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Original Article : Community Pharmacy

Community Pharmacy Model under the Universal Coverage Scheme in Thailand

รูปแบบร้านยาภายใต้ระบบประกันสุขภาพถ้วนหน้าของประเทศไทย

Surasit Lochid-amnuay, B. Pharm*; Somjate Waiyakarn, Ph.D**; Petcharat Pongcharoensuk, Ph.D***; Cynthia P. Koh-Knox, Pharm.D***; Sindhchai Keokitichai, Ph.D.**

***Lochid-amnuay S, Waiyakarn S, Pongcharoensuk P, Koh-Knox CP, Keokitichai S. Community Pharmacy Model under the Universal Coverage Scheme in Thailand. Thai Journal of Hospital Pharmacy** 2009; 19(2):110-22.*

The purpose of this study was to develop a community pharmacy model under the Universal Coverage Scheme (UCS; CPUC) to increase access to healthcare and provide quality pharmacy services.

In-depth interviews were conducted to collect perspectives from stakeholders about the best model and pharmacy services for CPUC. A subcontractor model was determined to be most suitable for CPUC. Community pharmacies should have quality accreditation before participating and since the National Health Security Office manages the UCS, they should oversee the accreditation process with the assistance of the Thai FDA, Thai Pharmacy Council, or an appointed committee of experts. Community pharmacies designated as Quality Drugstores could automatically qualify as a CPUC without additional accreditation.

This descriptive study indicated that community pharmacists would be efficient healthcare providers under the UCS. The CPUC model would provide access to care and quality pharmacy services that will enhance the healthcare system in Thailand.

Keywords : Community pharmacy, Universal Coverage Scheme, model drugstore.

* Ph.D. Candidate, Graduate Program in Social and Administrative Pharmacy, Silpakorn University.

** Faculty of Pharmacy, Silpakorn University.

*** Faculty of Pharmacy, Mahidol University.

**** School of Pharmacy and Pharmaceutical Sciences Purdue University, West Lafayette, IN, USA.

สุรสิทธิ์ ล้อจิตรอำนวย, สมเจตน์ ไวยาการณ์, เพชรรัตน์ พงษ์เจริญสุข, Cynthia P. Koh-Knox, สินธุ์ชัย แก้วกิติชัย รูปแบบร้านยาภายใต้ระบบประกันสุขภาพถ้วนหน้าของประเทศไทย วารสารเภสัชกรรมโรงพยาบาล 2552; 19(2):110-22.

วัตถุประสงค์ของการศึกษานี้เพื่อมุ่งพัฒนารูปแบบร้านยาในระบบประกันสุขภาพถ้วนหน้า ซึ่งจะช่วยเพิ่มการเข้าถึงบริการทางด้านสุขภาพและช่วยให้ประชาชนสามารถรับบริการทางเภสัชกรรมที่มีคุณภาพ

ทำการศึกษาโดยการสัมภาษณ์เชิงลึกผู้ที่มีส่วนเกี่ยวข้องกับรูปแบบและบทบาทที่เหมาะสมของร้านยาในระบบประกันสุขภาพถ้วนหน้า พบว่า หน่วยบริการร่วมให้บริการเป็นรูปแบบที่เหมาะสมสำหรับร้านยาในระบบประกันสุขภาพ โดยร้านยาควรผ่านการรับรองคุณภาพก่อนการเข้าร่วมให้บริการ สำนักงานหลักประกันสุขภาพแห่งชาติซึ่งเป็นหน่วยงานที่บริหารระบบประกันสุขภาพถ้วนหน้า ควรเป็นหน่วยงานที่รับผิดชอบในการรับรองคุณภาพ โดยมีสำนักงานคณะกรรมการอาหารและยา สภาเภสัชกรรม หรือคณะกรรมการผู้เชี่ยวชาญเป็นองค์กรประเมินคุณภาพร้านยา สำหรับร้านยาที่ผ่านการรับรองเป็นร้านยาคุณภาพแล้ว สามารถเข้าร่วมให้บริการในระบบประกันสุขภาพถ้วนหน้าได้ โดยไม่ต้องผ่านการประเมินด้านคุณภาพอีก

