networking, 7) Service system development and management, 8) Specialized care and targeted population services, 9) Staff development and capacity building and 10) Community-based health promotion. Framework for grouping nursing functional domains in SHPH. The domains are organized into 4 major categories is presented in Figure 2.

These results highlighted the continuity of nursing roles despite administrative changes, while also suggesting emerging variations in task intensity depending on SHPH size and resource allocation.

Part 2: Development of the Competency Model for SHPH Nurses under PAO jurisdiction

Findings from the Delphi Study

In the second phase, a Delphi technique was employed to validate and expand the nursing competency model. A total of 73 nursing tasks across ten functional domains were evaluated using the Delphi technique with 38 expert participants. Each task was rated on a 5-point Likert scale, and categorized by consensus into "Current," "Future," or "Non-essential," across different sizes of Sub-district Health Promoting Hospitals (SHPHs: small, medium, large).

Core responsibilities classified as Current across all SHPH sizes included basic primary care (S1), medication counseling (S7), wound care (S8), maternal and child health services (S25–S27), mental health counseling (S31), and stakeholder collaboration (S38). These tasks had high agreement (≥ 85%) and median scores ≥ 4.0. Several tasks were identified as Future priorities, including telehealth (S9), advanced diagnostics (S5), home psychiatric visits (S37), and community-based innovation (S39), especially in medium-to-large SHPHs. Tasks such as smoking cessation programs (S13), traditional herbal medicine promotion (S42), and monthly team meetings (S64) were considered Non-essential, despite moderate to high agreement, reflecting contextual and resource-based limitations. The results suggest a broad agreement on the evolving and diversified roles of nurses, while also highlighting areas requiring system support and policy alignment, particularly in mental health, digital health, and intersectoral collaboration. The detailed nursing tasks functional domains and Nursing activities are presented in Supplementary Table 1.

The table 1 presents expert consensus (n = 38) on 73 nursing tasks evaluated using the Delphi technique, 39 tasks (53.4%) were classified as current, 16 tasks (21.9%) as future, and 18 tasks (24.7%) as non-essential. A breakdown by domain reveals distinct patterns across the types of classifications. The domain with the highest number of current tasks was H. Specialized and Targeted Care Services, accounting for 6 out of 8 tasks (75.0%), followed by G. System Development and Administration of Service Delivery and D. Maternal and Child Health Services, each with 5 tasks (71.4% and 83.3%, respectively). For future tasks, the greatest concentration was observed in F. Community and Networking Services and A. Primary Care Services, each contributing 3 items (37.5% and 33.3%, respectively). Domains with the highest number of non-essential tasks were B. Health Promotion and Disease Prevention, C. Rehabilitation and Follow-Up Care, and I. Support and Personnel Development, each with 3 tasks (37.5%, 42.9%, and 50.0%, respectively).

These results reflect a trend wherein specialized care and system-level management are prioritized as core nursing functions, while community-oriented and

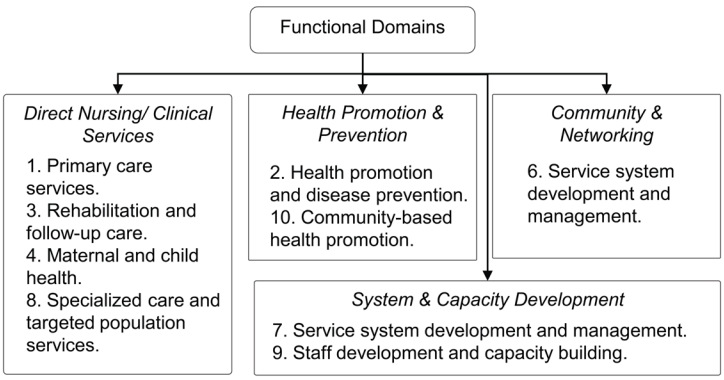

Figure 2. Functional domains of Nursing in SHPH

promotional tasks are seen as supplementary or emerging responsibilities under decentralization.

Integration of Delphi Findings and Competency Survey Results

When combined analysis of the Delphi findings from 38 experts and self-assessed competency data from 508 nurses working in SHPHs under PAOs in Kanchanaburi Province. Nursing tasks were first categorized through Delphi consensus into three groups: (1) current tasks, (2) future tasks, and (3) non-essential tasks. These were then cross-analyzed against self-assessed competency levels of the nurses: (1) unable to perform, (2) partly able to perform, and (3) proficient.

