

## Local level responses to budget allocations under the Thai Universal Health Care Coverage policy

Weerasak Putthasri, D.Sc.,  
International Health Policy  
Program (IHPP), Thailand  
Siriwan Pitayangsarit, Ph.D.  
International Health Policy  
Program (IHPP), Thailand  
Supon Limwattananon, Ph.D.  
International Health Policy  
Program (IHPP), Thailand  
Sripen Tantivess, Ph.D.  
International Health Policy  
Program (IHPP), Thailand  
Roongthong Kharamanond, M.Sc.  
International Health Policy  
Program (IHPP), Thailand  
Viroj Tangcharoensathien, Ph.D.  
International Health Policy  
Program (IHPP), Thailand

### ABSTRACT

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This study aims to explain how health care providers and health managers at district and provincial levels have responded to national changes in the budget allocations of the Universal Health Care Coverage (UC) Scheme; to determine the main factors that shaped these actors' responses; and to explore the extent to which equity concerns were taken into account in decision making about budget arrangements at the local level. Buriram and Kamphaengphet Provinces were purposively selected for this case study. Both documentary analysis and in-depth interviews of health personnel at the local level were used.

The study found that mobilization of the UC budget inclined to a bottom-up approach. Decision-making powers were delegated to provincial health boards and Contacting Unit for Primary Care (CUP) boards. The budget allocations depended largely on how the powers were distributed among members of the provider-manager networks and their formal and informal relationships. Responses of the local actors depended on the financial and service pressures they faced.

When knowledge and experience of the central administration could not properly guide the implementation at local level, the local actors needed more time to learn how to execute the policy by trial and error. Major changes in the UC budget allocation system somehow pushed the local providers and managers to adapt their practices and organizational behaviors for achievable services and financial sustainability.

**Keywords** Universal Health Care Coverage Budget allocation  
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### Corresponding Author

Weerasak Putthasri, D.Sc.  
International Health Policy  
Program (IHPP), Thailand  
E-mail: weerasak@ihpp.thaigov.net  
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## การตอบสนองของเจ้าหน้าที่ระดับผู้ปฏิบัติต่อรูปแบบการจัดสรรเงินของ นโยบายหลักประกันสุขภาพถ้วนหน้า

### บทคัดย่อ

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วัตถุประสงค์ของการศึกษานี้ เพื่ออธิบายการตอบสนองของผู้ให้บริการสุขภาพและผู้จัดการในระดับอำเภอและจังหวัด ต่อการเปลี่ยนแปลงการจัดสรรเงินภายใต้หลักประกันสุขภาพถ้วนหน้า ปัจจัยสำคัญที่ส่งผลกระทบต่อการตัดสินใจ และแนวทางการตัดสินใจที่สนับสนุนการสร้างความเป็นธรรมของระบบบริการสุขภาพ ใช้การเก็บข้อมูลจากการวิจัยเอกสารและการสัมภาษณ์เชิงลึก จากกรณีศึกษา 2 จังหวัดคือ บุรีรัมย์และกำแพงเพชร ผลการศึกษาพบว่า อำนาจในการจัดสรรเงินอยู่ที่กรรมการสุขภาพระดับจังหวัดและอำเภอ ผลของการจัดสรรขึ้นกับความสัมพันธ์ของเครือข่ายผ่านทั้งความสัมพันธ์ที่เป็นทางการและไม่เป็นทางการ การตอบสนองอาจแตกต่างกันขึ้นกับปัญหาทางการเงินและการบริการในแต่ละพื้นที่ ทั้งนี้ ความรู้และประสบการณ์ของการจัดการในส่วนกลางอาจจะไม่สอดคล้องกับบริบทในระดับพื้นที่ ผู้ปฏิบัติต้องอาศัยการเรียนรู้การจัดการจากประสบการณ์ตนเอง การเปลี่ยนรูปแบบการจัดสรรงบประมาณเป็นแรงกระตุ้นให้ผู้จัดบริการในระดับพื้นที่ปรับเปลี่ยนพฤติกรรม เพื่อให้บรรลุเป้าหมายของการจัดบริการสุขภาพและหน่วยงานมีความยั่งยืนด้านการเงิน