ผลจากการศึกษานี้ แสดงให้เห็นว่าร้านยาสามารถเข้าร่วมเป็นผู้ให้บริการสุขภาพที่มีประสิทธิภาพภายใต้ระบบประกันสุขภาพถ้วนหน้าได้ ซึ่งการให้บริการของร้านยาดังกล่าวจะช่วยเพิ่มการเข้าถึงบริการสุขภาพและให้บริการเภสัชกรรมที่มีคุณภาพ ซึ่งจะช่วยพัฒนาและปรับปรุงระบบสาธารณสุขของประเทศไทย

คำสำคัญ : เภสัชกรรมชุมชน ระบบประกันสุขภาพถ้วนหน้า รูปแบบร้านยา

Introduction

In 2002, the Thai government implemented the Universal Coverage Scheme (UCS) on the basis that all Thai people have equal rights to receive standard healthcare services without any financial barriers.[1] This insurance scheme administrated by the National Health Security Office (NHSO) replaced two existing schemes: 1) Medical Welfare Scheme for low-income people, senior citizens, children under 12, disabled, veterans and their family members, and monks, and 2) Health Card Scheme for people who pay an annual premium of 500 baht. The UCS also covered the previously uninsured population[2] of at least 45 million people or around 77.7 percent of the population in 2006.[3] Funding for UCS comes from general tax revenues. The NHSO purchases ambulatory and hospital care, preventive care, and promotion services from healthcare providers through a capitation contract model.

Contracting units for primary care (CUPs) provide standard types of services not requiring special treatments under the UCS. A primary care unit (PCU) per 10,000 beneficiaries in designated area is designed as a frontline care or gatekeeper unit. Currently, all public facilities and some private hospitals serve as CUPs in

the UCS. Private clinics could voluntarily become healthcare provider networks under the UCS as well. PCUs that provide all medical services and are fully staffed with physicians and healthcare professionals with standard practice are called main contractors. Subcontractors are PCUs that cannot provide complete medical services or do not employ all types of healthcare professionals.

In 2005, the NHSO issued an announcement that defined methods and criteria for registration of healthcare providers and networks.[4] The announcement was implemented to address problems with access-to-care, long waiting times, and shortage of healthcare staff especially in public facilities. It also identified independent professional clinics, community pharmacies, dentists, nurses, and other health professionals as participants in the UCS.

Community pharmacies in developing countries are important distribution channel of medications and healthcare.[5] Pharmacists are recognized as a providers for health advice, management of minor illness, long-term care, health promotion, and education.[6] For example, more than 80 percent of people in Vietnam go directly to community pharmacy when they become ill.[7] Community pharmacies are primary source of health services because of eassy access, availability of medicines, quality of services (defined as no waiting times), convenient hours of operation, and products at low costs.[5]

Community pharmacies in Thailand provider first-line care for patients with minor ailments and common illnesses. In 2006 the National Statistical Institute reported that 25.1 percent of Thai people use the community pharmacy as the primary care provider.[3] This percentage was greater than reported in clinics or hospital visits and was proportionate to minor ailment cases. Additionally, several studies reported that Thai people, especially in low to medium income brackets, generally self-medicate before accessing the healthcare system.[8] Community pharmacies also play an important role in drug distribution in Thailand. Between 1994 and1997, drugs distributed by community pharmacies accounted for about 30-40 percent of the overall drug market with nearly equal proportions in public and private hospitals.[8]

In 2005, the Thai Pharmacy Council, in cooperation with the Thai Food and Drug Administration (Thai FDA), established the "Quality Drug Store" project for improving and developing the community pharmacy as an excellent healthcare provider with standards of service.[9] The Thai Pharmacy Council accredits community pharmacies as Quality Drug Stores, which comply with criteria that were adapted from Good Pharmacy Practices (GPP). The International Pharmaceutical Federation developed guidelines for GPP to help developing countries with health promotion and improve pharmacists' services.[10]

In Thailand, community pharmacies are not classified as healthcare units and, therefore,

cannot participate under the UCS. Chalongsuk et al.[11] reported that patients and other stakeholders want community pharmacies to become subcontractors under the UCS. The results also showed that patients were satisfied with pharmacy services provided in the community setting.[12]

A model of community pharmacy under the UCS is a new concept for the healthcare system in Thailand. If community pharmacies become subcontractors for the healthcare provider network under the UCS, patient would have more easy access to care and main contractors would have their workload. Physicians would have more time to provide better quality of care to patients especially in public facilities.