This alignment was particularly evident in Domain H (Specialized and Targeted Care Services) and Domain G (System Development and Administration), indicating that nurses possess well-established competencies in core clinical and service management functions. In contrast, tasks classified as future—including those related to telehealth, strategic planning, data-driven health management, and interprofessional collaboration—were predominantly associated with partial or insufficient levels of competency. These gaps were especially noted in Domain F (Community and Networking Services) and Domain A (Primary Care Services), reflecting areas in need of targeted capacity building to support expanded roles under decentralization. Tasks categorized as non-essential were most frequently found in Domain B (Health Promotion and Disease Prevention), Domain C (Rehabilitation and Follow-Up Care), and Domain I (Support and Personnel Development). These corresponded with low or highly variable competency levels among nurses, suggesting that such tasks are not yet integrated into their core scope of practice. The details are illustrated in Figure 3 thereby identifying gaps and areas for capacity development.

This figure illustrates the integration of Delphi-derived nursing task classifications with self-assessed competency levels, highlighting notable gaps in both preparedness and performance. 1) Current Tasks (n = 41) Nurses reported high proficiency in core services such as primary care, maternal and child health, medication administration, and health education. However, gaps were observed in system-related tasks—particularly interprofessional planning, documentation, and risk management—where many nurses rated themselves as only "partly able" or "unable," indicating a skills mismatch despite these tasks being part of routine responsibilities. 2) Future Tasks (n = 14) Tasks involving telehealth, strategic planning, budgeting, and cross-sectoral collaboration showed the widest gaps. A large proportion of nurses reported limited capacity to perform these tasks, reflecting a critical need for forward-looking competency development to support health system transformation. And 3) Non-Essential Tasks (n = 18) Although considered lower in strategic priority, tasks such as mental health support, community outreach, and lifelong learning align with emerging public health needs. Nurses showed mixed proficiency levels, suggesting untapped potential that could be strengthened through targeted training and resource investment.

The Competency Model for SHPH Nurses under PAO jurisdiction

The competency model for nurses in Sub-district Health Promoting Hospitals (SHPHs) under Provincial Administrative Organizations (PAOs) reflects differentiated roles and task scopes based on facility size—small (S), medium (M), and large (L). From 73 tasks identified across ten domains using the Delphi technique, the distribution revealed 3 distinct competency profiles.

Model 1 Large SHPHs (68 tasks): Nurses play dual roles in clinical and system leadership. Key competencies include: Advanced clinical judgment, Strategic planning and resource management, Outcome evaluation and policy integration, Leadership in health system innovation.

Model 2 Medium SHPHs (65 tasks): Nurses work within structured teams, focusing on program delivery

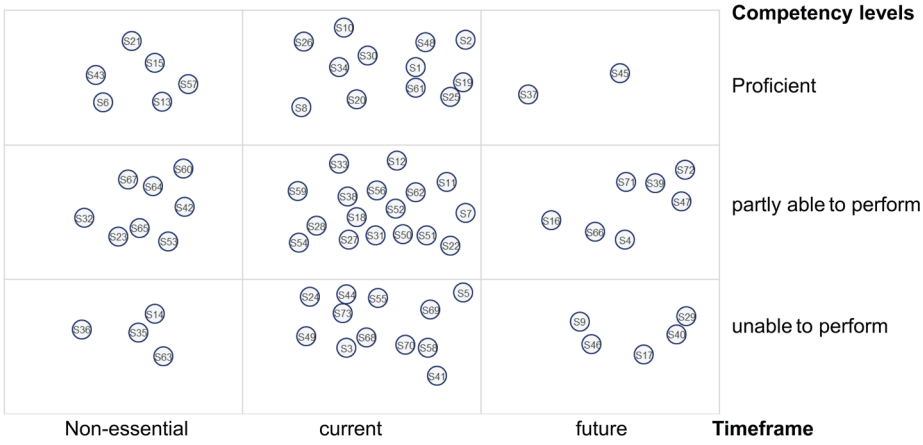

Figure 3. Categorization of Nursing tasks in SHPH Under PAO by Timeframe and Competence

and specialized services. Core competencies include: Targeted health program implementation, Clinic-based service management, Team coordination and mid-level administration.

Model 3 Small SHPHs (64 tasks): Nurses operate independently with broad responsibilities in basic care and health promotion. Key competencies include: Primary care decision-making, Community engagement and health education, Essential data recording and task flexibility.

