Child TB subgroup update

2014

Stop TB Partnership

World Health Organization

Update

- Members 179 and rising
- New members of core group
  - Anne Detjen, The Union
  - Lindsay McKenna, TAG
  - Connie Erkins, KNCV
- Wider representation being sought
- Terms of reference were adopted
- SOPs developed by Stop TB Partnership
- Consider cross-culturing of other WGs
- Future chair

EB 134/12
Provisional Agenda Item 6.1

World Health Organization

Global strategy and targets for tuberculosis prevention, care and control after 2015

DRAFT POST-2015 GLOBAL TUBERCULOSIS STRATEGY FRAMEWORK

VISION	A world free of tuberculosis – zero deaths, disease and suffering due to tuberculosis
GOAL	End the global tuberculosis epidemic
MILESTONES FOR 2025	– 75% reduction in tuberculosis deaths (compared with 2015); – 50% reduction in tuberculosis incidence rate (compared with 2015) (less than 55 tuberculosis cases per 100 000 population) – No affected families facing catastrophic costs due to tuberculosis
TARGETS FOR 2035	– 95% reduction in tuberculosis deaths (compared with 2015) – 90% reduction in tuberculosis incidence rate (compared with 2015) (less than 10 tuberculosis cases per 100 000 population) – No affected families facing catastrophic costs due to tuberculosis

PRINCIPLES

1. *Government stewardship and accountability, with monitoring and evaluation*
2. *Strong coalition with civil society organizations and communities*
3. *Protection and promotion of human rights, ethics and equity*
4. *Adaptation of the strategy and targets at country level, with global collaboration*

Innovative approaches

Community-based

Wider health sector

Preventive therapy

Operational research

ROADMAP FOR CHILDHOOD TUBERCULOSIS

World Health Organization

CDC

unicef

International Union Against Tuberculosis and Lung Disease

TAG
Treatment Action Group

Stop TB Partnership

USAID

Increasing recognition that TB is an increasingly important cause of morbidity and mortality in infants and young children globally

Viewpoint

Importance of tuberculosis control to address child survival

Stephen M Graham, Charalambos Sismanidis, Heather J Menzies, Ben J Marais, Anne K Detjen, Robert E Black

Tuberculosis commonly affects young children (<5 years) in countries that have high rates of child mortality.[1] The global public health focus to control tuberculosis has traditionally aimed to reduce transmission through early death and not contributory causes to WHO, vital registration data cannot be used to estimate the number of tuberculosis deaths in people living with HIV. Further, vital registration data are available for only 3% of global

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S0140-6736(14)60420-7

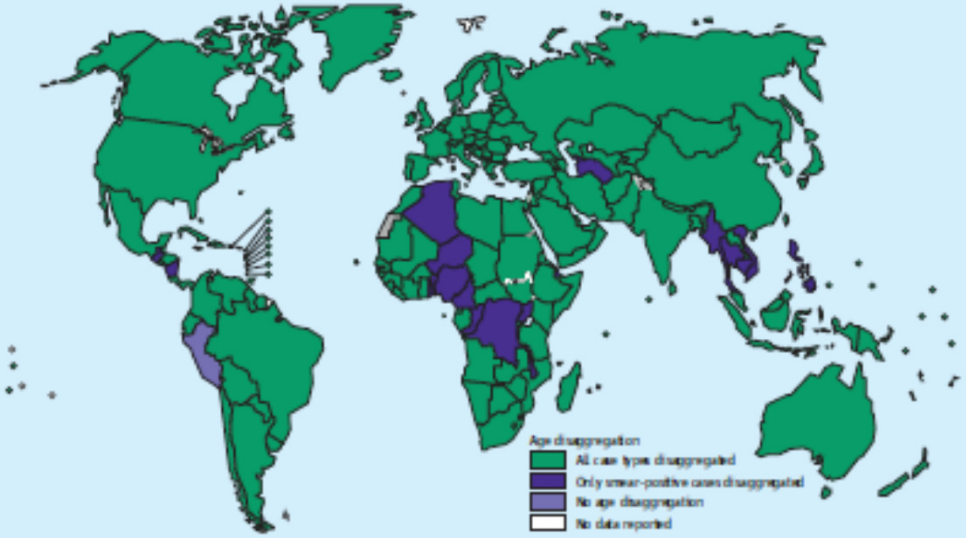
“Know your epidemic”

