

# World Health Organization HIV/TB Facts 2011

**Note:** The facts and figures of the HIV/TB Facts 2011 are drawn from WHO HIV and TB surveillance data from 2010 and 2009, as referenced below.

## Why is tuberculosis a serious health risk for people living with HIV?

The risk of developing tuberculosis (TB) is estimated to be between 21-34 times greater in people living with HIV than among those without HIV infection.<sup>1</sup>

In 2010:

- There were 8.8 million new cases of TB, of which 1.1 million (13%) were among people living with HIV
- Of the 1.1 million people who died from TB 350,000 (24%) were living with HIV<sup>2</sup>.
- There were 34 million people living with HIV with 2.6 million becoming newly infected with HIV.
- Of the 1.8 million HIV-related deaths in 2010, 350,000 were due to TB<sup>3</sup>.

The *Three I's for HIV/TB* (Intensified case finding for TB , Isoniazid preventive therapy, and Infection control) will reduce the burden of TB among people living with HIV and therefore must be urgently implemented by all HIV services. People living with HIV need early diagnosis and treatment of active TB disease. If TB is not present, they should receive Isoniazid preventive therapy (IPT). The treatment should be free of charge and is not expensive for the health system.

- Of the 1.5 million people reported to have newly enrolled in HIV care in 2010, just 12% (almost 180,000) were put on isoniazid preventive therapy (IPT).

With 24% of all TB deaths being associated with HIV, 13% of new TB cases being among people living with HIV, and 22% of HIV- related deaths caused by TB, TB represents a serious health risk and is a leading cause of morbidity and mortality among people living with HIV.

<sup>1</sup> Guidelines for intensified tuberculosis case finding and isoniazid preventive therapy for people living with HIV in resource-constrained setting. World Health Organization, 2011. <sup>2</sup> Global tuberculosis control report. World Health Organization, 2011. □ <sup>3</sup> UNAIDS 2010 Global Report Fact Sheet. □

<sup>4</sup> Getahun H et al., Development of a standardized screening rule for tuberculosis in people living with HIV in resource constrained setting: individual patient data meta-analysis. PLoS Medicine. January 2011 Volume 8. Issue 1. <sup>5</sup> Towards universal access: Scaling up priority HIV/AIDS interventions in the health sector: Progress Report 2010.

### **In 2010 how many new TB cases were among people living with HIV?**

In 2010 there were 8.8 million new cases of TB<sup>2</sup>.

- Of the 8.8 million new cases 1.1 million (13%) were among people living with HIV<sup>2</sup>.

- Of the 1.1 million new TB cases among people living with HIV, 910,000 (76 %) were concentrated in the African region and 180,000 (14%) in the South East Asian region.

### **In 2010 how many HIV-associated TB deaths were there?**

In 2010 1.1 million people died from TB<sup>2</sup>

- Of the 1.1 million deaths, 350,000 (20%) were among people living with HIV<sup>2</sup>

- Of the 1.8 million deaths among people living with HIV, 350,000 (22%) died from TB.

### **What are the WHO recommended HIV/TB collaborative activities to address the dual epidemic?**

The HIV pandemic presents a significant challenge to the control of TB and TB is also one of the leading causes of morbidity and mortality among people living with HIV. WHO recommends the implementation of collaborative HIV/TB activities to decrease the burden of HIV/TB. The *Three I's for HIV/TB* is part of this over-arching policy framework

(<http://www.who.int/hiv/pub/tb/tbhiv/en/index.html>)

<sup>1</sup> Guidelines for intensified tuberculosis case finding and isoniazid preventive therapy for people living with HIV in resource-constrained setting. World Health Organization, 2011. <sup>2</sup> Global tuberculosis control report. World Health Organization, 2011. <sup>3</sup> UNAIDS 2010 Global Report Fact Sheet. <sup>4</sup>

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## **WHO 12 recommended collaborative TB/HIV activities**

