



Exploring Challenges to Primary Occupational Health Care Service for Informal Sector Workers

K Nilvarangkul^{1*}, T Phajan², U Inmuong³, JF Smith³ and P Rithmark³

¹Faculty of Nursing, Khon Kaen University, Thailand

²Sirinthon College of Public Health, Khon Kaen, Thailand

³Faculty of Public Health, Khon Kaen University, Thailand

Abstract

Informal sector workers are a significant part of the Thai workforce but occupational health service provision for them is under-developed. This multi-method study investigated occupational health policies and service provision in 10 primary health units in four north eastern Thailand provinces. Questionnaires, in-depth interviews and focus group discussions were used to collect data. Descriptive statistics and content analysis were used to analyse quantitative and qualitative data respectively. Results showed limited policy and budget support for such services. Even though service providers' occupational health knowledge overall was good, only two of the units provided such services. They were notable for very good functional relationships with their local administration organizations, community and worker leadership and village health volunteers, plus strong staff commitment to support workers health in their own communities. We suggest that enhancing primary care services for worker health and safety requires development of stronger policy directives, budget provision and management support.

Keywords: Primary occupational health service; Informal sector worker; Primary care unit

Introduction

Thailand is now an upper middle-income country with two thirds of its 65 million populations in the 19-59 year old working age range [1]. In 2015 there were 38.3 million working age people with 21.4 million (55.9%) in informal sector work such as, farmers, home-based silk or cotton workers and contracted sewing factory outworkers; most, 35.5 percent, are in North Eastern Thailand [2]. Although these worker groups are very important to Thailand's economy, producing up to 70 percent of all Thai products, they unfortunately, work outside Thai Labor Law protection, health and safety regulatory frame-works, and without mandated primary care unit (PCU) occupational health services for work-related health and safety needs [3,4].

Informal sector workers work in unsafe environments. For example, 1.4 million workers are exposed to chemical toxicity, 430,000 work with dangerous machinery and equipment and 130,000 work in environments harmful for their vision and hearing. In addition they also have accidental injuries, like sharp cut injuries (63.4%), falls (17%), 6.5 percent have suffered body trauma or had work collisions and 93.5% of women weavers had posture related back, neck arm and hand pain [2,5].

Thai Ministry of Public Health (MOPH) care services and policies focus on industry (formal) sector workers, rather than informal sector workers. However, some provincial health offices have supported training to enhance occupational health care services at PCU level, using the Thai Government Occupational Health Services model [6-8]. In 2007, as part of the Thai health decentralisation process, 22 of 9762 government community health centers were transferred to pilot municipalities and local (sub-district) administrative organizations (LAO) [9,10]. As health and safety PCU services were not well-developed, the Thai National Health Security Office (NASAO) and the Thai Health Foundation (Thai Health) later provided community health funds to support a further pilot series of brief training (2-3 day workshops) specifically to build networks and introductory knowledge around health and safety assessment and treatment services. These were held over 2009 to 2014, mainly at organizational and managerial levels rather than front-line services.

This study focused on current policies and service provision for work-related health and safety at selected PCUs in several provinces that had been in the above pilot training schemes. Even though, there was some research on models for providing occupational health care services in PCUs or training health service delivery personnel at that level, few studies had explored whether PCU staff provided the services or not [6-8].

Materials and Methods

Study design and setting

This was a multi-method study using questionnaires, in-depth interviews (IDI) and focus group discussions (FGD). It was conducted in ten PCUs in four North-eastern Thailand provinces, namely Roi-et, Kalasin, Mahasarakham and Khon Kaen, the North-eastern pilot provinces for the nationally funded training programs described above. Data was collected between October 2014 to July 2015, at least one year after the pilot training workshops [9,10].

Participant recruitment

Multistage random sampling was used to recruit 111 PCU community nurses and public health personnel responsible for providing worker care and 326 community group members (LAO members, community leaders, village health volunteers [VHVs] and informal sector worker leaders) [11]. In addition, 5 executive staff at provincial administrative level and 20 members of health services contracting units (CUP) were purposively recruited from within the 111 health workers.