Global Tuberculosis Report 2013

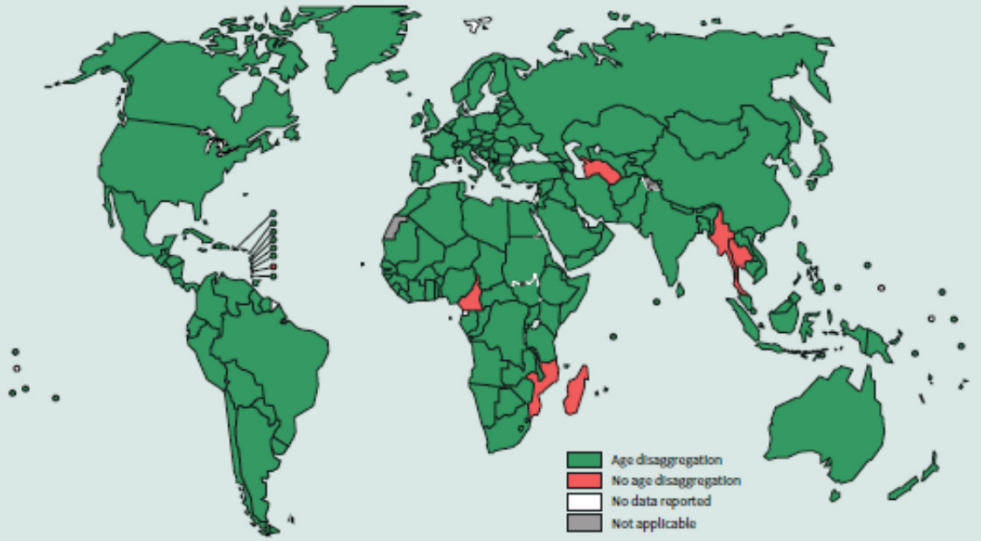
GLOBAL TUBERCULOSIS REPORT 2014

FIGURE B2.2.3

Reporting of notification data disaggregated by age, 2012



Reporting of new and relapse TB case notifications disaggregated by age, 2013



GLOBAL TUBERCULOSIS REPORT 2014

"Know your epidemic"

BOX 2.3

The burden of TB disease among women and children

With increasing global attention to maternal and child health, there has been growing demand for and interest in estimates of TB disease burden among women and children. Estimates of the global burden of TB disease among children (defined as people aged <15 years) have been published in this report since 2012 and this is the second year in which the report includes estimates of the burden among women (defined as females aged ≥15 years) disaggregated by WHO region and HIV status.

Mortality data disaggregated by age and sex from VR systems were used to produce estimates of TB deaths among HIV-negative adults for 111 countries. TB deaths were calculated for women and men, after adjustment for incomplete coverage and ill-defined causes (see online technical appendix for further details). For countries without VR data, the ratio of the adjusted male:female number of deaths due to TB was estimated using an imputation model that included risk factors known to be asso-

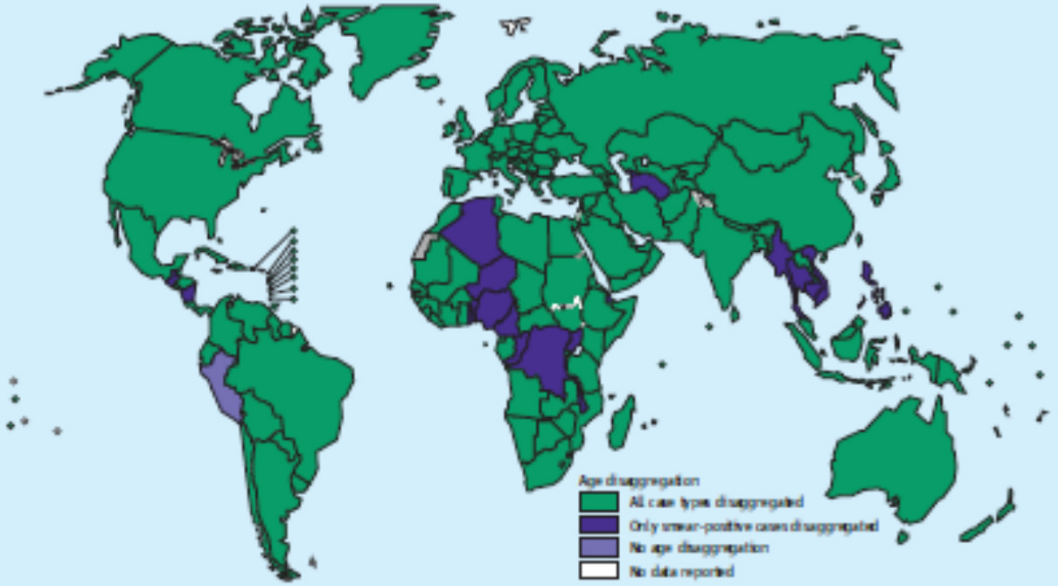
TB in women – best estimate
3,300,000 cases
Deaths:
330,000 HIV negative
180,000 HIV positive

