Health Services Provided at the Primary Care Network of the Faculty of Medicine, Thammasat University

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Background: *Health care network of Faculty of Medicine, Thammasat University is one of Contracting Unit for Primary Care (CUP) under Thai Universal Coverage (UC) scheme. It comprises four primary care units (PCUs): Khukhot Sub-district Health Promoting Hospital (KSHPH), Lamsamkaeo Municipality Health Center (LMHC), Khukhot Municipality Health Center (KMHC), and Thammasat Health Center (THC, also acted as CUP).A primary objective of this research was to study health service indicators of these four health centers.*

Material and Method: *A retrospective study was performed. Data between January 1, 2014 and December 31, 2014 were collected. Following indicators for health service quality were collected and analyzed: 1) numbers of patients visiting PCU/ number of patients visiting CUP (OP visit), 2) charge on drugs and medical supplies for outpatient services, 3) newborn and children under five mortality, 4) maternal mortality, 5) low birth weight 6) nutrition status of children under five, 7) diabetes mellitus (DM) patients with Hemoglobin A_{1C}, low density lipoprotein, urine microalbumin tests, diabetic retinopathy screening, and feet examination, 8) hypertension (HT) patients with lipid profile, urine protein and fasting blood sugar tests, 9) controlled DM patients, and 10) controlled HT patients.*

Results: *OP visit of KSHPH, LMHC, and KMHC were 0.22, 0.19, and 0.05, respectively. Charge on drugs and medical supplies for services of KSHPH, LMHC, KMHC, and THC were 102.39, 91.47, 162.04, and 463.85 baht/visit, respectively. There was no newborn, children-under-five and maternal deaths. Percentages of low birth weight of KSHPH, LMHC, KMHC, and THC were 14.3, 14.3, 0, and 9.1%, respectively. Percentage of children under aged five with underweight of KSHPH, LMHC, KMHC, and THC were 12.6, 12.0, 5.6, and 9.1%, respectively. Percentages of children under aged five with overweight of KSHPH, LMHC, KMHC, and THC were 3.7, 22.2, 1.9, and 12.8%, respectively. Percentages of DM patients with HbA1c test of KSHPH, LMHC, KMHC, and THC were 95.4, 87.6, 74.3, and 90.8%, respectively. Percentages of DM patients with LDL tests of KSHPH, LMHC, KMHC, and THC were 98.5, 90.0, 75.7, and 81.5%, respectively. Percentages of DM patients with urine micro albumin tests of KSHPH, LMHC, KMHC, and THC were 6.9, 3.3, 10.0, and 10.2%, respectively. Percentages of DM patients with DR screening of KSHPH, LMHC, KMHC, and THC were 0, 18.7, 0, and 22.6%, respectively. Percentages of DM patients with feet examination of KSHPH, LMHC, KMHC, and THC were 0, 18.7, 0, and 22.7%, respectively. Percentages of HT patients with lipid profile tests of KSHPH, LMHC, KMHC, and THC were 90.8, 73.2, 60.2, and 92.2%, respectively. Percentages of HT patients with urine protein tests of KSHPH, LMHC, KMHC, and THC were 7.3, 17.3, 0.4, and 7.8%, respectively. Percentages of HT patients with FBS screening of KSHPH, LMHC, KMHC, and THC were 92.2, 84.3, 61.0, and 78.1%, respectively. Percentages of controlled DM patients of KSHPH, LMHC, KMHC, and THC were 54.8, 57.9, 54.8, and 61.4%, respectively. Percentages of controlled HT patients of KSHPH, LMHC, KMHC, and THC were 75.7, 19.3, 35.7, and 66.3%, respectively.*

Conclusion: *Several health service indicators need to be improved including: low OP visit, low birth weight, high underweight and overweight among children under aged five, low coverage of urine micro albumin, DR screening, and feet examination among DM patients, low coverage of urine protein among HT patients, and high percentage of uncontrolled DM and HT patients.*

Keywords: *Health service, Primary care unit, Contracting unit for primary care, Thammasat*

