

"TB/HIV Monitoring and Evaluation"

This talk will introduce the WHO PEPFAR UNAIDS agreed revision of TB/HIV collaborative indicator guide HIV recording and reporting for HIV/TB

Christian Gunneberg M.O. STB
World Health Organisation, Geneva



From Mekong to Bali:

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB:HIV

I will address

- The revision of the TB HIV indicators
- The case for better integration of TB and HIV monitoring,
- How collaborative TB HIV activities have led to the revision of global estimates



From Mekong to Bali:

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB HIV

2004 guide to Collaborative TB HIV activities

Collaborative TB/HIV activities

A. Establish the mechanism for collaboration

- A.1. TB/HIV coordinating bodies
- A.2. HIV surveillance among TB patient
- A.3. TB/HIV planning
- A.4. TB/HIV monitoring and evaluation

Joint HIV and TB

B. To decrease the burden of TB in PLHIV

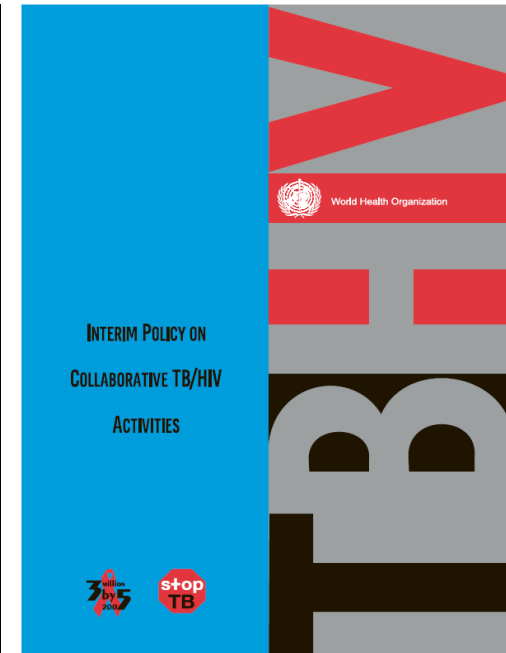
- B.1. Intensified TB case finding
- B.2. Isoniazid preventive therapy
- B.3. TB infection control in health care and other settings

HIV programme

C. To decrease the burden of HIV in TB patients

- C.1. HIV testing and counselling
- C.2. HIV preventive methods
- C.3. Cotrimoxazole preventive therapy
- C.4. HIV/AIDS care and support
- C.5. Antiretroviral therapy to TB patients.

TB programme



From Mekong to Bali:

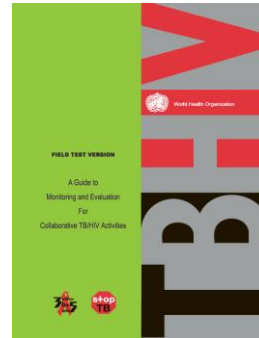
The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB:HIV

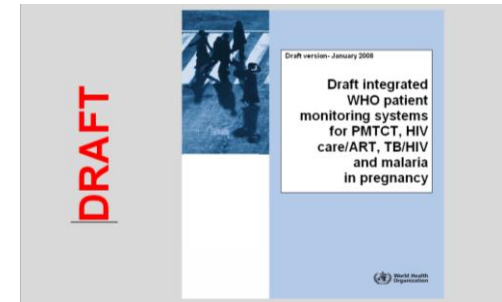
Revision of TB/HIV indicators

- **Issues:**

Original M&E guide 2004



**Revision of WHO TB and HIV R&R
include TB/HIV data**



- **PEPFAR and UNGASS have own indicators**
- **Indicator harmonisation needed for countries**
- **Global Fund wanted to update their M&E toolkit**



From Mekong to Bali:

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB:HIV

Harmonized indicators for the HIV/TB

A guide
to
monitoring
and evaluation
for
collaborative
TB/HIV
activities



- **Revised** TB/HIV indicator guide
- **Harmonized**
 - WHO, UNAIDS, GLOBAL FUND, & PEPFAR
- **Aligned** with WHO generic recording and reporting formats
- **Essential** for monitoring of 3 Is
- **New**
 - 13 instead of 20 indicators
 - 2 Infection control indicators

from Mekong to Bali:

Harmonized TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB:HIV



Summary of indicators measured in TB care settings

Indicator and definition	What to measure
Indicator C.1.1 Percentage of TB patients who had HIV status recorded in the TB register. % HIV STATUS KNOWN	<i>Numerator:</i> Number of TB patients registered during the reporting period who had an HIV test result a recorded in the TB register. <i>Denominator:</i> Total number of TB patients registered during the reporting period.
Indicator C.1.2.1 Number of registered TB patients with documented HIV status on TB register who expressed as a proportion of patients with documented HIV status over the reporting period. % HIV +ve	<i>Numerator:</i> Total number of all TB patients registered over the reporting period with documented HIV-positive status. <i>Denominator:</i> Total number of TB patients registered during the reporting period with a documented HIV status.
Indicator C.2.1 Number of TB patients registered in TB register who expressed as a proportion of HIV-positive TB cases countrywide each year. TB/HIV CASE DETECTION	<i>Numerator:</i> Total number of all TB patients registered over the reporting period with documented HIV-positive status. <i>Denominator:</i> Estimated number of incident TB cases in people living with HIV.
Indicator C.2.2 Number of TB facilities where free condoms are available for a proportion of all TB patients. FREE CONDOMS	<i>Numerator:</i> Total number of TB facilities (any health facility where TB patients are managed) where free condoms are available (in stock) and accessible. <i>Denominator:</i> Total number of TB facilities evaluated.
Indicator C.3.1 Number of HIV-positive TB patients who continue previously initiated CPT treatment expressed as a proportion of HIV-positive TB patients registered. CPT PROVISION	<i>Numerator:</i> Number of HIV-positive TB patients, registered over the reporting period, starting or continuing CPT treatment during their TB treatment <i>Denominator:</i> Total number of HIV-positive TB patients registered during the reporting period.
Indicator C.4.1 Number of HIV-positive TB patients who are enrolled in HIV care services during their TB treatment, expressed as a proportion of HIV-positive TB patients registered during the reporting period. % TB/HIV in HIV CARE	<i>Numerator:</i> Number of HIV-positive TB patients, registered over the reporting period, who are enrolled in HIV care services during their TB treatment. <i>Denominator:</i> Total number of HIV-positive TB patients registered during the reporting period.
Indicator C.5.1 Number of HIV-positive TB patients who receive ART (are started on or continue previously initiated ART) expressed as a proportion of HIV-positive TB patients registered during the reporting period. ART PROVISION	<i>Numerator:</i> All HIV-positive TB patients, registered over the reporting period, who receive ART (are started on or continue previously initiated ART). <i>Denominator:</i> Total number of HIV-positive TB patients registered during the reporting period.

a This should include those TB cases previously known to be HIV-positive (e.g. documented evidence of enrolment in HIV care services (e.g. done in the past 3–6 months in a reliable laboratory).



Summary of indicators measured in HIV care settings

A guide to monitoring and evaluation for collaborative TB/HIV activities



UNAIDS



Indicator and definition	What to measure
<p>Indicator B.1.1 Number of adults and children enrolled in HIV care whose TB status was assessed and recorded during their last visit during the reporting period, expressed as a proportion of all adults and children enrolled in HIV care and seen for care in the reporting period.</p>	<p><i>Numerator:</i> Number of adults and children enrolled in HIV care whose TB status was assessed and recorded during their last visit during the reporting period.</p> <p><i>Denominator:</i> Total number of adults and children enrolled in HIV care and seen for care in the reporting period.</p>
<p>Indicator B.1.2.1 Number of adults and children enrolled in HIV care who started TB treatment, expressed as a proportion of adults and children enrolled in HIV care during the reporting period.</p>	<p><i>Numerator:</i> The number of adults and children in enrolled in HIV care who started TB treatment during the reporting period.</p> <p><i>Denominator:</i> Number of adults and children enrolled in HIV care during the reporting period.</p>
<p>Indicator B.1.2.2 Percentage of estimated HIV-positive incident TB cases that received treatment for TB and HIV.</p>	<p><i>Numerator:</i> Number of adults with advanced HIV infection who received antiretroviral combination therapy in accordance with the nationally approved treatment protocol (or WHO/UNAIDS standards) and who were started on TB treatment (in accordance with NTP guidelines) within the reporting year.</p> <p><i>Denominator:</i> Estimated number of incident TB cases in people living with HIV</p>
<p>Indicator B.2.1 Number of adults and children newly enrolled in HIV care, who are started on treatment for latent TB infection, isoniazid preventive therapy, expressed as a proportion of the total number of adults and children newly enrolled in HIV care during the reporting period.</p>	<p><i>Numerator:</i> Total number of adults and children newly-enrolled in HIV care who start (given at least one dose) isoniazid preventive therapy during the reporting period.</p> <p><i>Denominator:</i> Total number of adults and children newly enrolled in HIV care over the reporting period.</p>
<p>Indicator B.3.1 Number of health-care facilities providing services for people living with HIV, with demonstrable infection control practices that include TB control, expressed as a proportion of the total number of health-care facilities evaluated.</p>	<p><i>Numerator:</i> Number of health-care facilities with demonstrable infection control practices that include TB control that are consistent with international guidelines.</p> <p><i>Denominator:</i> Total number of health-care facilities evaluated. (Also give the total number of each type of facility nationally to indicate the percentage evaluated.)</p>
<p>Indicator B.3.2 Number of health-care workers employed in facilities providing care for people living with HIV who develop TB in one year, expressed as a proportion of the total number of health-care workers employed in facilities providing care for people living with HIV during that same year.</p>	<p><i>Numerator:</i> Number of health-care workers employed in HIV care facilities who develop TB in one year.</p> <p><i>Denominator:</i> Total number of health-care workers employed in HIV care during that same year.</p>

