TUBERCULOSIS and HIV

A framework to address TB/HIV co-infection in the Western Pacific Region

World Health Organization
Regional Office for the Western Pacific

Tuberculosis and HIV

A framework to address TB/HIV co-infection in the Western Pacific Region

World Health Organization
Regional Office for the Western Pacific

WHO Library Cataloguing in Publication Data

Tuberculosis and HIV : A framework to address TB/HIV co-infection in the Western Pacific Region.

1. Tuberculosis --complications. 2. Acquired immunodeficiency syndrome. 3. HIV infection -- complications.

ISBN 92 9061 091 3 (NLM Classification: **WF 200)**

Table of contents

1 Introduction

The human immunodeficiency virus (HIV) has a dramatic impact on tuberculosis (TB) control in countries with a high burden of TB/HIV. At the same time, tuberculosis is not only the leading cause of death among people with the acquired immunodeficiency syndrome (AIDS), but also the most common curable infectious disease among people living with HIV/AIDS (PHA). This has led to the realization that additional interventions are urgently needed to augment the WHO-recommended DOTS strategy for TB control. Tackling tuberculosis should include tackling HIV as the most potent force driving the tuberculosis epidemic; tackling HIV should include tackling tuberculosis as a leading killer of PHA. The World Health Organization's (WHO) global response has been the development of the global framework for TB/HIV with the aim to reduce tuberculosis transmission, morbidity and mortality (while minimizing the risk of anti-tuberculosis drug resistance), as part of overall efforts to reduce HIV-related morbidity and mortality in high HIV prevalence settings. The global framework largely focuses on sub-Saharan Africa.

The rising number of HIV infections increasingly affects the TB prevalence in the Western Pacific Region (WPR), which carries up to one-third of the global TB burden. However, the TB/HIV problem has not yet reached epidemic proportions in most countries in the Region. Furthermore, the structure of the health service delivery system in many countries in the Region differs from the system in Sub-Saharan Africa. These considerations led the Stop TB and HIV/AIDS units in the WHO Western Pacific Regional Office to develop a Regional framework to address TB/HIV, fitting with the Region's epidemiological situation and health care setting.

This framework, which draws on the *Global strategic framework to reduce the burden of TB/HIV* [1] and on the *Guidelines for phased implementation of collaborative TB and HIV activities,* [2] was developed based on the following two premises. First, the National TB Programme (NTP) needs to address the impact of HIV, i.e. higher caseload of TB and increasing drug-resistant TB, and to mobilize resources related to TB/HIV activities. Second, the National AIDS Programme (NAP) needs to prolong the life and reduce the suffering of PHA through better management of TB, and to mobilize resources for TB/HIV.

The Regional framework is built on the strengths of the individual National TB and AIDS Programmes, and identifies areas in which both programmes complement each other in addressing TB/HIV. This approach is considered useful, not only for countries with a relatively high prevalence of HIV, such as Cambodia, but also for most of countries in the Region that are faced with a relatively low prevalence of HIV. The scope of the Regional framework comprises interventions against tuberculosis (intensified case-

finding and cure and tuberculosis preventive treatment) and interventions against HIV (and therefore indirectly against tuberculosis), e.g. comprehensive prevention, care and support, including condoms, sexually transmitted infection (STI) treatment, safe injecting drug use (IDU) and antiretroviral (ARV) treatment. Key components of the Regional framework are: surveillance; diagnosis and referral, including voluntary counselling and testing (VCT) for HIV; interventions; and, areas of collaboration.

The framework outlines the roles of the individual TB and HIV/AIDS programmes (i.e. "who does what") and provides examples of how to operationalize the different components.

2 Background

2.1 TB/HIV Epidemiology

TB

TB is still a major health problem in the Region. Cambodia, China, the Philippines and Viet Nam are four of the 22 countries with the highest burden of TB in the world. It was estimated that the incidence of tuberculosis in the Region was 1 975 000 in 2000, of whom 860 000 were smear-positive. In total, 804 579 cases (all types) and 384 755 smear-positive cases were notified for 2000. Regional case notification rates per 100 000 population were 49 (all types) and 23 (smear-positive). Therefore, the case detection rate was 41% (all cases) and 45% (smear-positive). The latest notification of TB in countries with a high and intermediate TB prevalence is shown in Table 1.

