



USAID | **TB CARE II** FROM THE AMERICAN PEOPLE

Country Assessment Report- Thailand: Inclusion of TB in National Health Insurance Programs

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LIST OF ACRONYMS

ACSM	Advocacy, Communication and Social Mobilization
AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Treatment
BCG	Bacille Calmette–Guérin (vaccine)
CSMB	Civil Servants Medical Benefit
CPT	Cotrimoxazole Preventive Therapy
DOTS	Directly Observed Therapy, Short-Course
GPO	Government Pharmaceutical Office
HIG	Health Insurance Group
HIV	Human Immunodeficiency Virus
HRH	Human Resources for Health
GFATM	Global Fund to fight AIDS, Tuberculosis, and Malaria
MDR TB	Multi-Drug Resistant Tuberculosis
MOPH	Ministry of Public Health
NHI	National Health Insurance
NHSO	National Health Security Organization
NRL	National Reference Laboratory
NTP	National TB Programme
PHC	Primary Health Care
PLWHA	People Living with HIV and AIDS
SS	Social Security
TB	Tuberculosis
UC	Universal Care
WHO	World Health Organization
XDR TB	Extensively Drug-Resistant Tuberculosis

Introduction

With the increasing acceptance of national health insurance (NHI) models in both developed and developing countries, there is a growing need to explore the how the use of these mechanisms can increase universal coverage for tuberculosis (TB) patients in high-burden countries. The different NHI programs currently in place or in development in high burden countries include a varying degree of integration of TB services. Elements that need to be addressed include TB diagnosis, treatment, and follow-up care, as well as health worker protection for occupational exposure to TB. These elements are linked to the dual problems of HIV/AIDS in the general population and the emergence of multi-drug resistance (MDR) and extensive drug resistance (XDR).

At present, there is little information or consensus on how best to integrate TB into national health insurance programs. The USAID TB CARE II Project proposes to examine how TB is included (or neglected) in the service delivery package in national health insurance programs, in order to provide recommendations to TB program managers and insurance providers to increase the capacity of insurance programs to contribute to key TB objectives for case detection and treatment.

The specific goal of this activity was to examine the successes and barriers experienced by high burden TB countries which have implemented national health insurance programs in terms of impact towards of achievement of National TB Control objectives. The project will conduct assessments of a selected number of TB high burden countries which have adopted NHI programs in order to examine how TB has or has not been integrated within different insurance schemes.

1 ASSESSMENT METHODOLOGY

A series of key informant interviews with stakeholders in Thailand was conducted to illustrate how the primary national insurance scheme, National Health Services Organization (NHSO) has organized coverage for TB services and developed systems for promoting universal access to TB care. The findings were qualitative with the aim to provide additional understanding as to how the insurance mechanisms affect access to TB services and improve the quality of TB care received by clients in Thailand.

2 ASSESSMENT CONTEXT

2.1 TB situation in Thailand

Thailand is a high TB burden country with a prevalence of 130 per 100,000 persons and a mortality rate of 11 per 100,000 persons (WHO Global TB Report 2011). Approximately 54,000 new cases (both smear positive and negative) were registered in 2010, of which slightly less than 2% were estimated to be MDR TB. In all, there were an estimated 1920 MDR TB cases among new and retreatment patients.

2.2 National Health Insurance system

Over the years, Thailand has gone through various stages and schemes for health insurance. In 1975, a voluntary insurance scheme (community risk-pooling) was attempted to reach the poor and vulnerable, but had limited success. Since 2001, there has been stronger economic performance, as well as a renewed emphasis on public health insurance backed by political will,

civil society engagement, and monitoring of outcomes. There has been a universal health care (UC) scheme in place since 2002 intended to provide access to an essential package of care to all Thai citizens. It was formulated under the National Health Security Act and is managed by the National Health Security Organization (NHSO), an autonomous state agency officially founded in 2002. This has enabled a new universal care approach along with other reforms e.g. increase in rural human resources, primary health care etc. At present, the country has a three-pronged system which is moving towards universal health care but still not fully aligned with it. First, there is tax-financed coverage for the informal/self-employed sector i.e. capitation-based government prepayment; second, there is the Civil Servants Medical Benefit (CSMB) Scheme, intended for public sector employees and their dependents; third, there is social security for the private sector, with employer share and provider networks. Overall, the outcomes from these models have been positive; there is nearly universal coverage (80% on universal care package, 20% on other systems), a drop in catastrophic costs, and documented improvement in child health indicators.

The National TB Program (NTP) operates within a complex decentralized health system and includes municipal authorities, hospitals, the Social Security (SS) system, and an expanding primary health care network. There is a provision for TB drugs and services as well as new performance-based benefits for providers under the UC system. Program support is decentralized, and the Global Fund provides supplementary funding support. The country is expanding its public health capacity for TB, and case detection and treatment success rates have increased recently; efforts to scale up MDR-TB treatment have been initiated as have efforts to expand services for migrants, which were previously a major underserved group. However, major challenges remain in all areas. Since the universal health care package includes TB treatment, TB patients can get free, long-term access to care. However, there are somewhat conflicting findings in terms of TB coverage under the scheme. On the one hand, the “universal” health insurance scheme covers TB treatment (this is more of an implicit acceptance, with limited detail on policy), but it does not cover migrants, non-citizens, floating populations etc. The same insurance mechanism also covers ART and CPT among HIV positive patients. In addition, there are other insurance mechanisms, including private medical insurance. The Fourth Review of the National TB Program in Thailand by the WHO in 2008 recommended that the program increase engagement with the NHSO in order to better manage and streamline the implementation of the new mechanisms, including developing an audit system for strict monitoring of program performance and financial flows.

3 MAIN FINDINGS FROM ASSESSMENT

3.1 Structure and Administration of Services

3.1.1 Coordination between NHSO and NTP

There is significant coordination between the NTP and NSHO at the policy level. The NTP was instrumental in advocating for TB Fund. The annual NHSO budget committee is comprised of both senior NHSO staff and NTP staff to create workplan and targets, as NHSO-TB budget is based largely on the amount of TB patients expected to be served in the coming year. NTP and NHSO also coordinate to ensure that the UC coverage the TB services and reimbursement structure is aligned with national recommended guidelines for TB case management. NHSO

annual budget for 2011 was 240.9 million baht, based on estimated case load of 60,000 total cases. This estimated number of cases is based on TB situation from previous years.

While there is quite a strong coordination between NTP HQ and NHSO-TB Fund HQ at the planning stage, however, the degree of coordination is more lacking at the implementation level. Most obvious is the parallel data collection system for TB reporting, yet the two systems are not integrated or cross-checked with at each level of data aggregation. Though hospitals direct send reports to the Smart-TB and VMI database, NTP at the HQ and regional level are provided with passcode to access datasets for M&E and analysis. The challenge may be that the NHSO programs are designed for accounting purpose and not for program evaluation purpose. In addition to the NSHO databases, additional datasets are collected by CSMB, SS, CMHI, and general hospitals under the jurisdiction of other Ministries, as well as private facilities.