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In Thailand, the Universal Coverage (UC) scheme is one of the governmental health insurance for Thai citizens who are not covered under other schemes such as the social security scheme (for employees) and the civil servant medical benefit scheme (for civil servants and their family members). UC provides free essential health services including outpatient, in-patient, emergency, health promotion and disease prevention services. The government provides the budget to Contracting Units for Primary Care (CUP), which has a network with Primary Care Units (PCUs) to serve people in catchment areas. One PCU generally covers 10,000 people. Health care network of Faculty of Medicine, Thammasat University is one of CUP (Thammasat CUP) in Lamlukka district, Pathumthani. It comprises 4 PCUs: Khukhot Subdistrict health promoting hospital (KSHPH), Lamsamkaeo Municipality health center (LMHC), Khukhot Municipality health center (KMHC) and Thammasat health center (THC) (also acted as CUP). There were 34,400 people under UC scheme of Thammasat CUP in 2013. The first three centers provided outpatient, disease prevention and health promotion services. Health personnel included general practice nurses and public health personnel. The Thammasat health center employed fulltime physicians, nurses, pharmacists and public health personnel. KSHPH, LMHC and KMHC acted as primary gatekeepers. Patients can only visit designated PCU nearby. Patients who needed medical care beyond their medical care capability were referred to THC and, then, Thammasat University Hospital (TUH). A primary objective of this study was to examine health service quality of the PCUs.

Material and Method

A retrospective study was performed. Data of UC patients between January 1, 2014 and December 31, 2014 were collected from each PCU database. Indicators[1] for health service quality including, 1) OP visit calculated by comparing number of patients visited each PCU with those visited CUP during the year 2014, 2) charge on drugs and medical supplies for outpatient services, 3) mortality of newborn and children under age five, 4) maternal mortality, 5) low birth weight, 6) nutrition status of children under age five, 7) diabetes mellitus (DM) patients with Hemoglobin A1C (HbA1C), low density lipoprotein (LDL), urine micro albumin tests, diabetic retinopathy (DR) screening and feet examination at least once in the investigated year, 8) hypertension (HT) patients with lipid profile, urine protein and fasting blood sugar (FBS) tests at least once in the investigated year, 9) DM patients with HbA1C <7%, and 10) HT patients with blood pressure (BP) <140/90 mmHg every visit were collected and analyzed. UC patients could only visit designated PCU nearby. Frequencies and percentages were used for statistical analysis.

Results

Number of patients visited PCU/number of patients visited CUP (OP visit)

There were 56,052 patients visited Thammasat CUP during year of 2014. OP visit was calculated by dividing number of patients visited each PCU with number of patients visited Thammasat CUP during the year 2014. OP visit of Khukhot Subdistrict health promoting hospital, Lamsamkaeo Municipality, and Khukhot Municipality health centers were 0.22, 0.19, and 0.05, respectively (Table 1).

Charge on drugs and medical supplies for outpatient service

Charge on drugs and medical supplies for outpatient service of KSHPH, LMHC, KMHC and THC were 102.39, 91.47, 162.04 and 463.85 baht/visit, respectively (Table 2).

Mortality of newborn and children under age five

There were no newborn or children-under-five deaths in catchment areas of any PCUs during the year of 2014.

Table 1. Number of patients visited PCU/number of patients visited CUP (OP visit) during the year 2014

Health center	Number of patients (persons)	OP visit
Khukhot Subdistrict health promoting hospital	12,559	0.22
Lamsamkaeo Municipality	10,951	0.19
Khukhot Municipality	3,227	0.05
Thammasat CUP	56,052	-

Maternal mortality

There was no maternal death in catchment area of any PCUs during the calendar year 2014.

Low birth weight

Newborns whose mothers lived in catchment areas were included. Percentages of newborns with birth weight lower than 2,500 gm of KSHPH, LMHC, KMHC, THC, and all 4 PCUs were 14.3, 14.3, 0, 9.1, and 11.1%, respectively (Table 3).