Table 1 TB notification in countries with a high and intermediate prevalence of TB in the Western Pacific Region, 2002

	Pop.	TB case notification, 1995 - 2001					Case notification, 2002			
	(x 1000)	All cases (Number*)					Number		Rate/100 000	
							All	New	All	New
Countries	2002	1997	1998	1999	2000	2001	Types*	Sm +ve	Types*	Sm +ve
Countries with a high burden of TB:										
Cambodia	13 810	15 629	16 946	19 266	18 891	19 170	24 610	17 258	178	125
China	1 294 867	448 053	464 559	471 359	463 373	485 221	462 609	194 972	36	15
Lao People's Democratic Republic	5 529	1923	2153	2434	2234	2 382	2 621	1 829	47	33
Mongolia	2 559	2987	2915	3348	3109	3 526	3 829	1 670	150	65
Papua New Guinea	5 586	7977	11 291	12 189	12 121	3 470	5 324	926	95	17
Philippines	78 580	195767	162 360	145 807	128 495	107 133	118 408	65 148	151	83
Viet Nam	80 278	77 938	87 468	88 879	89 792	90 679	95 577	56 811	119	71
Sub-total	1 481 209	750 274	747 692	743 282	718 015	711 581	712 978	338 614	776	
Countries with an intermediate burden of TB:										
Brunei	350	149	198	267	307	216	221	112	63	32
Hong Kong (China)	6 981	7072	7673	7512	5141	7 262	6 608	1 890	95	27
Japan	127 478	42 190	44 016	40 800	39 384	35 489	32 828	10 807	26	8
Macao	460	575	465	422	449	465	388	147	84	32
Malaysia	23 965	13 539	14 115	14 908	15 057	14 830	14 389	7 958	60	33
Republic of Korea	47 430	33 215	34 661	32 075	21 782	37 268	34 967	11 345	74	24
Singapore	4 183	1977	2120	1805	1728	1 536	1 516	549	36	13
Sub-total	210 847	98 717	103 248	97 789	83 848	97 066	90 917	32 808	438	169
WPR TOTAL	**1 692 056**	**834 722**	**839 121**	**843 990**	**804 579**	**808 647**	**825 603**	**393 130**	**48**	**23**

* 'all types' includes new smear-positive, relapse, smear-negative and extra-pulmonary TB cases

HIV/AIDS

An overwhelming share of the global HIV burden is borne by low- and middle-income countries, where 95% of HIV-infected people live. Of the global total of 40 million people living with HIV/AIDS at the end of 2001, 28.1 million (70%) were in SubSaharan Africa followed by 7.1 million (18%) in Asia. In 2001 alone, an estimated 1.07 million adults and children were newly infected in Asia.[3] WHO estimates that nearly 1 million adults and children are living with HIV/AIDS in the Region. The HIV estimates for selected countries in the Region are shown in Table 2.

Table 2 HIV estimates in countries with high, low and declining incidence (2002)

Country/area	Estimated HIV prevalence (age 15-49)	Estimated HIV prevalence rate (age 15-49) (%)
Countries with high HIV incidence: primarily heterosexual transmission		
Cambodia	157 500	2.56
Papua New Guinea	16 000	0.64
Countries with high HIV incidence among injecting drug users and increasing heterosexual HIV transmission		
China	1 000 000	0.14
Viet Nam	130 000	0.30
Countries with low HIV incidence		
Hong Kong (China)	2 600	0.06
Japan	10 000	0.02
Republic of Korea	3 800	0.02
Lao People's Democratic Republic	1 400	0.06
Malaysia	41 000	0.35
Philippines	6 000	0.02
Singapore	3 400	0.15
Countries with declining HIV incidence		
Australia	12 000	0.12
New Zealand	1 200	0.06
Total	**1 384 900**	