

READINESS OF PROVINCIAL ADMINISTRATION ORGANIZATION TO TRANSFER RESPONSIBILITIES OF SUBDISTRICT HEALTH PROMOTING HOSPITAL

Chavanakorn Sriprang, Sumattana Glangkarn, Vorapoj Promasatayaprot*

Faculty of Public Health, Mahasarakham University, Maha Sarakham, Thailand

*Correspondence: vorapoj@msu.ac.th

ABSTRACT

BACKGROUND:

This study assessed the readiness of personnel working in Subdistrict Health Promoting Hospitals (SHPHs) to transfer responsibilities from the Ministry of Public Health to Provincial Administrative Organizations (PAOs). Although the transfer of Subdistrict Health Promoting Hospitals to Local Administrative Organizations (LAOs) has been implemented in Thailand since 2008, it has not been implemented according to the government's plan and has not achieved the expected results. Trang Province, located in the country's southern region, has not yet implemented such a plan.

OBJECTIVES:

The purpose of this study is to scrutinise the factors contributing to the alacrity of SHPH personnel in Trang province for policy implementation related to mission transfer to the Trang provincial administrative organization (TPOA) and network.

METHODS:

The research applied a mixed-method approach, including both qualitative and quantitative approaches (QUAL + QUAN) with semi-structured interviews. 403 samples from the questionnaire were collected from public health personnel working at SHPHs. The Index of Item Objective Congruence (IOC) ranged from 0.80 to 1, and the Cronbach's alpha coefficient was 0.96. Exploratory cross-sectional descriptive research was conducted to examine factors affecting the readiness of personnel in SHPHs in Trang province for policy implementation related to mission transfers to the TPOA.

RESULTS:

This study put under scrutiny the impact of healthcare personnel performance in Trang Province, Thailand, on self-assessment of service standards at SHPHs following the mission transfer to TPOA. Leadership and governance emerged as the strongest predictors, with personnel rating it higher (OR=8.2, 95% CI=3.57-19.30). Other significant predictors included Financing (OR=3.40, 95% CI=1.61-7.37), Information Systems (OR=2.8-3.0), and Health Workforce (marginal significance). These findings accentuated the strong influence of leadership, governance, and financing on personnel performance and transfer expectations.

CONCLUSION:

The findings highlight the strong influence of leadership, governance, and financing on personnel performance and transfer expectations, with notable associations in medical products, vaccines and technologies and health services delivery, demonstrating the crucial roles these factors play in service delivery outcomes.

KEYWORDS

readiness; policy implementing; subdistrict health promoting hospital; missions transfer

INTRODUCTION

Decentralization has been widely adopted as a governance strategy to improve the efficiency, responsiveness, and equity of public service delivery by shifting authority from central governments to local administrative levels. In Thailand, this approach was formally institutionalized in the 1997 Constitution, which mandated the transfer of decision-making authority and public service responsibilities to local governments. This reform was reinforced by the Decentralization Plan and Procedures Act B.E. 2542 (1999), which outlined mechanisms for transferring functions, budgets, and personnel from central agencies to local administrative organizations (LAOs). While decentralization has enhanced local autonomy and service responsiveness, its implementation has faced persistent challenges, including overlapping mandates, limited local capacity, and unclear administrative frameworks [1-2].

Decentralization of primary healthcare is a critical component of Thailand's reform agenda. The transfer of subdistrict health-promoting hospitals (SHPHs) from the Ministry of Public Health (MoPH) to local governments was intended to strengthen community-based service delivery and improve responsiveness to local health needs. Although the original completion deadline was set for 2010, progress has been uneven [3-5]. In 2021, the Decentralization to the Local Government Organization Committee issued new guidelines enabling the voluntary transfer of SHPHs to Provincial Administrative Organizations (PAOs), with implementation beginning in October 2021. More recently, the 2023 Decentralization Plan (Issue 2) mandated further transfers, including 30 SHPHs in Trang Province during the 2024 fiscal year; however, low acceptance among healthcare personnel reflects ongoing concerns regarding job security, career progression, and organizational readiness [6].

Assessing readiness for this transition requires a comprehensive health system perspective. The World Health Organization's "Six Building Blocks of a Health System" framework provides an established approach for evaluating service delivery, workforce capacity, health information systems, access to medical products and technologies, financing, and leadership and governance. This framework is particularly relevant in the current context, as recent studies highlight the growing importance of digital health infrastructure and adaptable service delivery models [7]. Evidence from Thailand indicates that access to technology and post-COVID-19 behavioral changes have significantly influenced healthcare utilization, including antibiotic use, underscoring the need for resilient, well-coordinated primary healthcare systems at the local level [8-9].

In addition to shifting healthcare behaviors, Thailand faces rising public health challenges, including non-communicable diseases linked to urbanization and lifestyle factors. These trends emphasize the importance of strong local governance in disease prevention, surveillance, and health promotion. Against this backdrop, this study examines the readiness of Provincial Administrative Organizations to assume responsibility for SHPHs, using the WHO Six Building Blocks framework to identify key strengths, gaps, and policy implications. Understanding organizational and workforce readiness is essential for ensuring the sustainability and effectiveness of decentralized primary healthcare in Thailand.

METHODS

RESEARCH DESIGN AND LOCATION

In research on factors affecting personnel readiness for mission transfer at TSHPHs, mixed methods were used to implement the policy of transferring the mission of SHPHs. The research included both qualitative and quantitative approaches (QUAL + QUAN). This study aimed to use a triangulation design, collecting data from documents, textbooks, academic articles, and various research studies to compile a conceptual framework and systematically analyse the content to present the research findings. The researcher followed the research procedure [10].