Nutrition status of children under five years

Percentages of children aged under five with underweight KSHPH, LMHC, KMHC, THC, and all 4 PCUs were 12.6, 12.0, 5.6, 9.1, 11.3%, respectively (Table 4).

Percentages of children aged under five with overweight of KSHPH, LMHC, KMHC, THC, and all 4 PCUs were 3.7, 22.2, 1.9, 12.8, and 8.3%, respectively (Table 5).

Coverage of HbA1C, LDL, urine micro albumin, diabetic retinopathy (DR) and foot examination screening among DM patients

There were total of 1,334 DM patients treated at all health centers. Percentages of DM patients with a HbA1C test of KSHPH, LMHC, KMHC, THC and all 4 PCUs were 95.4, 87.6, 74.3, 90.8, and 89%, respectively (Table 6). Percentages of DM patients with a LDL test of KSHPH, LMHC, KMHC, THC, and all 4

Table 2. Charge on drugs and medical supplies for outpatient service

Health centers	Outpatient visits (n)	Charge on drugs and medical supplies for outpatient service (baht)	Charge on drugs and medical supplies for outpatient service per visit (baht)
Khukhot Subdistrict health promoting Hospital	12,559	1,285,860.13	102.39
Lamsamkaeo Municipality	10,951	1,001,721.96	91.47
Khukhot Municipality	3,227	522,915.10	162.04
Thammasat	56,052	25,999,812	463.85

Table 3. Percentages of newborns with low birth weight

Health centers	Newborns (n)	Newborns with birth weight lower than 2,500 gm (n)	% of newborns with birth weight lower than 2,500 gm
Khukhot subdistrict health promoting hospital	7	1	14.3
Lamsamkaeo municipality	7	1	14.3
Khukhot municipality	2	0	0
Thammasat	11	1	9.1
Total	27	3	11.1

Table 4. Percentages of children aged 0-5 years with underweight

Health centers	Children aged 0-5 years (n)	Children aged 0-5 years with underweight (n)	% of children aged 0-5 years with underweight
Khukhot subdistrict health promoting hospital	804	101	12.6
Lamsamkaeo municipality	284	34	12.0
Khukhot municipality	161	9	5.6
Thammasat	164	15	9.1
Total	1,413	159	11.3

PCUs were 98.5, 90.0, 75.7, 81.5, 83.9%, respectively (Table 6). Percentages of DM patients with a urine micro albumin test of KSHPH, LMHC, KMHC, THC, and all 4 PCUs were 6.9, 3.3, 10.0, 10.2, and 8.8%, respectively (Table 6).

Percentages of DM patients with DR screening of KSHPH, LMHC, KMHC, THC, and all 4 PCUs were 0, 18.7, 0, 22.6, 17.4%, respectively (Table 7). Percentages of DM patients with feet examination of KSHPH, LMHC, KMHC, THC, and all 4 PCUs were 0, 18.7, 0, 22.7, 17.5%, respectively (Table 7).

Coverage of lipid profile, urine protein, and fasting blood sugar (FBS) screening among HT patients

1,552 HT patients were treated at all 4 health centers. Percentages of HT patients with a lipid profile test of KSHPH, LMHC, KMHC, THC, and all 4 PCUs were 90.8, 73.2, 60.2, 92.2, and 82.7%, respectively (Table 8). Percentages of HT patients with a urine protein test of KSHPH, LMHC, KMHC, THC, and all 4 PCUs were 7.3, 17.3, 0.4, 7.8, and 8.3%, respectively (Table 8). Percentages of HT patients with FBS screening of KSHPH, LMHC, KMHC, THC, and all 4 PCUs were 92.2, 84.3, 61.0, 78.1, and 78.2%, respectively (Table 8).