**คำสำคัญ** นโยบายหลักประกันสุขภาพถ้วนหน้า การจัดสรรเงิน การตอบสนองของระดับปฏิบัติ การหักเงินเดือน

## INTRODUCTION

The literature on health sector reforms in developing countries has illustrated limited achievement in getting policies into action, owing to several obstacles in both policy development and implementation stages. In many instances, integrating new strategies including financing arrangements into existing health delivery services results in unsatisfactory outcomes, or faces opposition from peripheral health officials and professionals.<sup>1-3</sup> Resource shortages, overburdening of the service provision, insufficient institutional capacity, ambiguous policy prescription from central departments, inadequate preparedness, poor communication and the lack of consultation among government agencies, individual workers, and consumers have been identified as implementation deficiencies. To deal with these constraints, street-level health workers develop different coping mechanisms, some of which undermine service quality as well as hinder treatment access, especially by low-income people,<sup>4-5</sup> which in turn can lead to a debate on the health equity issue.

The Universal Health Care Coverage (UC) policy in Thailand introduced a marked change in the reimbursement mechanism from a cost-based allocation to an equal per capita basis. The UC national program managers translated the concept and implemented the equal per-capita budget, originally expected to be managed by primary care providers. A new form of network, Contracting Units for Primary Care (CUPs), was established to manage the fund for health care services for their registered populations. The

CUPs were normally led by district hospitals (DHs) located outside provincial cities or by provincial hospitals (PHs) located inside provincial cities. In 2002, the policy successfully allocated budgets to each CUP on an equal per capita basis i.e. the budget was proportional to the total number of UC population registered in the CUP-designated catchment areas. However, the equal per capita allocation did not last long because of budget deficits in several hospitals in 2002 and 2003. The Ministry of Public Health (MOPH) realized the difficulties and took action to exclude the salary budget from the capitation to be managed at the national level in mid-2003. In short, the composite of the per capita budget was changed from the total cost (salary included) in 2002 to the cost without salary in 2003.

At the district level, the District Health Coordinating Committee (DHCC), so called CUP board, acted as the focal point for managing the disbursed UC budget within a CUP. The director of a DH or District Health Office (DHO) would take turns to lead this DHCC. The DHO is an administrative body for health centres (HCs) according to the line of command. Its primary responsibility is to oversee public health issues and primary care outside the district centre, while the DH takes the primary role for secondary care services and public health issues inside the district centre. Medical doctors assume the directors role of the DH, and senior health workers are the DHO heads.

Since a major portion of the UC capitation rate was allocated for curative out-patient (OP)

and in-patient (IP) services, the UC budget account was administered by the DH. The chair of the DHCC, usually a hospital director would consult with the DHO and HCs on the allocation of the UC budget within CUP. For example, promotion and prevention (PP) budget was set aside according to the total population in the responsible area served by the hospital and each HC, while the hospital held the OP and IP portions and supported HC with drugs and medical supplies. In sum, the changes in the budget amount between 2002 and 2003 according to the new criteria of allocation forced the provinces which relied on inclusive capitation in 2002 to pool their IP budget at the provincial level in 2003.

Variations in information from the past experiences of both health care providers and health managers across the local area levels are worth explaining. This study selected the provinces categorized as the worst cases to be investigated in detail. A study from this perspective to examine attitudes, roles and positions of front-line service providers in response to the introduction of equity-promoting policies within a particular context, such as the Thai setting, will provide understanding about how to minimize the gaps between the policy objectives and the implementation in practice. Although lessons drawn from this study cannot compare head-to-head with experiences on different issues in other countries, the Thai findings may be useful in constructing a common conceptual framework for better insight into the issues of the introduction of policies to address equity problems in the health sector.

Theoretically, the framework of policy analysis developed by Walt and Gilson (1994)<sup>6</sup> has been proved to be useful in exploring policy implementation.<sup>7</sup> It is composed of four elements - content, context, actors, and processes. The network approach is suitable to explore the power and relationship between actors in this study because most of responses to the national changes were collective actions of stakeholders. For example, the decisions on resource allocation methods of the provincial committees were influenced by all member representatives from each CUP and the Provincial Health Office (PHO), and the decisions to manage the budget for services of each CUP were influenced by the providers within the CUPs. The case study approach was used to explain the changes in the context of each studied province. The network approach was used to explore the power and relationship between actors. Moreover, the in-depth analysis on the individual local actors' responses has explored whether the street level bureaucracy theory<sup>8</sup> can explain the cases and how the Thai context contributed to such responses.