The weakness in coordination is not only between agencies, but also between different levels within the same agency. As more and more responsibility of service delivery is transitioned to the district and local levels, the resources allocated to the provincial and regional public health offices and the NTP HQ (similar shift is also observed in NHSO system) are reduced and their role restricted to technical assistance and coordination. Yet, NTP at higher level do not have the resources to provide incentives or leverage local implementers to adhere to their recommendations. At the other end of TB care is the implementation of DOTs, patients may be lost to follow-up or many not adhere to the strict DOTs regimens because level coordination between hospitals or between community groups is largely dependent on the vigilance of individual staff.

3.1.2 Role of the NTP

NTP roles prior to the establishment of UC scheme and decentralization of TB services have included implementation of TB control program and activities, as well as TB care/service delivery. Under the UC scheme majority of the NTP former budget for service delivery were transferred to the NHSO Budget. Currently, NTP is phasing out of the service delivery with only few TB clinics managed by NTP still in operation for treating with TB and MDR-TB. Current roles of NTP and its regional offices are to provide technical assistance to the provincial and district public health offices. The budget for NTP to carry out technical assistance activity is provided through the MOPH budget based on the NTP annual workplan and 5-year NTP strategic plan.

NTP was instrumental in the establishment of the HIV/AIDS and TB Fund (known as the TB Fund) managed by the NHSO. The TB Fund was created to ensure that there will be sufficient funding in the NHSO budget to provide continuous treatments and services to TB patients. The TB Fund was also set up to streamline payments and to avoid disruption in services that may results from drug/supply shortages. TB Fund covers all direct costs for drugs, diagnostics, and treatment services including DOT and counseling for TB patients under UC scheme.

Recommendation and criteria for TB diagnosis and treatment regimens is designed at the national level with coordination from NTP with NHSO TB Fund management. Decentralization model of health service delivery, particularly for TB treatment and services, has weakened not only the NTP budget but also the role of NTP, regional and provincial level offices. NTP and the regional DCOP offices have been shifted to technical advisory role. Capacity strengthening of program management, M&E, outcome research and impact analysis, data management at the HQ and Regional levels will help to maintain quality of program and services.

3.1.3 Role of the NHSO

The NHSO is an autonomous state agency founded by the National Health Security Act in 2002, charged with the responsibility of providing health security to more than 47.5 million Thai citizens. The mandate of the NHSO covers management of the health security fund and allocation of subsidiary budgets to clinics and hospitals.

Under the NHSO model, a prepayment system has been instituted to contracted facilities at a capitation rate of around 2,400 baht per registered UC beneficiary (2010). The prepayment covers curative services (in-patient and out-patient) services, preventive services, capital replacement, rehabilitation services, and essential medicines. In addition to the capitation rate, specialized Funds are provided through the NHSO budget in order to address specific public health needs (i.e. TB Fund, Drug Fund, Renal Disease Fund, and Community/Village Health Fund). These funds are managed separately as an individual portfolio under the NHSO. The annual budget for TB-fund is calculated based on several factors (i.e., number of TB patients and forms of TB, number/types of diagnostic tests, prices of drugs, DOTs and home DOTs, and outreach activities) with consultation from the NTP and inclusion of national and regional NTP staff members on the budget committee. Specific to TB care, domestic and imported TB drugs are purchased by the TB Fund through a single channel procurement operated by the Government Pharmaceutical Office (GPO), the sub-contractor for NHSO-TB Fund. The TB Fund covers all forms of TB and includes the following activities:

- 1st line TB and MDR-TB drugs for both adults and children through VMI distribution system
- Diagnostics (AFB, CXR; Sputum Culture; Drug Sensitivity Testing-DST)
- Short course DOTs (in accordance with NTP Strategic Plan 2008) and home DOTs
- Case detection in those exposed to active TB cases (in accordance with NTP Strategic Plan 2008) and in those high risk population (i.e. HIV positive, diabetic, seniors, and prisoners)

TB-Fund allocated 40 million baht out of 240 million baht annual budget for 2010 in support of DOTs activities. This budget is transferred and managed by NSHO district offices nationwide where 35 million baht are directly related or in support of DOTs activities in the districts. The type of DOTs activity would be determined by the Provincial/District Public Health Offices,

local government, and facilities to decide on the specific DOTs activities for their patients. Part of DOTs activity may include home DOTs, training of volunteers, patient support and education, etc. The other 5 million baht is managed by the NSHO district offices and are reserved for performance pay to those facilities or to districts based on meeting performance target such as meeting the target of 85% treatment success rate. The NSHO district offices work with provincial public health office and district offices, as well as the local governments to monitor and allocate the funds. In addition, TB-Fund allocated 18 million baht in 2011 for case finding of those with close-contact with diagnosed TB patients. Incentive for accurate and timely reporting includes a 10 baht payment for each patient entry. (Note: Ref: Manual for TB Fund Management, NSHO 2011, in Thai)

Current information collected through the Smart TB program is used primarily for accounting purposes for the TB-Fund to calculate quarterly payments to contracted hospitals and facilities. Although the databases is maintained in-houses and the newest version (2010) was launched to be more user-friendly for data entry at the service delivery points. Although, the database is designed to be use and information updated in real-time, this feature has not been used very much. Most hospitals send information through off-line through the Smart TB program. NSHO provide manuals for hospital staff for navigation on the Smart TB programs. There is a lack of clear SOPs for M&E and QA/QC of data entered into the Smart TB program.

Smart TB is password protected, but accessible by all registered hospitals for data. NTP is also provided with a different level password which allows for accessing information content. This study did not evaluate characteristics of the software or hardware system. (Software issues may include navigation, ease of use; hardware issues may include system stability or security issues.)

While most of the population is covered by one of the public health insurance schemes, there is limited information regarding the uptake of health services and the quality care received under different insurance models. Each of the public insurance system has its own reporting systems and databases that would benefit from integration and evaluation to improve current insurance models. (Note: Currently, there is an effort to link NSHO with SSS and CMBS, as well as the National Thai 13-digit ID number database, where an MOU between the various agencies involved have signed.) The currently available databases will require QA/QC at all level of data collection and is currently under used. Capacity strengthening in health and operational research, cost-effectiveness evaluation, and M&E should be address.