Controlled DM patients

Controlled DM patients were determined by using DM patients with HbA1C <7%. Percentages of controlled DM patients of KSHPH, LMHC, KMHC,

Table 5. Percentages of children aged 0-5 years with overweight

Health centers	Children aged 0-5 years (n)	Children aged 0-5 years with overweight (n)	% of children aged 0-5 years with overweight
Khukhot subdistrict health promoting hospital	804	30	3.7
Lamsamkaeo municipality	284	63	22.2
Khukhot municipality	161	3	1.9
Thammasat	164	21	12.8
Total	1,413	117	8.3

Table 6. Coverage of HbA1C, LDL and urine microalbumin among DM patients

Health centers	DM patients (n)	DM patients with HbA1C test (%)	DM patients with LDL test (%)	DM patients with urine microalbumin test (%)
Khukhot subdistrict health promoting hospital	130	124 (95.4)	128 (98.5)	9 (6.9)
Lamsamkaeo municipality	209	183 (87.6)	188 (90.0)	7 (3.3)
Khukhot municipality	140	104 (74.3)	106 (75.7)	14 (10.0)
Thammasat	855	776 (90.8)	697 (81.5)	87 (10.2)
Total	1,334	1,187 (89.0)	1,119 (83.9)	117 (8.8)

Table 7. Coverage of DR screening and feet examination among DM patients

Health centers	DM patients (n)	DM patients with DR screening (%)	DM patients with feet exam (%)
Khukhot subdistrict health promoting hospital	130	0 (0)	0 (0)
Lamsamkaeo municipality	209	39 (18.7)	39 (18.7)
Khukhot municipality	140	0 (0)	0 (0)
Thammasat	855	193 (22.6)	194 (22.7)
Total	1,334	232 (17.4)	233 (17.5)

THC, and all 4 PCUs were 54.8, 57.9, 54.8, 61.4, 59.6%, respectively (Table 9).

Controlled HT patients

Controlled HT patients were determined by using HT patients with BP <140/90 mmHg every visit. Percentages of controlled HT patients of KSHPH, LMHC, KMHC, THC, and all 4 PCUs were 75.7, 19.3, 35.7, 66.3, and 53%, respectively (Table 10).

Discussion

This study examined the indicators of health services of PCUs under Thammasat's CUP using several indicators. Generally, OP visit in 2014 of KSHPH, LMHC and KMHC were 0.22, 0.19 and 0.05, respectively. All of them were lower than a national standard, which was 1.5, and also lower than mean OP visit of 12 PCUs in another study, which was 1.21[2]. The main reason for low outpatient visit of each PCU was Thammasat health center employed full-time staffs including family medicine residents, family physicians and general practitioners, who provided services every day, while the other health centers employed physicians twice a month.

The charge on drugs and medical supplies for outpatient service of KSHPH, LMHC, KMHC and THC were 102.39, 91.47, 162.04 and 463.85 baht/visit, respectively. All health centers except Thammasat

Table 8. Coverage lipid profile, urine protein, and FBS screening among HT patients

Health centers	HT patients (n)	HT patients with lipid profile test (%)	HT patients with urine protein test (%)	HT patients with FBS screening (%)
Khukhot subdistrict health promoting hospital	206	187 (90.8)	15 (7.3)	190 (92.2)
Lamsamkaeo municipality	306	224 (73.2)	53 (17.3)	258 (84.3)
Khukhot municipality	269	162 (60.2)	1 (0.4)	164 (61.0)
Thammasat	771	711 (92.2)	60 (7.8)	602 (78.1)
Total	1,552	1,284 (82.7)	129 (8.3)	1,214 (78.2)

Table 9. Controlled DM patients

Health centers	DM patients with HbA1C test (n)	Controlled DM patients (n)	% of controlled DM patients
Khukhot subdistrict health promoting hospital	124	68	54.8
Lamsamkaeo municipality	183	106	57.9
Khukhot municipality	104	57	54.8
Thammasat	776	477	61.4
Total	1,187	708	59.6

Table 10. Controlled HT patients

Health centers	HT patients (n)	Controlled HT patients (n)	% of controlled HT patients
Khukhot subdistrict health promoting hospital	206	156	75.7
Lamsamkaeo municipality	306	59	19.3
Khukhot municipality	269	96	35.7
Thammasat	771	511	66.3
Total	1,552	822	53.0

Health Centers had costs similar to the mean cost of other PCUs in another study (108 baht/visit)[3]. The charge on drugs and medical supplies for outpatient service of Thammasat Health Center was higher than other health centers due to costs of non-National Essential Drug List medicine, laboratory, and non-drug medical supplies.

