

## Role and function of local government units in financing and providing health services in two selected provinces in Thailand

Weerasak Putthasri, D.Sc.,

International Health Policy

Program (IHPP), Thailand

Walaiporn Patcharanarumol, Ph.D.,

International Health Policy Program

(IHPP), Thailand

Viroj Tangcharoensathien, Ph.D.,

International Health Policy

Program (IHPP), Thailand

### ABSTRACT

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The objectives of this study were to assess the current situation and trends of the role of Local Government Units (LGU) in financing and provision of general health services and for HIV/AIDS services in two selected provinces, namely Nakorn Panom and Lampang. Quantitative data was collected using a structured questionnaire. All LGUs in selected provinces (N = 208) were asked to fill in data concerning their annual revenue, expenditure, healthcare expenditure, and HIV/AIDS services during the fiscal year 2006-2008. The response rate was 82%.

During three fiscal years (FYs), the average annual revenue ranged between 25 and 31 million Baht per LGU. Healthcare spending was at an average of 1.2, 1.7, and 2.5 million Baht per LGU in the FY2006-2008 respectively. In FY2008, the percentages of health expenditure to all expenditures in Nakorn municipality, Muang municipality, Tambon municipality, and Tambon Administration Organization (TAO) were 8.8, 4.9, 14.0, and 15.4 respectively. Likewise, the percentage for HIV/AIDS activities support to total health expenditure in Nakorn municipality, Muang municipality, Tambon municipality, and TAO were 0.4, 3.7, 3.4 and 7.0 respectively. It emphasized that spending on health services in all types of LGUs was not a large compared to annual total expenditure.

This study has highlighted the current situation in the field of decentralization and healthcare provision. The continuation of further researches in the field of decentralization affecting equity in financial contribution, access and use of health services are recommended.

### Corresponding Author

Weerasak Putthasri, D.Sc.,

International Health Policy

Program (IHPP), Thailand

E-mail: weerasak@ihpp.thaigov.net

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## บทบาทและหน้าที่ขององค์กรปกครองท้องถิ่นในด้านการเงิน และบริการสุขภาพในกรณีศึกษา 2 จังหวัดของประเทศไทย

### บทคัดย่อ

วีระศักดิ์ พุทธาศรี วลัยพร พัทธนฤมล วิโรจน์ ตั้งเจริญเสถียร. บทบาทและหน้าที่ขององค์กรปกครองท้องถิ่นในด้านการเงินและบริการสุขภาพในกรณีศึกษา 2 จังหวัดของประเทศไทย. ว.สาธารณสุขและการพัฒนา, 2554; 9 (2) : 117-29.

วัตถุประสงค์ของการศึกษานี้เพื่อประเมินสถานการณ์ปัจจุบันและแนวโน้มของบทบาทองค์กรปกครองท้องถิ่นในด้านการสนับสนุนการเงินและการบริการสุขภาพทั่วไปรวมถึงบริการป้องกันเอชไอวีเอดส์ โดยใช้กรณีศึกษา 2 จังหวัด คือ นครพนมและลำปาง การศึกษานี้ใช้แบบสอบถามเก็บข้อมูลเชิงปริมาณจากองค์กรปกครองท้องถิ่นทุกแห่งจำนวน 208 แห่ง ข้อมูลที่เก็บประกอบด้วยรายรับ รายจ่าย รายจ่ายเพื่อสุขภาพ รายจ่ายเพื่อกิจกรรมเอชไอวีเอดส์ ประจำปีงบประมาณ 2549-2551 อัตราข้อมูลตอบกลับมา ร้อยละ 82