TB in children (0-14 yrs)
actual reported 275,000
15% smear-positive
54% smear-negative
31% EPTB

Best estimates:
550,000 cases and 80,000 deaths

FIGURE B2.2.3

Reporting of notification data disaggregated by age, 2012



ROADMAP FOR CHILDHOOD TUBERCULOSIS

TOWARDS ZERO DEATHS

Guidance for national tuberculosis programmes on the management of tuberculosis in children

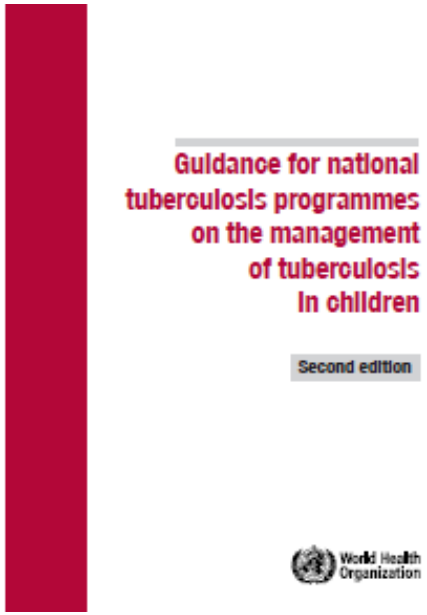
Second edition

World Health Organization

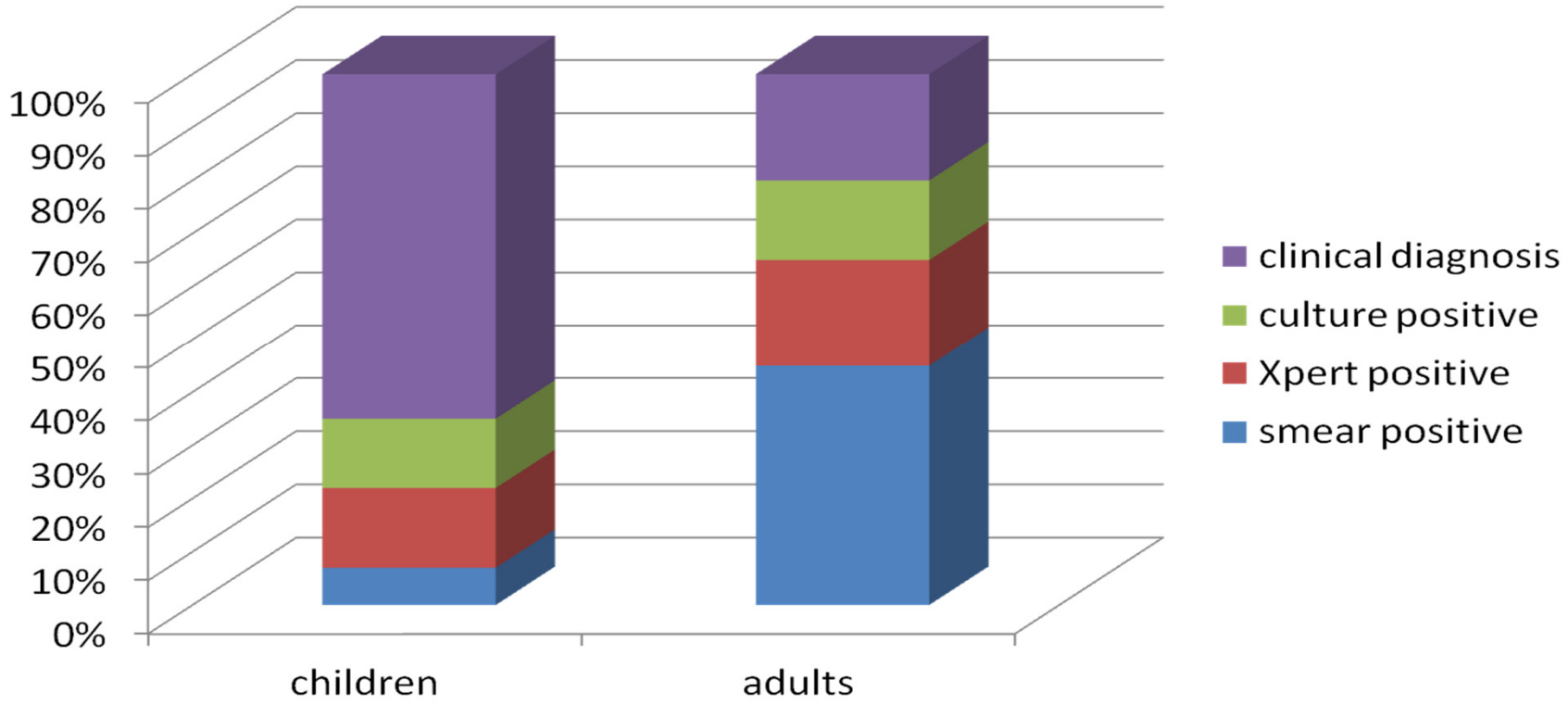
Xpert MTB/RIF should be used as the initial diagnostic test in children:

suspected of having MDR TB or HIV associated TB
– *strong recommendation, very low quality of evidence*

suspected of TB (incl extrapulmonary TB)
– *conditional recommendation acknowledging resource implications, very low quality of evidence*



Diagnostic yield for pulmonary TB comparing children to adults



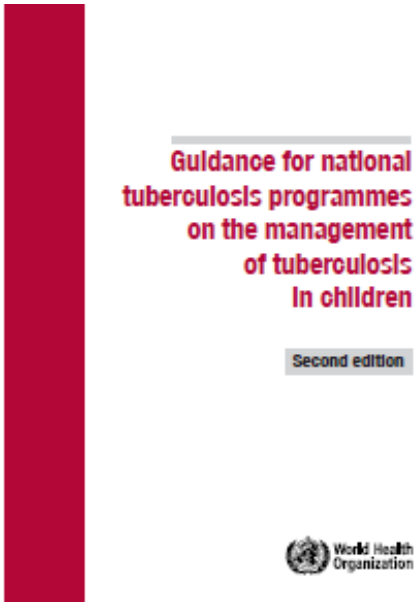
Xpert cannot be used to rule out TB

Xpert needs research on implementation to inform optimal usage in children

These are the revised dosages (WHO 2014) for children up to 25 kgs:

Rifampicin	**15 (10-20) mg/kg/day**
Isoniazid	**10 (7-15) mg/kg/day**
Pyrazinamide	**35 (30-40) mg/kg/day**
Ethambutol	**20 (15-25) mg/kg/day**

From 25 kgs, can change to adult dosages and preparations



- Strong recommendation, moderate quality of evidence

Weight band table when using the FDC **RHZ 60:30:150**

Weight bands	Numbers of tablets		
	Intensive Phase		Continuation Phase
	RHZ	E	RH
	60/30/150	100	60/30
4-6kg	1	1	1
7-10kg	2	2	2
11-14kg	3	2	3
15-19 kg	4	3	4
20-24kg	5	4	5
25 kg+	Go to adult dosages and preparations		

Example of a weight band table when using the “new” FDC being developed

Weight bands	Numbers of tablets		
	Intensive Phase		Continuation Phase
	RHZ	E	RH
	75/50/150	100	75/50
4-7kg	1	1	1
8-11kg	2	2	2
12-15kg	3	3	3
16-24 kg	4	4	4
25 kg+	Go to adult dosages and preparations		

Guidance for national tuberculosis programmes on the management of tuberculosis in children

Second edition

World Health Organization

CHILDHOOD TB TRAINING

TOOLKIT

World Health Organization

International Union Against Tuberculosis and Lung Disease
Health solutions for the poor

CHILDHOOD TB TRAINING TOOLKIT

World Health Organization

International Union Against Tuberculosis and Lung Disease

In addition,

Freely available on-line training and assessment aimed at health worker in secondary and primary care setting

To be finalised, end 2014

TB Care I project

Desk-guide for diagnosis and management of TB in children

International Union Against Tuberculosis and Lung Disease

Health solutions for the poor

Guide de diagnostic et de prise en charge de la tuberculose chez l'enfant

Union Internationale Contre la Tuberculose et les Maladies Respiratoires

Solutions de santé pour les pauvres

NTP reviews – 2013/14

- PNG
- Tanzania
- Kenya
- Bangladesh
- Mozambique
- Swaziland
- Malawi
- DPR Korea
- Sri Lanka
- Bhutan
- Cote d'Ivoire
- Madagascar
- Congo
- Benin
- Palestine
- Myanmar

Practical guidance

NTP reviews and child TB

Implementation of community-based contact screening

Suggestions to Global Fund

A lot can be done with what we already have:

1. Political will and prospective planning
2. Improve data recording and reporting
3. Engage the child health sector
4. Support training – emphasizing integration into ongoing training related to TB, TB/HIV, IMCI, MCH
5. Support operational research to determine constraints and barriers

" There are many contributions which the pediatrician can make to a TB control program.

