Warning: This report is out-of-date. In particular, entire time-series of TB disease burden estimates are updated every year. For the latest data and analysis, please see the most recent edition of the global TB report.

> Global Tuberculosis Control 2008 SURVEILLANCE PLANNING FINANCING





World Health Organization

WHO REPORT 2008 Global Tuberculosis Control SURVEILLANCE, PLANNING, FINANCING



WHO Library Cataloguing-in-Publication Data

Global tuberculosis control : surveillance, planning, financing : WHO report 2008.

"WHO/HTM/TB/2008.393".

1.Tuberculosis, Pulmonary – prevention and control. 2.Tuberculosis, Multidrug-resistant – drug therapy. 3.Directly observed therapy. 4.Treatment outcome. 5.National health programs – organization and administration. 6.Financing, Health. 7.Statistics. I.World Health Organization.

ISBN 978 92 4 156354 3

(NLM classification: WF 300)

© World Health Organization 2008

All rights reserved. Publications of the World Health Organization can be obtained from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857; e-mail: bookorders@who.int). Requests for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – should be addressed to WHO Press, at the above address (fax: +41 22 791 4806; e-mail: permissions@who.int).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

Cover design by Chris Dye. The disintegration of the Union of Soviet Socialist Republics in 1991 had dire consequences for the control of tuberculosis. From 1992, the number of cases reported to WHO continued to decline in western and central European countries (lower series) but increased steeply in the newly independent states (upper series). This resurgence was probably due to failures in tuberculosis control, but also to other biological, social and economic factors influencing transmission of infection and susceptibility to disease (see Section 1.8.2). The cover image shows the bifurcation in European case notifications layered on a colour-saturated image of stains used in sputum-smear microscopy, including carbol fuchsin and methylene blue.

Designed by minimum graphics Printed in Switzerland

Contents

Acknowledge		V		
Abbreviation	S	vii		
Summary		1		
Key points		3		
Principales constations				
Resultados	s fundamentales	11		
Introductio	n de la constante d	15		
Chanter 1	The global TB epidemic and progress in control	17		
	Goals, targets and indicators for TB control	17		
	Data reported to WHO in 2007	19		
	TB incidence in 2006 and trends since 1990	19		
	Estimated incidence in 2006	19		
	Trends in incidence	20		
	Case notifications	22		
	Case detection rates	22		
	Case detection rate, all sources (DOTS and non-DOTS programmes)	22		
	Case detection rate, DOTS programmes	26		
	Case detection rate within DOTS areas	27		
	Number of countries reaching the 70% case detection target	27		
	Prospects for future progress	28		
	Outcomes of treatment in DOTS programmes	28		
	New smear-positive cases	28		
	Re-treatment cases	31		
	Comparison of treatment outcomes in HIV-positive and HIV-negative TB patients	31		
	Progress towards targets for case detection and cure	31		
	Progress towards impact targets included in the Millennium Development Goals	33		
	Trends in incidence, prevalence and mortality	33		
	Determinants of TB dynamics: comparisons among countries	34		
	Summary	35		
Chapter 2.	Implementing the Stop TB Strategy	38		
	Data reported to WHO in 2007	39		
	DOTS expansion and enhancement	39		
	DOTS coverage and numbers of patients treated	39		
	Political commitment	41		
	Case detection through quality-assured bacteriology	42		
	Standardized treatment, with supervision and patient support	43		
	Drug supply and management system	43		
	Monitoring and evaluation, including impact measurement	44		
	TB/HIV, MDR-TB and other challenges Collaborative TB/HIV activities	46 46		
	Diagnosis and treatment of MDR-TB	40 51		
	High-risk groups and special situations	54		
	רווקרו רוסא פרטעס מווע סףפטמר סוגעמנוטרוס	54		

	Health system strengthening	55
	Integration of TB control within primary health care	55
	Human resource development	55
	Links between planning for TB control and broader health or public sector planning initiatives and frameworks	s 56
	Practical Approach to Lung Health	56
	Engaging all care providers	57
	Public–public and public–private mix approaches	57
	International Standards for Tuberculosis Care	58
	Empowering people with TB, and communities	58
	Advocacy, communication and social mobilization	58
	Community participation in TB care	58
	Patients' Charter	58
	Enabling and promoting research	59
	Summary	59
Chapter 3.	Financing TB control	60
	Data reported to WHO in 2007	60
	NTP budgets, available funding and funding gaps	61
	High-burden countries, 2002–2008	61
	All countries by region, 2008	64
	Total costs of TB control	65
	High-burden countries, 2002–2008	65
	All countries, 2008	67
	Comparisons with the Global Plan	68
	High-burden countries	68
	All countries	69
	Implications of differences between country reports and the Global Plan	69
	Budgets and costs per patient	70
	Expenditures compared with available funding and changes in cases treated	71
	Global Fund financing	73
	High-burden countries	73
	All countries	73
	Why do funding gaps for TB control persist?	73
_	Summary	75
Conclusion	S	77
Annex 1.	Profiles of high-burden countries	79
Annex 2.	Methods	171
	Monitoring the global TB epidemic and progress in TB control (1995–2006)	173
	Implementing the Stop TB Strategy	178
	Financing TB Control (2002–2008)	179
Annex 3.	The Stop TB Strategy, case reports, treatment outcomes and estimates of TB burden	185
	Explanatory notes	187
	Summary by WHO region	189
	Africa	195
	The Americas	211
	Eastern Mediterranean	227
	Europe	243
	South-East Asia	259
	Western Pacific	275
Annex 4.	Surveys of tuberculosis infection and disease, and death registrations, by country and year	291

