

# CHAPTER 1

## Revitalizing HIV Prevention in Thailand

Chapter 1 provides the background and rationale for revitalizing HIV prevention in Thailand and outlines the objectives and conceptual framework. Finally, it describes the structure of subsequent chapters.

### **1. Thailand’s HIV/AIDS epidemic**

Data compiled from the 2007 HIV infection surveillance system concludes that the present epidemic dynamic has evolved from a generalized to a combined generalized and concentrated epidemic. The trend of HIV prevalence in military conscripts and clients of antenatal care (ANC) clinics reached a peak at 3.40% and 2.29% in 1995 and 1992 respectively, and reduced to a plateau of 0.40% and 0.84% in 2007 and 2006 respectively [UNGASS Thailand country report 2008].

The increasing trend of HIV prevalence in ANC clients at second and third pregnancies indicates that infections are spreading more deeply in families in general, and may remain at relatively high levels going forward.

For other groups, HIV prevalence has declined with the notable exception of IDUs and MSM. Data from ad hoc studies indicates linkages of infection among the most-at-risk populations including sex workers (SWs), MSM, and IDUs.

There is a continued downward trend of HIV prevalence in female sex workers and male sex workers at STI clinics, excluding Bangkok where the prevalence in male STI clinic clients has not declined. Despite the decline of HIV among IDUs in the North, overall prevalence remains high, with increasing trends in Bangkok and the central region.

Regional epidemic trends are most improved in the North, and lagging behind in the South.

The PMTCT policy and its implementation with high coverage could obviously reduce infections in children. In 2003, vertical transmission was at 6.4% before declining to 1.0% in 2006.

Estimates from the computer modelling software were applied to Thailand in 2000 (the Asian Epidemic Model - AEM). The HIV epidemiological database was updated in 2005. When controlling for the level of prevention efforts it was found that in 2007 the number of new infections was estimated at 13,936. This number is projected to decline to 10,097 in 2011. The total cumulative number of PLHA is expected to decline from 546,578 in 2007 to 481,770 in 2011.

Based on the above estimates (2007-2011), the proportion of new infections by population group and risk behaviour revealed that new infections in women infected by their husbands or sexual partners, and in MSM, are higher than through other routes of transmission.

This prompts two policy interventions: (a) identification and prevention of infections among discordant couples and (b) better effective interventions for MSM and IDUs.

## 2. Expenditure on HIV/AIDS

IHPP and its partner agencies in the BATS-MOPH, National Economic and Social Development Board, National Health Security Office, and NGOs estimated the total expenditure on HIV/AIDS, for 2007 as part of the UNGASS 2008 report.

**Table 1.1:** Background data on healthcare financing, Thailand 2007

	2007
Population	64,197,000
THE / capita, Baht	3,876
THE/ capita, US\$	115

In 2007, Thailand spent 3,876 Baht per capita, or US\$ 115 per capita (exchange rate 33.7 Baht per US\$), on healthcare, see Table 1.1.

**Table 1.2:** Total AIDS expenditure, 2007

	<b>2007</b>
Total AIDS expenditure, Baht	6,728,020,682
Forecast Total Health Expenditure, (THE) Baht	248,852,400,000
<b>Total AIDS expenditure 2007, as</b>	
• per capita population, Baht	105
• per capita PLHA, Baht	11,600
• % GDP	0.08%
• % THE	2.7%

In 2007, total expenditure on HIV/AIDS was 6.728 billion Thai Baht. This is equivalent to 105 Baht per capita Thai population, or 11,600 Baht per capital PLHA (given the total number of 580,000 PLHA). Total expenditure on HIV/AIDS accounted for 0.08% of GDP in 2007, or equivalent to 2.7% of Total Health Expenditure as shown in Table 1.2.

