

# Momentum on Child TB: South East Asia (SEA)

**Dr. Shakil Ahmed**

MBBS, FCPS, MD

Associate Professor of Pediatrics  
Shaheed Suhrawardy Medical College  
Bangladesh

shakildr@gmail.com

# Child Mortality from TB: 2015

- Total Death- 239,000 (194,000-298,000)
  - 80% (191,000) <5 years aged: 20% of estimated
  - 182,000 (70%) from SEA and Africa
- 96% died without anti-TB treatment
- TB is one of the top 10 causes of U-5 mortality

# Today's talk

- **What are being done to save children in SEA?**
- Are we doing right/justice?

# 11 SEAR Countries

[Bangladesh](#)

[Bhutan](#)

[Democratic People's](#)

[Republic of Korea](#)

[India](#)

[Indonesia](#)

[Maldives](#)

[Myanmar](#)

[Nepal](#)

[Sri Lanka](#)

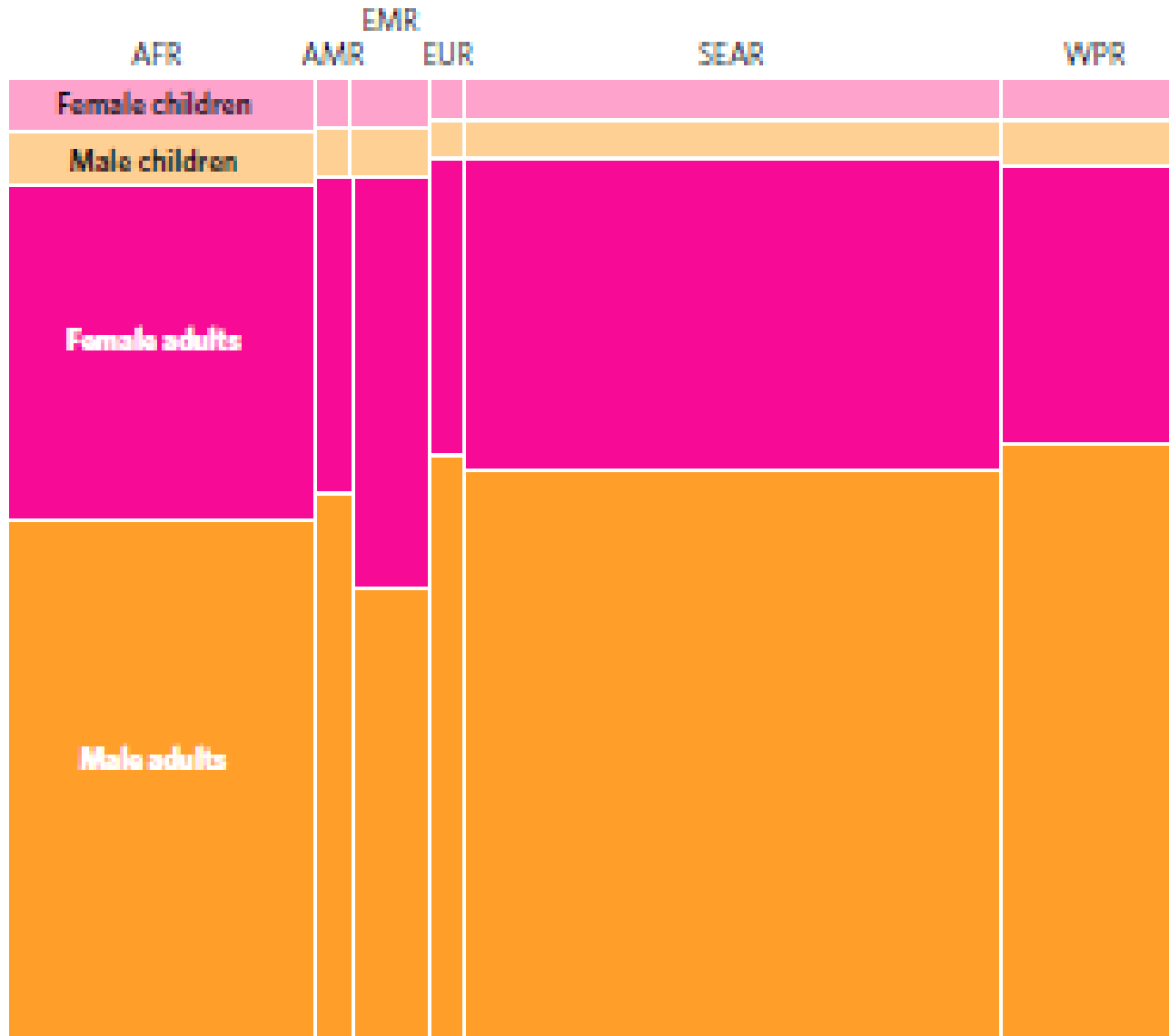
[Thailand](#)