### **A. Establish and strengthen the mechanisms for delivering integrated TB and HIV services**

- A.1. Set up and strengthen a coordinating body for collaborative TB/HIV activities functional at all levels
- A.2. Determine HIV prevalence among TB patients and TB prevalence among people living with HIV
- A.3. Carry out joint TB/HIV planning to integrate the delivery of TB and HIV services
- A.4. Monitor and evaluate collaborative TB/HIV activities

### **B. Reduce the burden of TB in people living with HIV and initiate early antiretroviral therapy (*the Three I's for HIV/TB*)**

- B.1. Intensify TB case-finding and ensure high quality antituberculosis treatment
- B.2. Initiate TB prevention with Isoniazid preventive therapy and early antiretroviral therapy
- B.3. Ensure control of TB Infection in health-care facilities and congregate settings

### **C. Reduce the burden of HIV in patients with presumptive and diagnosed TB**

- C.1. Provide HIV testing and counselling to patients with presumptive and diagnosed TB
- C.2. Provide HIV prevention interventions for patients with presumptive and diagnosed TB
- C.3. Provide co-trimoxazole preventive therapy for TB patients living with HIV
- C.4. Ensure HIV prevention interventions, treatment and care for TB patients living with HIV
- C.5. Provide antiretroviral therapy for TB patients living with HIV

### **The WHO *Three I's for HIV/TB***

In addition to initiating earlier antiretroviral therapy (ART), WHO recommends the implementation of the *Three I's for HIV/TB* to reduce the burden of TB among people living with HIV: intensified TB case finding, isoniazid preventive therapy, and infection control for TB. The two below documents contain the WHO recommendations on the *Three I's for HIV/TB*:

- Guidelines on intensified tuberculosis case finding and isoniazid preventive therapy for people living with HIV in resource constrained setting, WHO 2011  
[http://whqlibdoc.who.int/publications/2011/9789241500708\\_eng.pdf](http://whqlibdoc.who.int/publications/2011/9789241500708_eng.pdf)
- Policy on tuberculosis infection control in health-care facilities, congregate settings and households, WHO 2009.  
[http://whqlibdoc.who.int/publications/2009/9789241598323\\_eng.pdf](http://whqlibdoc.who.int/publications/2009/9789241598323_eng.pdf)

### **What do WHO guidelines recommend regarding the role ART in HIV and TB**

<sup>1</sup> Guidelines for intensified tuberculosis case finding and isoniazid preventive therapy for people living with HIV in resource-constrained setting. World Health Organization, 2011. <sup>2</sup> Global tuberculosis control report. World Health Organization, 2011. □ <sup>3</sup> UNAIDS 2010 Global Report Fact Sheet. □

<sup>4</sup> Getahun H et al., Development of a standardized screening rule for tuberculosis in people living with HIV in resource constrained setting: individual patient data meta-analysis. PLoS Medicine. January 2011 Volume 8. Issue 1. <sup>5</sup> Towards universal access: Scaling up priority HIV/AIDS interventions in the health sector: Progress Report 2010.

### **Prevention?**

There is a strong scientific evidence base supporting the fact that ART, by lowering a person's viral load and restoring the immune system, significantly reduces HIV and TB. WHO, in the below guidelines recommends earlier ART at <350 CD4 and the immediate initiation of ART for all TB patients irrespective of CD4 count:

- Guidelines on antiretroviral therapy for HIV infection in adults and adolescents, WHO 2010 [http://whqlibdoc.who.int/publications/2010/9789241599764\\_eng.pdf](http://whqlibdoc.who.int/publications/2010/9789241599764_eng.pdf)

### **How is WHO collaborating with civil society in the HIV/TB response?**

In recognition of the crucial role that civil society plays in implementing, advocating for and informing WHO guidance as well as supporting, informing and strengthening communities to engage in the fight against HIV/TB, WHO has been working in closer collaboration with HIV/TB advocates and civil society to develop WHO HIV/TB guidelines and policies, in global forums on HIV/TB, such as the Global TB/HIV Working Group as well as in the development HIV/TB advocacy and communication to instigate change. Advocacy and communication tools, developed in partnership with civil society will be made available mid 2011. WHO is working closely with MSF, <http://www.msf.org/> ARASA, <http://www.arasa.info/> TAG <http://www.treatmentactiongroup.org/>, GNP+ <http://www.gnpplus.net/> to name but a few.