First the negativism about tuberculosis so prevalent in pediatrics must be overcome..."

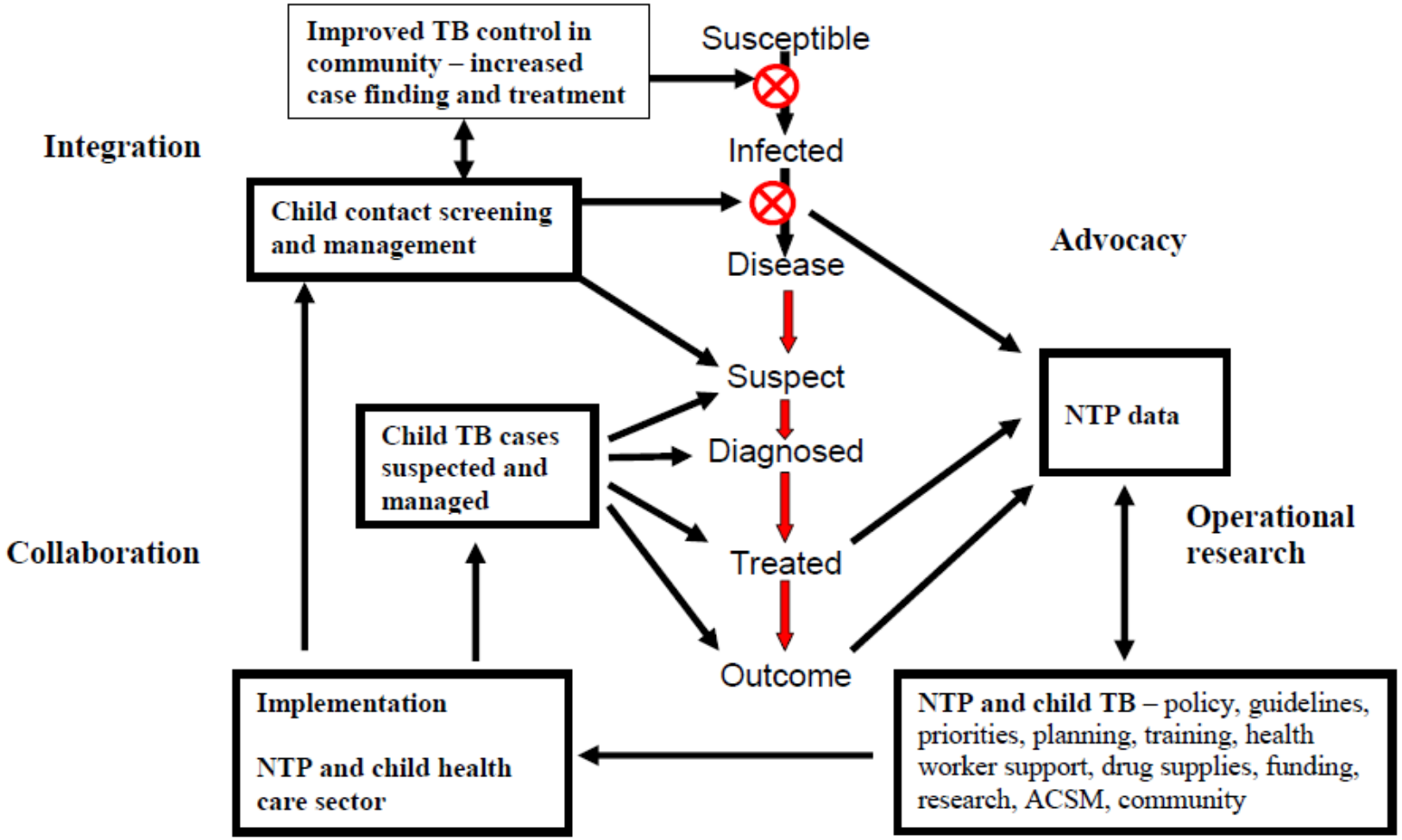
Edith Lincoln, 1961

FIGURE 1. Edith Lincoln at the commencement of her studies

Donald PR. Edith Lincoln, an American Pioneer of Childhood Tuberculosis. *Pediatr Infect Dis J* 2013