1. Qualitative Approach: Semi-structured interviews were conducted with stakeholders and individuals involved in readiness preparation for mission transfer SHPHs in Trang Province. This included executives from the PAO, Provincial Health Office (PHO), District Health Office (DHO), community hospitals and provincial hospitals, SHPHs, and representatives from the public, totalling 28 individuals.

2. Quantitative Approach: Information was derived from 814 individuals working at SHPHs in Trang Province. A sample group of 407 individuals was randomly selected using Daniel's formula [11].

A mixed-methods approach was brought into play to examine the factors influencing personnel readiness for mission transfer at Sub-District Health Promotion Hospitals (SHPHs) for the policy implementation of transfer missions. With a combination of qualitative and quantitative methods (QUAL + QUAN), a triangulation design was achieved. Data was collected from various sources, including documents, textbooks, academic articles, and other research studies, to develop a conceptual framework and conduct a systematic content analysis to present the findings. The researcher followed the following procedure [10].

1. Qualitative Approach: Semi-structured interviews were conducted with stakeholders and individuals who were involved in preparing for mission transfer at SHPHs in Trang Province. This group had executives from the Provincial Administrative Organization (PAO), Provincial Health Office (PHO), District Health Office (DHO), community hospitals, provincial hospitals, SHPHs, and Area Health Committee (AHC), totalling 28 individuals.

2. Quantitative Approach: Information was collected from personnel working at SHPHs in Trang Province, comprising 814 individuals. A sample group of 403 individuals (response rate was 99.02%) was randomly selected using Daniel's formula [11].

$$\text{formula } n = \frac{Z_{\alpha/2}^2 NP(1-P)}{Z_{\alpha/2}^2 P(1-P) + (N-1)d^2}$$

- where n = Sample size with finite population correction,
- N = Number of staff at SHPHs in Trang Province, (814 people)
- $Z_{\alpha/2}$ = 1.96 statistic for a level of confidence, (95%)
- P = Expected proportion (0.50), and
- d = Precision (0.04)

$$\text{stand for } n = \frac{(1.96)^2 \times (814 \times 0.50) \times (1-0.50)}{(1.96)^2 \times (0.50) \times (1-0.50) + (814-1) \times (0.04)^2} = 346$$

The sample size was expanded by 15% to reduce the loss of samples, resulting in a calculated adjusted sample size of 407.

RESEARCH INSTRUMENT

Five experts evaluated the in-depth interviews and questionnaire for accuracy, content validity, coverage, and clarity of language to determine the consistency (IOC). Each item in the instrument had an IOC value ranging from 0.8 1.0. Individuals with characteristics similar to those of the sample group were chosen to complete the questionnaire. The questionnaire was highly accurate, with a Cronbach's alpha coefficient of 0.96 [12, 13].

The semi-structured in-depth interviews were structured around the Six Building Blocks of a Health System framework, which encompassed six main topics: 1) health service delivery, 2) health workforce, 3) health information systems, 4) medical products, vaccines, and technologies, 5) health financing, and 6) leadership and governance. The questionnaire was divided into four parts:

Part 1: Demographic Questionnaire: This section includes 11 closed-ended and four open-ended questions.

Part 2: Work Performance Questionnaire based on the "Six Building Blocks of a Health System. It contains 25 items rated on a 5-level Likert scale [7, 14, 15].

Part 3: The Self-Assessment Questionnaire: This section assesses the expectations of SHPH workforce members regarding the policy that grants the PAO greater authority. It includes 20 items rated on a 5-level Likert scale, focusing on improved health, responsiveness, social and financial risk protection, and efficiency [14, 15].

Part 4: The Service Standards Questionnaire, aligned with the decentralization policy, uses a 5-level Likert scale and consists of 20 items to facilitate self-evaluation of service standards. Aspects such as access, coverage, quality, and safety are covered here [14, 15].

ETHICAL APPROVAL

This study was approved by the Ethics Committee for Research Involving Human Subjects at Mahasarakham University, Thailand (No. 156-028/2023). The study adhered to ethical research protocols by obtaining written informed consent from participants and ensuring confidentiality.

DATA COLLECTION PROCEDURES

A mixed-methods study was conducted in Trang Province, Thailand, from June to October 2023 to examine the perspectives and roles of health service personnel within the provincial health system. Data was collected through semi-structured in-depth interviews and questionnaire-based surveys.

Interviews: Semi-structured interviews were conducted in Thai with executives from the TPAO, PHO and DHO, provincial and district hospitals, SHPHs, and the AHC. Participants with a minimum of one year of local experience were involved in the interviews aimed to explore expectations regarding the transfer of SHPH missions under TPAO's decentralization policy, guided by the key question: "What are your expectations for the transfer of SHPH missions under TPAO's decentralization policy?" Each interview lasted between 30 and 60 minutes, was audio-recorded with participants' consent, and was transcribed verbatim.