### **What was the status of implementation of Isoniazid Preventive Therapy for people living with HIV in 2009?**

Of the 34 million people living with HIV 180,000 were enrolled on IPT.<sup>2</sup> We can roughly estimate that at least 50% of people living with HIV would be eligible for IPT.<sup>4</sup>

### **What was the status of implementation of intensified TB case finding in 2010?**

2.1 million people living with HIV were reported as being screened for TB. This is almost quadruple the number in 2007 (600,000). However this represents less than 7% of the 34 million people estimated to be living with HIV.

### **What was the status of implementation of infection control for TB in 2010?**

The TB notification rate in healthcare workers relative to the TB notification rate in the general population is used to gauge the quality of infection control, but

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<sup>4</sup> Getahun H et al., Development of a standardized screening rule for tuberculosis in people living with HIV in resource constrained setting: individual patient data meta-analysis. PLoS Medicine. January 2011 Volume 8. Issue 1. <sup>5</sup> Towards universal access: Scaling up priority HIV/AIDS interventions in the health sector: Progress Report 2010.

reliable data was not available in 2009. Although the 2009 WHO infection control for TB guidelines are available and many countries include them in their policies, infection control measures are still not being implemented in many HIV service settings.

### **What was the status of implementation of ART in 2010?**

The number of people eligible for ART in 2010 was 14,600,000.<sup>5</sup>

The number of people receiving ART in 2010 was 5,254,000 (36%).<sup>4</sup>

The total number of people living with HIV who were eligible for ART but were not on ART in 2010 was 9,346,000 (64%).

With 14,600,000 people living with HIV eligible for treatment, according to current WHO treatment guidelines and only 5,254,000 receiving treatment 64% of people eligible for treatment were not on life-saving treatment, including TB patients with TB in 2209.

### **What was the status of implementation of other TB/HIV collaborative activities in 2010?**

Globally in 2010, 34% of TB patients (2.1 million) were tested for HIV and accessed HIV prevention, treatment and care services, up from 28% (1.7 million in 2009)

Of the TB patients who were known to be HIV positive, almost 77% (over 300,000) were enrolled on cotrimoxazole treatment (CPT) and 46% (over 200,000) were enrolled on anti-retroviral treatment (ART).

HIV testing of TB patients is now standard practice in many countries, especially in the African Region. In 68 countries and territories including 22 countries in the African Region, ≥75% of TB patients knew their HIV status in 2010.

The highest rates of HIV coinfection in TB patients are in the African Region, where 44% of TB patients with an HIV test result in 2010 were HIV-positive (range among high TB/HIV burden countries, 8%–82%), followed by the Region of the Americas (17%).

The global coverage of antiretroviral therapy (ART) for TB patients living with HIV remains low (only 46%), despite the large increase in HIV testing among TB patients and the WHO recommendation that ART should be provided to all TB patients living with HIV regardless of their CD4 cell count.

### **What are the most relevant WHO documents and recommendations regarding HIV/TB?**

#### **The Three I's for HIV/TB**

#### **The Three I's for HIV/TB**

<sup>1</sup> Guidelines for intensified tuberculosis case finding and isoniazid preventive therapy for people living with HIV in resource-constrained setting. World Health Organization, 2011. <sup>2</sup> Global tuberculosis control report. World Health Organization, 2011. □ <sup>3</sup> UNAIDS 2010 Global Report Fact Sheet. □

<sup>4</sup> Getahun H et al., Development of a standardized screening rule for tuberculosis in people living with HIV in resource constrained setting: individual patient data meta-analysis. PLoS Medicine. January 2011 Volume 8. Issue 1. <sup>5</sup> Towards universal access: Scaling up priority HIV/AIDS interventions in the health sector: Progress Report 2010.