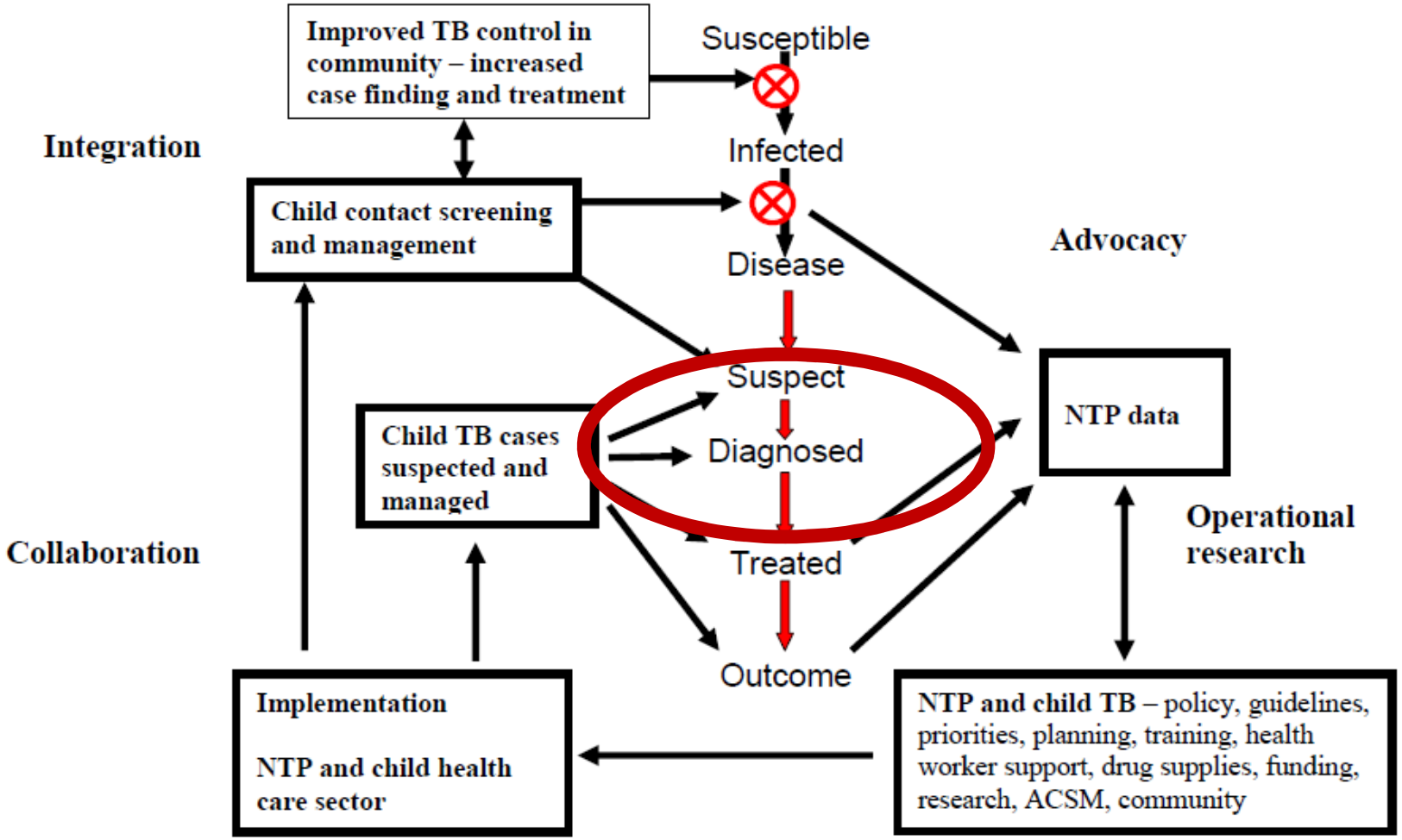
Child TB working group and NTP

Figure. Interventions that target stages of the continuum in children from susceptibility to disease and outcome



Child TB working group and NTP

Figure. Interventions that target stages of the continuum in children from susceptibility to disease and outcome



Regional/national workshops

- Seven francophone African countries, Benin, January
- WHO WPRO, Regional taskforce, Viet Nam, March
- China National Child TB, Beijing, August
- International Child TB training course, South Africa, Sept-Oct
- Global consultation on child TB for high burden countries in EMRO, SEARO and WPRO, Indonesia, Sept