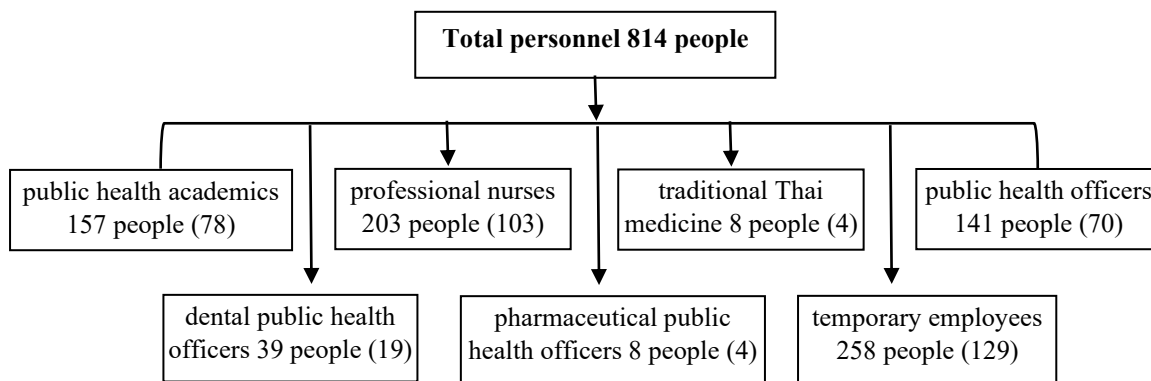
Survey: The survey targeted SHPH staff including public health academics, nurses, public health officers, dental and pharmaceutical officers, traditional Thai medicine practitioners, and temporary employees. Participants underwent random selection, based on the proportion of job roles through simple random sampling and were required to have at least one year of employment at SHPHs in Trang Province.

The findings provided insights into the perspectives and roles of health service personnel within the provincial health system (Figure 1).

The researcher adopted the following steps for data collection:

1. Request letters were sent to the executives of all the relevant agencies involved, requesting permission for data collection.
2. Upon receiving permission from the executives, research volunteers were selected, based on the predetermined criteria.
3. The study's objectives were explained and outlined on how the rights of the volunteers would be protected. In-depth interviews were conducted personally by the researcher, while trained research assistants distributed questionnaires specifically prepared for this study.
4. Signed consent was obtained from the volunteers before the commencement of the interviews and the administration of the questionnaires.
5. Upon completion of the questionnaires, the research assistants checked each response for completeness before returning it to the researcher. This process ensured both accuracy and completion. Ultimately, completed questionnaires from 403 participants were received, accounting for 99% of the target of 407 participants. The data was recorded using a software program, verified twice by two individuals, and then used for statistical analysis.

FIGURE 1 SHOWS THE POPULATION BY OCCUPATIONAL GROUPS AT SHPHS IN TRANG PROVINCE



Data analysis: Qualitative data was collected through in-depth semi-structured interviews, and document reviews analyzed using thematic analysis based on Braun and Clarke's (2006) six-step process: familiarization, coding, theme generation, theme review, theme definition, and reporting [16].

Transcripts were analyzed using Atlas. ti version 9 to organise the data and categorise it into themes aligned with the study objectives. Content analysis and categorical analysis were conducted utilizing the Six Building Blocks of a Health System framework to derive guidelines for policy implementation. Two researchers engaged in cross-referencing and interpretation to ensure reliability and address discrepancies through collaboration discussion.

Quantitative analysis: Quantitative data were analyzed using descriptive statistics and the Six Building Blocks of a Health System framework to evaluate the demographic influences on the organization of health services at the SHPH. Spearman's rank correlation coefficient was used to assess the relationships between staff performance, expectations regarding preparation for mission transfers in Trang Province, and self-assessed service standards. Additionally, ordinal logistic regression was employed to examine how preparation for mission transfers in Trang Province affected the performance of the SHPH personnel. The analyses were conducted using IBM SPSS Statistics for Windows, version 29 (licensed under a Concurrent User License from Mahasarakham University) and JAMOVI, version 2.6.26 (2025), and the integrated findings from both analyses provided a comprehensive framework to support the effective readiness of personnel in SHPHs in Trang province for policy implementation related to mission transfer to the TPOA and network.

The assumptions for Spearman's correlation and ordinal logistic regression both analyze ordinal data with different aims. Spearman measures monotonic relationships between ranked variables without requiring normal distribution or linearity. Ordinal logistic regression predicts the probabilities of ordered category membership, assuming proportional odds, independent observations, no multicollinearity, and minimal outliers. One quantifies the strength of the association, whereas the other predicts the category probabilities [17, 18].

RESULTS QUALITATIVE STUDY

There were six themes corresponding to the Six Building Blocks that emerged, each with sub-themes reflecting expectations and concerns.

1. HEALTH SERVICE DELIVERY

Stakeholders expressed their concerns for improved access and quality, but expressed concerns about consistency. Enhanced Access and Equity: AHC anticipated modern equipment and equitable services across urban and rural areas (e.g., Informant 1: "I expected... services with modern and equitable medical equipment"). TPAO executives foresaw efficient primary care systems, emphasizing prevention and treatment. Comprehensive Services: Provincial and district health officers expected seamless integration with secondary and tertiary care, maintaining or exceeding prior standards.

Concerns About Capacity: The Non-participating SHPH executives and some DOH doubted improvements, due to the unclear network coordination and professional shortages (e.g., Informant 4, District: *"I did not expect... better services because SHPHs lacked core professionals"*).

2. HEALTH WORKFORCE

Expectations centered on increased manpower and morale were tempered by professional gaps. Adequate Staffing: Most groups expected larger staffing frameworks to reduce workloads and enhance primary care (e.g., Informant 2, Public: *"I expected... larger staffing covering primary care"*).

Career Advancement: The TPAO and public stakeholders anticipated clear career paths to boost morale.

Professional Shortages: Hospital and district executives noted the absence of doctors, dentists, and pharmacists as barriers (e.g., Informant 4, District: *"Staffing did not cover essential professions like doctors"*).

3. HEALTH INFORMATION SYSTEMS

Stakeholders had expected continuity with enhancements but feared transition disruption.