Research Objectives

The main objective of this research was to explore ideas from stakeholders regarding a community pharmacy model under the USC in Thailand. Their perspectives helped to propose a feasible model for CPUC and identify the most appropriate pharmacy services under the UCS.

Materials and Methods

Purposive selection and snowball sampling was used to identify stakeholders who represent various sections in the Thai healthcare system. These stakeholders were policy makers who are directly involved in the UCS and community pharmacy policies (the NHSO and the Thai Food and Drug Administration; Thai FDA, and provincial public health office); healthcare providers in private and public sector (hospitals, and community pharmacies); academicians; and health profession representatives (the Thai Pharmacy Council and the Medical Council of Thailand).

In-depth interviews were conducted between March and May 2006. The structured open ended questionnaire was sent to participants at least one day prior to the interview. Participants agreed to allow every interview to be tape-recorded. Each question asked for an opinion rating score on a 0 to 10 scale, where 0 indicates disagreement and 10 indicates agreement. Average opinion score was calculated of all participants and for each group of stakeholders. For quality data, the key stakeholders were asked for their opinion about quality assurance of CPUC, accrediting body, and existing Quality Drug Stores as CPUC. Content analysis was used to extracted important information and CPUC models and pharmacy services were proposed and participants selected the ones they felt would be best suited under the UCS.

Results

Fourteen stakeholders were identified and asked to participate in the study. The majority of participants were from the public sector (71.4 percent) with an equal representation of physicians and pharmacists. (see Table 1) The length

of interviewing time ranged from fifteen minutes to more than sixty minutes; with an average time of thirty-eight minutes. Followings are the key aspects of the results.

Table 1 Profession and healthcare sector representation of stakeholders

Stakeholders	Profession	Healthcare Sector
Policy maker	Pharmacist	Public
	Physician	Public
	Physician	Public
Healthcare providers	Physician	Public
	Pharmacist	Public
	Pharmacist	Private
	Physician	Private
Academic	Pharmacist	Public
	Physician	Public
	Pharmacist	Public
Health professionals	Physician	Private
	Pharmacist	Public
	Pharmacist	Private
	Physician	Public

1. **Quality Assurance of CPUC**. Most participants felt accreditation of community pharmacies was needed because there are varying qualities of services provided in the community setting. They felt that standardized pharmacy services will ensure that all patients receive the same quality of care at CPUCs.

Policy makers strongly agreed that to become CPUCs, community pharmacies must pass a quality test conforms to the Thai FDA policies. Academicians strongly agreed that a community pharmacy must pass a test because they are regarded as a profitable business instead of healthcare providers. Some community pharmacies have tried to change the public's attitudes by focusing on providing quality services. The professional group strongly agreed that an accreditation would help establish standardized community pharmacy services, which are currently very diverse. However, one participant felt if the Thai FDA would strictly enforce compulsory laws regarding community pharmacy operational licenses, a quality test would not be necessary.

> "Currently, every community pharmacy in Thailand has already passed inspection by the Thai FDA or the provincial public health office. So another quality assessment is not necessary." by the Thai FDA or the provincial public health office. So another quality assessment is not necessary."

When asked to identify an organization to accredit CPUCs, some participants felt that more than one organization would be appropriate. No single organization was identified to be

solely suitable for accredittation. Overall, the participants felt that the Thai FDA should be the accrediting body and pharmacists felt the Thai Pharmacy Council should be included in the process. Policy makers identified the NHSO as the main coordinator for accrediting CPUC because the NHSO currently manages the UCS. Some participants suggested the accreditation of CPUC should be overseen by a committee so that there would be cooperation from several organizations involved.

> "NHSO should oversee the overall accreditation process. They might contract other organizations that have expertise in community pharmacy or form a committee of experts."

Despite the pharmacists' comments, some participants suggested that the Thai FDA and the Thai Pharmacy Council should not be involved in accreditation because they provide support for the profession. It was felt there might be a conflict of interest from the two organizations.

> "The accreditation body should be a separate entity from any organization that is involved with professional development and practice. The Thai Pharmacy Council and the Thai FDA should not have accreditation responsibility."