REGIONAL CHILDHOOD TUBERCULOSIS ACTION PLANS DEVELOPMENT WORKSHOP IN THE WESTERN PACIFIC REGION

Ho Chi Minh City, Viet Nam
26-28 March 2014

Meetings

- iCCM meeting, Ghana
- Save the Children and Nutrition, Nepal
- CORE group, May, Silver Spring, USA
- STAG TB, June, Geneva
- Global TB TEAM meeting, Geneva
- Adolescent AIDS clinical trials group
- Advisory Panel for Global TB Alliance, NY

Comparison of research on TB diagnostics between adults and children 2011

Test	Publications	
	Adults	Children
Fine needle aspiration	> 6000	140
Fluorescence Microscopy (FM)	299	1
LED-FM	33	0
MODS	31	2
BACTEC 960	49	0
Fully automated BACTEC	13	0
Line Probe assays	113	1
LAMP	13	0
Automated NAAT (Xpert)	32	1

Cuevas L. Ind J Pediatr 2011

Comparison of research on TB diagnostics between adults and children 2011

Test	Publications	
		ren
Fine need		0
Fluoresce		
LED-FM		
MODS		
BACTEC 9		
Fully auto		
Line Prob		
LAMP		
Automate		

STEP-TB project

development of child-friendly formulations

TAG
Treatment Action Group

Stop TB Partnership

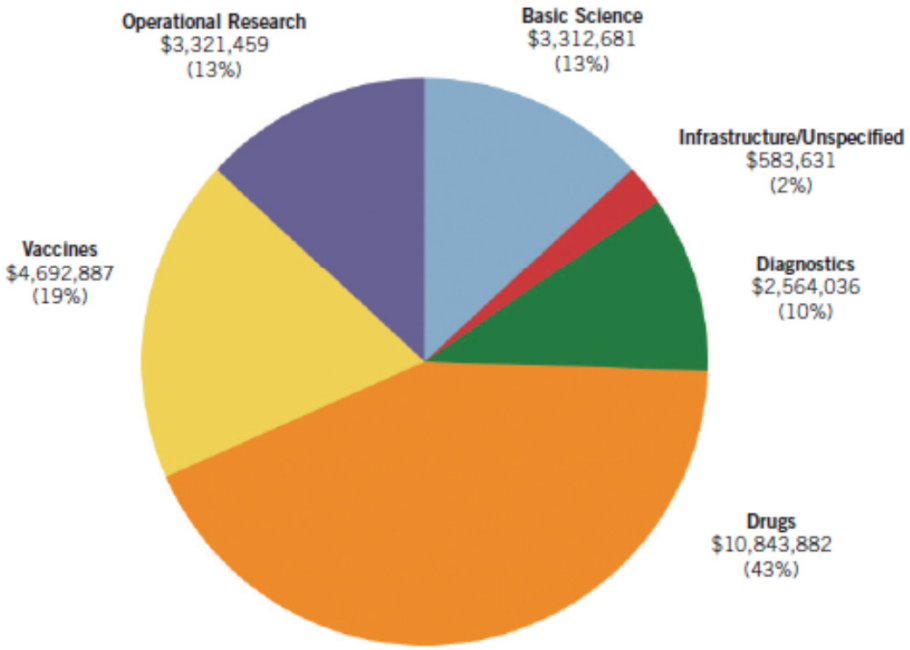
TUBERCULOSIS RESEARCH AND DEVELOPMENT:

2014 Report on Tuberculosis Research Funding Trends, 2005–2013

Increase in 2013 compared to 2012

Still only around 25% of what is needed

Pediatric TB R&D Funding by Research Category, 2013
Total: $25,318,577



Research

- New diagnostics
- Preventive therapy – DS and DR
- Shorter regimens

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Diagnosis of Childhood Tuberculosis and Host RNA Expression in Africa

Suzanne T. Anderson, Ph.D., M.R.C.P.C.H., Myrsini Kaforou, M.Phil., Andrew J. Brent, Ph.D., M.R.C.P., Victoria J. Wright, Ph.D., Claire M. Banwell, Ph.D., George Chagaluka, M.B., B.S., Amelia C. Crampin, F.F.P.H.M., Hazel M. Dockrell, Ph.D.,

Assessment of the novel T-cell activation marker–tuberculosis assay for diagnosis of active tuberculosis in children: a prospective proof-of-concept study

Damien Portevin, Felicien Moukambi, Petra Clowes, Asli Bauer, Mkunde Chachage, Nyanda E Ntinginya, Elirehema Mfinanga, Khadija Said, Frederick Haraka, Andrea Rachow, Elmar Saathoff, Maximilian Mpina, Levan Jugheli, Fred Lwilla, Ben J Marais, Michael Hoelscher, Claudia Daubenberger, Klaus Reither, Christof Geldmacher**