System Integration: Public and TPAO stakeholders had expected existing systems to merge well with TPAO and leading IT expertise (e.g., Informant 3, Public: *"I expected... IT positions to manage and analyze data"*).

Data Utilization: PHO anticipated advanced systems for alerts and analytics.

Transition Risks: Some hospital and SHPH executives anticipated initial inefficiencies or data discrepancies (e.g., Informant 1, SHPH Transfer: *"I expected... data discrepancies hindering unified development"*).

4. MEDICAL PRODUCTS, VACCINES, AND TECHNOLOGIES

Expectations included modernized supplies that relied on existing networks.

Modern Equipment: Public and TPAO stakeholders expected technology to be upgraded, especially in rural areas.

Network Dependence: executives from community hospitals, provincial hospitals and DHO anticipated continued support from leading hospitals (e.g., Participant 3, Hospital: *"I expected... support from main hospitals"*).

Management Challenges: PHO noted that TPAO's inexperience was viewed as a potential limitation.

5. HEALTH FINANCING

Optimism prevailed for increased budgets, although allocation clarity was a concern.

Increased Budgets: Every group had expected greater financial liquidity from TPAO subsidies and NHSO funds (e.g., Informant 4, TPAO: *"I expected... subsidies based on SHPH size... increasing liquidity"*).

Flexible Allocation: TPAO and SHPH executives anticipated streamlined disbursements.

Regulatory Issues: Some officials noted potential discrepancies in compensation regulations (e.g., Informant 3, TPAO: *"I expected... issues with differing compensation regulations"*).

6. LEADERSHIP AND GOVERNANCE

Stakeholders expected decentralized authority but were worried about political interference.

Delegated Authority: TPAO and SHPH executives anticipated shorter command lines and flexible management (e.g., Informant 4, TPAO: *"I expected... delegation to SHPH directors... enabling rapid problem-solving"*).

Visionary Leadership: Provincial officers had placed considerable emphasis on outcome-focused leadership.

Political Volatility: District and hospital executives feared political interference and unclear oversight (e.g., Participant 1, Provincial: "I thought... politicians' volatility required staff to adapt").

CONCLUSION

Stakeholders expected the SHPH mission transfers to enhance local health systems through better access, staffing, and financing. However, concerns regarding professional shortages, system integration, and leadership clarity underscored the need for strategic planning. Recommendations included establishing precise coordination mechanisms, investments in IT and professional recruitment and fostering leadership training. Future research should evaluate post-transfer outcomes to clinch expectations.

RESULTS QUANTITATIVE STUDY

DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

The health personnel working in the TPSHPH comprised 403 persons and manifested the following findings: women formed the majority (77.17%). The mean age was 39.88 years (S.D. = 9.84), ranging in age from 22 to 60 years. Many participants were between 20 and 35 years of age (45.41%), followed by those aged 45–60 years (31.51%). Regarding marital status, 59.06% were married and 33.75% were single. In terms of education, the majority held a bachelor's degree (75.68%), 10.17% had vocational certificates, and only a small proportion (0.25%) had completed primary school.

Regarding employment status, most participants were government officers (71.46%), followed by ministry employees (13.65%), while the smallest group consisted of permanent employees (0.25%). The largest occupational group comprised professional nurses (24.81%), followed by public health officers (24.07%), and the smallest group was financial officers (1.00%). Most participants were regular staff members (85.86%), 12.16% were SHPH directors, and 1.98% were department heads. In terms of living arrangements, 91.07% lived in their own homes, 4.71% in SHPH-provided housing, and 3.72% in rental homes. Finally, most participants did not intend to transfer the SHPH mission to the TPAO in 2024. This study examined the self-assessment scores of healthcare personnel at SHPHs in Trang province regarding policy implementation related to mission transfers to TPOA. A survey of 403 respondents revealed consistently high ratings across all evaluation categories. Personnel rated their performance levels highest in Health Service Delivery and Information Systems (both 4.37), while scoring lowest in financing (3.46). Service Standards received the strongest overall assessment (4.59), with Safety Standards (4.56) and Service Quality Control (4.55) achieving the highest individual scores. Personnel expectations were rated at a "high level" (4.13), with Improved Health receiving the highest expectation score (4.13) and Social and Financial Risk Protection the lowest (3.92). The findings generally indicated positive self-assessments across all implementation issues measured in the study (Table 1).

TABLE 1 SELF-ASSESSMENT SCORES OF HEALTHCARE PERSONNEL AT SHPHS IN TRANG PROVINCE FOR POLICY IMPLEMENTATION RELATED TO MISSION TRANSFER TO TPOA (N = 403)

Issues of implementation	\bar{x}	S.D.	Interpretation
1. Self-assessment of the performance level of personnel SHPHs			
Health Service Delivery	4.37	0.75	Highest level
Information system and sharing	4.37	0.68	Highest level
Leadership & Governance	4.3	0.72	Highest level
2			
Medical Products, Vaccines & Technologies	4.30	0.68	Highest level
Health Workforce	3.89	0.84	Highest level
Financing	3.4	1.11	High level
6			

Total	4.30	0.65	Highest level
2. Self-Assessment of Service Standards for personnel SHPHs			
Safety standards	4.56	0.59	Highest level
Service quality control	4.55	0.60	Highest level
Access to services for local people	4.51	0.60	Highest level
Service coverage	4.28	0.73	Highest level
Total	4.59	0.56	Highest level
3. Self-assessment according to the expectations of personnel SHPHs			
Improved Health	4.13	0.81	High level
Responsiveness	4.09	0.79	High level
Improved Efficiency	4.00	0.78	High level
Social and Financial Risk Protection	3.92	0.89	High level
Total	4.13	0.74	High level