TB STATUS AT LAST VISIT

STARTED TB TREATMENT

CASE DETECTION (UNGASS 6)

NEWLY ENROLLED ON IPT

INFECTION CONTROL PRACTICES

HEALTH WORKERS WITH TB

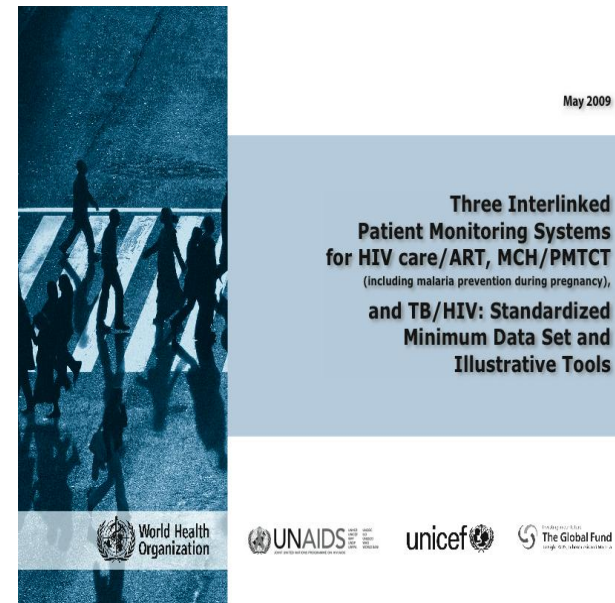


Revision of HIV recording and reporting formats to measure TB/HIV indicators

AIMS: report on

- TB status assessment
- TB treatment provision
- IPT provision

- On HIV patient forms
- On HIV Pre ART & ART Registers
- On quarterly cross-sectional reporting forms



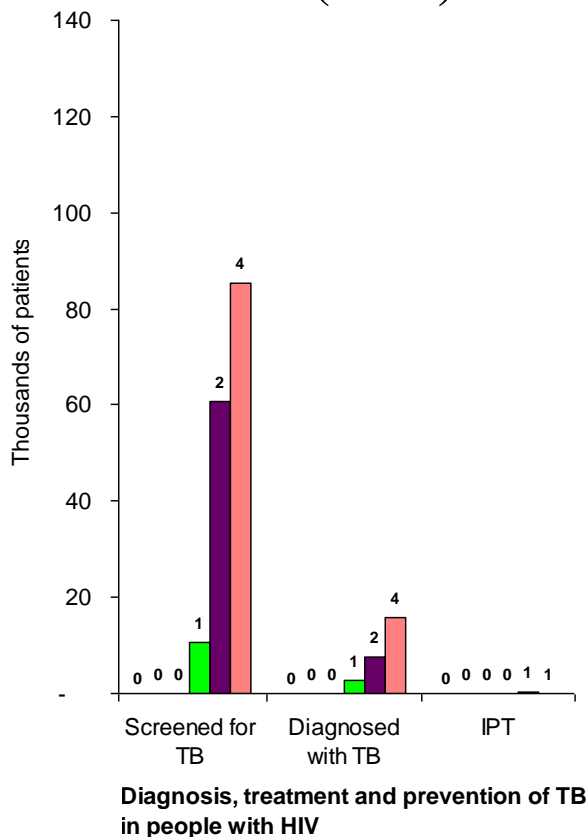
From Mekong to Bali:

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

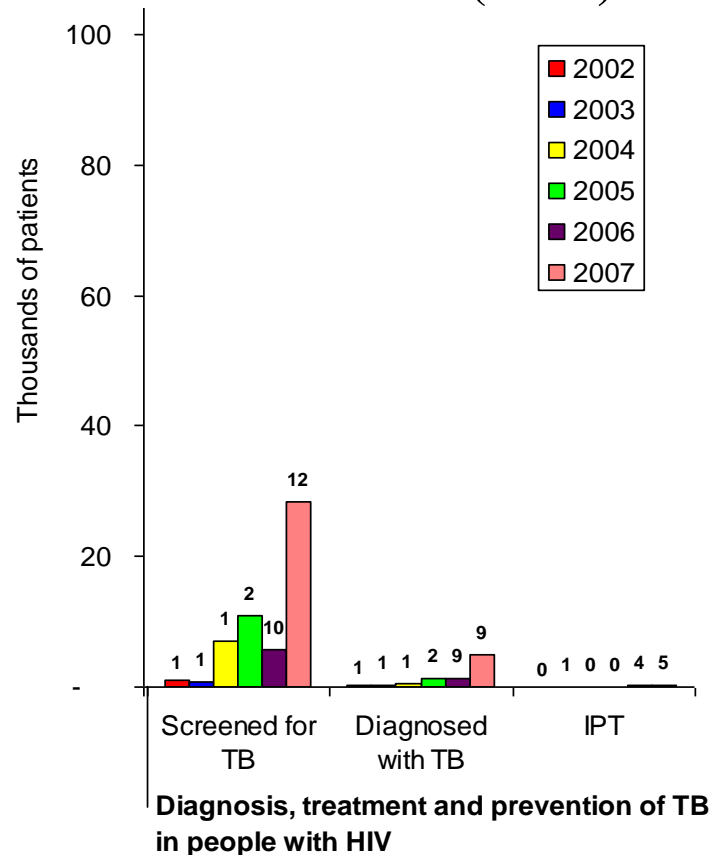
TB/HIV

Progress in TB/HIV indicator reporting by HIV programmes in Asia Pacific

**South East Asia Region
(of 11)**



**Western Pacific Region
(of 36)**



From Mekong to Bali.

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia



PRE/ART registers already contain TB tx and IPT columns

- Adjust to record month year & TB registration numbers

5. Pre-ART register

Registration								Fill when applicable			Clinical stage (check)				PMTCT				ART		
Date enrolled in chronic HIV care	Unique ID no.	Patient clinic ID no.	NAME IN FULL Upper space: surname Lower space: given name	Sex	Age	Address	Status at enrolment (record TI if transfer in)	CTX Start Month/year	INH Start Month/year	TB Rx Start Month/year and TB reg #	1	2	3	4	For each pregnancy, record EDD, ANC # and HIV-exposed infant #				Date medically eligible for ART	Date ART started (transfer to ART register)	
															HSA 1	HSA 2	HSA 3	HSA 4			



From Mekong to Bali:
The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia



Pre-ART register: TB status follow up

5. Pre-ART register

Quarterly follow-up status																							
Top row: CD4 - record last CD4 in quarter → - did not have visit scheduled for that quarter LOST - not seen in last quarter, but scheduled for a visit TO - Transferred out (record to where) DEAD - Record date																							
Bottom row: Y/N - TB status completed at last visit in last quarter																							
Year: 2008				Year: 2009				Year: 2010				Year: 2011				Year: 2012				Year: 2013			
Q1 Jan-Mar	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec



From Mekong to Bali:
The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia



ART Registers

TB status at last visit.

6. ART register

Year Write in month	Write in month													
Month 0	Month 1	2	3	4	5	6			7	8	9	10	11	12

Adult 1st-line regimens:
 1a = d4T-3TC-NVP
 1b = d4T-3TC-EFV
 1c = AZT-3TC-NVP
 1d = AZT-3TC-EFV
 1e = ...
 1f = ...