Therefore, this study aims to explain how health care providers and health managers at local level responded to the national changes in budget allocations pursuant to the UC Scheme; to determine the main factors that shaped these actors' responses; and to explore the extent to which equity concerns were taken into account in decision making on the budget arrangement at a local level.

## METHODOLOGY

### Study provinces

We purposively selected two provinces, Buriram and Kamphaengphet, that had a large population but small number of personnel which suffered financially in term of both total amount and per capita amount received under the UC budget. This received total amount was affected mostly through relative deduction in the staff salary component. The characteristics of both provinces were not the outliers in Thailand in terms of facility mixtures and insurance coverage profiles.

Table 1 compares the health system characteristics and the UC profiles between the two study provinces. Buriram is approximately twice

as large as Kamphaengphet in terms of number of health facilities and UC population. About 80% of the populations in both provinces were UC members and the UC budget was a major source of revenue for health facilities in these two provinces. Revenues from the Civil Servant Medical Benefit Scheme (CSMBS) and Social Security Scheme (SSS) shared approximately 10-12%. The per capita amount of non-salary budget in Buriram was relatively lower (535 Baht) where we can assume that the per capita amount of salary budget was relatively low as well because of the low bed-population ratio. The amount and mix of health resource use per unit of service outputs as reflected by costs in these two provinces were not much different.

**Table 1** Characteristics of health services and health insurances in the study provinces - 2005

	<b>Kamphaengphet</b>	<b>Buriram</b>
Number of provincial/district hospitals	1 provincial/10 district hospitals	1 provincial/20 district hospitals
Number of beds in provincial / district hospitals	334/380 beds	590/1,056 beds
Number of UC members	575.7 thousands	1,260.1 thousands
UC members as % of total population	77.4%	81.3%
Bed-population ratio per 10,000 pops (average across provinces was at 12.4)	9.4	8.7
Doctor- population ratio per 100,000 pops (average across provinces was at 10.6)	8.9	8.9
UC budget		
Total UC budget allocated, net of salary	313.1 million Baht	673.7 million Baht
UC budget allocated per UC member	547 Baht	535 Baht
UC share of net hospital revenue	30.3%	43.8%
CSMBS share of net hospital revenue	8.7%	11.4%
SS share of net hospital revenue	1.3%	1.0%
Unit costs (Baht)		
Per OP visit -Provincial hospital	368 Baht	407 Baht
Per OP visit -District hospital	267 Baht	271 Baht
Per IP admission -Provincial hospital	6,631 Baht	6,769 Baht
Per IP admission -District hospital	3,739 Baht	3,767 Baht
Human resource share of operating cost	54.9 %	53.1 %

### **Participants and data collection**

Methods in this study were both documentary analysis and in-depth interviews. The investigators explored a wide range of documents, in Thai and English, and selected those considered relevant. Moreover, to understand the policy context and its interaction with key actors and patterns of budget arrangement, the investigators reviewed the literature on Thailand's health sector and the introduction of the UC initiative, health system reforms in developing countries, and the responses of sub-national civil servants and health workers to national policy prescriptions when resources are scarce. In this study, the quantitative data including number of UC beneficiaries, amount of UC budget received and health care utilization profiles at the hospital levels are presented to illustrate the context of study settings and the policy consequences.

In each province, three CUPs were selected; a CUP with a provincial hospital, a CUP with a 60-bed district hospital and a CUP with 30-bed district hospitals. In each CUP, key informants were from the hospital, two HCs, and the DHO.

The investigators performed a face-to-face conversation with each key informant, including the Provincial Chief Medical Officer (PCMO) and health insurance staff of the PHO at the provincial level, directors and health care personnel of the PH and DH, and heads of the DHO or DHO officers and health workers in the HC at the DHS level. A total of 54 participants in both selected provinces were interviewed. Those interviewees were asked a number of open-ended questions set as an interview guide-

line to seek explanations for the issues specified in the study's objectives. A relevant array of questions was introduced for particular groups of key informants, justified by their potential roles in the policy implementation.

The interviews took place at the participants' own offices and were scheduled at the convenience of the participants. The third and fourth authors (SL, ST) were principal interviewers. The average length of each in-depth interview was approximately 60 minutes. Data collection was completed when it was considered that a comprehensive picture of the implementation process and main influencing factors had been clear. Tape-recorded data were transcribed into text before analyzing.