ในช่วง 3 ปีงบประมาณดังกล่าวองค์กรปกครองท้องถิ่นมีค่ารายรับเฉลี่ยระหว่าง 25 ถึง 31 ล้านบาทต่อแห่ง โดยค่าเฉลี่ยค่าใช้จ่ายเพื่อสุขภาพต่อแห่งเท่ากับ 1.2, 1.7 และ 2.5 ล้านบาทในปีงบประมาณ 2549-2551 ตามลำดับ โดยปีงบประมาณ 2551 ร้อยละของค่าใช้จ่ายสุขภาพต่อรายจ่ายรวมในเทศบาลนคร, เทศบาลเมือง, เทศบาลตำบล และ อบต. เท่ากับ 8.8, 4.9, 14.0 และ 15.4 ตามลำดับ ทำนองเดียวกับร้อยละของเงินสนับสนุนกิจกรรมเอชไอวีเอดส์เฉลี่ยต่อค่าใช้จ่ายเพื่อสุขภาพในเทศบาลนคร, เทศบาลเมือง, เทศบาลตำบล และ อบต. เท่ากับ 0.4, 3.7, 3.4 และ 7.0 ตามลำดับ ซึ่งแสดงถึงค่าใช้จ่ายเพื่อสุขภาพยังมีสัดส่วนไม่มากนักเมื่อเทียบกับค่าใช้จ่ายรวมทุกหมวด การศึกษานี้มุ่งศึกษาสถานการณ์ปัจจุบันของการบริการสุขภาพในนโยบายการกระจายอำนาจ การวิจัยครั้งต่อไปในนโยบายการกระจายอำนาจควรศึกษาผลกระทบของความไม่เท่าเทียมในการสนับสนุนการเงิน การเข้าถึง และการใช้บริการสุขภาพด้วย

**คำสำคัญ** องค์กรปกครองท้องถิ่น การสนับสนุนการเงิน ค่าใช้จ่ายเพื่อสุขภาพ บริการสุขภาพ

## INTRODUCTION

Over the last three decades, the Royal Thai Government demonstrated progressive democratization and offered an increasing role for local people in the participation, ownership, management and solving problems in their localities, through the local elected government units; in particular Tambon Administration Organization (TAO), municipality and Provincial Administration Organization (PAO). Elections of these local government units (LGUs) were convened every four years for the members serving in the Tambon Council, Municipality Council and Provincial Council.

By Constitution, the central government is liable to allocate a certain proportion of annual government budget to various levels of LGU; in addition to local taxes collected themselves to provide services such as infrastructure, facilities, health and education. There is a wide variation in revenue generated by local tax collected by LGUs. In 2007, there were 6,746 TAOs (classified into 3 groups by level of local tax collected), 1,164 municipalities (classified into 3 levels; Tambon, Muang and Nakorn municipality), and 75 PAOs.

The movement for decentralization reform in Thailand began to accelerate after the Thai Constitution of B.E. 2540 (1997) came into effect. This resulted in the passing of The Plans and Process for Decentralization to Local Administrative Organizations Act of 1999 which stated that ministries including the Ministry of Public Health (MOPH) must develop action plans for decentralization of functions, resources and staff to the Local Administrative Organizations (LAOs) by 2010. The Act also set a target for increasing the share of the central government budget

that should be transferred to LAOs from 9% to 35% by 2006. However, the change in political landscape meant that the decentralization reform became less of a priority and was overlooked. As a result, many decentralization reforms did not achieve the target as intended previously, and in 2006, the Law was amended to remove the 2006 deadline, and set minimum share of national budget to be transferred of 25%, with a target of 35%. It was emphasized that the reasons for the amendment of law was to remove the 2006 deadline.

### Role of LGUs in Financing

The provincial health account studied in Uthai Thani province<sup>1</sup> found that the total provincial health expenditure was 1,272 Million Baht in FY2008. Major financing sources were from MOPH (30.64%), National Health Security Office-NHSO (19.89%), and Controllers' General Department-CGD through the Civil Servant Medical Benefit Scheme-CSBMS (17.57%). There was also expenditure contributed by the LGUs at 158 Million Baht or 12.43% of total health expenditure.

A study criticized the criticism on the government for not doing enough to push the decentralization reform ahead and to distribute enough funding and resources to LAOs in order to comply with the decentralization law in designating 35% of central government budget to local government<sup>2</sup>. As a result, there were minimal increases of funding from the central government comparing to central budget.