Child 1st-line regimens:
 4a = d4T-3TC-NVP
 4b = d4T-3TC-EFV
 4c = AZT-3TC-NVP
 4d = AZT-3TC-EFV
 4e = ...
 4f = ...

Adult 2nd-line regimens:
 2a(250) = ABC-ddI(250)-LPV/r
 2a(400) = ABC-ddI(400)-LPV/r
 2b(250) = ABC-ddI(250)-SQV/r
 2b(400) = ABC-ddI(400)-SQV/r
 2c(250) = TDF-ddI(250)-LPV/r
 2c(400) = TDF-ddI(400)-LPV/r
 2d(250) = TDF-ddI(250)-SQV/r
 2d(400) = TDF-ddI(400)-SQV/r
 2e = ...
 2f = ...

Child 2nd-line regimens:
 5a = ABC-ddI-LPV/r
 5b = ABC-ddI-NFV
 5c = ABC-ddI-SQV/r
 5d = ...
 5e = ...

Follow-up status at end of each month:
 On treatment (current regimen abbreviation)
DEAD
STOPped ART (continued on other care)
LOST (missed drug pick-up)
DROP (lost to follow-up), not seen 3 months from last missed appointment
RESTART
 Transferred Out (TO) - if TO, transferred out to where
TB status at last visit during the month: Yes or No



From Mekong to Bali:
The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia



Cross-sectional quarterly report

Cross-sectional quarterly (or monthly) report form

Reporting period:	Year:
MOH or Project or Grantee:	Facility:
Location:	Country:

1. Pre-ART -- new and cumulative enrolled in HIV care			
	Cumulative number of persons ever enrolled in HIV care at this facility at end of the previous reporting period	New persons enrolled in HIV care at this facility during the reporting period	Cumulative number of persons ever enrolled in HIV care at this facility at end of the current reporting period
Males (>14 years)	a.	f.	k.
Females (>14 years)	b.	g.	l.
Boys (0-14 years)	c.	h.	m.
Girls (0-14 years)	d.	i.	n.
Total	e.	i	o.
Subset of those newly enrolled in HIV care			
Pregnant females		p.	
Started INH prophylaxis during the reporting period		q.	
Already enrolled in HIV care who transferred in from another facility during the reporting period		r.	
Subset of those cumulatively enrolled in HIV care			
Total number of persons who are enrolled and eligible for ART but have not been started on ART			s.

IPT

2. Pre-ART -- seen for HIV care during the reporting period	
	Total
Total	a.
Subset of those seen during the reporting period	
TB status completed at last visit	b.
TB treatment started during the reporting period	c.