### **Data analysis**

In the analyses of documents and interview transcripts, a content analysis approach was employed. The investigators read, interpreted and conceptualized the text, as well as concomitantly examined the reliability and accuracy of the information. From each information piece, key themes of actor-context interactions and their implications for the policy implementation process in particular unit of study were explored and highlighted. Then, relevant information, depicting the roles of particular actors, equity concerns and contextual elements that shaped the decisions and practices of health officials, hospital administrators and professionals to manage UC finance, was selected and categorized according to the study's specific objectives. Finally, the entire information in particular

categories was reviewed and interpreted, by considering how the key actors had a role in the UC policy decisions at peripheral level, explaining the features of responses to the national policy of local policy participants, and searching for the effects of organizational environment and policy context on the policy implementation within the data.

## RESULTS

### *Responses to changes in the UC budget allocation process*

Both Kamphaengphet and Buriram provinces were included in the group of provinces that gained budget initially in 2002 but had a decreased budget in 2003 after the MOPH centralized its power to deduct the salary portion from the total UC per-capita budget and allocated the salary budget to providers at the current salary expenses for the staff under the MOPH (Table 2). However, as the population size of Buriram was about twice that of Kamphaengphet, there was less constraint of budget in Buriram in implementing the UC budget allocation. This difference, as well as others between the two provinces, generated different decisions and responses by the local actors.

The boards of both Kamphaengphet and Buriram provinces adopted the IP-inclusive payment system and the salary deduction at the CUP level in 2002. It was unusual that the DHs, which acted as CUPs, held large finances and purchased comprehensive services from PHs. Each CUP linked with other hospitals with a referral relationship.

The members of the decision-making network on IP budget were expanded from CUP level to provincial level with the principle that the bigger pooled budget could manage the financial risk because several small hospitals lost money because of the high burden of referred patient costs. The change of salary deduction also affected the allocation of other budget fractions as well. The PHO in Buriram took the opportunity to additionally hold the budget of OP and PP to be reallocated at provincial level. In contrast to Buriram, Kamphaengphet revised the allocation method for the PP fraction, but not for the OP fraction. Kamphaengphet's PHO did not want to adjust the OP fraction for CUPs despite some DHs had suggested revising the OP fraction as well. It could have been because the relationship between the PCMO and some DH directors was not good, as shown by the phenomenon that the DHs were eager to be independent from the PHO and manage their own resources in 2002.

**Table 2** Transformations of network boundaries by issue in the UC implementation during 2002-2003 in Kamphaengphet and Buriram provinces

Issues of resource allocation	Pre UC	Year 2002	Year 2003	
			Kamphaengphet	Buriram
Budget for salary	National level	CUP level	National level	
Budget for operating cost (OP)			CUP level	Provincial level
Budget for operating cost (IP)			Provincial level	
Budget for operating cost (PP)				
Human resource mobilization		National level	National level	

**Note:** The level of network boundary assumes the budget and authority in decision-making on resource allocation is pooled at that level.

Decision-making regarding UC budget allocation at provincial level was made by Provincial Health Security Committees (PHSCs) composed of the PCMO, the Director of the PH and representatives from PH, DH and DHO. The PHSCs were responsible for developing appropriate criteria and guidelines for the UC budget allocation within the province. In both provinces, similar to all provinces in Thailand, the PCMOs as the chairs of the PHSCs were the primary decision-makers because they were the top civil servants in the MOPH bureaucratic hierarchy in the provinces. At the CUP level, the budget allocation was based on the DHCC, which was composed of members from DH and a group of 5-10 HC plus one DHO. The director of the DH usually acted as the chair and was the primary decision-maker because the hospital had

a bigger share of health care expenditure than the health centers in same district. Therefore, the power delegated by the PHO to CUPs favoured the DHs.

In Buriram, the salary deduction at CUP was used in 2002, and there were not many difficulties as Buriram gained a lot of money from the UC budget allocation in 2002. The reimbursements for referred patients to the provincial hospitals were flexible as there was not much financial constraint.