However, the rapid assessment on the Thai devolution of health centers by Hawkins et al., 2009<sup>3</sup> concluded that LAOs have a 'softer budget constraint' as they have discretionary budget space and that budget

allocation from the Ministry of Interior (MOI) for health centers can be increased if requested. Furthermore, MOI is putting in place regulations which will allow health centers to keep their unspent balances of revenue that they receive from National Health Security Office (NHSO), Civil Servant Medical Benefit Scheme (CSMBS), Social Security Scheme (SSS) and user-fees, and MOI has an interest in supporting the newly devolved services. This reflects a new stance by the government on decentralization issues.

#### **Functions of LGUs in health services provision**

The roles of LGUs will depend on the type of decentralization. In some form, it will heavily involve LGUs as they are directly responsible in service provision. In other forms, it might involve privatization or autonomizing the public service providers which means that LGUs' roles would be limited to funding. Sumalee et al. 2010<sup>4</sup> found that there were five forms of health service decentralization as follow.

1. Local hospital with local participation: in this kind of setting, the locals can participate in the management of healthcare by becoming committee member of the hospital who may have a role as consultant and may organize health activities with the community without changing the law or affecting the existing management too much. This means that, other than the inclusion of the community in the hospital board, the conditions on budgeting and human resource management remained the same as other public community hospital. Nonetheless, local hospital with local participation was an easy way to allow the locals to participate in the provision of health services without changing any laws, though their roles may be limited somewhat depending on

the attitude of the hospital director<sup>4</sup>. Furthermore, it is a way of preparing the community for health service decentralization.

2. Partnership between local and central government: the principle behind this partnership is the sharing of the resource pool between the local and the central government and it involves a formal contract of cooperation between them to set up a health service centre within the local area. The facilities of the municipality will be used, the funding would be from the NHSO and the personnel from the MOPH would be used to provide the services.

3. Autonomous Public Organization (APO): APO is a not-for-profit organization and involves the transformation of the way hospitals are run by giving autonomy to the director and the board to manage their funding, staff and other resources. The flexibility allows APO to be efficient and responsive to the needs of the community. APOs receive funding from both public and private sources, including from CSMBS, private insurance, and out of pocket payment. However, this setting only exists in Ban Phaew Hospital and there seems to be problems with up-scaling APO.<sup>3</sup> APO is legally endorsed by the Autonomous Public Organization Act of B.E. 2542.

4. Provincial autonomous trust: this concept however has not been implemented yet. It is similar to APO but involves the setting up of an autonomous entity to manage a service provider network which may include district, general, and super-tertiary care hospitals within a province. The board and the director of this entity will have similar autonomy to APO in the management of funds (which the source is the same as APO), staff and other resources. By having a network of providers, it is likely that service

provision could be even more effective than APO and the roles of LGU and the community would be greatly enhanced.

5. Devolution of hospitals and other health facilities: this involved the transfer of functions, health services in this case to LGUs which is TAO, municipalities, or PAO. This means that state health centers and hospitals which have been devolved will now be under the LGU instead of MOPH. The infrastructure and the staff working in those facilities will also be working for the LGU.

The devolution of health centers (HC) to TAO and municipalities was finally included in the 2<sup>nd</sup> action plan for decentralization of B.E. 2549 (2006 A.D.) which provided the guidelines for the devolution of health centers. The devolution guidelines laid down some criteria for the process which all parties involved must meet as: the TAO/Municipality must meet the 'readiness' criteria to manage health centers and the devolution of health centers must be supported by at least 50% of its staff and they must be willing to become LAO employees. Those criteria were developed to ensure that LGUs would be able to handle the extra responsibilities from the devolution of health centers. This means that LGUs would play a more crucial role in providing health services to the community. As the pilot is quite recent, there is little literature on the assessment of this reform. However, there was a rapid assessment on the devolution of health centers in Thailand and findings regarding the impact and roles of LGU have been summarized on health service provision, decision, and accountability<sup>3</sup>.

According to the memorandum of transfer signed by the LAO chief executive officer to finalize the devolution of the health center, it states that

“the public health duties and responsibilities of HC have been transferred to the LAO which is committed to administer and manage the HC according to regulations, criteria, standards, and public health work methodologies set by MOPH”. However, Hawkins L<sup>3</sup> commented that not all of MOPH’s responsibilities have been transferred to LAOs. They found that LAOs have been found to do the following; 1) employment and personnel management and fiduciary control, 2) overall management of HC to ensure that it functions smoothly to provide health service, and 3) provide other health-related activities to promote health of the community. MOPH still retains some responsibilities for technical policy, technical supervision, technical training, and the regulation of health professional work and coordination of public health matters. The responsibilities of NHSO/Contracting Unit for Primary Care (CUP) board have not been transferred.