Discussion

The decentralization of health services in Thailand has significantly transformed the structure of primary healthcare delivery. SHPHs, once under the Ministry of Public Health, are now managed by PAOs. This shift has directly impacted the roles of nurses at the local level, particularly in areas of administration, budgeting, human resource management, and outcome evaluation. As World Health Organization (WHO) highlights, the transfer of authority and resources to local governments requires health workers to adapt to expanded roles.[16]

Nurses have transitioned from primarily clinical providers to system-level managers, now engaging in strategic planning, digital health integration, and cross-sectoral collaboration. These evolving roles align with WHO recommendations for decentralized health systems, which emphasize data management, leadership, and interprofessional cooperation at the community level.[16] In the Thai context, Kolehmainen-Aitken (2004) also noted that decentralization increased the complexity of nursing responsibilities, both clinically and administratively.[11]

Although most nurses in SHPHs demonstrate adequate core competencies in current tasks—such as primary care and maternal-child health—as outlined by the Thailand Nursing and Midwifery Council (TNMC), notable gaps remain. Specifically, tasks involving interprofessional coordination, health information systems, and risk management are areas where many nurses report only partial or no competency.[17]

The gap is even more pronounced for "future tasks" such as strategic planning and digital health, reflecting systemic unpreparedness. These findings echo previous research suggesting that decentralization often creates new competency demands for which the system has yet to prepare.[2] Comparable studies from Brazil and Indonesia have shown that decentralization expands nursing roles into management and community-level policymaking—functions that require competencies not typically developed under centralized systems.[10, 18] Even among "non-essential" tasks, such as mental health support, community health campaigns, and lifelong learning initiatives, nurses showed moderate potential. These represent latent capacities that, if nurtured, could address future public health needs.

To bridge these gaps and support role transformation, this study proposed a size-specific competency model for SHPH nurses. The model aligns with context-based competency design[19], adapting roles to facility capacity: small SHPHs emphasize proactive community services, medium facilities focus on team-based care and specialized clinics, while large facilities require strategic planning and service outcome evaluation. This model not only addresses administrative needs but also offers a practical policy framework for workforce development tailored to local health contexts.

Limitations

This study has several limitations. First, the competency model was developed based on data from SHPHs under a single Provincial Administrative Organization, which may limit its generalizability to other provinces with differing governance structures and resource availability. Second, the use of a self-assessment method for evaluating nursing competencies may introduce bias, as the responses might reflect perceived rather than actual abilities. Third, although the Delphi method helped establish expert consensus, it may not fully capture the dynamic and localized variations in nursing practice across different SHPH settings. Future research should include longitudinal tracking to validate and refine the competency model across diverse local contexts.

Conclusion

This study highlights critical insights into the evolving roles and competency needs of nurses in SHPHs under Thailand's decentralized health system. While foundational competencies remain strong in current clinical tasks, substantial gaps persist in system-level and future-oriented responsibilities, such as strategic planning, interprofessional coordination, and digital health integration.

The size-specific competency model developed through this study provides a practical and context-sensitive framework for aligning nursing competencies with the scale and complexity of SHPH operations. Nurses in smaller facilities emphasized community outreach and generalist functions, Nurses in medium-sized SHPHs require specialized skills and collaborative competencies, while those in larger units required advanced competencies in health systems management and strategic oversight.

Findings underscore the need for targeted capacity-building and policy support to bridge existing competency gaps and prepare nurses for expanded roles in decentralized, integrated health systems. This model serves as a foundation for workforce planning and policy development that can enhance the resilience and responsiveness of primary healthcare services in Thailand and similar settings.

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Formal analysis: Supustra Sensai, Jiruth Sriratanaban.
Funding acquisition: Supustra Sensai, Jiruth Sriratanaban.
Investigation: Supustra Sensai, Jiruth Sriratanaban.
Methodology: Supustra Sensai.
Supervision: Supustra Sensai, Jiruth Sriratanaban.
Project administration: Supustra Sensai.
Writing–original draft: Supustra Sensai.
Writing–review & editing: Supustra Sensai, Jiruth Sriratanaban.

Competing Interests
The authors declare no conflicts of interest.

Disclosure of Artificial Intelligence (AI) Use
- Section(s) of manuscript affected: Methods, Results, Discussion, Language Editing
- Type of AI tool(s) used: ChatGPT (OpenAI, GPT-4), Grammarly
- Purpose of use: AI tools were used to assist in language editing, enhancing academic writing clarity, grammar correction, and improving fluency of English expression. Additionally, AI-assisted summarization and phrasing support were applied in structuring the Results and Discussion sections. All content was reviewed and verified by the authors to ensure accuracy and appropriateness for scholarly publication.