**Table 1.3:** Total expenditure on AIDS (TEA) by sources and functions, 2007

<b>Type of expenditure/Source of Finance</b>	<b>Total</b>	<b>%</b>	<b>Domestic</b>	<b>%</b>	<b>International</b>	<b>%</b>
1. Prevention Sub-total	949,855,219	14.1	490,291,815	7.3	459,563,404	6.8
2. Care and Treatment	4,830,371,045	71.8	4,523,505,501	67.2	306,865,544	4.6
3. Orphans and Vulnerable Children	101,296,773	1.5	91,780,000	1.4	9,516,773	0.1
4. Program Management						
Administration	655,446,352	9.7	337,516,200	5.0	317,930,152	4.7
Strengthening						
5. Incentive Human Resources	89,696,764	1.3	29,870,051	0.4	59,826,713	0.9
6. Social protection and social services excluding Orphans and vulnerable Children	3,326,045	0.0	-	0.0	3,326,045	0.0
7. Enabling Environment and community Development	51,050,284	0.8	45,293,000	0.7	5,757,284	0.1
8. Research excluding operational research	46,978,200	0.7	45,630,600	0.7	1,347,600	0.0
<b>Total</b>	<b>6,728,020,682</b>	<b>100.0</b>	<b>5,563,887,167</b>	<b>82.7</b>	<b>1,164,133,515</b>	<b>17.3</b>

In 2007, domestic public financing amounted to 82.7% of TEA, whereas international financing constituted 17.3% of TEA. This finding indicates better self-reliance on HIV/AIDS program financing, and the Royal Thai Government’s firm commitment to the Program.

In light of universal access to ART which was adopted by the Government in 2003, a lion share of TEA went to care and treatment (71.8%). Of this amount, ARVs and treatment for OI accounted for 92%. This was followed by HIV prevention at 14.1%, and program administration at 9.7%. See summaries in Table 1.3, and detailed expenditures across 8 large items in Table 1.4. A large share of expenditure on care and treatment would continue for some years, or would increase as a result of an introducing the more expensive 2<sup>nd</sup> line ART regimens when the first line failed. Approximately 10% per annum failed from the first line regimen.

**Table 1.4:** Total Expenditure on HIV/AIDS, by detail healthcare functions, 2007

Category of healthcare function	Baht	Percent
<b>1. Prevention Sub-total</b>	<b>949,855,219</b>	<b>14.1%</b>
1.1 Mass media	6,322,000	1%
1.2 Community mobilization	10,691,291	
1.3 Voluntary Counselling and Testing	185,240,000	20%
1.4 Program for Vulnerable and special Populations	115,147,373	12%
1.5 Youth in school	46,370,545	5%
1.6 Youth out of school	89,460,554	
1.7 Prevention Program for PLHA	3,764,561	0%
1.8 Programs for sex workers and their clients	9,248,564	1%
1.9 Programs for MSM	8,149,570	1%
1.10 Harm Reduction Programs for IDU	17,268,414	2%
1.11 Workplace activities	16,611,941	2%
1.12 Condom social marketing	20,220,000	
1.13 Public and Commercial sector condom provision	65,021,724	7%
1.14 Female condom	-	
1.15 Microbicides	-	
1.16 Improving management of STIs	2,465,000	0%
1.17 Prevention of mother-to-child transmission	119,348,682	13%
1.18 Blood safety	-	
1.19 Post-exposure prophylaxis	-	
1.20 Safe medical injections	-	
1.21 Male Circumcision	-	