Since before the devolution of health centers, LAOs have enjoyed the freedom to develop and implement new health services/activities by using their own revenues (with a condition that it must comply with MOPH regulations). However, the decisions to undergo major development, such as building a new hospital, are subject to licensing approval by MOPH. In Tambons or municipalities which HCs have devolved, LAOs have the power to hire, promote, reward, and discipline HC staff. Furthermore, LAOs can dictate how the HC in their jurisdiction spends the budget allocated from LAOs’ general revenues and they can determine the level of delegate authority the HC head has in relation to personnel and financial decisions.

Apart from MOPH and NHSO, HCs now have to report to the LAO Chief Executive Officer (CEO) on the overall performance, and for personnel and

financial matters regarding the resources they receive from the LAO. Through the head of public health section, some LAOs have instituted independent supervision of the HC.

During 1998-1999, thirty percent of the health projects under the budget regulation had projects or activities carried out. Most of the projects were small and supported through the agency concerned with the TAO's finance<sup>5</sup>. In conclusion, the TAO's task with management on community sanitation, benefit management activities on health promotion, community sanitation, environment and public health, disease prevention, basic public services and public utilities including water resource development.

In addition, the TAO's operation is to support other organizations with finance budget in any activities performed to benefit to the public; for example, purchasing of drugs for health centers, purchasing fogger to eliminate mosquitoes, hydrophobia, public health checks, lunch and nutrient support at Child Development Centers as well as activities run by TAO's in different capabilities; for example, anti-drug addict campaign, AIDS, disease prevention and control, disposal of garbage, public education for health and hygiene, hazardous material control, mobile TAO health, cooking and nutrition, medicinal plant transformation, and natural resource preservation, etc.

Most public health activities are varied; for example, a campaign on care for the elderly, medicinal plant transformation, savings for occupation support, conservation of natural resources and environment, water pollution, pollution, including alternative agriculture, etc. The result of researching the basic needs of TAO's and community organizations, found

that they are the same; in addition, the problems of drug addiction, disease, epidemics, collecting and disposing of garbage, pollution, lacking of drinking water are to be solved urgently. At the same time, the community organization needs additional basic knowledge of community health, providing care and arranging welfare for children, elderly, handicapped and persons with less opportunities including with selective community health activities.

As in the context of Constitutional mandates and national policies advocating the increasing role of LGUs in financing and provision of health services to local people; there was a need to understand the current capacities of LGUs in relation to health and other social services. In this study, health service provisions was included HIV/AIDS services because it was prioritized as the first burden of disease contributing to the highest loss of Disability-adjusted life years (DALYs) in Thailand in 2004<sup>6</sup>.

Objectives of this study were to assess the trend and current roles of local government units in financing and provision of general health services and for HIV/AIDS prevention services in particular in relation to other social services and infrastructure in two selected provinces as case studies.

## **METHODOLOGY**

This was a case study approach, focusing on two purposively selected provinces namely Lampang and Nakorn Panom. All PAOs, TAOs and municipalities in the two provinces (N = 208) were included in this study.

A review of financial documents for the last three fiscal years on the magnitude of budget transferred from Central Government and local tax collected was

conducted in selected sites of the study. The financial data was carried out for the last three fiscal years on annual budget and expenditure on health including HIV/AIDS services, social services and infrastructure. The provision of health services over the last three years was reviewed. Questionnaires were sent to Nakorn Panom and Lampang provincial coordinators who then distributed these to all LGUs within the province. LGUs were asked to fill in the questionnaire related to their annual revenue, expenditure and activities related to healthcare and HIV/AIDS services during the FY2006-2008. Quantitative analysis would cover the analysis of revenue, budget and expenditure on health including HIV/AIDS services in relation to

other social services and infrastructure and described its change during 3 those fiscal years.