3.1.4 Management of TB data

For data management, NTP maintains their own data collection system (mostly paper format) through standardized forms used by hospitals and health facilities under the MOPH. The discrepancy between WHO estimate TB burden and the number of cases registered and reported to the NTP may be explained by the facts that the NTP TB reporting systems is currently

incomplete. A more complete TB database and reporting would require integration of data from multiple sources including those from the following:

- Smart TB Registry maintained by the NHSO Information System team
- Vendor Management Inventory (VMI) maintained by Government Pharmaceutical Office (GPO) for NHSO
- OPD/IPD records from teaching/university hospitals and health facilities operated under the other ministries
- Medical records from private clinics and hospitals
- From Global Fund TB project

Data for TB services (e.g. laboratory results, diagnosis, drug regimen prescribed, DOTs, and follow-up and treatment outcomes) are collected for each patient at the hospitals or health service facilities (including DOTs implementers). For registration and reporting to the NTP system, forms TB-01 to TB-10 are used. A summary data from each health facility (TB-03) is sent to the Provincial Public Health Office (PPHO), with copies to the District Public Health Office and the Regional Disease Control Office for Prevention (DCOP). Summary data at the provincial level (aggregated by province, sex, occupation, citizenship, TB forms, and treatment outcome, etc.) are sent from the PPHO to the NTP. Cross-checking of data is recommended at each step, while NTP conducts manual cross-checks of aggregated data by evaluating discrepancy and anomalous trends in the dataset. NTP also commissioned on-site audit of service providers. In addition, NTP also conducts national TB prevalence survey. From these data sources, the NTP prepares annual reports; the last one was published in 2008. (Note: Reports are prepared 2 years after because TB-follow up requires 2 years to complete). Not only are there multiple sources of data, but incomplete dataset is also an issue that needs to be address. For example, not every province submits their aggregated data on time. For the NTP Annual Report 2008, only 21 of the 76 provinces submitted their data (TB-07) for non-Thai TB patients.

To accommodate integration of large datasets and to effectively utilize the datasets to inform program effectiveness and impacts, strengthening of both hardware and software along with appropriate human resources will be needed.

NTP maintains their own data collection system (mostly paper format) through standardized forms used by hospitals and health facilities under the MOPH. Below is the list of various forms used by health facilities under the NTP reporting system:

- TB-01 = TB Treatment Card (TB card), can be used in placed of OPD card, information are summarized for entering form TB-03.
- TB-02 = DOT card (also used under the GF project), the form was designed to also be used by DOT volunteers
- TB-03 = TB patient registry, to be used for TB patients benefiting from TB treatment at public health facilities.

- TB-04 = TB Laboratory Register, for recording sputum examination results
- TB-05 = Request form for sputum examination
- TB-06 = Culture/Sensitivity, currently not used in Thailand
- TB-07 = Quarterly report on new and previously treated TB patients registered in that quarter (0-3 months)
- TB-07/1 = Quarterly report of outcome at the end of the intensive phase of treatment for patients registered (New, Retreatment) 6-9 months earlier
- TB-08 = Quarterly report of treatment outcome for patients registered 12-15 months earlier
- TB-09 = Case Referral or Case Transfer Form
- TB-10 = Record of case referral or case transfer
- TB-HIV-01 = Quarterly performance report of TB/HIV collaboration registered 3-6 months earlier

3.1.5 Payment of UC benefits

For UC beneficiaries, there is no out-of-pocket cost (direct cost) associated with accessing out-patient or in-patient care at the assigned contracted facility, including TB care and services.¹

For service providers, quarterly payment for services provided is made by NHSO directly to contracted facilities based on fix capitation rate for the individual service. Health care providers are reimbursed for services provided to UC beneficiary Payments for services are reimbursed directly to service providers based on a set capitation fee for each service provided. Payments are made directly from NHSO to the contracted facility (i.e. hospital and laboratory).

NHSO-TB Fund is aware that there are limitations within the UC delivery model with regards to in quality and accessibility of health care, including TB care services. For example, payment structure for TB services has been modified so that contracted facility can get reimbursed per service types, thus improving financial flow from NHSO-TB Fund to the service providers to offer the needed services to patients.

Although the main task for NHSO and NHSO-TB Fund is to ensure sufficient finding and timely allocation of payments and payments for services directly to service providers, other mandate also include M&E, cost-effectiveness evaluation, operational research, outcome research and impact assessment of programs. There is limited capacity for these types of skills in the NTP

¹ It should be noted however that obtaining healthcare services outside of the assigned contracted facility may incur cost to UC beneficiaries. This depends on the patient's ability to pay and the hospital policy where the service was obtained.

HQ and regional office, and almost absent for district office and health centers. There is also limited activity on policy research to help guide the improvement of TB control program which include maintenance of quality and access to healthcare, as well as to identify new & cost-effective measures for recommendation to physicians. NHSO should collaborate with universities, foundations, and international experts on how to utilize the existing data that we currently maintain.

The responsibility of documenting and maintaining patients' records lies with the health service providers. Summary data is sent monthly and quarterly to the PPHO under the NTP reporting system and is used for monitoring activities under the national TB programs.

For reimbursement of TB services provided for UC beneficiaries, the TB staff must also enter information into the Smart TB system. (Note: For CSMB beneficiaries usually pay out-of-pocket and get reimbursed from their place of employment. The payment bill would itemize each service and the amount covered under CSMB policy. Individual government agencies may provide additional coverage for added flexibility under their own discretion. For SS beneficiaries, a combination of out-of-pocket/reimbursement or no-fee payment may be applied depending on whether patients seek services at the assigned location or if patients selected treatment options not covered under the policy.)

NHSO conducts quarterly schedule payments directly to the hospitals for services provided to UC beneficiaries, accuracy of information and timely submission would be essential to avoid delay in payments. Payment for TB care and services is made on the same quarterly schedule from the NHSO-TB Fund. Reporting to TB-Fund is through quarterly submission, usually off-line, directly to the NHSO Smart-TB program. To encourage accurate data entry and on-time submission, NHSO-TB Fund provides user manual and hotline services for user supports. In addition, NHSO-TB also designated small incentives for Smart-TB data entry (10 baht per entry. Ref: NHSO User Manual 2011). Information submitted to the Smart-TB program is based on individual patient and their recorded of TB diagnosis and lab examination, treatment regimens and schedules, as well as any follow-up and treatment outcome.

At the end of each quarter reporting period, the NHSO Information System team will send a summary of TB services delivered classified by hospital unique ID code for direct payments to the hospitals. Reimbursement for TB drugs is also made directly to the hospitals based on the VMI reporting systems. At the hospital level, the updating of VMI reporting lies with the pharmacy department.

The potential weakness in this reporting system is when hospitals encounter out-of-town UC patients or MDR-TB cases (in the case where hospital is not registered to treat MDR-TB). For classification for NTP reporting purposes, hospital "A" can refer or transfer patients to hospital "B". If a patient is referred from hospital "A" to hospital "B", then hospital "B" is the owner of the patient case and is responsible for reporting and follow-up. If patients are transferred from

hospital “A” to hospital “B”, then hospital “A” still owns the case and is responsible for reporting and follow-up. The problem is that there is no SOPs to coordinate paper transfer with the follow-up of the physical transfer of patients. So hospital “A” may coordinate transfer / refer a patient to hospital “B” but patient may no longer seek treatment at either hospitals. This may be of high relevant since only few facilities within a province can offer MDR-TB treatment.