TB SCREENING

TB TREATMENT

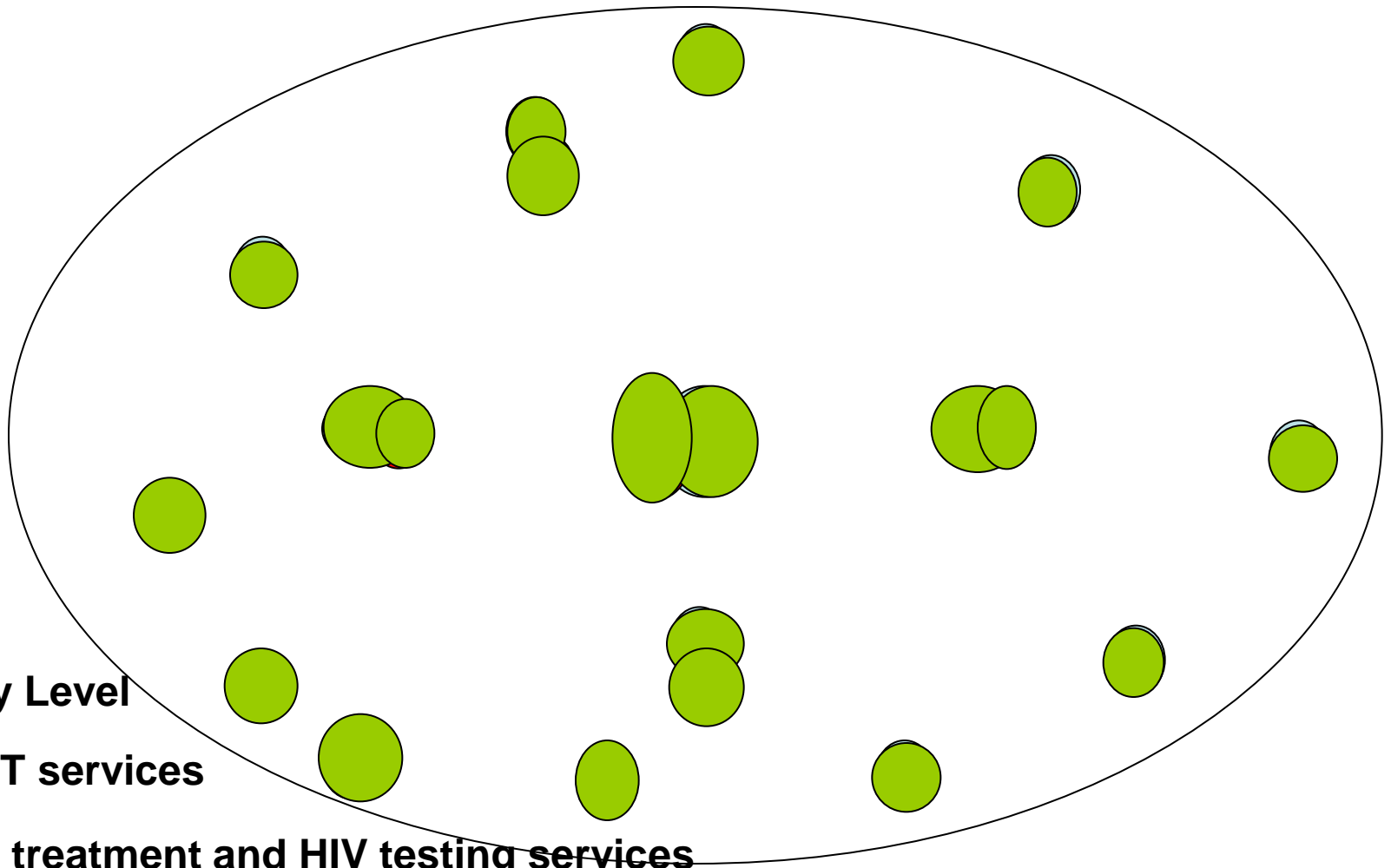


From Mekong to Bali:

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB/HIV

The HIV/TB M&E Challenge: Health facility implementation



Routine HIV testing of TB Patients & Revision of the TB/HIV Estimates



From Mekong to Bali:
The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB HIV

WHO recommendations 2007:

In all types of HIV epidemics,

health care providers should recommend HIV testing and counselling as part of the standard of care to:

– all adults, adolescents or children who present to health facilities with signs, symptoms or medical conditions **that could indicate HIV infection**. These include **tuberculosis** and other conditions specified in the WHO HIV clinical staging system.

http://whqlibdoc.who.int/publications/2007/9789241595568_eng.pdf



HIV/AIDS Programme

Strengthening health services to fight HIV/AIDS

GUIDANCE ON PROVIDER-INITIATED
HIV TESTING AND COUNSELLING
IN HEALTH FACILITIES



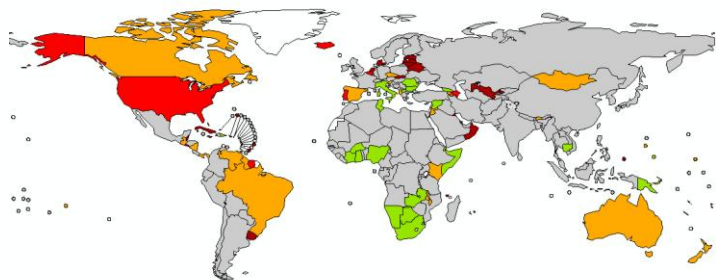
From Mekong to Bali:

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB:HIV

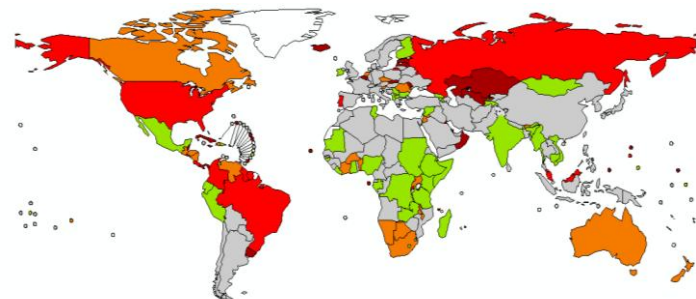
Progress of HIV testing for notified TB patients Global