[Timor-Leste](#)



# Population

- 1.86 billion
  - 89% in Bangladesh, India and Indonesia
  - 10% Thailand, Myanmar, DPRK, Sri Lanka
  - 1% Bhutan, Maldives, Timor-Leste
- 26% of global population
- 41% burden of global TB load



# Child TB share: SEA and others

## Estimate:

- South East Asia: 40% (400,000)
- African region: 31% (310,000)
- Western Pacific: 13% (130,000)

## Notification:

- SEA- 174,316 (7.1% of notified total cases)
- 43% of Estimate (225,684 left out)

ages were 58% for Asia and 28% for the WHO African Region, respectively. For children, the top three regions were the WHO South-East Asia Region with 40% of incident TB cases in 2015, followed by the African Region with 31% and the Western Pacific Region with 14%.

---

Country	Total TB	Child TB	%
Bangladesh	209,438	9291	4.4
Bhutan	963	56	5.25
DPRK	120,722	5,630	5.94
India	1,667,136	95,709	6.0
Indonesia	330,729	23,170	7.0
Maldives	131	14	10.69
Myanmar	138,447	36,301	26.0
Nepal	34,122	354	2.05
Sri Lanka	9,305	323	3.47
Thailand	66,179	118	0.34
Timor-Leste	3,532	390	11.04
<b>Total</b>	<b>2,580,704</b>	<b>171,356</b>	<b>6.63</b>



# Bangladesh

- Notification- 4.4% (9192/209,438)
- National guideline: 2<sup>nd</sup> edition
- Training module for doctors
  - 1300 doctors trained
- Capacity development for Community health care workers- 12,000
- New formulation- introduced
- Participation Pediatric Association active

# Bangladesh

- Integration with other program-
  - Two Workshops with nutrition program held
  - One workshop with IMCI held
- National advisory committee on childhood TB
- Research-
  - Institutional level going on
  - Program/NTP: still none

# Bhutan

- TB incidence 191/100,000
- Child TB:
  - 12-14%
  - PTB-49%
  - EPTB-51%
  - <5 years- 40%
- Passive case finding
- Follows WHO protocol/ no country guidelines

# DPR Korea

- Active case finding at Ri/Dong level
- ‘Household Doctors’:
  - Each household in 7-10 days
  - Refers suspected to county Hospital
- Pediatrician at county hospital diagnose
- Treatment by WHO protocol
- Children Smear positive- 1.3% to 2.7%
- National Child TB guideline drafted
- Training module for doctors: not available