Note: Self-assessment scores for performance of health personnel, Service Standards and expectations at SHPHs in Trang Province are divided into five levels (lowest to highest) based on average scores: 1.00 - 1.80: Lowest, 1.81 - 2.60: Low, 2.61 - 3.40: Moderate, 3.41 - 4.20: High, and 4.21 - 5.00: Highest (Best's, 1977)

CORRELATION BETWEEN THE PERFORMANCE LEVEL OF PERSONNEL AT TPSHPH AND THEIR SELF-ASSESSMENT SCORES FOR SERVICE STANDARDS IN PREPARATION FOR THE TPAO

The correlations were as follows: medical products, vaccines and technologies, leadership and governance, information systems and sharing, health workforce, and health service delivery ($r_s = .549, .528, .495, .484, \text{ and } .443$, respectively). On the other hand, the features of Financing showed a weak correlation with the self-assessment of SHPH personnel on service standards in preparation for TPAO ($r_s = .324$), which was also statistically significant ($p < .001$) (Table 2).

TABLE 2 CORRELATION BETWEEN TPSHPH PERSONNEL PERFORMANCE AND THEIR SELF-ASSESSMENT SCORES FOR SERVICE STANDARDS IN TPAO PREPARATION

Variable	Correlation Coefficient (r_s)	p-value	Interpret results
Medical Products, Vaccines & Technologies	.549*	< .001	moderate
Leadership & Governance	.528*	< .001	moderate
Information System and Sharing	.495*	< .001	moderate
Health Workforce	.484*	< .001	moderate
Health Service Delivery	.443*	< .001	moderate
Financing	.324*	< .001	weak

r_s Spearman's Rank Correlation Sig. (2-tailed)

CORRELATION BETWEEN PERSONNEL EXPECTATIONS FOR TPAO PRODUCTION AND THEIR PERFORMANCE LEVEL IN TPSHPH

The study revealed a significant and moderate relationship ($p < .001$) between personnel expectations and performance levels in all areas. The correlation coefficient rankings from highest to lowest were as follows: Leadership & Governance ($r_s = .614$), Medical Products, Vaccines & Technologies ($r_s = .545$), Health Workforce ($r_s = .521$), and Information Systems and Sharing ($r_s = .490$). The issues of Health Service Delivery ($r_s = .387$) and Financing ($r_s = .379$) showed a weak relationship ($p < .001$) (Table 3).

Significant findings revealed the correlation coefficient between the performance levels of TPSHPH personnel under the Six Building Blocks of a Health System framework and the self-assessment of SHPH personnel on service standards in preparation for TPAO. It was discovered that almost every aspect of the performance levels of TPSHPH personnel had a

moderate positive correlation with the self-assessment of SHPH personnel on service standards in preparation for TPAO, with statistical significance ($p < .001$).

TABLE 3 CORRELATION BETWEEN TPSHPH STAFF PERFORMANCE AND SHPH PERSONNEL EXPECTATIONS FOR TPAO READINESS

Variable	Correlation Coefficient (r_s)	p-value	Interpret results
Leadership & Governance	.614*	< .001	moderate
Medical Products, Vaccines & Technologies	.545*	< .001	moderate
Health Workforce	.521*	< .001	moderate
Information system and sharing	.490*	< .001	moderate
Health Service Delivery	.387*	< .001	weak
Financing	.379*	< .001	weak

r_s Spearman's Rank Correlation Sig. (2-tailed)

FACTORS AFFECTING THE HEALTHCARE PERFORMANCE OF SHPHS PERSONNEL IN TRANG PROVINCE WITH SELF-ASSESSMENT FOR SERVICE STANDARDS OF SHPHS REGARDING MISSION TRANSFER TO TPOA

The study conducted an ordinal logistic regression analysis to examine the effects of the healthcare personnel's performance of SHPH personnel in Trang Province with a self-assessment of service standards for SHPHs regarding mission transfer to TPOA. This revealed a statistically significant model ($\chi^2 = 185$, $p < .001$) explaining approximately 22-29% of the variance in service standard self-assessments (McFadden's $R^2 = 0.224$ and Nagelkerke $R^2=0.286$). Leadership and governance emerged as the strongest predictors, with personnel rating it higher, being 8.2 times (95% CI=3.57-19.30) more likely to have the highest service standard assessments. This was followed by financing (odds ratio: 3.40, 95% CI=1.61-7.37), information systems (odds ratio: 2.8-3.0, 95% CI=1.11-7.15, and 95% CI=1.30-6.88, respectively), and the Health Workforce (marginally significant). Health Service Delivery and Medical Products/Vaccines/Technologies showed no significant relationship. These findings suggest that prioritizing leadership, governance, and making improvements in finance would most effectively enhance service standards in the Trang Province mission transfer (Table 4).

TABLE 4 ORDINAL LOGISTIC REGRESSION ANALYSIS BETWEEN HEALTHCARE PERSONNEL PERFORMANCE IN TRANG PROVINCIAL HEALTH PROMOTION HOSPITALS AND SELF-ASSESSMENT FOR SERVICE STANDARDS OF SHPHS REGARDING MISSION TRANSFER TO TPOA.

