Concept notes
Cost analysis of S&D reduction package in health care settings

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1. Background

The new 2017-2030 national AIDS strategy aims to end AIDS by 2030, with three goals as follows: 1) Reduce new HIV infections to fewer than 1,000 cases per year; 2) Reduce AIDS-related deaths to fewer than 4,000 cases per year; and 3) Reduce HIV and gender-related discrimination against people living with HIV (PLHIV), those affected by HIV, and key populations by 90%. These goals are reinforced with a Fast Track phase to achieve the "90-90-90" targets by 2020[1].

Thailand was one of the first countries to offer free HIV testing and treatment under its universal health coverage scheme. As of October 1, 2014, ART became available to all PLHIV, regardless of CD4 level. However, stigma keeps people away from life-saving services; about 56 percent of PLHIV diagnosed in 2016 had CD4 <200 ml[2] and 13 percent of PLHIV avoided or delayed health care because of fear of stigma and discrimination (S&D)[3]. In response, Thailand prioritized stigma reduction and committed itself to reduce by half HIV-related stigma, and introduced mechanisms to protect the rights of PLHIV and key populations through 2020.

Committed to achieving the target of reducing HIV-related stigma by half and protecting the rights of PLHIV and key populations through 2020 with evidence-informed activities in a measurable manner, Thailand has been developing tools to systematically monitor S&D in the health care setting. This work started in two provinces in 2014 on a pilot basis and, then, was rolled out to another six provinces for national monitoring. By the end of 2016[4], 17 provinces have carried out the S&D surveys and know their stigma situation. Indeed, the results from the surveys show that HIV-related S&D is common, even in a country with a mature epidemic and response. Thai health workers display varying levels of stigma towards PLHIV and key populations.

The evidence triggered an accelerated health system-wide action. The Bureau of AIDS, TB and STI (BATS) of the Ministry of Public Health (MOPH) has been successful in developing *the 3X4 HIV related S&D reduction package for health care staff*. The package has been implemented in six hospitals in three provinces as follows: 1) Chiang Mai, comprised of Phrao Hospital and Chiangdao Hospital; 2) Chonburi, comprised Panthong Hospital and Nongyai Hospital; and 3) Songkla, comprised Sathingpra Hospital and Chana Hospital.

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[1] Thailand National Strategy to End AIDS, 2017-2030. Thailand National AIDS Committee, March 2017.

[2] 2017 Global AIDS Monitoring Report, UNAIDS, August 2017

[3] Stigma and discrimination among health care providers, people living with HIV and key populations in Thailand: Extrapolation process for national estimates, National AIDS Management Center, December 2016

[4] International Health Policy Program, Ministry of Public Health, Thailand; Measuring HIV-related Stigma and Discrimination in the Health Care Setting in Thailand: Report of a pilot: Developing tools and methods to measure HIV-related stigma and discrimination in health care settings in Thailand, November 2014.

These facility-focused S&D reduction interventions include activities at three levels within the health facility: 1) Individual (face-to-face, 12-hour, HIV-related S&D reduction curriculum for health facility staff); 2) Systems/health facility structural interventions; and 3) Creating a health facility-community linkage. This package of interventions builds on results of surveys and addresses the four key, immediately-actionable drivers of S&D within health facilities, including: 1) Lack of awareness of the forms which S&D take and their consequences; 2) Fear of workplace exposure to HIV that leads directly to stigmatizing avoidance behaviors that can publicly disclose a client's HIV status; 3) Social stigma---the judgment, shame and blame that can manifest in service delivery, and 4) The health facility environment, for example, availability of safety supplies, presence and implementation of non-discrimination policies, codes of practice, and standards of practice related to universal precautions and their implementation[5].

In mid-2017, the implementation of the S&D reduction package in the demonstration sites had a favorable outcome; there was significant reduction in fear of contracting HIV and stigmatizing attitudes toward PLHIV and key populations[6].

To accelerate the system-wide roll-out of the S&D reduction package and ensure long-term sustainability in the healthcare setting, the Health Intervention and Technology Assessment Programme (HITAP), in collaboration with BATS, proposes to undertake a cost analysis as the first step to generate primary evidence, especially cost-effectiveness data. The results of the cost analysis can be used to manage resources and budget allocation, and increase programme efficiency.

2. Overall objectives

To measure the unit and programme costs of the 3X4 S&D reduction package of interventions and provide policy recommendations for health system-wide scale-up.