3.2 Access and use of TB services

3.2.1 Coverage for TB services

Together with NHSO, the coverage for TB care and services and reimbursement of funds are designed to align with national guidelines for TB care and services. National guidelines and recommendations are outlined in the manuals produced by the NTPs, including case-finding, TB diagnosis criteria, disease classification, treatment options and recommendations, DOTs protocols, etc.

In 2008, there were 63,403 cases (Thai citizens and Thai prisoners presented with all forms of TB) registered and reported to the NTP reporting system. Of which, 32,253 cases (51%) were new M+ cases; 20,289 (32%) were new M- cases; 8876 (14%) were extra-pulmonary TB; and 1,902 (3%) were retreatment (Ref: NTP 2008 Annual Report, 2009; document in Thai was provided by NTP HQ). Although NTP do not track the exact numbers of insurance coverage used to provide treatment, it is estimated that most of these patients received TB care in public institutions and are covered under the UC scheme.

Treatment outcome observed in 2008 are as followed:

- For new + TB cases: 82% showed sputum smear conversion, 5% death, not tested for sputum or other method 5%, 4% still showed M+, 2% incomplete treatment course, and 1% was transferred/ referred, and 1% was lost to follow-up.
- For relapse cases: 72% showed sputum smear conversion, 6% death, not tested for sputum or other method 5%, 5% still showed M+, 2% incomplete treatment course, and 1% was transferred/ referred, and 1% was lost to follow-up.
- For retreatment cases: 70% showed sputum smear conversion, 6% death, not tested for sputum or other method 7%, 5% still showed M+, 5% incomplete treatment course, and 1% was transferred/ referred, and 1% was lost to follow-up.

Challenges to diagnostics and treatment services under the UC schemes are the exclusion of migrant workers and the potential of insurance gap and lost to follow-up in highly mobile population. Another challenge is the increasing responsibilities of local government in deciding healthcare decisions and local public health related activities, there can be gap in expertise and experiences at the local level in public health program implementation. Despite the increase the number of registered UC beneficiaries and increase in the volume of health services uptake, there is limited information of the quality of care and impacts on disease burden and health outcomes.

Most hospitals run a TB clinic at least once a week. Following the weekly clinic, NGOs and community network also hold monthly or weekly meeting so new and existing TB cases together. While TB-Fund outlined the types of services, however, the details and types of activities are determined by the local governance. For coverage of non-migrant workers, local and international NGO regularly conduct community outreach and workplace outreach to education about TB and also it is a part of active case finding activity under GF R8. Under GF R8, other benefits/incentives are also provided to non-Thai patients including adherence counseling, nutritional support, and transportation etc.)

Integration of TB care with HIV/AIDS care is one of the key strategies for NTP/NHSO to addressing burden of TB. Several indicators for TB program success is to look how well the two programs are integrated (e.g. number of TB patients were screened for HIV/AIDS, and vice versa; and number of TB & HIV/AIDS patients who are on TB and antiretroviral therapy).

Medical staffs at public institution contracted by the NHSO are civil servants and qualify for the CSMB scheme. Within the CSMB scheme preventive services including annual physical check-up and chest x-ray are available and staff are encouraged to uptake the services. CSMB scheme also extend coverage to immediate family members, includes marital partner, dependent children, and parents. In the event that a medical staff became infected from workplace exposure, additional compensation fund will be provided following an epidemiologic case investigation will be conducted to confirm the source of infection.

At the district and facility level, the cost for TB care provided to patients are covered mostly by UC scheme for Thai patients, the CMHI scheme for registered migrant patients, and the Global Fund Round 8 for non-registered migrant patients. All of these insurance schemes cover costs for TB diagnostics and treatment as recommended by the NTP recommendations, as outlined by the NTP case management manual. For services not covered under any of the public insurance schemes or under the GF, the hospitals may get relief from local government and from donation. Otherwise the hospitals will largely carry the cost burden for treating the uninsured. Limitation in the infrastructure (facility, equipment, supplies) may affect the quality and delivery of TB care and services. While most hospitals can perform chest x-ray and smear examination of sputum samples, those that cannot should be upgraded. In addition, in remote clinics it may not be cost effective to establish a permanent TB diagnostic laboratory, however, SOPs for sputum collections and transport is needed to ensure quality for diagnostic tests. Currently, the ability to diagnose MDR-TB (Culture and DST) are limited to the national facility, regional lab facilities, some provincial facilities or teaching hospitals. The NTP will be adding Gene Expert molecular diagnostics of TB and MDR-TB at the central and some regional laboratories. Staff will need to be train on how to use the technology, as well as how to integrate this technology into TB control program cost-effectively. Aside from the technical capacity strengthening of

staff, the laboratory infrastructure may also need upgrades to handle MDR-TB culture; currently none of the laboratory meets the BSL-2 safety standard.

Currently MDR-TB facilities are limited in numbers, an increase in the number of facilities registered to deliver MDR-TB treatments is needed, especially in provinces with higher burden of drug resistant TB. Medical staff need to be trained to treat, while TB staffs may need to be train in MDR-TB DOTs.

3.2.2 Delivery of TB services

In management of TB according to NTP recommendations, most hospitals established a “Fast Track TB” program at the out-patient triage station where TB symptoms are screened. If patients exhibit symptoms, they are sent for chest x-ray and first collection of sputum sample is collected on the same day. Patient must returned the next day with 2nd and 3rd sputum samples for examination. It is possible for community health centers or NGO staffs to coordinate sputum sample delivery on behalf of the patients.

To receive a TB diagnosis and treatment, a doctor must make the diagnosis based on laboratory results which requires smear examination of 3 sputum samples, at least one sample should be collected in the morning. While chest x-ray examination is optional, most hospitals include the result as part of the diagnosis. Once a UC beneficiary is diagnosed with TB patient is diagnosed, he/she is registered into the NHSO Smart TB systems (for reporting and reimbursement) along with NTP registration and reporting system (for reporting). Once TB patients receive TB drugs prescriptions, patients are enrolled in DOTs program. At the district hospitals or larger, family members can serve as DOTs monitor. However, out-of-area patients are usually referred back to the community health centers closest to home or to the centers where they registered to receive primary care under UC benefits. If patients are from migrant community, they are usually referred to local or international NGOs for DOTs under the GF R8 project. Depending on the hospitals, some distribute medicine to patients weekly or monthly. Some may distribute to health facilities instead of patients. Patients are required to come in for weekly follow-up in the first months and twice a month after. Patients with TB are usually from poorer socio-economic background. Hospitals also refer patients to the social services office or coordinate with the community health center to see if additional assistance can be provided (nutritional support, transportation, etc.).

Not all hospitals are registered to treat MDR-TB, usually reserved for larger hospitals (e.g. general hospital or provincial hospitals, and TB clinics run by NTP). High cost of drugs may be one of the reasons, another reason is that MDR-TB drug regimens can induce serious side effects and need to be monitored closely.