Participants had different ideas regarding whether a community pharmacy that is accredited as a *"Quality Drugstore"* should automatically qualify under the UCS. Policy makers, professionals, and healthcare providers felt that an accredited Quality Drugstore should be able to participate under the UCS without additional accreditation because it has already passed a quality control test.

> "An accreditation process should be performed only once. The Quality Drugstore project could adjust criteria to conform to the UCS."

Academicians did not agree with the question.

> "Some Quality Drugstores do not provide quality service and appear to be more concerned about the physical and business environment than professional practices."

2. **Possible CPUC Models.** Three possible models of CPUC were proposed based on documentation analysis. A subcontractor model describes a community pharmacy that has an agreement with a main contractor. A network model describes a community pharmacy that subcontracts like other healthcare professionals. A main contractor model describes a community pharmacy as a main NHSO contractor with a capitation budget for providing healthcare under the UCS.

All participants agreed that any model should conform to the 2005 NHSO announcement and all felt that community pharmacies could not be main contractors. The subcontractor model was selected by most participants to be a best model of CPUC.

> "Community pharmacies are not considered primary care units, in terms of structure, but they provide primary care and could be subcontractors under the UCS."

The network model, in which the community pharmacy builds network services with other health professionals as a subcontractor with NHSO, was recommended by some participants. There were two opposing views about the main contractor model where the community pharmacy directly contracts with NHSO. One group of participants, mainly pharmacists, felt this model would allow pharmacists to practice independently to promote rationale drug use for the benefits for patients. The other group of participants felt if NHSO directly contracts with each health professional group (e.g., physicians, dentists, nurses, pharmacies, and other professionals) that comprehensive healthcare services might not be consistent since all groups may not have similar concerns about budgeting national healthcare costs.

3. Services of Pharmacist in CPUC Three proposed roles of community pharmacy under the UCS were discussed with and rated by the stakeholders, although there appeared to be a lack of knowledge by some about the current role of community pharmacy in the Thai healthcare system. The services of pharmacists in CPUC described in the interviews included dispensing medications for minor ailments without prescriptions, monitoring appropriateness of and dispensing medications per physicians' prescriptions, and dispensing refills for patients with stable chronic diseases.

The service with the highest rating was dispensing of refills for patients with controlled chronic diseases (Table 2). Academicians were the only stakeholders that felt the preferred duty should be dispensing medications for minor ailments without prescriptions.

Table 2 Stakeholders' average agreement scores and rankings regarding proposed CPUC services

	Stakeholders									
	Total		Policy Makers		Healthcare Providers		Academicians		Health Professionals	
CPUC Services	Average Score	Rank	Average Score	Rank	Average Score	Rank	Average Score	Rank	Average Score	Rank
Dispensing medication for minor ailments	7.81	2	6.33	2	6.50	2	8.84	1	10.0	=1
Dispensing and review prescription	7.58	3	6.00	3	8.50	=1	6.67	3	8.83	2
Dispensing refills	9.08	1	9.33	1	8.50	=1	8.67	2	10.0	=1

Note: Ranking in order of highest scores.

Pharmacists ranked dispensing medications for minor ailments as the best role of pharmacists in CPUC while physicians and those from public sector felt repeat dispensing in patients with chronic diseases was the most suitable role (Table 3). The private sector felt pharmacists in CPUC should provide all three services under the UCS.

Table 3 Average agreement scores and rankings regarding proposed CPUC services by profession and healthcare sector

	Professions				Healthcare Sectors			
	Pharmacists		Physicians		Public		Private	
CPUC Services	Average Score	Rank	Average Score	Rank	Average Score	Rank	Average Score	Rank
Dispensing medication for minor ailments	10.0	1	5.25	3	7.55	2	8.67	=1
Dispensing and review prescription	9.21	3	5.67	2	7.25	3	8.67	=1
Dispensing refills	9.71	2	8.33	1	9.20	1	8.67	=1

Note: Ranking in order of highest scores.

Dispensing medications for minor ailments without prescriptions received an average agreement scores of 7.81 from the participants. Patients can currently purchase many medications without prescriptions at community pharmacies but at their own expense. This service is not covered under the UCS; with the CPUC concept, the scope of minor ailments and formularies of medications would need to be determined.