## RESULTS

A total of 172 LGUs returned the questionnaires (n = 172) which was an 82% response rate. By province, we received 94 (91%) and 78 (75%) questionnaires returned from Nakorn Panom and Lampang province, respectively (Table 1). One hundred and thirty-five LGUs or 79% of respondents did not have their own healthcare facility (neither health center nor hospital). In other words, only 35 LGUs out of 170 had their own healthcare services facilities.

**Table 1** Number of respondents by type of LGU

	Nakorn Panom		Lampang		Two provinces	
	N	n	N	n	N	n (%)
PAO	1	1	1	0	2	1 (50%)
Nakorn Municipality	NA	NA	1	1	1	1 (100%)
Muang Municipality	1	1	1	1	2	2 (100%)
Tambon Municipality	12	12	29	29	41	41 (100%)
TAO	90	80	72	47	162	127 (78.3%)
<b>Total</b>	<b>104</b>	<b>94</b>	<b>104</b>	<b>78</b>	<b>208</b>	<b>172 (82.6%)</b>

**Table 2** Average of annual revenue, expenditure, healthcare expenditure in two selected provinces per LGU, FY2006-2008: Baht

	FY2006	FY2007	FY2008
<b>1. Annual revenue</b>			
1.1 Central Budget	8,949,309	9,933,498	13,812,082 (49.2%)
1.2 Tax collected by central	12,545,032	11,793,216	11,517,293 (41.1%)
1.3 Local Tax	698,790	772,594	873,428 (3.1%)
1.4 Local fee and tariff	293,048	306,244	340,106 (1.2%)
1.5 Asset	346,730	451,076	450,519 (1.6%)
1.6 Infrastructure	41,314	41,100	50,540 (0.1%)
1.7 Miscellaneous	186,491	191,936	196,123 (0.6%)
1.8 Others	1,321,881	1,564,176	870,701 (3.1%)
<b>Total</b>	<b>31,523,833</b>	<b>25,135,051</b>	<b>28,038,997 (100%)</b>
<b>2. Annual Expenditure</b>			
2.1 Infrastructure	4,682,579	4,957,309	4,700,021 (19.1%)
2.2 Education	921,572	1,043,228	3,031,094 (12.3%)
2.3 Environment	525,453	483,588	522,857 (2.1%)
2.4 Public health and healthcare	478,232	597,875	893,230 (3.6%)
2.5 Social services	2,372,214	2,641,380	3,832,607 (15.6%)
2.6 Administrative	5,226,652	5,874,974	7,024,354 (28.6%)
2.7 Others	1,663,392	1,577,768	4,608,868 (18.7%)
<b>Total</b>	<b>15,841,989</b>	<b>17,168,696</b>	<b>24,607,584 (100%)</b>
<b>3. Healthcare expenditure</b>			
3.1 Communicable Disease control	81,543	98,682	108,713 (4.3%)
3.2 Non Communicable Diseases	32,856	44,041	68,590 (2.7%)
3.3 Health Promotion	591,382	1,008,601	1,709,664 (67.8%)
3.4 Environment	194,075	220,618	210,378 (8.3%)
3.5 Support own healthcare center	71,122	95,215	99,598 (4.0%)

**Table 2** Average of annual revenue, expenditure, healthcare expenditure in two selected provinces per LGU, FY2006-2008: Baht (cont.)

	FY2006	FY2007	FY2008
3.6 Health personnel	142	0	1,148 (0.04%)
3.7 Subsidize health services facility	20,037	17,710	18,783 (0.7%)
3.8 Healthcare benefit for personnel	121,346	140,500	149,924 (5.9%)
3.9 Tambon Health Fund	3,453	13,790	21,993 (0.9%)
3.10 Health Volunteer	69,138	79,542	98,096 (3.9%)
3.11 Training	7,104	6,938	15,050 (0.6%)
3.12 Others	23,632	16,626	21,949 (0.9%)
<b>Total</b>	<b>1,205,782</b>	<b>1,739,270</b>	<b>2,520,532 (100%)</b>

### 1. Annual Revenue

During the FY2006-2008, on average, a local government unit had revenues around 25 to 31 million Baht annually. Budget subsidized from the central government and tax collection at the central level and then transferred to the local unit were two major sources, greater than half of the average annual revenue. For instance in FY2008, there was just only 0.87 million Baht (3.1%) that came from local taxes, and 0.43 million Baht (1.2%) from local fees and tariffs (Table 2). Nevertheless, it was clear that LGUs in these two provinces had different capacity to raise revenues from local taxes and local fees. It was found that LGUs in Lampang could raise more revenue from local taxes and fees than those in Nakorn Panom.