Category of healthcare function	Baht	Percent
1.22 Universal Precautions	-	
1.99 Others / Not-elsewhere Classified	234,525,000	25%
<b>2. Care and Treatment (Sub-Total)</b>	<b>4,830,371,045</b>	<b>71.8%</b>
2.1 Outpatient care	-	
2.2 Provider initiate testing	-	
2.3 Opportunistic Infection (OI) Prophylaxis	3,441,282	0%
2.4 Antiretroviral therapy	3,155,178,114	65%
2.5 Nutritional Support	61,440,000	1%
2.6 Specific HIV Laboratory monitoring	134,583,187	3%
2.7 Dental Care	-	
2.8 Psychological care	4,342,136	
2.9 Palliative Care	-	
2.10 Home-based Care	12,975,848	
2.11 Additional / Informal provider	30,832,197	
2.12 In-patient Care	-	
2.13 Opportunistic Infection (OI) Treatment	1,283,171,998	27%
2.99 Others / Not-elsewhere Classified	144,406,283	3%
<b>3. Orphans and Vulnerable Children</b>	<b>101,296,773</b>	<b>1.5%</b>
3.1 Education	-	
3.2 Basic health care	2,947,661	
3.3 Family / Home support	-	
3.4 Community Support	6,569,112	
3.5 Administrative Cost	-	
3.99 Others / Not-elsewhere Classified	91,780,000	
<b>4. Program Management Administration Strengthening</b>	<b>655,446,352</b>	<b>9.7%</b>
4.1 Programme Management	368,954,802	
4.2 Planning and coordination	1,454,522	
4.3 Monitoring and Evaluation	50,910,637	
4.4 Operation Research	139,875,965	
4.5 Sero-Surveillance	6,750,000	
4.6 HIV drug- resistance surveillance	-	
4.7 Drug Supply systems	-	
4.8 Information technology	1,174,679	
4.9 Supervision of Personnel	-	
4.10 Upgrading Laboratory infrastructure	80,112,604	
4.11 Construction of new Health centres	-	
4.99 Others / Not-elsewhere Classified	6,213,143	
<b>5. Incentive Human Resources (Sub-total)</b>	<b>89,696,764</b>	<b>1.3%</b>
5.1 Monetary incentive for physicians	-	
5.2 Monetary incentive for nurses	-	
5.3 Monetary incentive for other staffs	-	

Category of healthcare function	Baht	Percent
5.4 Formative education and build-up of an AIDS Workforce	5,671,000	
5.5 Training	28,443,408	
5.99 Others / Not-elsewhere Classified	55,582,356	
<b>6. Social protection and social services excluding Orphans and vulnerable Children(sub-total)</b>	<b>3,326,045</b>	<b>0.05%</b>
6.1 Monetary Benefits	-	
6.2 In-Kind Benefits	-	
6.3 Social services	-	
6.4 Income generation	3,326,045	
6.99 Others / Not-elsewhere Classified	-	
<b>7. Enabling Environment and community Development</b>	<b>51,050,284</b>	<b>0.8%</b>
7.1 Advocacy and Strategic Communication	2,680,927	
7.2 Human Rights	3,250,000	
7.3 AIDS-specific institutional development	5,119,357	
7.4 AIDS - specific program involving woman	-	
7.99 Others / Not-elsewhere Classified	40,000,000	
<b>8. Research excluding operational research (sub-total)</b>	<b>46,978,200</b>	<b>0.7%</b>
8.1 Biomedical Research	28,561,700	
8.2 Clinical Research	17,068,900	
8.3 Epidemiological Research	-	
8.4 Social science research	-	
8.5 Behavioural research	1,347,600	
8.6 Research in economics	-	
8.7 Research capacity strengthening	-	
8.8 Vaccine related research	-	
8.99 Others / Not-elsewhere Classified	-	
<b>GRAND TOTAL</b>	<b>6,728,020,682</b>	<b>100%</b>

### 3. Revitalizing HIV prevention

In the context of universal access to HIV treatment, a large part of the expenditure on AIDS goes to ART and OIs leaving a small amount for prevention. It is therefore important to identify and assess the main weaknesses in the HIV prevention program, and develop strategies and investment to revitalize and improve HIV prevention efforts in order to reduce the number of new infections.