> "This is a current role of community pharmacists but a list of minor ailments and a formulary of medications should be provided."
>
> "A pharmacist is an expert in medications and should be able to dispense proper medicine to patients with minor ailments. This service would decrease the number of patients seen in outpatient pharmacy departments of primary care units and the physicians' workload would be reduced."

During the interviews, some of the participants expressed concerns that patients may overuse or misuse CPUC services if they are not required to see a physician or go to the hospital prior to receiving medications. Some suggested that criteria should be developed for using the community pharmacy for treatment of minor ailments and patients should not be allowed to select the medications.

> "I agree with the idea because minor ailments can be easily treated without hospital visits and this would decrease hospital occupancy with patients who have minor ailments. My only concern is that there are laws for physicians and pharmacists regarding who performs the diagnosis of the medical problems."

Some participants thought the scheme should cover only high healthcare expenditures that patients could not normally afford. If health insurance covers minor ailments treatment in community pharmacy, the healthcare budgets will be insufficient to cover overall scheme benefits.

> "I strongly disagree in cases of self medication; patients should be responsible because it is not expensive. If NHSO is accountable for this expenditure, it will

affect the budget and they will not be able to control healthcare system expenditures."

The level of agreement average score was 7.58 for the concept that beneficiaries under the UCS can fill their prescription outside the hospital or main contractor without a follow-up visit. Community pharmacists would review a prescription, identify any drug- related problems, and determine the rationale of drug usage before filling the prescription.

"Pharmacists can collaborate with other health profession and take responsibilities in reviewing prescriptions for drug interactions or drug allergy."

Some participants strongly disagreed swith this role of CPUC due to concerns that the patient would be burdened with filling prescriptions. CPUC would require patients to go to the physician in the hospital or clinic and then find a community pharmacy to fill obtain medications. With the current system, patients get their prescriptions filled at the same place of physician visit and do not have additional traveling.

"This role of community pharmacy makes sense academically and we hope it could be happen. But the problem is user's convenience. This role adds another contact point for the patient and may create additional inconveniences. It may also increase cost of providing healthcare services. We have to be concerned about professional conflict from check and balance system. These three factors will affect this role of CPUC."

"Compared to other CPUC services, these role does not match with the current situation. Although it should be the appropriate professional service, this role seems more complicated."

In Thailand, there are many patients and a shortage of physicians. Patients with chronic diseases must see their physicians frequently and usually visit their primary care doctor every two or three months. In between physician visits, patients are responsible to care for themselves.

In hospitals, patients spend several hours for medical services and medications. There are noncompliance issues because of long waiting hours at the hospitals. The roles of CPUC dispensing refills for patients with stable chronic disease would help resolve this problem. If a patient is identified with any complications or symptoms outside clinical guidelines, community pharmacists could make a referral to the physician. This role was accepted by all stakeholders and received a combined average agreement scores of 9.08.

"Patients with chronic diseases have to visit the hospital in order to receive their medicines. They waste time waiting for hospital services which leads to noncompliance. Therefore, refill prescriptions should be processed in community pharmacy and a referral system should be implemented in cases when patients develop disease complications."

"Repeat dispensing is the responsibility of pharmacists. Patients would still have to visit their physician for medication review."

Participants felt CPUC should have other roles in the scheme. Most participants (42.9

percent) felt that CPUC should provide health promotion in addition to providing health and drug information to patients and other health-care professionals. Some of participants felt CPUC should focus on health prevention.

57.1 percent of the pharmacists felt health promotion should be one of CPUC services while 57.1 percent of the physicians felt the CPUC role should be provision of health and drug information. The public sector participants were split in agreement with these two services.

Discussions

The majority of healthcare services in Thailand are provided in the public sector. Although the Thai government encourages all providers in the private sector to participate in government health insurance programs, currently some private hospitals and private medical clinics are included.[13] Community pharmacies have never been under any health insurance scheme even though they are important providers and located in many communities. The results of this study helped develop a community pharmacy model under the UCS.

The use of in-depth interviews is an suitable data collection method used in planning and evaluating new programs.[14] Purposive selection was used to identify participants from groups of stakeholders representing academicians, healthcare providers, and health professionals. At the policy maker level (senior administrator of the NHSO and the Thai FDA), results of this study were more valuable than those from a random selection because each participant was selected among the highest authoritative position in each organization.