### 2. Annual Expenditure

Average expenditure of LGU was 15.8 million Baht in FY2006, and then it increased to 17.1 million Baht in FY2007 and went up to 24.6 million Baht in FY2008. Considering the expenditure profile, administrative cost and infrastructure were the major components, whereas investment for social

development like education, health and other social services were smaller. However, there was a good trend when expenditure for social development was increasing (Table 2).

### 3. Annual expenditure for Healthcare

Concerning healthcare services, healthcare expenditure was relatively small; a LGU spent 2.5 million Baht on average in FY2008. Sixty-seven per cent or 1.7 million Baht was spent for health promotion in various age groups. Eight per cent and almost six per cent was spent for environment and subsidizing healthcare benefits for their own personnel, respectively (Table 2).

Average annual expenditure for healthcare varied different kinds of LGU. In FY2008, Nakorn municipality, Muang municipality, Tambon municipality, and TAO had average expenditure were 22.5, 7.8, 2.6, and 2.2 million Baht respectively (Table 3). The percentage of average annual healthcare expenditure to annual revenue varied among different types of LGUs. In FY2008, Nakorn municipality, Muang municipality, Tambon municipality, and TAO the expenditure percentages for health to revenue were

5.3%, 3.7%, 9.9%, and 10.6% respectively. In general, portions of healthcare expenditures were gradually getting bigger, especially at TAOs in both provinces. The percentage of average healthcare expenditure to total expenditure also varied among different kinds of LGUs. In FY2008, Nakorn municipality, Muang municipality, Tambon municipality, and TAO had percentages of health expenditure to all expenditures were 8.8%, 4.9%, 14%, and 15.4% respectively.

**Table 3** Average of healthcare expenditure and percentage of annual revenue and expenditure in two selected provinces by LGU type, FY2006-2008

	FY2006	FY2007	FY2008
<b>Average healthcare expenditure (Baht)</b>			
PAO	n.a.	2,250,000	120,000
Nakorn Municipality	19,173,813	21,088,417	22,521,462
Muang Municipality	9,366,516	9,813,579	7,883,242
Tambon Municipality	1,346,353	1,803,702	2,668,030
TAO	868,733	1,425,564	2,248,900
<b>Percentage to total revenue</b>			
PAO	n.a.	1.13%	0.05%
Nakorn Municipality	4.53%	4.56%	5.36%
Muang Municipality	3.65%	4.82%	3.73%
Tambon Municipality	4.85%	6.73%	9.97%
TAO	4.99%	7.94%	10.67%
<b>Percentage to total expenditure</b>			
PAO	n.a.	1.66%	0.06%
Nakorn Municipality	6.04%	7.08%	8.85%
Muang Municipality	7.90%	7.42%	4.93%
Tambon Municipality	10.59%	11.81%	14.03%
TAO	11.31%	15.35%	15.45%

#### 4. Healthcare expenditure related to HIV/AIDS activities

HIV/AIDS expenditure is one of LGU's roles in healthcare financing. In FY2008, LGUs in both selected provinces paid 87,648 Baht in average for HIV activities, most of which (89%) was spent for living allowances to HIV people. However, only 520 Baht was directly subsidized for anti-retroviral drug and related treatment (Table 4).

Average annual expenditures related to HIV/AIDS activities in both provinces varied among different kinds of LGUs. In FY2008, Nakorn municipality, Muang municipality, Tambon municipality, and TAO had average expenditure to HIV/AIDS activities were 0.09, 0.32, 0.05, and 0.09 million Baht respectively. In FY2008, the percentage of HIV/AIDS expenditures to total healthcare expenditure in Nakorn municipality, Maung municipality, Tambon municipality, and TAO were 0.4%, 3.69%, 3.38%, and 7.01% respectively.