<http://www.who.int/hiv/topics/tb/3is/en/index.html>

**WHO The Three I's for HIV/TB Meeting Report 2008**

[http://www.who.int/hiv/pub/meetingreports/WHO\\_3Is\\_meeting\\_report.pdf](http://www.who.int/hiv/pub/meetingreports/WHO_3Is_meeting_report.pdf)

**WHO Guidelines for intensified tuberculosis case-finding and isoniazid preventive therapy for people living with HIV in resource-constrained settings 2011:**

<http://www.who.int/hiv/pub/tb/9789241500708/en/index.html>

**WHO Policy on TB Infection Control in Health-Care Facilities, Congregate Settings and Households 2009:**

English: [http://whqlibdoc.who.int/publications/2009/9789241598323\\_eng.pdf](http://whqlibdoc.who.int/publications/2009/9789241598323_eng.pdf) French:

[http://whqlibdoc.who.int/publications/2010/9789242598322\\_fre.pdf](http://whqlibdoc.who.int/publications/2010/9789242598322_fre.pdf) Annex:

[http://www.who.int/tb/publications/2009/who\\_htm\\_tb\\_2009\\_419annexes.pdf](http://www.who.int/tb/publications/2009/who_htm_tb_2009_419annexes.pdf)

**HIV/TB Treatment**

**WHO ART for HIV infection in adults and adolescents 2010**

[http://whqlibdoc.who.int/publications/2010/9789241599764\\_eng.pdf](http://whqlibdoc.who.int/publications/2010/9789241599764_eng.pdf)

**WHO TB treatment guidelines 2009**

[http://whqlibdoc.who.int/publications/2010/9789241547833\\_eng.pdf](http://whqlibdoc.who.int/publications/2010/9789241547833_eng.pdf)

**Joint WHO-ILO-UNAIDS policy guidelines on improving health workers' access to HIV and TB prevention, treatment, care and support services - A guidance Note 2010:**

[http://www.who.int/occupational\\_health/publications/hiv\\_tb\\_guidelines/guidance\\_note\\_edited.pdf](http://www.who.int/occupational_health/publications/hiv_tb_guidelines/guidance_note_edited.pdf)

**WHO Improving the diagnosis and treatment of smear-negative pulmonary and extra-pulmonary tuberculosis among adults and adolescents 2007:**

[http://whqlibdoc.who.int/hq/2007/WHO\\_HTM\\_TB\\_2007.379\\_eng.pdf](http://whqlibdoc.who.int/hq/2007/WHO_HTM_TB_2007.379_eng.pdf)

**HIV/TB Collaborative Activities**

**WHO Interim Policy on Collaborative TB/HIV Activities 2009:**

English: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_eng.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_eng.pdf) French:

[http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_fre.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_fre.pdf) Russian:

[http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_rus.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_rus.pdf) Spanish:

[http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_spa.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_spa.pdf)

**WHO UNAIDS UNODC Policy guidelines for collaborative TB and HIV services for**

<sup>1</sup> Guidelines for intensified tuberculosis case finding and isoniazid preventive therapy for people living with HIV in resource-constrained setting. World Health Organization, 2011. <sup>2</sup> Global tuberculosis control report. World Health Organization, 2011. □ <sup>3</sup> UNAIDS 2010 Global Report Fact Sheet. □

<sup>4</sup> Getahun H et al., Development of a standardized screening rule for tuberculosis in people living with HIV in resource constrained setting: individual patient data meta-analysis. PLoS Medicine. January 2011 Volume 8. Issue 1. <sup>5</sup> Towards universal access: Scaling up priority HIV/AIDS interventions in the health sector: Progress Report 2010.