***Corresponding author:** Kessarawan Nilvarangkul, Director of Research and Training Center for Enhancing Quality of Life of Working-Age People, Khon Kaen University, Khon Kaen 40002, Thailand, Tel:+66-81-544-1908; Fax: +66-43-348-301; Email: kessa_ni@kku.ac.th, kessarawan2559@gmail.com

Received October 07, 2016; **Accepted** November 03, 2016; **Published** November 10, 2016

Citation: Nilvarangkul K, Phajan T, Inmuong U, Smith JF, Rithmark P (2016) Exploring Challenges to Primary Occupational Health Care Service for Informal Sector Workers. Primary Health Care 6: 245. doi:10.4172/2167-1079.1000245

Copyright: © 2016 Nilvarangkul K, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Research instruments

A survey questionnaire was developed to collect demographic data and occupational health and safety knowledge levels from health personnel and community group members. The health personnel questionnaire had 20 and the community group 15 items respectively. Scores were considered high if over 80% correct, average if 60-79.99% correct and poor if lower than 60%. Three occupational health experts reviewed the questionnaire for content validity and their feedback contributed to the final draft [12,13]. The questionnaire was pretested with 30 health personnel and 30 community group members in Khon Kaen Province. Reliability was assessed using K-R 20, yielding scores of 0.80 and 0.82 which were judged acceptable [14].

Semi structured interview guides probing a range of issues around policies; service provision and financial and human resources support were used in the FGDs and in the IDIs to collect qualitative data.

Data collection

Data collection took place in the community or at participants' workplaces. Quantitative data, using the individual questionnaires, was collected from 111 PCU community nurses and public health personnel and the 326-strong community group members.

Qualitative data were collected using five IDIs with the executive staff to collect information related to existing policies and their understanding of their responsibility to provide work-related health promotion and safety services for informal sector workers in PCUs. Two FGDs were used to gather information from the 20 CUP members related to budget and organizational support for encouraging PCUs to provide health promotion and safety services for the workers. Eight FGDs were used to collect data from 80 PCU community nurses, public health personnel and community group members about policies and provision of health promotion and work and safety health services for informal sector workers. Each IDI or FGD took from one to one and half hours. All IDIs and FGDs were audio recorded and transcribed verbatim by researchers.

Lincoln and Guba's four criteria, credibility, transferability, dependability and confirmability, were used to test the scientific rigor of the study [15].

Data analysis

Questionnaire data were validated and coded. Descriptive statistics were used to display health personnel and community group member's demographic and occupational health policies and practice knowledge. The IDI and FGD data was analysed using content analysis. Data was read through until researchers were fully familiar with it, then open coding, item grouping and categorization into themes was used [16].

Research ethics

This study was reviewed and approved by Khon Kaen University's Human Ethics Committee (HE 572126).

Results

Demographic details

There were 4 females and one male in the executive staff of the provincial administrative sample. Four had bachelor's degrees and one had completed a PhD. The 20 CUP committee members included 16 males, and four females. Nineteen had completed bachelor's degrees and one had a master's degree.

Among the 111 health services personnel, 67.6% were female, average age was 40.47 years (S.D.=9.64) years 70.3% were married and 70.3% had bachelor's degrees 70.3%.

Of the 326 community group members 67% were female, average age was 48.36 years (S.D.=9.80) and 92.6% were married. Almost 40 percent had finished primary school and 35.9% had completed secondary school.

Policy and service provision

Data on primary occupational health care services (POHCS) are reported in 3 broad topic areas: policy support, networking and training and PHC service provision.

Policy support for POHCS

Four provinces were found not to have any formal policies to support POHCS. Only one province had established cholinesterase blood checks for farmers as a key performance index for health personnel, but even then it was not compulsory. The CUPs which were responsible for annual health services budget allocation in their district had neither policy requirements nor budget provision for providing primary occupational care for informal sector workers. The CUP focused on chronic illnesses such as diabetes mellitus and hypertension. One CUP committee said "The chair of our CUP committee provided budget for chronic illness following the government policy. He did not support budget for primary occupational health services" (Male 50 year old).

In addition, most members of LAOs, local politicians responsible for financial support for sub-district level health care services, did not support budget for such services. One health worker suggested "It was difficult to gain final support from the local politician since they wanted to use money for chronic illness and materials rather than support PCU to provide primary occupational health for informal sector workers" (female 45 years old").

Training and network building for providing POHCS

The pilot training had provided strategies and knowledge for health staff and community group members about occupational health care needs. VHV, LAO members, and informal sector workers leaders had learned about occupational health and safety issues such as, agricultural chemical toxicity and how to self-protect from toxicity, and how to work with good posture. Health staff was also encouraged to establish data bases related to work safety and risk of the illness. From the survey questionnaires the majority of health staff had high levels of knowledge related to providing PHC occupational health services (87.4%) with only 12.6 percent having average knowledge levels.

Health personnel had also built networks with VHV, LAO member and community leaders to help them to provide the services. Community group members' questionnaire data showed high levels of knowledge for POHCS needs (46.3%), average knowledge levels (46.9%), with a very small number having low level knowledge (6.8%).