A major concern of all stakeholders was the varying qualities of pharmacy services and types of community pharmacies that currently exist in Thailand. By law, only community pharmacies that are operated by licensed pharmacists are allowed to provide medications that are classified as *"Dangerous Drugs."* Accreditation via a quality mechanism from a trusted organization should allow community pharmacies to be healthcare providers under the UCS. This concept was very well accepted among stakeholders. However, one physician stated that if the Thai FDA would be stricter in enforcing compulsory laws regarding community pharmacy operational licenses, a quality test would not be necessary.

The Thai FDA would be the most suitable accrediting organization selected by most stakeholders specially those from the public sector. Pharmacists felt the Thai Pharmacy Council should accredit CPUCs. Policy makers felt the NHSO should be responsible for the accreditation process and other organizations with expertise in community pharmacy or a committee of experts could be consulted.

The Quality Drugstore project was implemented by the Thai Pharmacy Council and the Thai FDA in order to improve and develop community pharmacies as excellent providers

for the Thai society and people. Most stakeholders, especially pharmacists, agreed that an accredited Quality Drugstore should automatically qualify as a CPUC. Physicians only slightly agreed with the concept. During the interviews, some physicians were not aware of the Quality Drugstore project, this indicates that the project was recognized mainly by the pharmacy. Academicians did not agree since some Quality Drugstores do not provide quality services and some appear to be more concerned about the physical environment than professional practices. One academician believed that an accreditation organization should be a separate entity from any organization that is involved with professional development and practice.

NHSO policy is an important factor that could affect pharmacy participation in the CPUC model. Stakeholders were concerned that the 2004 NHSO announcement, regarding methods and criteria of registration of health-care units and their networks, was a significant issue when proposing a suitable model of CPUC. Community pharmacies do not fulfill the criteria as a main contractor conforms to this announcement. The subcontractor model was the best model of CPUC although both the network model and the subcontractor model were possible. The network model would be difficult to implement because a community pharmacy would have to build network services with other health professionals, especially in physician clinics. This is necessary if community pharmacy were to join together as a *"person"* in statute and contract with the NHSO.

Some policy makers suggested that in order to establish trustworthiness in society, community pharmacies should pass a quality performance process before becoming a CPUC. Participation as a CPUC should start in the geographic areas where there are pharmacies providing services within the community, and slowly extends to other areas because a community pharmacy has never participated under the UCS.

Dispensing prescription refills for patients with stable chronic diseases was the pharmacy service of CPUC with the highest rating by all stakeholders. This pharmacy service was widely accepted because patients would receive maximum benefits especially convenient access to care. Patients would still be required to see their physicians periodically.

Convenient access to care at CPUC would improve quality of care for chronic patients that require maintenance medications. Approximately 7 percent of the Thai population suffers from diabetes mellitus but 60 percent are uncontrolled due to many factors such as inconvenient access to care, long waiting time at the hospital, and non-compliance.[15] These problems would be reduced if patients could receive their medications at a CPUC.

Pharmacists felt all proposed services were suitable in the model of CPUC, particularly dispensing medications for minor ailments.

These services are currently available in the community setting and are the important roles of pharmacy in the healthcare system. Policy makers and academicians were not comfortable to the idea that UCS cover minor ailments treatment at community pharmacies; they felt patients should be responsible for self-care or self-medication and the NHSO does not have sufficient budget to cover the related costs.

Limitations

During the purposive selection process, some declined the interview, and snowball sampling was used to identify consenting participants. Therefore, the perspectives collected may not represent general viewpoints of the Thai population. In addition, the study focused on health treatment and maintenance. Pharmacy services that include health prevention and promotion activities may alter perceptions of the CPUC concept.

Conclusions

Community pharmacists have the potential to provide valuable primary care services under the UCS. The subcontractor model is the proposed model of CPUC with pharmacists dispensing refills for patients with stable chronic diseases. CPUCs should pass quality accreditation in order to become services provider under the UCS. The NHSO should oversee the accreditation process with the assistance of the Thai FDA, the Thai Pharmacy council, or a committee of expertise. This model provides accessibility to care and quality treatment to patients that will improve the Thailand healthcare system.

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