3. Main research questions

1) What is the total cost of the 3X4 S&D reduction package of interventions?
2) How much does it cost for training one trainer at the national and provincial level?
3) How much does it cost for training one staff person in a health facility?
4) What is the time spent (compared to full-time equivalent) and labor cost of staff who are not directly involved with the S&D programme?

4. Specific objectives

1) To estimate the total cost of the preparation process of the S&D reduction programme
2) To estimate the total cost of implementation of the S&D reduction programme
3) To estimate the unit cost of training in the S&D reduction programme
4) To examine the time spent of staff who are not directly involved with the S&D reduction programme

[5] Bureau of AIDS, TB and STI, 2016

[6] Slide presentation, Bureau of AIDS, TB and STI, July 2016

5. Conceptual framework

The cost of core activities are divided into two parts as follows:

The first part is the cost that occurs from the preparation phase, including training of trainers at both the national and provincial level, conducting refresher training workshops, meeting with the data collection team, and convening project meetings.

The second part is the cost of activity process. The activity process is comprised of activities at three different levels: (1) Individual level – this includes participatory training for health facility staff on S&D or small group training on specific topics, and refresher training/orientation courses; (2) Institutional level – this includes baseline and end-line data collection, setting up a facility operational plan, convening case conferences for improving quality of services and systems, defining policy and service operation procedures for supporting a S&D-free workplace, and convening bi-monthly meetings; and 3) Community linkage – with provincial human rights protection mechanisms with key population and their networks.

This phase also includes calculation of costs of on-site coaching and monitoring and technical support (see Figure 1).