*“In Buriram, we are brothers and sisters. Two big hospitals, ... and ... used to clear the debts of small hospitals from patient referring costs”. [Buriram PHO staff]*

Financially, the budget allocation system was obviously not sustained at the initial design. The poorly-prepared details of the provider payment system and the poor management by CUPs undermined the CUP's financial sustainability. The national guidelines were not aware of the limitations of the economy of scale and the capacity of health facilities in providing comprehensive care; then flat rate capitation was used as the payment method to CUPs. Actually, the capitation, if pooled at provincial level, could be adequate to pay for the salaries and operational expenses of all the providers in the provinces.

There was a guideline suggesting a province could adjust the per capita rate. However, there were no details on how to adjust it regarding the population size of the CUPs and the fixed costs of big hospitals; therefore, both provinces allocated equal rate of per capita budget at the beginning. There were difficulties in small hospitals and the PH. Buriram chose salary deduction at the CUP level at the beginning and then adjusted the allocation criteria to share the salary and IP costs at provincial level in the third quarter of the 2002 fiscal year before the national guideline was changed.

When the budget management at the CUP level faced an unbalanced situation of either over or under allocation of the PP budget to HC, the PHO came to influence the management at the CUP level or pulled the budget to be reallocated at the provincial level. This was possible because

the PCMO acted as the chair of the PHB and the Board had power to change the provider payment methods under the provincial level, and the PHO also had authority in the supervision of the HC, hospitals, and DHO. It may be concluded that the design of the budget payment which was intended to pay the per capita payment directly to the CUP did not suit with the existing contexts in these two provinces. Where the experience and knowledge of the central administration could not properly guide the implementation at local level, the local implementers needed more time to learn how to execute the policy.

By the end of a trial-and-error period in the first year, the two provinces had mobilized resources for their arrangements. For example, 49 Baht per capita was used by the Buriram PHO in 2002 to subsidize the reduced budget for PHO. Both provinces have adjusted the budgets for smooth transition since the end 2002. In general, the responses were two fold. First, a portion of the nationally allocated budget were preempted by the PHOs for some certain expenses, such as public utility and maintenance costs for HCs, and wages for the temporary positions of the newly graduated health workers. Thus, the per capita rate received by each CUP was lower than the provincial figures (Table 3). Notably, the deducted fraction varied from year to year. Second, the proportions of OP-IP-PP fractions were adjusted.

**Table 3** UC budget per capita by various levels of implementation, Kamphaengphet and Buriram 2002-2005 (In Baht)

	2002	2003	2004	2005
Nationally approved	1,202	1,202	1,308	1,396
Kamphaengphet Province				
Allocated to Province	na	na	*480	*547
Allocated to CUP	na	na	**465	**504
Buriram Province				
Allocated to Province	699	*447	*450	*494
Allocated to CUP	650	**419	**430	**479

**Note:** “na” denotes data not available

\* Net budget, not including salaries

\*\* Net budget, not including salaries and an amount of budget which was deducted at the PHO for HCs’ maintenance costs and other non-service expenses.

The two provinces used different approaches for adjusting the per capita budget before allocating the budget to CUPs. Kamphaengphet adjusted the budget mostly for the salary and IP expenses and distributed almost equally per capita the OP budget to CUPs, while Buriram adjusted the budget according to size of the population and service loads. After the first UC year, three hospitals in Kamphaengphet received the money from Contingency Fund while all hospitals in Buriram were financially secured, except for one DH that had a relatively small UC population but high service loads. However, in the third year of UC operation (2004), 18 hospitals in Buriram had expenses higher than revenues.

In Buriram, the PCMO implied the equity based management with respect to the financial need rather than equal capitation, as “target is

the whole province” and “sharing resources among networks”. He mobilized the resources and UC budget from higher UC population areas to lower population areas, so that all health facilities could survive. He used the fixed cost approach to allocate the first portion of budget as needed by facilities. Then the rest of the budgets were mainly allocated on a performance basis e.g. number of outpatient visits, inpatient cases, etc. This was the reason why the figures of per capita budget were high in one DH and the PH.