Percentages of low birth weight newborns KSHPH, LMHC, KMHC and THC were 14.3, 14.3, 0 and 9.1%, respectively. All health centers except KMHC had higher proportions of low birth weight than the national standard, which was 7%[4]. Explanation was beyond the scope of the present study. Nevertheless, difficulty of providing health promoting services regarding antenatal care in semi-urban areas might contribute to the high proportion of this indicator. Percentages of children under five with underweight of KSHPH, LMHC, KMHC and THC were 12.6, 12.0, 5.6 and 9.1%, respectively. All health centers except KMHC had higher proportions of underweight among children under five than the national standard, which was 7%[4]. Urban communities with a lot of non-registered population made it difficult for providing community health promotion and disease prevention services. Percentages of children under five with overweight of KSHPH, LMHC, KMHC and THC were 3.7, 22.2, 1.9 and 12.8%, respectively. LMHC and THC had higher proportion of overweight among children under five than the national standard which was 7%[4]. Urban communities with a lot of non-registered population made it difficult for providing community health promotion and disease prevention services and also eating behaviors caused this problem.

Percentages of DM patients with a HbA1C test of KSHPH, LMHC, KMHC and THC were 95.4, 87.6, 74.3 and 90.8%, respectively. These percentages were higher than another study in Ubon Ratchathani, which was 26.55%[5] and also higher than a 2012 national mean (79%)[6]. Percentages of DM patients with a LDL test of KSHPH, LMHC, KMHC and THC were 98.5, 90.0, 75.7 and 81.5%, respectively. This was higher than another study in Ubon Ratchathani, which was 57.52%[5] and also higher than a 2012 national standard (74.6%)[6]. Percentages of DM patients with a urine micro albumin test of KSHPH, LMHC, KMHC and THC were 6.9, 3.3, 10.0 and 10.2%, respectively. This was lower than a 2012 national standard (70.4%)[6]. Percentages of DM patients with DR screening of KSHPH, LMHC, KMHC and THC were 0, 18.7, 0 and 22.6%, respectively. This was lower than a 2012 national standard (67.7%)[6]. Percentages of DM patients with feet examination of KSHPH, LMHC, KMHC and THC were 0, 18.7, 0 and 22.7%, respectively. This was lower than the 2012 national standard (66.2%)[6]. Low coverage of urine micro albumin, DR screening, and feet examination might be from unawareness of physicians who treated DM patients due to overcrowded patients and availability of physicians, laboratory and screening tests at PCU level.

Percentages of HT patients with a lipid profile test of KSHPH, LMHC, KMHC and THC were 90.8, 73.2, 60.2 and 92.2%, respectively. All health centers except KMHC had higher coverage than a 2012 national standard (73.2%)[6]. Percentages of HT patients with a urine protein test of KSHPH, LMHC, KMHC and THC were 7.3, 17.3, 0.4 and 7.8%, respectively. This was lower than a 2012 national standard (33.4%)[6]. Percentages of HT patients with FBS screening of KSHPH, LMHC, KMHC and THC were 92.2, 84.3, 61.0 and 78.1%, respectively. All health centers except KMHC had higher coverage than a 2012 national standard (78.2%)[6]. Low coverage of urine protein might be from unawareness of physician who treated HT patients due to crowded patients and availability of physicians, laboratory and screening tests at PCU level.

Percentages of controlled DM patients of KSHPH, LMHC, KMHC and THC were 54.8, 57.9, 54.8 and 61.4%, respectively. It was higher than the 2012 national standard (34.1%)[6]. Even controlled DM patients were higher than the 2012 national standard; almost half of DM patients were not well controlled.

Percentages of controlled HT patients of KSHPH, LMHC, KMHC and THC were 75.7, 19.3, 35.7 and 66.3%, respectively. All health centers except KSHPH had lower controlled HT patients than a 2012 national standard (66.7%)[6]. This might be from poor life style modification and lack of home visit.