Predictor	β	SE	Z	p	Odds ratio	95% CI	
						Lower	Upper
Health Service Delivery:							
Highest – Moderate	0.69	0.42	1.66	0.097	1.99	0.88	4.52
High – Moderate	0.24	0.39	0.61	0.545	1.27	0.59	2.72
Health Workforce:							
Highest – Moderate	0.67	0.38	1.78	0.076	1.95	0.93	4.09
High – Moderate	0.24	0.29	0.85	0.395	1.27	0.73	2.23
Information system and sharing:							
Highest – Moderate	1.03	0.47	2.17	0.03	2.79	1.11	7.15
High – Moderate	1.08	0.42	2.56	0.01	2.95	1.30	6.88
Medical Products, Vaccines & Technologies:							
Highest – Moderate	0.73	0.45	1.62	0.106	2.07	0.86	5.01
High – Moderate	-0.03	0.39	-0.08	0.934	0.97	0.45	2.09
Financing:							
Highest – Moderate	1.22	0.39	3.16	0.002	3.40	1.61	7.37

Leadership & Governance:	<i>High – Moderate</i>	0.37	0.24	1.55	0.121	1.44	0.91	2.29
	<i>Highest – Moderate</i>	1.21	0.37	3.27	0.001	3.34	1.64	6.97
	<i>High – Moderate</i>	2.10	0.43	4.90	<.001	8.20	3.57	19.30

**Model Fit: The overall model shows strong statistical significance ($\chi^2 = 185$, $df = 12$, $p < .001$), McFadden's $R^2 = 0.224$, Cox & Snell $R^2 = 0.142$, and Nagelkerke $R^2 = 0.286$

FACTORS AFFECTING THE HEALTHCARE PERSONNEL PERFORMANCE OF SHPHS PERSONNEL IN TRANG PROVINCE WITH PERSONNEL EXPECTATIONS REGARDING MISSION TRANSFER TO THE TPOA.

This study used ordinal logistic regression analysis to examine the relationship between the healthcare performance of SHPHs personnel in Trang province and their expectations regarding mission transfer to TPOA. The findings revealed that personnel performance across multiple healthcare domains significantly predicted transfer expectations, with particularly strong associations in Leadership & Governance (OR=4.29 for high performers, 95% CI=1.82-10.31), Financing (OR=4.39 for high performers, 95% CI=1.40-19.45), and Medical Products/Vaccines/Technologies (OR=3.31 for moderate performers, 95% CI=1.34-8.29). Health Service Delivery showed moderate significance (OR=2.26, 95% CI=1.01-5.13), while Information Systems demonstrated marginally significant relationships. The overall model demonstrated good statistical significance ($\chi^2=125$, $df=12$) with a reasonable explanatory power of approximately 24.50% of the variance in expected preparation levels (Nagelkerke $R^2=0.245$), suggesting that healthcare performance domains play an important role in shaping personnel expectations regarding mission transfer to TPOA in this provincial healthcare setting (Table 5).

TABLE 5 ORDINAL LOGISTIC REGRESSION ANALYSIS BETWEEN HEALTHCARE PERFORMANCE OF SHPH PERSONNEL IN TRANG PROVINCE WITH PERSONNEL EXPECTATIONS REGARDING MISSION TRANSFER TO TPOA.

Predictor	β	SE	Z	p	Odds ratio	95% CI		
						Lower	Upper	
Health Service Delivery:								
	<i>High – Highest</i>	0.35	0.27	1.28	0.2	1.42	0.83	2.41
	<i>Moderate – Highest</i>	0.81	0.42	1.96	0.05	2.26	1.01	5.13
Health Workforce:								
	<i>Highest – Moderate</i>	0.15	0.44	0.33	0.742	1.16	0.48	2.75
	<i>High – Moderate</i>	0.45	0.29	1.52	0.129	1.56	0.88	2.80
Information system and sharing:								
	<i>High – Highest</i>	0.53	0.29	1.81	0.071	1.70	0.96	3.01
	<i>Moderate – Highest</i>	0.87	0.47	1.86	0.063	2.39	0.96	6.06
Medical Products, Vaccines & Technologies:								
	<i>High – Highest</i>	0.61	0.31	1.96	0.05	1.84	1.00	3.41
	<i>Moderate – Highest</i>	1.20	0.46	2.58	0.01	3.31	1.34	8.29
Financing:								
	<i>High – Highest</i>	1.48	0.65	2.28	0.023	4.39	1.40	19.45
	<i>Moderate – Highest</i>	1.15	0.67	1.72	0.085	3.16	0.96	14.32
Leadership & Governance:								
	<i>High – Highest</i>	1.46	0.44	3.30	< .001	4.29	1.82	10.31
	<i>Moderate – Highest</i>	1.13	0.30	3.72	< .001	3.10	1.72	5.67

**Model Fit: The overall model shows strong statistical significance ($\chi^2 = 125$, $df = 12$), McFadden's $R^2 = 0.201$, Cox & Snell $R^2 = 0.0980$, and Nagelkerke $R^2 = 0.245$

DISCUSSION

To discuss the research results, we can seek to integrate insights from other relevant studies that align with the factors affecting the readiness of SHPHs personnel in Trang province for policy implementation related to the mission transfer to the TPOA and network.

LEADERSHIP AND GOVERNANCE:

The importance of strengthened leadership and governance in healthcare systems is well-documented. Effective leadership is essential for health system integration, particularly during transitions like mission transfers. This supports the study's findings that leadership and governance were the strongest predictors of personnel readiness and service standard self-assessments in Trang province. This emphasized the role of leadership in local administrative organizations' readiness to accept health system transfers, reinforcing the idea that leadership clarity and stability are vital for successful policy implementation [19, 20].