*“There were re-allocation criteria that will vary year by year and we had to consider the whole sum of money. This year we earned more UC money and thus we need to draw resources from the large CUP, otherwise the rich will*

*become richer and richer. If we do nothing, these hospitals would become millionaires... but we knew that the financial deficit hospitals, were in need of money, so the budget could be increased for the fixed costs in small district hospitals... which requested this support.” [Buriram PCMO, in 2003-2004]*

PHOs used the budget for PP for the expenses of hospitals to maintain financial security and flexibility of the whole UC system. It was observed that HCs in Kamphaengphet increased the earned revenue by receiving 100% of the originally planned PP budget in 2002. Some HCs even had an increase in revenue to one million Baht and faced difficulties in managing such a large budget (a *ùpainful windfallù*). By contrast, small hospitals faced a decreased UC budget and financial insecurity. For these reasons, health managers at the provincial level changed the budget management for community-based PP in mid-2005. Sixty per cent of the PP budget was shifted to the payment for drug costs and the rest was earmarked for implementation of PP activities according to the national and provincial policy and KPI monitoring system. However, such management resulted in conflicting attitudes among some DHOs, who strongly disagreed with this decision but voiced no opinions to the PHSC. PHOs mobilized money to subsidize the operational costs of the DHO and PHO. At the same time, there were delegated roles to the DHO and PHO such as performance monitoring and bill clearing respectively.

### ***Capacity strengthening and efficiency improvement***

Small DHs (UC population < 30,000) in Buriram redesigned the internal management systems dramatically in 2002, including health care services, capacity building of health personnel, when in this first year they received the UC budget through the inclusive capitation payments. This also happened in Kamphaengphet.

*“Due to budget shortage, we adjusted the administrative tasks, initiated cost-saving measures, inspected stock and allowed for active participation...head office managed available resources, developed referral guidelines, built up internal consultation with second opinion checking for having further treatment” [DH, Buriram].*

However, the Director of the Lampraimarch Hospital in Buriram mentioned that the financial management after the salary and fixed cost were subsidized amongst provinces and CUPs, lost the opportunity to improve the quality of care. Comparing the inclusive and exclusive capitation payments, a director of a DH stated that the inclusive payment helped system capacity building but increased national expenditure, but the exclusive payment limited the development of relatively small hospitals and made them prefer to refer patients.

***Role adjustment of DHO as a UC coordinating unit for the health centers***

In Buriram, operating plans and corresponding budget proposals for PP activities were developed annually by health workers in HCs. These proposals would then be reviewed by the DHO before submitting to the PHO for approval. The new budget allocation provided an increased budget for PP care and it allowed health centers more flexibility to create health prevention and health promotion activities on a project basis. DHOs were encouraged by CUP Boards to be involved in coordination of the public health programs and proposal reviews.

***Pressures to generate more revenue***

In 2002, Buriram province adopted a measure that the beneficiaries need to contact first with the designated health facility (according to the registration for UC enrollment). Otherwise, out-of-pocket payment for the service would be applied. Health personnel would explain about the UC benefits, rights to use the services and other issues such a copayment measures, prior to providing the health services. In one study DH, service clinics were arranged after office hours (i.e. usually in the evening after 5 PM) to provide medical care for patients who were able to pay the service charges. The hospital earned 7-8 million Baht a year through this service delivery. Mobilizing resources from the local government (LG) by inviting LG authorities i.e. sub-district administrative organizations and municipalities to sit in the DHCC notably contributed to the alleviation of

financial resource shortages. In a study district, the LG allocated their budget to promote physical exercise in the community, strengthened the health promotion capacity of community leaders, and subsidized some activities under the dengue hemorrhagic fever control program.

Campaigns to seek donations from surrounding communities were occasionally carried out by the DHO and HCs when expensive equipment and materials such as computers and accessories were needed. This measure was effective in the study districts, especially when local temples endorsed the campaigns as Buddhist-related events - the so-called 'Thod Pha Pa'.

Some responses had negative impacts on the health officers in these two provinces. Health officials and health workers had to absorb some operating costs of their health facilities by themselves, such as paying for mobile phone bills. Another illustration was drawn from an HC nurse who had to use her own motorcycle to make home health visits to the elderly and disabled in remote villages. In the interview, the chief of this HC asserted that this nurse could not abandon her patients as essential care was needed, for example insertion of new naso-gastric tubes every two weeks. These were some rare cases that occurred in Buriram which allocated a limited fix-cost budget to health centers. However, in Kamphaengphet health centers had a large amount of reserved money, resulting from the first year budget allocation with the per capita budget. In sum, local actors found their own ways to respond in order to improve capacity and

efficiency. A hospital director suggested that *“the MOPH contingency program should offer managerial techniques as well, not just the money”* [Director of DH, Buriram].