### **injecting and other drug users 2008**

Russian: [http://whqlibdoc.who.int/publications/2008/9789241596930\\_eng.pdf](http://whqlibdoc.who.int/publications/2008/9789241596930_eng.pdf) Chinese: [http://whqlibdoc.who.int/publications/2008/9789241596930\\_chi.pdf](http://whqlibdoc.who.int/publications/2008/9789241596930_chi.pdf) Russian: [http://whqlibdoc.who.int/publications/2008/9789214330622\\_rus.pdf](http://whqlibdoc.who.int/publications/2008/9789214330622_rus.pdf)

### **WHO A Guide to Monitoring and Evaluation for Collaborative TB/HIV Activities 2009:**

[http://whqlibdoc.who.int/publications/2009/9789241598194\\_eng.pdf](http://whqlibdoc.who.int/publications/2009/9789241598194_eng.pdf)

### **HIV/TB Research**

#### **WHO Priority research questions for TB/HIV in HIV-prevalent and resource-limited settings 2010:**

[http://whqlibdoc.who.int/publications/2010/9789241500302\\_eng.pdf](http://whqlibdoc.who.int/publications/2010/9789241500302_eng.pdf)

### **HIV/TB Advocacy**

#### **Advocacy pamphlet on TB/HIV**

<http://www.who.int/tb/challenges/hiv/tbhivbrochure.pdf>

#### **WHO Networking for Policy Change - An Advocacy Training Manual Manual and training guide on advocacy for TB/HIV**

[http://www.stoptb.org/wg/tb\\_hiv/assets/documents/Final%20Manual\\_edited.pdf](http://www.stoptb.org/wg/tb_hiv/assets/documents/Final%20Manual_edited.pdf)  
[http://www.stoptb.org/wg/tb\\_hiv/assets/documents/Participant%20Guide%20TB\\_HIV\\_edited.pdf](http://www.stoptb.org/wg/tb_hiv/assets/documents/Participant%20Guide%20TB_HIV_edited.pdf)

#### **WHO TB/HIV Brochure "No More People Living with HIV Dying of TB"**

<http://www.who.int/entity/tb/challenges/hiv/tbhivbrochure.pdf>

#### **Comic to educate children and young people about TB and TB/HIV**

Based on international footballer Luis Figo and available in English, French, Russian and Portuguese. Cartoon also available

[http://www.who.int/tb/publications/2009/figo\\_comic\\_book/en/index.html](http://www.who.int/tb/publications/2009/figo_comic_book/en/index.html)

#### **TB/HIV working group of the Stop TB Partnership**

Website where you can sign up to become a member of the working group and receive regular newsletters

[http://www.stoptb.org/wg/tb\\_hiv/](http://www.stoptb.org/wg/tb_hiv/)

Archive of TB/HIV newsletters and other TB/HIV resources

[http://www.stoptb.org/wg/tb\\_hiv/documents.asp](http://www.stoptb.org/wg/tb_hiv/documents.asp)

#### **WHO Integrated Management of Adult and Adolescent Illness**

Step by step guidelines for managing the most common problems for primary health care workers

<http://www.who.int/hiv/pub/imai/en/>

#### **Module on managing TB/HIV**

[http://www.who.int/hiv/pub/imai/primary\\_tb/en/index.html](http://www.who.int/hiv/pub/imai/primary_tb/en/index.html)

<sup>1</sup> Guidelines for intensified tuberculosis case finding and isoniazid preventive therapy for people living with HIV in resource-constrained setting. World Health Organization, 2011. <sup>2</sup> Global tuberculosis control report. World Health Organization, 2011. □<sup>3</sup> UNAIDS 2010 Global Report Fact Sheet. □

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