2004



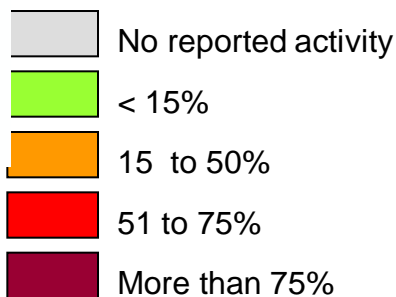
3%

2005

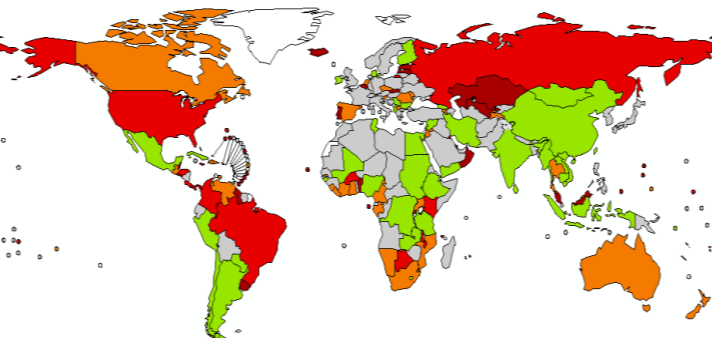


9%

Proportion of TB patients tested for HIV
Key

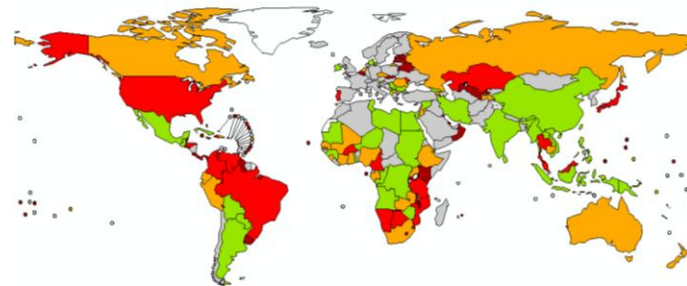


2006



12%

2007



16%



From Mekong to Bali:

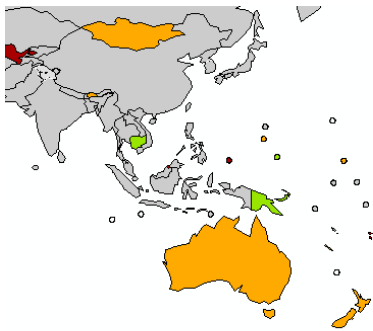
The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB/HIV

Progress of HIV testing for notified TB patients Asia Pacific (47)