FINANCING:

Adequate financing is a critical determinant of health system performance and personnel expectations. The role of financing in decentralization efforts, noting that financial resources are key to maintaining service delivery, particularly in decentralized health systems. The findings from Trang Province, where financing was a significant predictor of performance and readiness, align with these conclusions [21]. Furthermore, this highlighted the need for secure financial planning when transferring primary healthcare responsibilities to local organizations, reinforcing the need for financial sustainability to support effective service provision post-transfer [22].

INFORMATION SYSTEMS AND SHARING:

The importance of robust information systems for healthcare performance was highlighted in multiple studies. This articulated that integrated information systems were essential for smooth healthcare delivery, especially during system changes [19]. In the context of Trang province, the study's findings that information systems significantly impacted service standards and personnel expectations supported this argument. This also emphasized how the health system's ability to manage data during crises (e.g., floods) influences service delivery, underscoring the need for a reliable information infrastructure to support health system transfers [23].

HEALTH WORKFORCE:

The study identified that while the health workforce had a marginal effect on performance and expectations, it remained an essential factor in readiness. Due to development, these human resources were fundamental pillars in ensuring excellence in public health [24]. As healthcare personnel were crucial to implementing new policies and maintaining service standards, investments in recruitment and training were necessary. In addition, that was necessary to improve and develop the workforce's preparedness to meet the challenges of the mission transfer [25].

HEALTH SERVICE DELIVERY AND MEDICAL PRODUCTS, VACCINES, AND TECHNOLOGIES:

Although this study found no significant association between these factors and personnel readiness in Trang Province, the broader literature indicates that they remain critical components of effective healthcare systems. The integration of disability inclusion within health systems, for instance, requires coordinated management of health services, medical products, and assistive technologies [26]. Moreover, evidence of barriers in obstetric care delivery at the primary healthcare level illustrates how the availability and quality of essential services and medical products can substantially influence health outcomes and service quality, even when such factors do not directly affect personnel expectations or perceived readiness [8–9, 27–28].

INTEGRATION WITH LOCAL HEALTH SYSTEMS:

Several studies emphasized the need for strategic integration between local administrative organizations and health systems to ensure that transferred missions were successfully incorporated into existing structures. For instance, studies in Thailand and Zimbabwe underscored the importance of local readiness and the alignment of missions with broader health system goals [20, 24].

IT AND INFRASTRUCTURE INVESTMENTS:

Several studies called for investments in information technology (IT) systems to facilitate the transfer process and improve healthcare delivery post-transfer. The health systems integration was importance of IT in enabling data sharing and service coordination, a recommendation echoed in studies from India and Thailand [8-9, 19, 25, 28].

CONCLUSION

The research highlighted the critical factors influencing the readiness of SHPH personnel in Trang Province for the mission transfer to the TPOA and network. Strong leadership and governance emerged as the most significant predictors of personnel readiness, aligning with existing literature on the importance of leadership clarity during transitions. Financing, information systems, and health workforce preparedness were crucial in implementing a successful policy. While health service delivery and medical products were not directly related to personnel readiness, the broader literature underscored the importance of maintaining service quality. Additionally, integrating local health systems and investing in IT infrastructure were identified as essential for facilitating the transfer process and improving healthcare delivery. Overall, the study reinforced the need for a comprehensive approach that combined leadership, financial sustainability, technological investment, and workforce readiness to support effective health system transitions.

LIMITATIONS AND SUGGESTIONS

The limitations of this study could be stated as follows: the participants were primarily made up of personnel working in primary healthcare units, specifically at SHPH. The study focused on quantitative data and in-depth interviews within the government sector involved in transferring responsibilities from SHPH to the PAO in Trang, and representatives from the civil society sector. The study did not focus on the general public, who are the service recipients, because the relevant laws do not grant the public the right to make decisions on this matter. However, the researcher designed additional research that included in-depth interviews with representatives from the civil society sector, allowing their involvement in this study. It was recommended that a system should be developed to monitor the outcomes of the mission transfer, including the satisfaction of the personnel involved in the transfer, and to explore opportunities for improving the primary healthcare services managed by the PAO moving forward.

ACKNOWLEDGEMENTS

We would like to express our deepest gratitude to the various healthcare networks in Trang Province and the local administrative organizations in Trang Province for their support and contributions to the success of this research. We would like to thank Mahasarakham University for their help in improving the quality of the manuscript (translation, proofreading, editing, etc.).

CONFLICT OF INTEREST

The Authors declare that there is no conflict of interest

FUNDING

This research project was financially supported by the Faculty of Public Health, Mahasarakham University.

References

1. Kjær AM. Governance. Polity Press: Cambridge and Malden MA; 2004.
2. Thailand, Constitution of the Kingdom of Thailand B.E.2540 (1997) Chapter 9. Sect. 284 (Local Government).
3. Kulthanmanusorn A, Saengruang N, Wanwong Y, Kosiyaporn H, Witthayapipopsakul W, Srisasalux J, et al. Evaluation of the Devolved Health Centers: Synthesis Lesson Learnt from 51 Health Centers and Policy Options 2018. Available from: <https://kb.hsri.or.th/dspace/handle/11228/4866>.
4. Provincial Administration Organization Council of Thailand. Subdistrict Health Promotion Hospital to Provincial Administrative Organization, another step towards decentralizing power to Local Administrative Organizations: History and guidelines for transferring the missions of the Chaloe Phrakiat 60th Anniversary Nawamintharachini Health

Station (SACH) and the Subdistrict Health Promoting Hospital (Subdistrict Health Promoting Hospital) to the Provincial Administrative Organization (PAO). Nonthaburi2021.