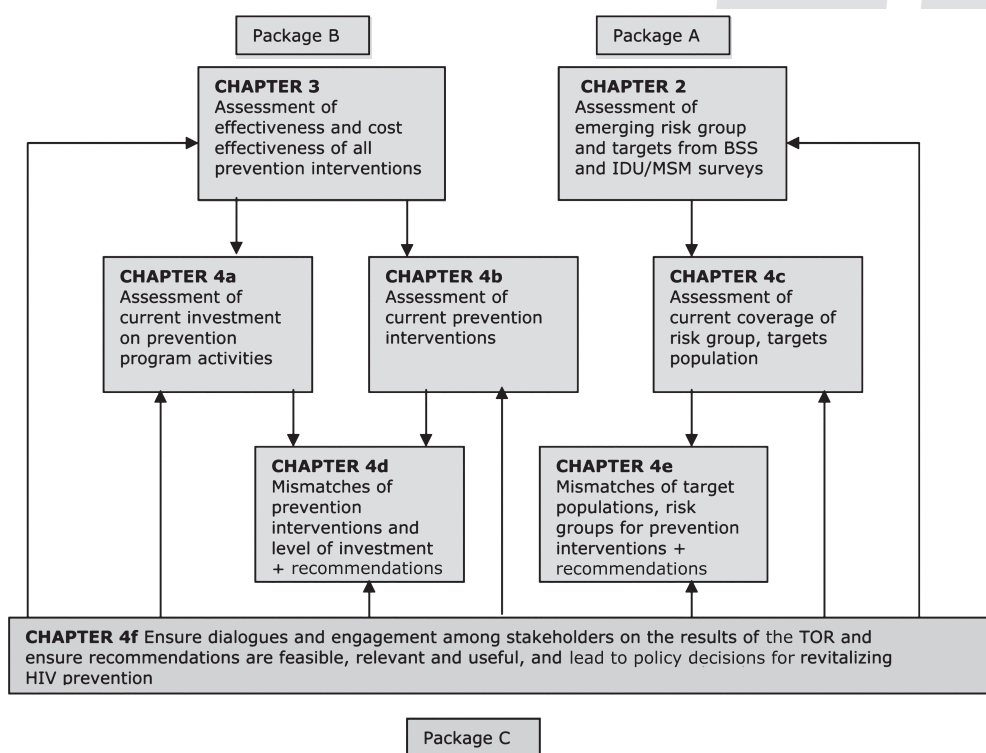
To achieve this, the International Health Policy Program, jointly with other partners, drafted the Terms of Reference (TOR). The TOR was discussed with the World Bank team consisting of Dr David Wilson, Dr Toomas Palu, and Dr Sutayut Osornprasop in late 2007 and early 2008 through several

rounds via teleconference and email exchanges. It was finalized according to the objectives agreed upon by the World Bank and IHPP.

### 3.1 Objectives

- The objectives were: to assess the changing trends of HIV risk behaviour across population groups
- to identify the strengths and deficiencies of HIV prevention and ensure effective policy dialogue with the National AIDS Committee
- to reorient prevention efforts
- to provide policy recommendations on how to sustain the strengths and minimize programmatic deficiencies

### 3.2 Conceptual framework



**Figure 1.1:** Conceptual framework of the study

### 3.3 Terms of reference of this study

To achieve the goal of revitalizing HIV prevention, the following work is proposed:

## CHAPTER 2

Chapter 2 reviews and updates HIV epidemiological profiles, trends and changes in risk behaviour across different population groups. This involved a survey of the knowledge, attitude, practices and risk behaviours of these groups through the National Behavioural Surveillance System [NBSS]<sup>1</sup> shown in Table 1.5. This survey also covered IDUs and MSM and was as executed by Dr Wongsu Laohasiriwong. The IDUs and MSM survey tools applied a comprehensive and comparable behavioural questionnaire.

The data pool was male and female students from Grades 8 and 11 and factory workers in the 21-49 years bracket. This made it possible to look at changing sexual and risk behaviours among young adolescents over the past 12 years. A primary survey of IDUs and MSM will provide additional information for this group.