### ***Adjusted budget allocation models promote equity***

While health providers expanded services for equitable access, they were also faced with additional pressure by the UC policy. After the UC implementation, health care facilities in both provinces had to face challenges in health care provision in two ways. First, the demand for health care services by the population in the catchments areas had been increasing as access to the facilities was better because household out-of-pocket payment barriers had been substantially relieved. Second, increased demand and peoples' expectations toward the popular UC policy in turn imposed pressure on health care workers.

There were several responses that the providers promote equitable health care such as arranging appointment clinics at primary care units (PCUs), building for providing services for the whole population in the district, establishment of community health service network, referring patients to adjacent or superior provider networks, and counteraction to the human resource shortage.

The directors of some DHs were optimistic about the UC implementation in that the UC policy pushed them to be concerned with work outside the hospitals, and made them have a better understanding of the roles and functions

of HCs, and with regular meetings it enhanced the process of team building.

LG staff in both provinces worked together with health workers to carry out public health activities such as space spraying of insecticides to reduce the number of mosquitoes. Networks of public health agencies and municipalities also existed in one district of Buriram, where joint campaigns to promote food safety, clean markets and mental health in the elderly were introduced. A team of inspectors comprising municipal officials, DHs and the DHO was responsible for collecting food samples from restaurants, markets and street food vendors, and identifying food contaminants. Explicitly, there were exchanges of resources between network members. The LG also provided financial and workforce support to the programs and technical expertise was shared by health workers.

A director of a small hospital had established a capacity strengthening system for specialized care in his hospital because he wanted to contain the IP budget for his hospital. However, the new salary deduction and the IP budget sharing led him to reconsider, and to refer almost all the patients with serious illnesses.

There were a few approaches to tackling the human resource shortage. It is not possible to apply the market rules to recruit the health personnel because the resources are scarce. In contrast, the market is usually influenced by drainage of health staff. There were some actions however, for example, a portion of the UC budget was pooled at provincial level to pay

for financial incentives for registered nurses who were working at rural districts. Using nurse practitioners to fill-in in PCUs was an approach to solve the lack of medical doctors.

Additionally, there were some other factors that had broad effects on the decision to provide access to primary care services. For instance, staff shortage and brain drain influenced the support for medical care at PCU, perceptions of equity ideology influenced the idea of co-payment, and perceptions of primary care concept.

## **DISCUSSION AND RECOMMENDATIONS**

This study provides the background of the UC policy and the budget allocation process. It summarizes how the changes of budget allocation policy were implemented, and describes whether the local responses were along the policy direction. The study found that the implementation of the UC resource allocation followed a bottom-up approach. Decision making powers were delegated to provincial health boards and CUP boards. The results of the decisions depended on how power was distributed to the members of the network and the relationship between the members of the decision making network. Responses of the local actors depended on the pressures they faced. The specific contexts of existing health resources was the main factor of difficulties in implementing the UC policy. The main thing that made the responses different between Buriram and Kamphaengphet was the population size of Buriram which affected the smaller budget constraint.

More hospitals in Kamphaengphet suffered a budget deficit than in Buriram because of the high bed-population ratio and the generosity in allocating the budget to primary care at HC's in the first year of implementation. The inclusive capitation payment in the first year in Kamphaengphet mobilized a lot of resources to HCs and the adjusted budget a year later still provided flexibility for HCs to use the UC budget with an additional budget from the PP project based budgeting. However the HCs centers in Buriram had limited access to UC budget and received a limited fixed-cost budget for routine care. Additional budgets were derived from the PP project based budgeting.

Where the experience and knowledge of the central administration could not properly guide the implementation at local level, the local implementers needed more time to learn how to execute the policy by trial and error. The UC payment system could somehow push the providers to change their organization behavior to improve efficiency in service delivery, and at the same time, to develop PCUs.

Implications for the UC implementation that could be drawn are as follows: (1) a provincial authority is in a good position to manage smooth implementation. Therefore for its behavior to be trusted by the provider network, it should promote a consensus in decision making and good progress in implementation. (2) in the resource reallocation, budget increases should not exceed the providers' capacities to absorb the budget. By contrast, the budget decrease

should not bring much gap between expense and budget. Phasing of budget size change is recommended. (3) CUP boards require capacity strengthening especially in the supervision capacity for HCs in planning for PP care to respond to the new budgetary system and HCs require capacity strengthening to absorb the budget from the new system of budget allocation.

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