Union – MSF Operational Research Courses
TOTAL: 212 participants

Europe

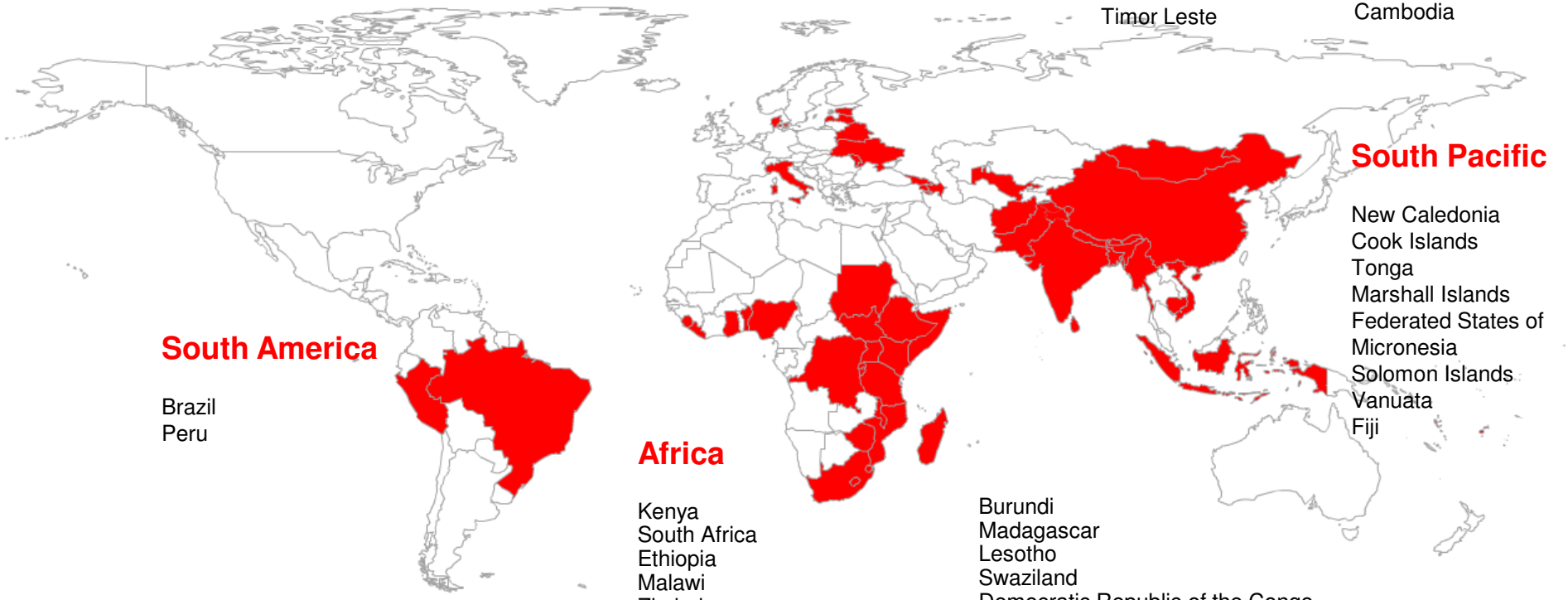
Georgia
Ukraine
Estonia
Latvia
Belorussia

Moldova
Armenia
Azerbaijan
Denmark
Italy

Asia

India
Bangladesh
Pakistan
Afghanistan
Nepal
Bhutan
Sri Lanka
Timor Leste

Singapore
China
Mongolia
Uzbekistan
Vietnam
Myanmar
Indonesia
Cambodia



South Pacific

New Caledonia
Cook Islands
Tonga
Marshall Islands
Federated States of Micronesia
Solomon Islands
Vanuata
Fiji

South America

Brazil
Peru

Africa

Kenya
South Africa
Ethiopia
Malawi
Zimbabwe
Benin
Somaliland
Rwanda
Uganda
Ghana
Tanzania

Burundi
Madagascar
Lesotho
Swaziland
Democratic Republic of the Congo
Sudan
Mozambique
Nigeria
Somalia
Sierra Leone
Liberia

Thank you

Terima khasi

World Health Organization

Global Consultation on Childhood TB for High Burden Countries in the Eastern Mediterranean, South East Asia, and Western Pacific Regions

Jakarta, Indonesia, 29 September - 1 October 2014

TB ALLIANCE