**Table 1.5:** National Behavioral Surveillance System, population coverage by rounds

Round	Survey dates	Pregnancies	Conscript 21 year men	Male female factor workers 15-29 yr.	General pop, male and female 15-49	Grade 11 male and female students	Grade 8 male and female students	Sex workers	Vocational schools male and female students
1	1995	X	X	X					
2-9	1996-2003	X	X	X		X			
10-	2004 to date	X	X		X	X	X	X	X

**Source:** synthesis from MOPH Bureau of Epidemiology <http://203.157.15.12/centeraids/bss.php> retrieved 19 March 2008

Sentinel sites cover 24 provinces

- o Central: 8 provinces including Nonthaburi, Pathumtani, Lopburi, Nakorn Nayok, Chacherngsao, Trad, Ratchaburi, Samut Songkram.
- o North: 6 provinces including Chiangrai, Lampoon, Tak, Sukhothai, Phrae, Phitsanulok.
- o Northeast: 6 provinces: Korat, Buriram, Srisaket, Ubon Ratchatani, Udon Tani, Sakhon Nakorn.
- o South: 4 provinces including Surat Thani, Pang Nga, Trang and Songkhla.

<sup>1</sup> The first round of HIV Behavioural Sentinel Survey was initiated by the MOPH in 1995, and has been sustained to date. The sentinel applied an annual repeated (every June) self administered questionnaire survey in 24 sentinel provinces covering population groups and expanding to cover more target groups in the 10<sup>th</sup> round in 2004.

Expected outcomes of chapter 2 are:-

1. A better understanding of the trends of HIV risk and risk protection behaviours across population groups, including young adolescents,
2. Identification of risk groups including MSM and IDUs

### **CHAPTER 3**

Chapter 3 reviews both global and Thai specific experiences of cost effective HIV/AIDS prevention interventions. It recommends a comprehensive list of preventive interventions that are likely to be effective and cost-effective in the Thai health systems context. The list includes interventions that are currently available in Thailand as well as new ones that have not been tried before.

Special attention will be paid to identifying information gaps at the national and international levels on the effectiveness and/or cost-effectiveness of HIV/AIDS prevention in general. This will cover specific population groups such as IDUs, MSM, school children and/or teenagers.

Expected outcomes of chapter 3 are:-

1. A list of preventive interventions that are neither effective nor cost ineffective
2. A list of effective or cost effective preventive interventions

### **CHAPTER 4**

The purpose of chapter 4 is to assess the nature of the current HIV/AIDS programmatic activities. The assessment will include coverage of target population groups (4c), effective coverage of interventions (4b), level of financial investment (from all sources: government, local governments and donors) in these activities (4a), and help to identify programmatic strengths and deficiencies.

When comparing results of the TOR with others, two types of mismatches were identified, mismatches in target population (4e) and in preventive interventions (4d).

- o We compared the current target population with the emerging target population as recommended in chapter 2, and were able to identify the gaps in target population (4e).
- o The current coverage of prevention interventions, when compared with interventions categorized by effectiveness or cost effectiveness, led to the identification of mismatches of program interventions (4d). See Figure 1.2.

Current coverage	Effective interventions and/or Cost effective interventions	
	Yes	No
High	A. Sustain high coverage of these interventions	B. Discourage and scale down these interventions
Low	C. Identification of demand and supply side bottle necks, rapid scale up of these interventions	D. Keep vigilance, not to initiate these interventions in prevention programs

**Figure 1.2:** Assessment of effectiveness and/or cost effectiveness of prevention interventions

High coverage of cost effective interventions should be sustained (Box A). Interventions which are cost effective but ineffective in coverage should be reviewed to identify demand and supply bottle necks, and prioritize actions to scale them up. See Box C.

Interventions classified in Box B should be discouraged and scaled down as they are not cost effective.

Findings from the various activities will provide the basis of consultations with key stakeholders (4f) such as the National AIDS Committee, government sectors, and non-government organizations. The stakeholder consultations would ensure ownership of the findings and translate evidence into policy decisions and reorientation of the HIV prevention program.

Expected outcomes of chapter 4 are:-

1. The identification of mismatches, strengths and deficiencies of prevention interventions.
2. Policy recommendations on which programs should be maintained, scaling up or down.