5. Thailand, Government Gazette Notifications of the Decentralization to the Local Government Organization Committee Re: Principles and Procedures for Transferring the Missions of the Chaloem Phrakiat 60th Anniversary Nawaminthrachini Health Station and Subdistrict Health Promoting Hospital to the Provincial Administrative Organization. Sect. 138 special episode 254 D (2021).
6. Division of Public Health TPAO. The convention was driven to arrange preparations for the transfer of the Chaloem Phrakiat 60th Anniversary Nawaminthrachini Health Station and Subdistrict Health Promoting Hospital to Trang Provincial Administrative Organization. Thailand. Trang; 2022 May 30.
7. World Health Organization (WHO). Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva, Switzerland: WHO; 2010. Available from: <https://apps.who.int/iris/bitstream/handle/10665/258734/9789241564052-eng.pdf>.
8. Prasit N, Phimha S, Nonthamat A, Nilnate N, Nidthumsakul N, Sresutham P. The impact of health and technology shifts on antibiotic use among the elderly in Thailand. *Sci Rep*. 2025;15(6220):1-12.
9. Yanarueng, S., Prasit, N., Phimha, S. et al. Factors associated with antibiotic use patterns in Thailand after COVID-19. *Sci Rep* 15, 13202 (2025). <https://doi.org/10.1038/s41598-025-97936-x>
10. Creswell JW. *Research design: Qualitative, quantitative, and mixed methods approaches*. California: SAGE Publications, Inc.; 2009.
11. Daniel WW. *Biostatistics: Basic Concepts and Methodology for the Health Sciences*. 9th ed. New York: John Wiley & Sons; 2010 2022 September 27. 783 p.
12. Rovinelli RJ, Hambleton RK. On the use of content specialists in the assessment of criterion-referenced test item validity. *Tijdschrift voor Onderwijsresearch*. 1977;2(2):49-60.
13. Cronbach LJ. Coefficient alpha and the internal structure of tests. *Psychometrika*. 1951;16:297-334.
14. Likert R. The Method of Constructing and Attitude Scale. In: Fishbein M, editor. *Readings in attitude theory and measurement*. New York: Wiley & Son; 1967. p. 90-5.
15. Best JW. *Research in Education*. 3rd ed. New Jersey: Prentice Hall; 1977.
16. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology*. 2006;3(2):77-101.
17. Schober P, Boer C, Schwarte LA. Correlation Coefficients: Appropriate Use and Interpretation. *Anesthesia & Analgesia*. 2018;126(5):1763-8.
18. Harrell FE. Ordinal Logistic Regression. In: Harrell FE, editor. *Regression Modeling Strategies: With Applications to Linear Models, Logistic Regression, and Survival Analysis*. New York, NY: Springer New York; 2001. p. 331-43.
19. Piquer-Martinez C, Urionagüena A, Benrimoj SI, Calvo B, Dineen-Griffin S, Garcia-Cardenas V, et al. Theories, models and frameworks for health systems integration. A scoping review. *Health Policy*. 2024;141(104997):1-9.
20. Lortakul T, Krasang A, Manmee T. The Readiness of Local Administrative Organizations in Accepting Transferring Mission of Tambon Health Promoting Hospital (Hph) in Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province. *Journal of Legal Entity Management and Local Innovation*. 2021;7(6):29-42.
21. Sapkota S, Dhakal A, Rushton S, Van Teijlingen E, Marahatta SB, Balen J, et al. The impact of decentralisation on health systems: a systematic review of reviews. *BMJ Glob Health*. 2023;8(12):1-14.
22. Sanseela W, Suwannaphant K, Assana S. Perception and Expectation of Health Personnel on Preparation to Transfer Mission of Sub-district Health Promoting Hospitals to Provincial Administrative Organization in Health Region 8. *Journal of Vongchavalitkul University*. 2023;36(1):67-84.
23. Pradhan NA, Najmi R, Fatmi Z. District health systems capacity to maintain healthcare service delivery in Pakistan during floods: A qualitative study. *Int J Disaster Risk Sci*. 2022;78(103092):1-12.
24. Thienthong K, Rugchatjaroen K, Sirisunhirun S, Amornsiriphong S, Natrujirote W, Suttawet C. Developing local hospitals for public health excellence. *J Public Hlth Dev*. 2022;20(2):72-86.
25. Thanormchayatawat B, Chukumnird S, Lillahkul N, Noin J, Ratchathawan R, Junwin B, et al. Human Resource Management Provided by the Queen Sirikit Health Centers and Subdistrict Health Promotion Hospitals Transferred to the Management of the Provincial Administrative Organizations Using the Mechanism of the Primary Health System Act (B.E. 2562). *Research Reports*. Health Systems Research Institute, Thailand: Health Systems Research Institute (HSRI); 2023 2023-09-28.

26. Kuper H, Heydt P, Hameed S, Smythe T, Kujinga T. The process of developing and piloting a tool in the Maldives and Zimbabwe for assessing disability inclusion in health systems performance. *Br J Surg.* 2024;3(100014):1-10.
27. Veerappan V, Kundu S, Arora H, Virk S, Goshal R, Gadgil A, et al. 260 Barriers to the Delivery of Obstetric Care Within Primary Health Centres (PHC) in India- a Scoping Review. *British Journal of Surgery.* 2024;111(Supplement_6).
28. Sambath V, Narayan S, Kumar P, Kumar P, Pradyumna A. Knowledge, attitudes and practices related to climate change and its health aspects among the healthcare workforce in India – A cross-sectional study. *J Clim Change Health.* 2022;6(100147):1-11.