From the health service providers’ point of view, more resources for DOTs are needed. Emphasis should be on TB case management rather than patient’s education, by tailoring behavior change

messages and advice that compliment patient's lifestyle. Staff may benefit from capacity building in the area of communication with patients, counseling techniques, etc. With UC scheme fully in place, hospitals are experience increase workload for out-patient services, as well as increase access by the uninsured (include those with out-of-area patients with gaps in coverage and unregistered migrants with no insurance coverage).

Limitation in the infrastructure (facility, equipment, supplies) may affect the quality and delivery of TB care and services. While most hospitals can perform chest x-ray and smear examination of sputum samples, those that cannot should be upgraded. In addition, in remote clinics it may not be cost effective to establish a permanent TB diagnostic laboratory, however, SOPs for sputum collections and transport is needed to ensure quality for diagnostic tests. Currently, the ability diagnose MDR-TB (Culture and DST) are limited to the national facility, regional lab facilities, some provincial facilities or teaching hospitals. The NTP will be adding Gene Expert molecular diagnostics of TB and MDR-TB at the central and some regional laboratories. Staff will need to be train on how to use the technology, as well as how to integrate this technology into TB control program cost-effectively. Aside from the technical capacity strengthening of staff, the laboratory infrastructure may also need upgrades to handle MDR-TB culture; currently none of the laboratory meets the BSL-2 safety standard.

3.2.3 Accessing UC benefits

UC coverage is a public health insurance system managed by the NHSO as a safety net to cover the Thai citizens who are not covered under other public insurance schemes. Qualification for UC benefits are automatic for those who have registered for Thai 13-digits National ID number. Cross-checking of ID number with Ministry of Interior and Ministry of Labor is done to disqualify those individuals already receiving either CSMB Scheme or SS Benefit Scheme. Unlike the SS benefits where insurance premium are covered by 3-party payers (employee, employer, and government), the UC and the CSMB are paid for by the government budget with no premium costs to the beneficiaries. (Note: CSMB offers more flexibility in terms of treatment options and treatment facilities which may incur co-payment from beneficiary. UC offers little flexibility in treatment options and treatment facility, while still providing the best and cost-effective treatment for patients at no additional cost.) UC scheme provide health insurance coverage for the majority of Thai population. (Note: According to records in 2005, percent of insurance coverage among Thai citizens were 75% under, 14% under SS, 7% under CSMB, and 4% uninsured).

3.2.4 Coverage and uptake of UC services

NTP members interviewed at the central and regional levels are well aware of the three types of national insurance schemes available to serve the Thai public. UC scheme was put in first put in place in 2001 in selected provinces and has since expanded nationwide. UC is a public health insurance system managed by the NHSO as a safety net to cover the Thai citizens who are not covered under any other public insurance schemes. UC beneficiaries represent the majority of Thai population.

The WHO estimated 92,319 cases of TB (all TB forms) in 2008 of which 44,475 cases are new M+ TB (WHO report 2009). In 2008, there were 63,403 cases (Thai citizens and Thai prisoners presented with all forms of TB) registered and reported to the NTP reporting system, of which 32,253 cases are new M+ cases (NTP 2008 Annual Report, 2009). Most of these patients received TB care in public institutions and are covered under UC scheme. Under the UC scheme, all direct costs for drugs, diagnostics, and treatment services including DOT and counseling of TB patients, as well as case follow-up.

3.2.5 Accessing UC benefits

Of the public facilities visited during the study, the majority of TB patients (all forms) are Thai, more than 80% of whom are UC beneficiaries.

For Thai citizens with 13-digit National ID number, the hospital can easily identify the status of insurance coverage of patients. If the patient is not from the districts or is registered for health services under another NHSO contracted facility, the social services staff at the hospital can assist patients to address the insurance gap by possibly transferring their UC coverage if the patient just moved into the area. It is possible for hospitals to receive reimbursement for drugs prescribed for out-of-town UC patients and may receive partial reimbursement for services provided. Alternatively, the social services staff at the hospitals may also help identify other social welfare channels to help cover the costs of treating out-of-town UC patients. In some cases, out-of-town patients may be subjected to fee-for-service charge (e.g. doctor fees or lab fees), however, payment is enforced on an individual basis based on the ability to pay.

For migrants to be registered in Thailand for employment, a physical examination is required at the district hospital where they will be employed. The registration fee for 1 year work permit paid by migrant workers or by their employer. The fee is inclusive of one physical examination fee which include chest x-ray and sputum examination for TB screening (600 baht), and health insurance (1,300 baht). Registered migrant workers enjoy the same UC coverage benefits as provided to Thai citizens, albeit they are subjected to 30 baht co-payment fee per hospital visit. Similar to the Thai-UC counterpart, registered migrants insurance benefits provide coverage is tied to the district hospital where they received the physical examination as part of their registration process.²

² The Compulsory Migrant Health Insurance (CMHI) Scheme for registered migrant workers is managed by the MOPH. Insurance coverage usually covers only the migrant worker, however, coverage may extend to dependent on a voluntary basis (Financing Health Care for Migrant: A Case Study from Thailand, 2009).

For non-registered migrant patients, the hospital has no official channel to reimburse funds for services provided. However, should treatment of a non-registered migrant become highly significant for a particular disease, then the hospital can file a claim for reimbursement from the Health Insurance Group (HIG) under the MOPH. A guideline on how to determine claims and payment has been published by the HIG-MOPH. For the most part, costs of treatment for non-registered migrants are covered out of pocket or by employers. Otherwise the cost is covered by the hospital budget, or with assistance from local government or local and international NGOs. The requisite for UC qualification is Thai (in possession of a 13-digit national ID number) who is not already covered under other publically funded health insurance schemes. Children under 15 years of age can use a copy birth certificate for verification of citizenship and to take advantage of UC benefits. For provincial residents, registration for UC benefits can be done at the community health center or nearest public hospital to home, or at the PPHO. Bangkok residents can register at the local district government office. In addition to the Thai 13-digit ID number or birth certification, a copy of housing registry is also required (for assignment to nearest primary health care facility), and a UC enrollment form. Individuals with 13-digit ID number can check UC status and the closest primary health care facility/hospital assigned. However, considering that most UC beneficiaries are poor and may not necessary reside in urban area with internet access, other types of community medium (e.g. community radio and village leader) may be more effective.

For those who are not residing in the same address as indicated in the housing registration, anyone of the following document can be used as supporting document:

- Housing registration of currently residing residence, along with a letter from the owner verifying resident status; or
- Verification letter from village leader or community leader indicating current residence in the village area; or
- Employment letter from local business or agency; or
- Rental or lease agreement, rental receipt, utility bills or receipt with name of UC applicants to the corresponding to the current address

The registration process for UC coverage is simple and straight forward if the required documents are in place. The delay in receiving UC coverage may be associated with acquiring the necessary proof to obtain the National ID number and Housing Registration.