Data in the present study came from an existing data system of all health centers. Quality of data was considered a limitation of this study.

Conclusion

In 2014, OP visit of all health centers were lower than the national standard. The unit cost of outpatient service of Thammasat Health Center was very high. Almost all health centers had problems of low birth weight, underweight and overweight among children under five. There was low coverage of urine micro albumin, DR screening, and foot examinations among DM patients. There was low coverage of urine protein among HT patients. Almost half of DM patients

were not well controlled. A percentage of controlled HT patients was less than the national standard. These problems can be solved by quality improvement of health care services.

What is already known on this topic?

Health services provided in the primary care network in Thailand is already known.

What this study adds?

This study adds data about health services provided at primary care network of Faculty of Medicine, Thammasat University. This primary care network is different from others because PCUs in this network are from different administrative organization.

Potential conflicts of interest

None.

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การบริการสุขภาพของเครือข่ายหน่วยบริการปฐมภูมิของคณะแพทยศาสตร์ มหาวิทยาลัยธรรมศาสตร์

สุรศักดิ์ บูรณตรีเวทย์, ศรีเมือง พลังฤทธิ์, นติมา ติเยาว์, พลิษฐ์พล วัชรวงศ์วาน, รัฐพล เตรียมวิชานนท์

ภูมิหลัง: หน่วยบริการประจำ คณะแพทยศาสตร์ มหาวิทยาลัยธรรมศาสตร์ ภายใต้โครงการหลักประกันสุขภาพถ้วนหน้า ประกอบด้วยหน่วยบริการปฐมภูมิ 4 แห่ง คือ โรงพยาบาลส่งเสริมสุขภาพตำบลคูคต (หน่วยบริการปฐมภูมิ 1) ศูนย์บริการสาธารณสุขเทศบาลเมืองลำสามแก้ว (หน่วยบริการปฐมภูมิ 2) ศูนย์บริการสาธารณสุขเทศบาลเมืองคูคต (หน่วยบริการปฐมภูมิ 3) และหน่วยบริการปฐมภูมิ คณะแพทยศาสตร์ มหาวิทยาลัยธรรมศาสตร์ (หน่วยบริการปฐมภูมิ 4) วัตถุประสงค์ของการวิจัยเพื่อศึกษาตัวชี้วัดบริการสุขภาพของหน่วยบริการทั้ง 4 แห่ง

วัสดุและวิธีการ: ศึกษาข้อมูลย้อนหลังระหว่างวันที่ 1 มกราคม ถึง 31 ธันวาคม พ.ศ. 2557 ตัวชี้วัดบริการสุขภาพที่ศึกษา ประกอบด้วย 1) จำนวนการใช้บริการที่หน่วยบริการปฐมภูมิต่อจำนวนการใช้บริการที่หน่วยบริการประจำ 2) ค่ายาและเวชภัณฑ์สำหรับบริการผู้ป่วยนอก 3) อัตราตายของทารกแรกเกิดหรือต่ำกว่า 5 ปี 4) อัตราตายมารดา 5) ร้อยละทารกแรกเกิดน้ำหนักต่ำกว่าเกณฑ์ 6) ภาวะโภชนาการเด็กอายุ 0-5 ปี 7) ความครอบคลุมในการตรวจ HbA1C, LDL, Micro albumin ตรวจจอตาเสื่อมและเท้าผู้ป่วยเบาหวาน 8) ความครอบคลุมในการตรวจ Lipid profile, Urine protein และตรวจ FBS ผู้ป่วยความดันโลหิตสูง 9) ร้อยละผู้ป่วยเบาหวานที่ควบคุมได้และ 10) ร้อยละผู้ป่วยความดันโลหิตสูงที่ควบคุมได้