Ethical Approval
The study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board of the Faculty of Medicine, Chulalongkorn University. Ethical approval code: COA No. 0349/2025 (IRB project No. 0010/68 and 12/03/2025). Informed consent was obtained from all participants involved in the study.

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Supplementary Files
Supplementary file 1 contains Table S1.

References
1. Halcomb E, Stephens M, Bryce J, Foley E, Ashley C. Nursing competency standards in primary health care: an integrative review. J Clin Nurs. 2016;25(9-10):1193-205. doi: 10.1111/jocn.13224
2. Oliveira R, Santinha G, Sá Marques T. The impacts of health decentralization on equity, efficiency, and effectiveness: a scoping review. Sustainability. 2023;16(1):386. doi: 10.3390/su16010386
3. Japan International Cooperation Agency (JICA). Government Decentralization Reforms in Developing Countries: Thailand Case Study [Internet]. JICA; 2008. Available from: https://www.jica.go.jp/jica-ri/IFIC_and_JBICI-Studies/english/publications/reports/study/capacity/200807/pdf/002.pdf. Accessed November 18, 2025.
4. Department of Health Service Support. Progress Report on the Decentralization of Subdistrict Health Promoting Hospitals (SHPHs) to Provincial Administrative Organizations (PAOs). Thailand: Ministry of Public Health; 2021.
5. Chantra R, Chuenklin T, Krirkgulthorn T, Nimwatanakul S, Sarakshetrin A, Khamngoen R, et al. Roles of provincial health office and district health office after transferring sub-district health promoting hospital to provincial administrative organization. J Health Syst Res. 2024;18(2):173-92.
6. Sudo K, Noda S, Kobayashi J, Wongwatcharapaiboon P, Sakolwasan U, Takahashi K. The role of community nurse in the implementation of health policy for the elderly in Thailand. Glob Health Med. 2023;5(6):345-53. doi: 10.35772/ghm.2023.01032
7. Wit RF, de Veer AJ, Batenburg RS, Francke AL. International comparison of professional competency frameworks for nurses: a document analysis. BMC Nurs. 2023;22(1):343. doi: 10.1186/s12912-023-01514-3
8. Starfield B. Primary Care: Concept, Evaluation, and Policy. Oxford University Press; 1992.
9. Thailand Nursing and Midwifery Council (TNMC). National Competency Framework for Community Nurses. Bangkok: TNMC; 2019.
10. Mahmood S, Sequeira R, Siddiqui MM, Herkenhoff MB, Ferreira PP, Fernandes AC, et al. Decentralization of the health system - experiences from Pakistan, Portugal and Brazil. Health Res Policy Syst. 2024;22(1):61. doi: 10.1186/s12961-024-01145-3
11. Kolehmainen-Aitken RL. Decentralization's impact on the health workforce: perspectives of managers, workers and national leaders. Hum Resour Health. 2004;2(1):5. doi: 10.1186/1478-4491-2-5
12. Shair-Rosenfield S, Marks G, Hooghe L. A comparative measure of decentralization for Southeast Asia. J East Asian Stud. 2014;14(1):85-108. doi: 10.1017/s1598240800009590
13. Zumstein-Shaha M, Grace PJ. Competency frameworks, nursing perspectives, and interdisciplinary collaborations for good patient care: delineating boundaries. Nurs Philos. 2023;24(1):e12402. doi: 10.1111/nup.12402
14. Sukhampha R. Promise or peril? 'Devolution as modality' for decentralisation in primary healthcare in Thailand. In: Social Policy Review 36. Bristol, UK: Policy Press; 2024. p. 64-86. doi: 10.51952/9781447373605.ch004
15. Sojka B, Köppe S, Parma A, Cefalo R. Social Policy Review 36: Analysis and Debate in Social Policy, 2024. Bristol, UK: Policy Press; 2024. doi: 10.47674/9781447373605
16. World Health Organization (WHO). Global Strategic Directions for Nursing and Midwifery 2021-2025. WHO; 2021.
17. Tongmuangtunyatep K, Lynn M, Kunaviktikul W. Nurse manager competency: views from executives in Thai community hospitals. Asian J Piblic Opin Res. 2017;4(2):88-107. doi: 10.15206/ajpor.2017.4.2.88
18. Heywood P, Choi Y. Health system performance at the district level in Indonesia after decentralization. BMC Int Health Hum Rights. 2010;10:3. doi: 10.1186/1472-698x-10-3
19. Marrone SR. Designing a competency-based nursing practice model in a multicultural setting. J Nurses Staff Dev. 1999;15(2):56-62. doi: 10.1097/00124645-199903000-00002