Providing POHCS

From IDIs and FGD data it was clear that most PCUs did not provide occupational health services for informal sector workers. Even though health workers had good knowledge they did not provide services mainly as there was no government policy or budget support to provide these services. Some PCUs provided cholinesterase blood checks for farmers, but only sporadically, dependent on budget allocations. As a result, they focused on PHC mandated and budgeted chronic illness

care. One health personal reflected “We did not receive any support, such as financial, from our CUP or government to provide the services” (male 25 year old). Another said “Therefore, for informal sector (workers) we could check only cholinesterase in their blood but not regularly and could check only some farmers not all who were at risk by contact with agricultural chemical” (female 48 years old). A CUP member said “Most PCU health staff thought that to provide primary occupational health services was not their responsibility since the ministry of public health focused on chronic illness rather than work-related diseases. They also did not have financial support to provide the services” (male 56 years old). Most of PCUs did not have occupational health-related data based. A community nurse said “My PCU does not record diseases related to work and surveillance illness related to work” (female 40 years old).

Almost none of the community group members e.g. VHVs, who worked with PCU health workers provided any occupational health care services. Some felt they did not have enough knowledge and did not feel confident to offer advice to the workers. Furthermore, most PCU health personnel did not provide work-related services except a few blood cholinesterase checks if their budget allowed. Few made suggestions related to agricultural chemical toxicity. One VHV said “I had never provided any suggestion related to primary occupational health to informal sector workers. I suggested them about how to care for themselves to prevent diabetes mellitus (female 50 years old). A community leader reflected “Health personnel did not give me any leaflet to provide health education or over the broadcasting tower (village public address system) related to work and safety but they did give leaflet on how to prevent dengue haemorrhagic fever in rainy season” (male 35 years old).

Although most PCUs had never provided occupational health care services to informal sector workers, two PCU were found that provided such services, both via outreach and within the PCU. Community group members helped PCU health staff to provide outreach services, e.g. health education related to preventing musculoskeletal disorder, to avoid agricultural chemical toxicity, and investigate work accidents and injury and work environments. They also monitored workers’ adherence to occupational health and safety advice by visiting them at their work places. Additionally, they provided health screening and basic work-related care. One CPU health personal said “Our PCU collaborated with local politicians, VHVs, community leaders and leaders or representative of the informal sector workers in our responsible area to provide education related to occupational health and safety and care for the workers... also provide basic cure for them” (health personal 43 years old). This PCU was able to provide occupational health services because it had a close working relationship with its LAO and community. As a result, they gained financial support from the LAO and good collaboration from community leaders, VHVs and workers. Further, the health personnel were local people and had a sense of community commitment. A health personal reflected “I am local person and love people in my village. I do not want them to have illness related to work since the disease related to work I can prevent. I am also familiar with members of LAO. I am also able to work with them and ask support such as financial support or workforce support.” (Female 48 years old). Another member of LAO said “We are local people. We love our people and want to help them. We have to help each other and care for our villagers. Our chief executive of LAO also gives financial support to the health personnel’s project to provide occupational health and work safety for the workers” (female 35 years old). However, one PCU had problems related to on-going financial support when local politicians changed—they are elected every four years by community vote.

Discussion

Despite specific central-government pilot funding for training to improve PCU-level occupational health and safety knowledge and services, we found only two of our 10 selected PCUs provided such care. Most considered such services outside their responsibility with neither budget provision, nor formal policy requirements to do so. Some PCUs did provide occasional blood cholinesterase level checks for farmers, dependent on budgets. Even though we found PCU health workers occupational health knowledge levels were relatively high, other reasons suggested for lack of service provision included, limited numbers of health personnel expert in occupational care and heavy non-worker related workloads, as also noted earlier by Office of Disease Prevention and Control, Region 4 [17].

In contrast, all PCUs and CUP contracting units focused on chronic diseases such as diabetes and hypertension in line with mandated services policies and budget provision. These two successful PCUs had clear distinguishing features. Their personnel were local, strongly committed to their communities and had good collaborative working relationships with other stakeholders, both, throughout the community via village health volunteers and informal sector worker leaders, and also within elected community leadership and formal sub-district LAO administrative structures. These interlocking collaborative layers between the elected leadership decision-making infrastructure and the community reflect a sense of joint ownership of health service processes and priorities and community empowerment considered crucial for fostering their organizational and practical implementation [10,18,19]. The above are positive PCU service examples; however, the role of local elected officials in decentralized health service decision-making and management structures is a potentially significant destabilizer for sustainable services. Successful health decentralization assumes the existence of appropriate levels of local expertise and capacity and stable on-going political will for sustainable services. This is often not the case; see examples from, Thailand, Philippines, Ghana, Zambia and Uganda [9].