NTP does not have specific policy for treating non-registered migrants. However, NTP and the MOPH are aware of the cost burden for treating uninsured migrants incurred by the hospitals. NTP staffs interviewed indicate the need to advocate for specific policy that would address migrant health, including TB care, in light upcoming plan to ease visa requirements between ASEAN borders.

(Note: Registered migrants must pay a fee for their work permit, 1,900 baht of which are diverted to a contract hospital which covers the annually required physical examination. (Migrant workers diagnosed with TB will not be granted work permit.). To off-set some of the incurred costs at the service-provider end, the HIG-MOPH, has set up a system of fund to help cover the cost for “expensive therapeutic treatment” for non-registered migrants from Myanmar, Cambodia, and Lao People’s Democratic People’s Republic (Laos). The fund is established from collecting 60 baht (50 baht towards fund and 10 baht toward administrative cost) from the hospitals for each of the registered migrants that are registered their health insurance benefits with the hospital.) A set formula for calculating “expensive treatment” is used by HIG to calculate reimbursement rate.

3.2.6 Coordination with community services

For the section of the study, interviews were conducted mostly with international NGOs working with the migrant population in the North, Central and upper Southern Thailand. Interviewed were conducted at field offices of two international NGOs, World Vision International and Raks Thai Foundation, sub-recipient of the Global Fund Round 8.

Most of the patients (Thai or non-Thai) received diagnosis and treatment at the hospitals, however, DOTs were performed at community health center or home-based through village health volunteers or DOTs volunteers, for Thai community and non-Thai community, respectively. Under the mandate of GF R8, the project provide coverage for non-registered migrant workers for TB treatment which include 1st line drugs, diagnostic and lab tests, and DOTs, as well as possible assistance for miss work, transportation, or nutrition subsidy. However, sometimes hospitals will refer registered migrant with TB to NGOs for DOTs. During the field visits and interview with TB patients indicated the preference for NGOs because of community referral and community support even if they have insurance coverage at the district hospital.

DOTs are usually performed by volunteers from Thai or migrant communities. Migrant patients are usually served by NGOs who recruit and train DOT volunteers, while the Thai volunteers are paid by local public health office as they usually provide services other than DOTs.

Program can benefits from capacity building for Village and DOTs volunteers in QA/QC data recording and reporting, technical knowledge of TB (including treatment, diagnosis, and side effects), and communication/negotiation skills.

3.2.7 Knowledge and awareness of UC benefits

Communication about UC coverage is frequent and information about the program is well known. Previous mass communication strategies include news coverage (TV and print), public health campaign (events and billboards), websites, and during national election campaign. For migrant workers and non-Thai, most people learn about the UC coverage from their employer during the employment registration process. Detailed information regarding the

services, facilities, and coverage are easy to get from community members. Active outreach programs are conducted by NGOs targeted to the non-Thai community both at the place of employment and in the community through local volunteers. As part of the outreach, NGOs coordinate with local hospitals to enroll suspected cases for diagnosis and conduct DOTs for migrant cases.

These messages include information about symptoms, benefits of early treatment, curability of TB, and free services. Health communication activities are also implemented by NGO partners, with technical information provided by the NTP and/or Regional Office.

To promote awareness of UC benefits, and in particular TB care services, NHSO employed several means of mass communication methods: program websites, radio spot, and print advertisements in public space and also at local government office. Since UC scheme has been in place for many years, most Thai are aware of the programs and the free healthcare benefits. (Note: UC coverage has been promoted by the now defunct Thai Rak Thai Party which approved the UC health care. UC program has also been heavily during the last 2 general elections with the promise to remove the 30-baht co-pay.)

3.2.8 Attitude and preference for TB services

Districts and provincial hospitals would coordinate with community health centers or NGO local field office to deliver DOTs through volunteers from Thai or migrant communities, respectively.

From the point-of-view of Thai village health workers / volunteers, the community understands UC benefits. However, health seeking behaviors remain such that many still seek self-treatment before going to a health facility. Suspected TB cases may avoid going for TB diagnostics tests for fear of knowing the disease status or they may choose to wait until they experienced symptoms that interfere with their daily activities. For some in very rural area or those of more senior age, transportation may represent additional challenge to accessing TB services. Although community based groups try to address these issues by coordinating with local village leader for transportation assistance.

From the point-of-view of migrant village health volunteers, community learns about health benefits through employers (if they are properly registered), and mostly through the community (e.g. co-workers, family, friends). For registered migrant workers, most are aware that they can seek treatment at a designated hospital; however, they often seek self-medication first to avoid crowded hospitals. Communication with medical staff is another problem that can deter migrant workers. Most hospitals with large migrant patients have on a few translators on staff hired at the expense of hospital own budget; however, the numbers of these translators are not but often not enough as they would have to serve the entire hospital.

Even with a network of local and INGOs to address the health needs of migrants, especially for TB and HIV mainly supported through GF activities, many migrants tend to first seek self-

medication. Lack of time and fear of losing work and being stigmatized are also factors that prevent many migrants to seek diagnosis and treatment for TB. Limited knowledge and appreciation of benefits from prevention, early diagnostics and treatment success rate for TB may also contribute to delay in accessing health services.

3.2.9 Services for TB risk groups

Other vulnerable groups at high risks for TB include HIV/AIDS patients, prisoners, senior citizens, and chronic disease patients.

For HIV/AIDS & TB activities, there are strong efforts from the national level and implemented by local health service providers to integrate HIV/TB activities. Indicators of success for integration of HIV/AIDS & TB activities include the following:

- Screening of HIV/AIDS patients for TB, and vice versa (acceptance of HIV/AIDS test is at patient's own discretion). Target of >85% of TB patients get tested for HIV, and >95% of new HIV+ patients screened for TB.
- Providing prompt drug therapy for TB and HIV patients. Target of >60% of TB-HIV patients receiving anti-retroviral therapy.
- Quarterly performance report TB/HIV collaboration for patients registered 3-6 months earlier (Form TB-HIV-01): location by province, patients aggregated by (Thai, non-Thai, or prisoners), and summary for HIV and TB patients (i.e. number HIV positive patients screened positive and registered for TB, number of HIV/AIDS on retroviral therapy, number of TB patients on TB regimens, TB patients with CD4+ <250 cells per cm³ and on retroviral therapy).

In 2551, NTP conducted active case detection of prisoners and reported 2,939 cases of TB, an increase of 2-folds. For TB control activities among prisoner population, NTP coordinated with Thailand Department of Corrections (Ministry of Justice) and local government in training prison guards for DOTs implementation and reporting.