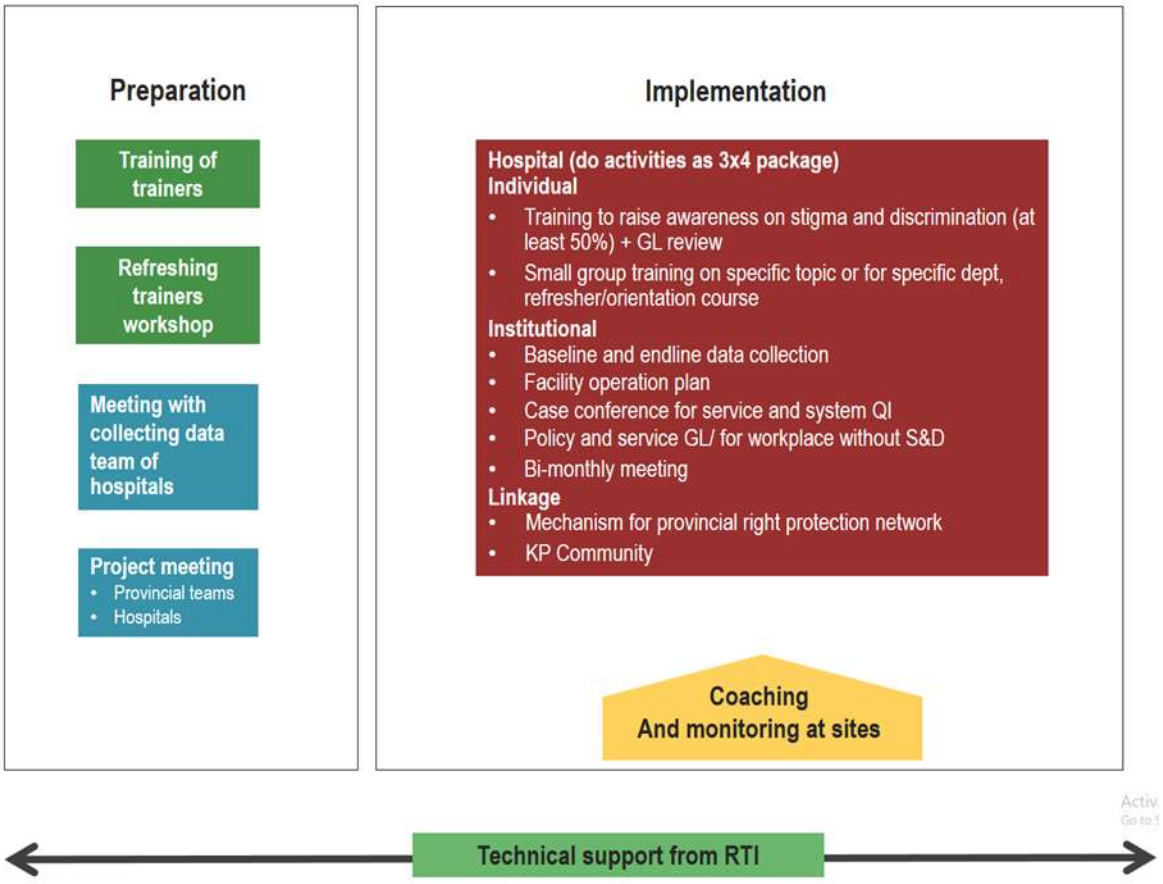

Figure 1: Conceptual Framework for Cost Analysis

6. Study Methodology

This study uses a retrospective survey research design. Data will be collected from BATS and the hospitals that are involved in the S&D reduction programme, namely Chiang Dao Hospital, Phan Thong Hospital, and Chana Hospital.

The study sites were selected based on number of health care staff in the hospitals in each province. This study will be conducted by using economic or opportunity cost from a provider perspective. This analysis employs a three-year time horizon from 2015 to 2017.

The cost of intervention is classified into three components as follows: Capital cost; Material cost; and Labor cost. Sources of cost data will be derived from primary and secondary data collection, e.g., questionnaire and administrative databases. Estimated costs of each scenario will be converted to the local currency unit (Thai baht) values, for base-year 2017 using the consumer price index (CPI).

This study also estimates the impact of implementing the S&D reduction programme on human resources (HR). The HR-related tasks and the average amount of time, in minutes, for staff time spent per activity will be obtained by interviewing the health care providers. Before starting data collection, informed written consent will be obtained from each participant. The study implementers are going to submit the proposal for ethical review and approval by the Institute for Development of Human Research Protections before beginning implementation.

7. Study timeline

This is a four-month study from September 1 to December 31, 2017 with detailed timeline as follows:

Activities	Timeline			
	Sep.	**Oct.**	**Nov.**	**Dec.**
1. Draft an inception report (full proposal with data collection tools)				
2. The 1st Task Force meeting to finalize the inception report				
3. Submission for ethical approval				
4. Field work: Data collection				
5. Data analysis				
6. The 2nd Task Force meeting to review preliminary results				
7. Stakeholders consultation meeting				
8. Final report				

8. Key deliverables

1) An inception report (in Thai) describing the study design, data collection tools, field-work and analysis plan.
2) Report of preliminary results (in Thai) for stakeholder validation and consultation meeting.
3) Final PowerPoint presentation (in Thai and English) including a brief and easy-to-understand summary of the report for use with various audiences.
4) Final report (in Thai and English) with the following features:
   The report should be 15-20 pages in length, and written so as to be easily understood by non-experts in the area. The report should be precise and include the following:
   - Introduction
   - Objectives
   - Methods
   - Key findings
   - Conclusions
   - Discussion and recommendations

9. Expected outcomes

The findings from this study can be used for budget management for national rollout of the S&D reduction package in the healthcare setting, and to help manage staff workload and resource mobilization. In addition, the results of the study will serve as critical data for further economic evaluation and cost-effectiveness analysis.

10. Organization and Research Team (in brief):

The Health Intervention and Technology Assessment Program (HITAP) is a semi-autonomous research unit under Thailand's MOPH. It was established in 2007 as a non-profit organization in order to take responsibility for appraising a wide range of health technologies and programs, including pharmaceuticals, medical devices, interventions, individual and community health promotion, and disease prevention, as well as social health policy, to inform policy decisions in Thailand. HITAP assumes an advisory role for health governmental authorities by providing rigorous scientific evidence through professional assessment of health data in support of public decision-making. These assessments cover a range of topics including system design, selection of technologies for assessment, and the actual assessment of those selected and agreed upon by relevant government agencies. In this effort, HITAP publishes research and studies in the following areas: methodological development, (HTA and cost) databases and guidelines; knowledge transfer and exchange (KTE) and capacity development; technology assessments on drugs, medical devices, medical procedures, disease prevention and health promotion measures; benefit packages of care – mixing screening and treatment; and other public health policies, e.g., evaluation of Thailand's government compulsory license policy.

List of key research team members

- Suradech Doungthipsirikul (Principle Investigator)
- Suthasinee Kumluang
- Jitti Wisaiprom
- Suppawat Permpolsuk

11. Monitoring and Evaluation:

A Task Force has been established to oversee progress of the study. The Deputy-Director of BATS will chair the task force. Task Force members consist of BATS representatives, a health economist from the Knowledge Management Unit of the MOPH, civil society organization representatives, USCDC and UNAIDS.