Acknowledgements

Katherine Floyd, Mehran Hosseini and Catherine Watt coordinated the production of this report.

The report was written by Christopher Dye, Katherine Floyd and Mukund Uplekar. Ana Bierrenbach, Karin Bergström, Léopold Blanc, Malgorzata Grzemska, Christian Gunneberg, Knut Lönnroth, Paul Nunn, Andrea Pantoja, Mario Raviglione, Suzanne Scheele, Karin Weyer and Matteo Zignol provided input to and careful review of particular sections of text.

Christopher Dye, Mehran Hosseini, Andrea Pantoja and Catherine Watt prepared the figures and tables that appear in Chapters 1–3, with support from Katherine Floyd, Christian Gunneberg, Suzanne Scheele and Matteo Zignol.

The epidemiological and financial profiles that appear in Annex 1 were prepared by Suzanne Scheele and Andrea Pantoja, respectively. Monica Yesudian drafted the strategy component of the country profiles that appear in Annex 1 and coordinated their initial review. Catherine Watt produced the final version of the profiles, including coordination of their final review by countries. Mehran Hosseini prepared Annex 3 and Ana Bierrenbach prepared Annex 4.

Compilation and follow up of data were conducted by Rachel Bauquerez, Ana Bierrenbach, Christian Gunneberg, Mehran Hosseini (who led the process), Andrea Pantoja, Abigail Wright, Monica Yesudian and Matteo Zignol.

The following staff from WHO and UNAIDS assisted in the design of the data collection form and in the compilation, analysis, editing and review of information:

WHO Geneva and UNAIDS. Mohamed Aziz, Pamela Baillie, Rachel Bauquerez, Karin Bergström, Ana Bierrenbach, Young-Ae Chu, Karen Ciceri, Giuliano Gargioni, Andrea Godfrey, Eleanor Gouws, Kreena Govender, Malgorzata Grzemska, Ernesto Jaramillo, Knut Lönnroth, Robert Matiru, Fuad Mirzayev, Pierre-Yves Norval, Paul Nunn, Salah-Eddine Ottmani, Alasdair Reid, Fabio Scano, Nicole Schiegg, Tanya Siraa, Lana Velebit, Diana Weil, Brian Williams.

WHO African Region. Stella Anyangwe (South Africa), Ayodele Awe (Nigeria), Oumou Bah-Sow (AFRO), Joseph Imoko (Uganda), Rufaro Chatora (AFRO), Pierre Kahozi-Sangwa (Mozambique), Joel Kangangi (Kenya), Bah Keita (AFRO, IST/West Africa), Daniel Kibuga (AFRO), Mwendaweli Maboshe (Zambia), Motseng Makhetha (South Africa), Vainess Mfungwe (AFRO), Wilfred Nkhoma (AFRO, IST/East and Southern Africa), Angélica Salomão (AFRO, IST/East and Southern Africa), Thomas Sukwa (AFRO), Henriette Wembanyama (AFRO).

WHO Region of the Americas. Raimond Armengol (AMRO), Marlene Francis (CAREC), Albino Beletto (AMRO), Mirtha del Granado (AMRO), John Ehrenberg (AMRO), Xavier Leus (World Bank), Rafael Lopez-Olarte, Rodolfo Rodriguez-Cruz (Brazil), Yamil Silva (AMRO), Matías Villatoro (Brazil).

WHO Eastern Mediterranean Region. Aaiyad Al Dulaymi Munim (Somalia), Samiha Baghdadi (EMRO), Amal Bassili (EMRO), Yuriko Egami (Pakistan), Sevil Husseinova (Afghanistan), Akihiro Seita (EMRO), Ireneaus Sindani (Sudan), Syed Karam Shah (Afghanistan).

WHO European Region. Bakhtiyar Babamuradov (Uzbekistan), Evgeniy Belilovksy (Russian Federation), Cassandra Butu (Romania), Pierpaolo de Colombani (EURO), Irina Danilova (Russian Federation), Andrei Dadu (EURO), Lucica Ditiu (EURO), Irina Dubrovina (Ukraine), Wieslaw Jakubowiak (Russian Federation), Olena Kheylo (Ukraine), Gudjon Magnusson (EURO), Konstantin Malakhov (Russian Federation), Kestutis Miskinis (Ukraine), Dmitry Pashkevich (Russian Federation), Olena Radziyevska (South Caucasus), Igor Raykhert (Ukraine), Bogdana Scherbak-Verlan (Ukraine), Gombogaram Tsogt (Central Asia), Elena Yurasova (Russian Federation), Richard Zaleskis (EURO).