Since 2005-2006, UC coverage has also been extended to prisoner population with Thai 13-digits ID number. In the case for TB diagnosis and treatment, screening can be conducted at the prison or prisoners can be escorted to receive treatment and diagnosis at the hospital. TB medicines can be picked up from the hospitals by prison guards who have been trained to performed DOTs and reporting

3.3 Key challenges identified

3.3.1 Challenges in accessing UC TB benefits

While most people know of UC scheme, they may not know the specific coverage (for example, treatment option may be more limited under the UC scheme compared to other schemes, though it is not of high relevance with regards to TB). Limitation on seeking health services outside of the registered hospitals and referral system may not be well understood by patients at first.

Patients can transfer UC coverage to a new hospital providing they have evidence / reason for moving, such as new jobs, relocation, etc. However, NHSO allows for 3 changes of transfer a year at a designated period during the fiscal year. It is possible for some patients to relocate but not yet have their UC coverage transferred. Similar is the case for patients who temporary move to another location outside of the designated hospital zone. Though in practice, hospitals insisted that treatments (in this case for TB care) are not interrupted from insurance gap or uninsured problems. However, there is no systematic protocol for handling chronic patients (including TB) when patients move from one location to another. Case transfers can be made between hospitals, however, the intensity of follow-up and DOT can be varied depending on the hospitals involved. This is a potential gap can lead to loss of follow-up and delay of treatments.

In addition, UC allows more access to TB care and services. However, it is not enough. Having UC insurance coverage is not a sufficient motivation for patients to seek early diagnostics or treatments. Other factors prevent patients from seeking preventive measures and early diagnosis/treatment, e.g. indirect costs, loss of income, time away from work or family (long waiting period associated with seeking health services at public facility), denial for fear of being sick.

There are challenges to using UC scheme for access TB coverage. For Thai, there is the restriction of accessing treatment only at registered hospitals which could represent a problem for highly mobile population. Another high risk group is senior citizens, although they are not as mobile, they may have trouble with transportation for their follow-up appointments if they live in rural area. Also showing an increasing trend is the problem of co-morbidity with TB. Thai TB patients especially in older population are often on multiple regimens of drugs for chronic diseases (i.e. diabetes, high blood pressure, heart diseases) and may be at risk for side effects from drug interactions. This is a major challenge that reduce drug adherence rate. Another major barrier is the long waiting period at the hospital due to large out-patient visits each day. To appease some of these issues, village health workers and community health centers, can help coordinate for transportation, and coordinate with the hospitals for an appointment time to reduce waiting period. Similar approaches are adopted by NGOs working with registered and non-registered migrant to provide transportation and coordination with the hospitals (help patients navigate through the hospitals and communicate with the medical staffs).

3.3.2 Challenges for TB services within UC

NTP are aware that there are limitations within the UC delivery model with regards to quality and accessibility of health care, including TB care services. While UC scheme increase the overall availability of healthcare, there are limitation and challenges in terms of accessibility, ease of use, service adoption for both health care providers and patients. NTP continuously collaborated with the NHSO-TB Fund administrator to address the issues. Some of the major challenges identified under the UC schemes that may affect quality of TB program and TB care to patients include:

- Restrictions on the UC beneficiary to coverage only at a designated facility contracted by UC. This pre-assigned designation for each UC beneficiary is based on primary place of residence according to the National Thai Identification Registry.
- Limited locations in each province that are registered for MDR-TB treatment.
- Gaps in coverage for non-registered Thai and non-Thai migrants
- Advocate for Provincial, District, and Sub-district levels to adhere to National TB Recommendations and closing the gaps on quality of care between different facilities operating under the decentralization model for service delivery and local health priority settings mandated by NHSO through the TB-Fund and the Community Health Funds, respectively.

3.3.3 Challenges in accessing TB services

Thai patients are mostly covered under UC scheme for all forms of TB, including MDR-TB. While registered migrants has health insurance through their work permit for coverage of both TB and MDR-TB. Un-registered migrants, however, must pay everything out of pocket. For TB treatments, there is the GF R8 project which provides funds for outreach, education, case finding, diagnosis, and 1st line drug regimen for migrant TB patients. In addition, the GF also provide subsidy for other indirect costs such as transportation, nutritional support or miss work days (subsidy is based on the discretion of local staff on case-by-case basis depending on individual needs). If non-registered migrants are to be diagnosed with TB, then this cost is absorbed by hospitals. In such case, drugs are reimbursed through the VMI system, while the cost for treatment may receive some reimbursement from the HIG, MOPH.

More than 80% of patients (Thai or registered migrants) utilized one of the public insurance schemes for TB care and treatment. Non-registered migrant used benefits provided by GF R8. Among the NGOs and hospital interviewed, none of the patients have to pay direct cost for access treatment for TB diagnosis and 1st line treatment for TB. The exception is the 30-baht co-pay from registered migrants, however, this policy is not 100% re-enforced by the hospitals.

Because of the large volume of cases in most public hospitals, there can be long waiting period for same services compared at the same services at private facilities. Compared to other public insurance schemes, the delay in services for UC beneficiary is associated with the inability to access off-hour services at the same hospital for free. The CSMB and SS schemes may offer full or partial coverage for health services from off-hours clinics. (Note: When UC scheme was first rolled out, accessing healthcare services at most public hospitals and some private hospitals may be associated with delays and long waiting period; this is largely due to an increase in the numbers of out-patient visits at these facilities, suggesting that UC scheme does increase access of healthcare services to previously untapped population.)

3.3.4 Challenges in delivery of TB services

From the regional NTP manager (at the Disease Control Regional Offices) point of views, health facilities/hospitals in general follow the guidelines recommended by the NTP TB case

management. Both NTP reporting system and NHSO-TB reporting system are used to keep track of TB burden in the community and used track patients' treatment schedules and their outcomes. While some monetary incentives are provided through the NHSO for achieving TB targets, however due to significant workload at many hospitals, each hospital will prioritize their own needs and sometimes vigilance in enforcing TB activities (particular DOTs) may not be effectively enforce. Despite these reporting and monitoring activities, there are variations between health facilities within the same districts and province can be observed. While the regional offices can provide conduct on-site monitoring and evaluation, and provide technical assistance, there is no authoritative jurisdiction to enforce recommendations.

The physical limitations of seeking health services at pre-assigned contracted hospital “close to home” may represents a challenge for managing DOTs (6 months short course), especially for mobile or seasonal workers of Thai and non-Thai. There may be gaps in insurance coverage; however, this may not result in treatment delays as the cost for TB treatment can be provided free-of-charge.

4 DISCUSSION

Fourth Thai NTP review- “Health service reform and the UC funding scheme has considerably weakened the PPHO and district health offices (DHO) with regard to TB control as budget authority has shifted to hospitals. In many districts the role of the district TB coordinator (DTC) is now not clear as the responsibility for maintaining of the TB register has shifted to the hospitals and very limited funding is available for non-clinical activities.”