Conclusion

Our study revealed that despite specific formal training initiatives to improve PCU occupational health care services, service provision remained limited. The two successful units showed PCU personnel and services well valued and embedded in their local communities. They also had strong working relationships with members of LAOs and elected officials who supported and facilitated occupational health service activities without any central policy directives or budget allocation to do so. However, this level of infrastructure functionality and community engagement and motivation typically needs to be developed rather than assumed. We recommend that future efforts to enhance PCU occupational health and safety services must include new policy priorities and organizational/managerial infrastructure development. Just enhancing specific work-related health service knowledge and skills at the PCU level without strengthening policy and infrastructure support is unlikely to be successful. Future policy development and implementation should also be integrated with research strategies to develop effective occupational health and safety services for this worker group.

Acknowledgement

The authors are grateful thank to health personnel and community group members who participate in the study. They also would like to thank you National Health Security Office region 7 and Research and Training Center for Enhancing Quality of Life of Working Age People for financial support. The author(s) declared the receipt of the following financial support for the research, authorship, and/or

publication of this article: This study was funded by the National Health Security Office region 7 of Thailand and Research and Training Center for Enhancing Quality of Life of Working Age People, Khon Kaen University, Thailand.

Declaration of Conflicting Interest

The authors declare there were no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

1. Institute for Population and Social Research (2016) Thai population 2016. *Mahidol Population Gazette* 25:1-2.
2. National Statistical Office. The informal employment survey 2015.
3. Nilvarangkul K, Adler-Collins J, Thawenongiew K (2009) Community participation in health service system for informal sector workers in primary care units: A case study of sugarcane farmers. Khon Kaen: Klangnavittaya Press.
4. Thai Health Committee. Thai Health 2012: Food security-the illusion of money vs. the reality of food.
5. Nilvarangkul K, Wongprom J, Tumngong C (2006) Strengthening the self-care of women working in the informal sector: Local fabric weaving in Khon Kaen, Thailand (Phase I). *Industrial Health* 44: 101-107.
6. Wittayapun Y, Lagampan S, Kalampakorn S, Rogers B, Vorapongsathorn T (2008) Application of the occupational health services model in Thai primary care units. *AAOHN Journal* 56: 197-205.
7. Thai Bureau of Occupational and Environmental Diseases (2010) Occupational health services in public health services for informal sector workers (2008-2009). Bangkok: Thailand: Thai health promotion foundation.
8. Nilvarangkul K, Arphorn S, Kessomboon N (2016) Action research to develop occupational health services in primary care units for informal sector workers in Thailand. *Action Research* 14: 113-131.
9. Wongthanvasu S, Sudhipongpracha T (2013) Analysis of the capacity and preparedness of local administrative organizations in health management. Nonthaburi: Health System Research Institute.
10. Sudhipongpracha T (2013) Measuring community empowerment as a process and an outcome: Preliminary evaluation of the decentralized primary health care programs in northeast Thailand. *Community Development* 44: 551-566.
11. Polit DF, Beck CT (2008) *Nursing research: Generating and assign evidence for nursing practice*. 8th ed. Philadelphia, PA: Lippincott.
12. Lobiondo-Wood G, Haber J (2010) *Nursing research: Methods and critical appraisal for evaluation-base practice*. 7th ed. Louis: Mosby.
13. Lincoln YS, Guba EG (1985) *Naturalistic inquiry*. Newbury Park, CA: Sage.
14. Elo J, Kyngas H (2008) The qualitative content analysis process. *JAN*.
15. Office of Disease Prevention and Control, Region 4. Implementation report from experience of developing occupational health services in public services for informal sector worker during 2008-2009 in central region. Bangkok: Thailand Health Promotion Foundation, 2009.
16. Pretty J (1995) The many Interpretation of Participation. In *Focus* 16: 4-5.
17. Honey A (1999) Empowerment versus power: Consumer participation in mental health service. *Occupational Therapy International* 6: 257-276.
18. Bossert TJ, Beauvais JC (2002) Decentralization of health system in Ghana, Zambia, Uganda and the Philippines: A comparative analysis of decision space. *Health Policy and Planning* 17: 14-31.
19. Tae-Arak P (2010) *Synthesis of health service decentralization approaches*. Nonthaburi: Health System Research Institute.