2004

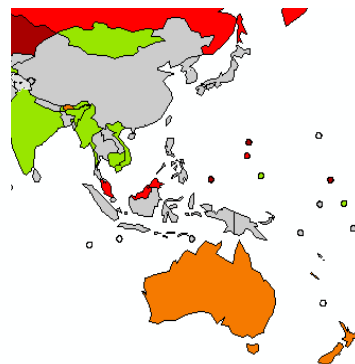
18



0.3%

2005

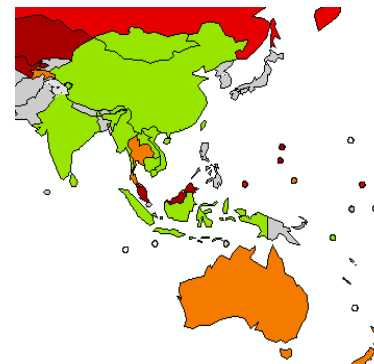
22



1.9%

2006

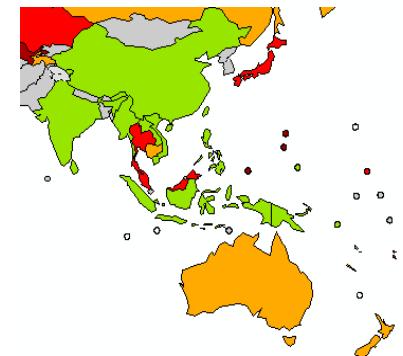
27



3.7%

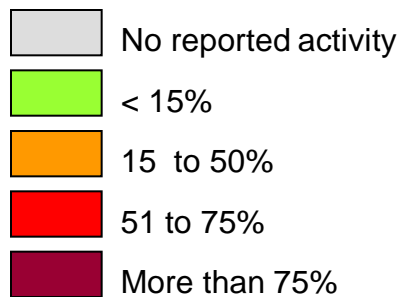
2007

29



6.0%

Proportion of TB patients tested for HIV
Key



**0.2 of 3.1 million notified TB patients
were tested in ASIA PACIFIC REGION in 2007**



ASIA PACIFIC 2007

Proportion of TB patients with known HIV status

<i>Country</i>	<i>Proportion TB patients with HIV status know 2007</i>	<i>Proportion of estimated TB HIV cases reported as detected in 2007</i>
Thailand	69%	49%
Japan	64%	60%
Malaysia	60%	37%
Australia	41%	37%
Cambodia	39%	53%
Viet Nam	15%	5%
Lao PDR	11%	53%
Sri Lanka	6%	21%
India	5%	9%
China	3%	5%
Myanmar	2%	10%
Papua New Guinea	1%	1%
Indonesia	0.10%	1%
Philippines	0.03%	0%



From Mekong to Bali:

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB:HIV

HIV testing and treatment, 2007

Region	TB patients tested for HIV, thousands (%)	% of tested TB patients HIV +	% of identified TB patients on CPT	% of identified TB patients on ART
AFR	492 (37)	51	66	29
AMR	114 (49)	13	36	77*
EMR	4.2 (1.1)	12	35	65*
EUR	169 (35)	2.5	52	16
SEAR	122 (5.5)	15	37	17
WPR	95 (6.6)	7	45	28
Global	996 (16)	30	63	30

Access to ART is very low and showed regional variation



From Mekong to Bali:

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB:HIV

64 countries with empirical data in 2007

- From national surveys of HIV in TB
 - 7 countries (up from 2 last year)
- From sentinel surveillance systems
 - 8 countries
- From routine testing (where tested / new cases greater than 50%)
 - 49 countries (up from 13 last year)



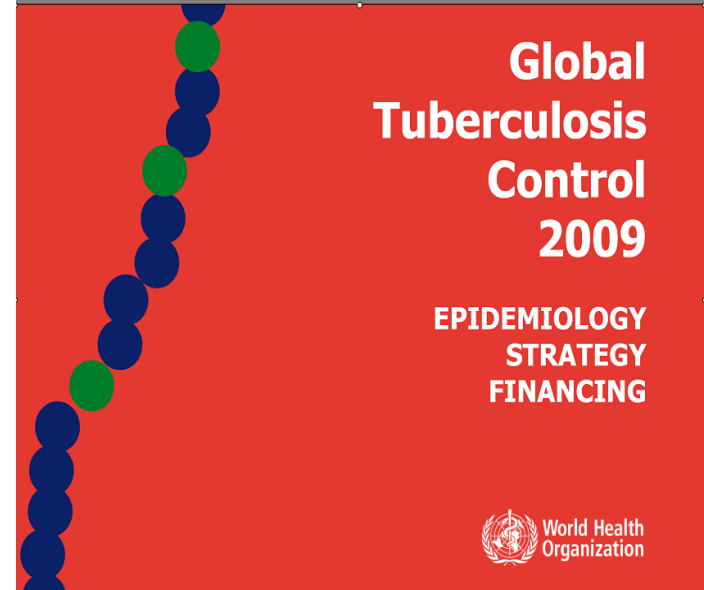
From Mekong to Bali:

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB:HIV

TB HIV estimates

What has changed?



- **Significant upward revision**

in 2007 HIV-TB estimates:

Better direct data

- **Number of cases double**

- **1.37m** incident TBHIV cases in 2007,
Previous estimate (2006): **0.7m**

- **Number of deaths double**

- **23%** of estimated HIV deaths in 2007 had TB
456,000 TBHIV deaths / 2m HIV deaths



From Mekong to Bali:

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB HIV

Conclusion and next steps

- Collaborative activities have improved surveillance
- Need to enhance TB HIV M&E
 - HIV testing of TB patients
 - TB analysis from HIV registers
 - e.g. better TB surveillance data from HIV care



From Mekong to Bali:

The scale up of TB/HIV collaborative activities in Asia-Pacific, August 8-9, 2009 Denpasar, Bali, Indonesia

TB HIV