WHO South-East Asia Region. Mohammed Akhtar (Nepal), Caterina Casalini (Myanmar), Kim Sung Chol (Democratic People's Republic of Korea), Erwin Cooreman (Bangladesh), Puneet Dewan (SEARO), Hans Kluge (Myanmar), Franky Loprang (Indonesia), Firdosi Mehta (Indonesia), Nani Nair (SEARO), Myo Paing (Myanmar), Vason Pinyowiwat (Democratic People's Republic of Korea), Suvanand Sahu (India), Chawalit Tantinimitkul (Thailand), Fraser Wares (India), Supriya Weerusavithana (Sri Lanka).

WHO Western Pacific Region. Tee Ah Sian (WPRO), Masami Fujita (Viet Nam), Philippe Glaziou (WPRO), Cornelia Hennig (China), Pratap Jayavanth (Cambodia), Wang Lixia (China), Pieter van Maaren (WPRO), Ota Masaki (WPRO), Giampaolo Mezzabotta (Viet Nam), Mauro Occhi (Fiji), Pilar Ramon-Pardo (Cambodia), Bernard Tomas (WPRO), Jamhoih Tonsing (WPRO), Michael Voniatis (Philippines), Rajendra Yadav (Papua New Guinea).

The primary aim of this report is to share information from national TB control programmes. The data presented here are supplied largely by the programme managers (listed in Annex 3) who have led the work on surveillance, planning and financing in countries. We thank all of them, and their staff, for their contributions.

TB monitoring and evaluation at WHO are carried out with the financial backing of USAID. Data collection and analytical work that have contributed to this report were also supported by funding from the governments of Australia, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom and the United States of America, as well as by the European Union, the European Commission, and the Bill and Melinda Gates Foundation. Data for the European Region were collected and validated jointly with EuroTB (Paris), a European TB surveillance network funded by the European Commission; we thank Dennis Falzon and Yao Kudjawu of EuroTB for their collaboration.

Special thanks are due to designer Sue Hobbs for her habitual efficiency in helping to get this report published by 24 March, World TB Day.

Abbreviations

ACSM	advocacy, communication and social	IHC	Integrated HIV Care (a programme of the
1100111	mobilization		Union)
AFB	acid-fast bacilli	IPT	isoniazid preventive therapy
AFR	WHO African Region	ISAC	Intensified support and action in
AFRO	WHO Regional Office for Africa		countries, an emergency initiative to
AIDS	acquired immunodeficiency syndrome		reach targets for DOTS implementation by
AMR	WHO Region of the Americas		2005
AMRO	WHO Regional Office for the Americas	ISTC	International standards for tuberculosis
ART	antiretroviral therapy		care
BMU	basic management unit	JICA	Japan International Cooperation Agency
BPHS	basic package of health-care services	KAP	knowledge, attitudes and practice
BRAC	Bangladesh Rural Advancement	LACEN	Brazilian public health laboratories
	Committee	LGA	local government area
CAREC	Caribbean Epidemiology Centre	LHW	lady health workers
CDC	Centers for Disease Control and	LQAS	Laboratory quality assurance services
	Prevention	MDG	Millennium Development Goal
CHW	community health worker	MDR	multidrug resistance (resistance to, at
CPT	co-trimoxazole preventive therapy		least, isoniazid and rifampicin)
CTBC	community-based TB care	MDR-TB	multidrug-resistant tuberculosis
DoH	Department of Health	MoH	Ministry of Health
DOT	directly observed treatment	NAP	national AIDS control programme or
DOTS	the internationally recommended		equivalent
	strategy for TB control	NGO	nongovernmental organization
DRS	drug resistance surveillance or survey	NRHM	National Rural Health Mission
DST	drug susceptibility testing	NRL	national reference laboratory
EMR	WHO Eastern Mediterranean Region	NTP	national tuberculosis control programme
EMRO	WHO Regional Office for the Eastern		or equivalent
	Mediterranean	РАНО	Pan-American Health Organization
EQA	external quality assurance	PAL	Practical Approach to Lung Health
EUR	WHO European Region	PATH	Program for Appropriate Technology in
EURO	WHO Regional Office for Europe		Health
FDC	fixed-dose combination (or FDC anti-TB	PHC	primary health care
	drug)	PhilTIPS	Philippine Tuberculosis Initiatives for the

3结束,完整报告链接和二维码如下: 预览i



https://www.yunbaogao.cn/report/index/report?reportId=5_29506 https://www.yu