The working philosophy of UC is to provide quality service close to home. To achieve this beneficiary are assigned to a contracted primary care facility closest to home. (However, this transition did not come with much planning in terms of finding qualified doctors)

Prior to the establishment of NHSO-UC funding scheme, TB services was a vertical program where many of the control measures and treatments were implemented or managed by the NTP. The transitions towards decentralization along with the establishment of UC insurance schemes that include TB care meant large proportion of the budget was diverted to the NHSO and redirected to contracted health facilities. NTP at the central and the Office of Disease Control and Prevention (10 offices at this regional level) have assume the more technical advisor role as a result. In order to advocate for compliance with the national TB guidelines and maintenance of quality services for prevention, control, and treatment, NTP and DCOPs should take advantage of the local resources and help to align local activities by participating local governance and administration meetings. Together, NTP and NHSO should consider piloting innovative strategies for engaging provincial, contracted facilities, and private sector to comply with National TB guidelines and objectives.

The establishment of TB Funds portfolio within the NHSO was designed to ensure sufficient budget was set aside to provide continuous care TB patients. This stems from reports that TB drugs and services were affected in some hospitals as a result of TB drug stock-out in their inventories. Reimbursements for TB services are made directly to the contracted providers at a fix-rate for each service (e.g. sputum test, x-ray, 1st line drug regimen).

Under the UC scheme, TB drugs and related services are provided free of charge to Thai citizens who are not already covered under another public insurance scheme. The overall perception expressed by the various stakeholders is that UC insurance scheme has improved access to healthcare, including access to TB treatment and services. However, the impacts of UC insurance scheme on the uptake of TB services (e.g. prevention and treatment) and on the quality of TB services (e.g. delay in treatment, clinical/management bottleneck, health outcomes, impact on TB burden) have not been formally evaluated.

Program Implementation & Management Bottleneck

The transition from vertical TB control program to a decentralization implementation has presented a number of challenges for prevention and control of TB transmission.

- Decentralization, variation in program quality
- Limited oversight of NTP with major shifts to local administrator
- Multiple data source and incomplete data sharing

Insurance Gaps and impact on TB care and services

- Potential gaps in reimbursement/coverage when patients seek health services at facility other than at the contracted facility. Gaps in coverage could mean that patients may have out-of-pocket costs/fees, or hospitals may not be reimbursed or experienced delay in reimbursement.
- Non-Thai without 13 digits national ID.
- Thai citizens who were previously on other public benefits but currently unemployed may experience gaps in coverage.
- Potential loss in follow-up when patients (Thai and non-Thai) move away from the permanent address (as listed in the housing registry).
- Currently, TB care for non-registered migrants is primarily covered by GF R8 which will be completed in mid-2012. This development would leave a significant gap in TB care for both non-registered and registered migrants.

Role of Private insurance

- Contribution of private insurance is currently not well-known as there are different sources of data. Most private insurance in Thailand are in the form of life insurance, where additional premium can be purchase to cover illness that is not pre-existing

conditions. A waiting period of 90 days from 1st day of coverage before insurance will pay for medical care cost for a particular disease.

Data integration & Management

- Lack of systematic M&E to ensure data quality at each level of data entry and aggregation.
- Multiple data sources and limited data communication across each level at all agencies.

Integration of TB programs with other Disease Control Programs within the Existing Health Delivery Model

- There is currently strong efforts from both NTP and NHSO to integrate HIV/AIDs and TB case management.
- Co-morbidity of TB and chronic diseases (e.g. diabetes, high blood pressure, heart disease) are on the rising trend. Interviews with village volunteers and medical staff have raised the issues of drug interactions and adherence to therapy as potential challenges to TB control programs.

Delivery of quality TB care and services

- Manual and recommendations made by NTPs and NHSO, but not authority in decentralized system. However, translate national recommendation into local actions has been a challenge in program implementation.
- Treatment success still less than target in some area due to variation in performance and quality across level and geographical.
- Hospitals/health service providers shoulder much of the costs associated with caring for uninsured or gap-insured TB patients.
- Emphasis on training DOTs has been on education, rather than involving patients in the decision making with regards to TB management.
- Limitation in the ability to diagnose MDR-TB and treatment of MDR-TB may have significant impact in control MDR-TB transmission. However, this issue may require further investigation as it may guide the program in determining whether additional capacity for MDT-TB diagnosis and treatment is needed.

5 CONCLUSION AND RECOMMENDATIONS

Thailand provides a good case example for a middle income country set out to provide UC coverage for all Thai citizens. Thailand uses a multi-payment system approach to provide >97 percent of the population with public health insurance. The main objectives for UC are to provide health care for the poor, and also to protect families and their livelihood from financial crisis resulting from high cost of healthcare. More than three quarter of the population are

protected under the UC scheme which provides both preventive and curative care, as well as rehabilitative care at any of the contracted public facility.

Over the years, a handful of academic research paper and analysis papers have suggested that UC scheme has increase access and the uptake of health services throughout the country. There are limited assessments of the impact of UC on quality of care, particularly on the quality of TB care. While the poor have significantly benefited from the UC scheme, one study has suggested it may have a negative impact on moderate-income family who can afford to pay for some treatments. The increase caseload of OPD and IPD patients may drive medical expense in the moderate income family as they may opt to pay for services at more expensive off-hour clinics at public hospitals or private facilities to get the same quality of services or avoid delay in care.

Recommendations:

- Policy and Health Research
- Strengthen cross-collaborations between ministerial for reporting, control effects,
- Strengthen public-private partnerships
- TB Fund has strong interest in improving TB Fund management and has the capacity to support relevant proposal on policy and health research to improve program effectiveness and quality.
- Increase capacity at the national level in outcome research and impact assessment

- Operation and Implementation
- Strengthen management capacity at the central and regional level to ensure that programs TB control programs are implemented with appropriate intensity and quality
- Address variation in treatment success and quality among the health facilities, as treatment success rate has been less than the targeted 85% in some locations
- Monitoring and evaluation of TB control programs and quality assurance.
- Take advantage of multiple data sources to evaluate outcome and quality by increase the capacity at the national, regional and provincial levels engage in analysis and research to improve existing effectiveness and quality of existing programs.

TB care and services

- Engage local staff in planning and implement TB control measures
- Address the issues of TB and chronic diseases are also major concern to the community and medical staff. Beside complication so of the diseases but also potential side effects from mixing drugs, and can lead to non-compliance.

- Enhance capacity of district level to manage program activities and M&E to ensure quality and adherence to recommended guidelines.
- Strengthen capacity of TB staff and DOTs implementers not only in TB knowledge but also in communication and negotiation skills to enhance patient's adherence to DOT regimen.

Funding

- Increase budget or earmark budget for case non-treatment activities (diagnostics and drugs), such as case follow-up, DOTs, case finding, case investigation.
- Engaging existing network to galvanize supports for TB activities, civic society, and village development funds/projects.

6 APPENDICES

6.1 List of people met

(I'll prepare this list to accompany the report.)