**Table 4** Average of annual health expenditure in two selected provinces related to HIV- AIDS FY2008 by activities and LGU type

	Baht
<b>By Activities (%)</b>	
Anti-retroviral drug (ARV) and treatment	520 (0.6%)
Traveling	88 (0.1%)
Group Activities	2,068 (2.3%)
Campaign	4,099 (4.7%)
Living expense	78,511 (89.6%)
Others	2,415 (2.7%)
<b>Total</b>	<b>87,648 (100%)</b>
<b>By LGU type (percentage to healthcare expenditure)</b>	
PAO	n.a.
Nakorn Municipality	90,000 (0.40%)
Muang Municipality	321,000 (3.69%)
Tambon Municipality	58,988 (3.38%)
TAO	93,897 (7.01%)

## DISCUSSION AND RECOMMENDATION

This study was conducted in two selected provinces namely Nakorn Panom and Lampang. Average annual revenues ranged between 25 and 31 million Baht per LGU during FY 2006-2008. Major sources of revenue were from central government for both central budget and tax collected at the central level and then transferred to LGUs. LGUs in the two provinces had different capacity to raise revenues locally – LGUs in Lampang could raise higher revenues through local tax and fees than those in Nakorn Panom. Interestingly, when comparing the revenues and expenditures, all types of LGUs had annual revenues higher than the annual expenditures. The majority of the expenditures were for administrative costs and infrastructure investment whereas expenditures for social development (i.e. education, health and other social services) were a much smaller portion. There was a good trend when expenditures for social development were gradually getting larger. In all types of LGUs, spending on health services was not a large portion compared to annual expenditures of the LGUs. Although the actual amount of health spending was not much at an average, the health sector was getting more interest and financial support over time from LGUs. HIV/AIDS related activity was mentioned by LGUs as one among several outstanding activities.

The response rate of this self-administrative questionnaire was high due to good coordination of the coordinator and the provincial level which normally referred to good personal relationships among the coordinator and the staff in the LGUs. Investigators also applied process to ensure of the reliability of the information provided in the questionnaire. The completeness of the questionnaire was first checked by

the provincial coordinators. When the questionnaires were mailed to the researchers; the completeness and the contradiction between the data within the questionnaire were verified again by the researchers using two approaches – one was done manually before entering the data in the excel file and another was done in the excel file after all data already entered. These processes could verify the reliability of information within one questionnaire but were not able to prove the validity with the reality. Although guaranteeing 100% validity of the data was not possible; the researchers would argue that the great coordination of the provincial coordinators and the high response rates by the LGUs could simply and indirectly assure their high responsibility on their data.

This study however was conducted in only two provinces which, certainly, can not represent any level of samples as this is case study approach. Nevertheless, studies have recommended that decentralization policy in health was the key to increase role of LGU healthcare<sup>1-2</sup> and health promotion<sup>7</sup>. In order to gain better understanding on the role of LGUs on health-care services, two main recommendations were raised here. First; samples of the study should be expanded. Second, a qualitative approach should be employed e.g. interviews with policy makers at the provincial level and LGU staffs as it would help to gain more in-depth understanding from their perspectives. The study clearly described the situation of revenue and expenditure of LGUs in the two provinces in FY2006-2008. It demonstrated that infrastructure received the major financial support from LGUs while health and other social services received less. The main question for instance, whether it is an appropriate profile of LGU expenditures?, and how much should be spent

for health services in order to be best respond to the health needs of the population in that specific area? Other many important research questions will be raised further such as the quality of such services, whether the services are efficient, and how to pursue health issues in all policies at the LGU level.

Implications of health services among different LGUs may differ because of many factors. For example, different capacity of LGU to raise funds from local taxes and fees which may lead to inadequate financial support for the health sector, different capacity and competency of human resources for health, management skills and interests among different LGUs may result in variation of investment in health services. These may affect (in) equity in financial contributions to, access and use of health services. This study is just one small piece among several remaining important research questions in the filed of decentralization and

governance in relation to health sector and health services. The further researches in this field with the aim of better policy planning, policy design and policy implementation of LGUs in Thailand which aims at better health of all population are recommended.

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