ผลการศึกษา: จำนวนการใช้บริการที่หน่วยบริการปฐมภูมิต่อจำนวนการใช้บริการที่หน่วยบริการประจำของหน่วยบริการปฐมภูมิ 1, 2, และ 3 เป็น 0.22, 0.19, และ 0.05 ตามลำดับค่ายาและเวชภัณฑ์สำหรับบริการผู้ป่วยนอกของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4 เป็น 102.39, 91.47, 162.04, และ 463.85 บาท/ครั้ง ตามลำดับ ไม่พบทารกแรกเกิดหรือต่ำกว่า 5 ปี และมารดาตายร้อยละทารกแรกเกิดน้ำหนักต่ำกว่าเกณฑ์ของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4 เป็น 14.3, 14.3, 0, และ 9.1 ตามลำดับ ร้อยละของเด็กอายุ 0-5 ปีที่มีน้ำหนักต่ำกว่าเกณฑ์ของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4 เป็น12.6, 12.0, 5.6, และ 9.1 ตามลำดับร้อยละของเด็กอายุ 0-5 ปีที่มีน้ำหนักเกินเกณฑ์ของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4 เป็น 3.7, 22.2, 1.9 และ 12.8 ตามลำดับร้อยละการตรวจ HbA1C ในผู้ป่วยเบาหวานของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4 เป็น 95.4, 87.6, 74.3, และ 90.8 ตามลำดับร้อยละการตรวจ LDL ในผู้ป่วยเบาหวานของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4 เป็น 98.5, 90.0, 75.7, และ 81.5 ตามลำดับ ร้อยละการตรวจ urine micro albumin ในผู้ป่วยเบาหวานของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4เป็น 6.9, 3.3, 10.0, และ 10.2 ตามลำดับ ร้อยละการตรวจจอตาเสื่อมในผู้ป่วยเบาหวานของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4 เป็น 0, 18.7, 0, และ 22.6 ตามลำดับ ร้อยละการตรวจเท้าในผู้ป่วยเบาหวานของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4 เป็น 0, 18.7, 0, และ 22.7 ตามลำดับร้อยละการตรวจ Lipid profile ในผู้ป่วยความดันโลหิตสูงของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4 เป็น 90.8, 73.2, 60.2, และ 92.2 ตามลำดับร้อยละการตรวจ urine protein ในผู้ป่วยความดันโลหิตสูงของหน่วยบริการปฐมภูมิ 1 หน่วยบริการปฐมภูมิ 2 หน่วยบริการปฐมภูมิ 3 และหน่วยบริการปฐมภูมิ 4 เป็น 7.3, 17.3, 0.4, และ 7.8 ตามลำดับร้อยละการตรวจ FBS ในผู้ป่วยความดันโลหิตสูงของหน่วยบริการปฐมภูมิ 1 หน่วยบริการปฐมภูมิ 2 หน่วยบริการปฐมภูมิ 3 และหน่วยบริการปฐมภูมิ 4 เป็น 92.2, 84.3, 61.0, และ 78.1 ตามลำดับ ร้อยละผู้ป่วยเบาหวานที่ควบคุมได้ของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4 เป็น 54.8, 57.9, 54.8, และ 61.4 ตามลำดับ ร้อยละผู้ป่วยความดันโลหิตสูงที่ควบคุมได้ของหน่วยบริการปฐมภูมิ 1, 2, 3, และ 4 เป็น 75.7, 19.3, 35.7, และ 66.3 ตามลำดับ

สรุป: *ตัวชี้วัดบริการสุขภาพที่ต้องได้รับการพัฒนา คือ จำนวนการใช้บริการที่หน่วยบริการปฐมภูมิต่อจำนวนการใช้บริการที่หน่วยบริการประจำต่ำ ทารกแรกเกิดน้ำหนักต่ำกว่าเกณฑ์ เด็กอายุ 0-5 ปีน้ำหนักต่ำกว่าและสูงกว่าเกณฑ์ ความครอบคลุมในการตรวจจอตาเสื่อมและเท้าในผู้ป่วยเบาหวาน ความครอบคลุมในการตรวจ urine protein ในผู้ป่วยความดันโลหิตสูง และร้อยละผู้ป่วยเบาหวานและผู้ป่วยความดันโลหิตสูงที่ควบคุมไม่ได้*