# Indian Child TB Scenario 2006 - 2014

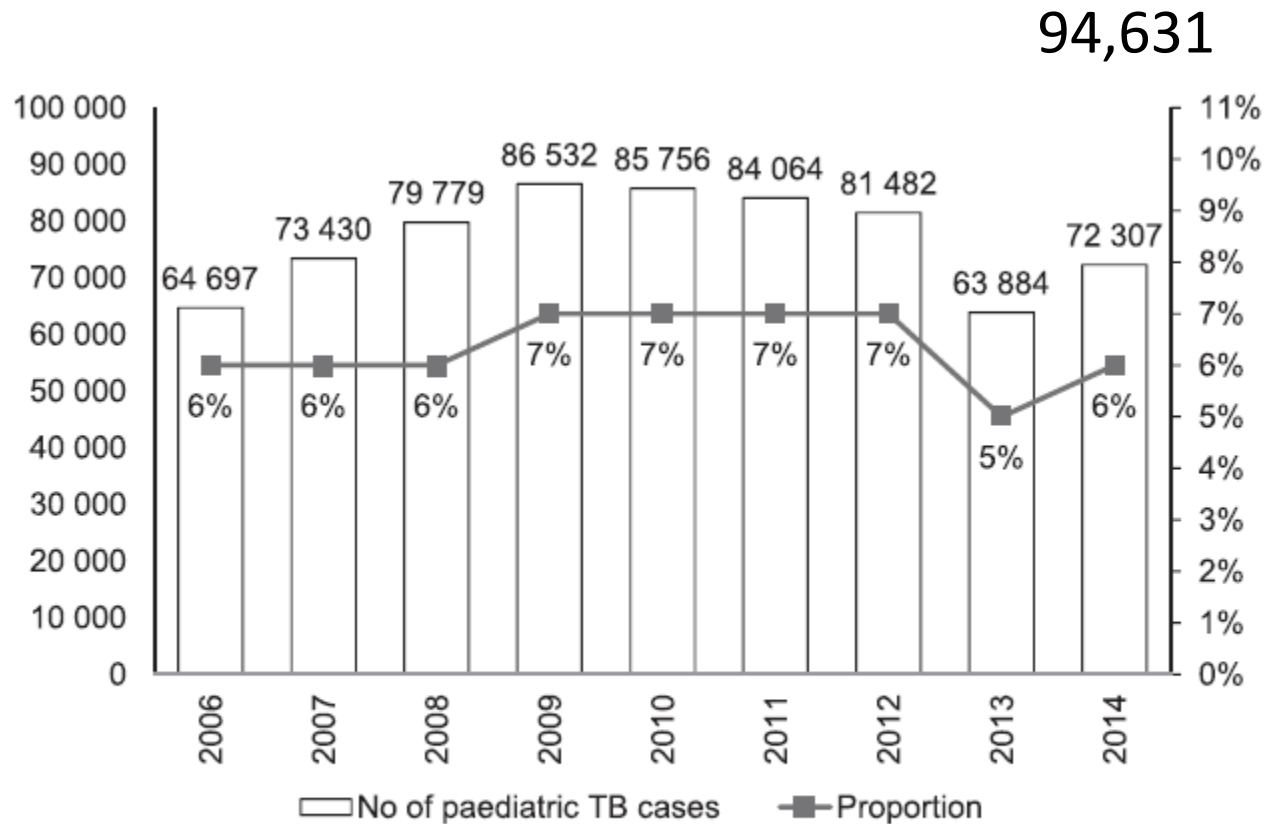


Figure 1 Number and proportion (of all TB cases) of childhood TB, 2006–2014.<sup>1</sup> TB = tuberculosis.

# Standards of TB Care in India

- Launched in 24<sup>th</sup> March 2014
- Sets 26 standards



**Standard 6**  
**Paediatric TB**

# India: Treatment

- Moved to daily regimen from intermittent regimen (2015)
- Using WHO weight band (2015)
- Treatment- duration and composition
  - 4 drugs in all cases
  - Relapse case:
    - 2SHRZE + 1HRZE + 5HRE

# Actors in Childhood TB: India

- RNTCP
- Respiratory Chapter, Indian Academy of Pediatrics
  - Conducting training for doctors for last 14 years
- ‘NIKASHAY’: A project to incorporate private health service providers
  - Increased notification in project areas by 20%
- Integration with other child health activities
  - INMCI, MCH and nutrition



# Childhood TB activity: India

- Improved access to diagnostics (FIND):
  - Diagnosed 5,500 new cases by testing 76,000 samples in 4 cities- Mumbai, Hyderabad, Kolkata and Chennai
- Contact screening and IPT:
  - Policy in place: <6 years with contact
  - 35-65% still not covered

# Indonesia: Child TB in core strategy



**Address TB/HIV, MDR-TB, pediatric TB, the needs of poor population and other vulnerable groups.**

- Expand TB/HIV collaboration
- Deal with Drug-resistant TB
  
- Strengthen TB control in children
  
- Meet the needs of the poor and vulnerable populations

# Maldives

- 50% population <15 years
- Population 340,000
  - Migrants workers -130,000
- Childhood TB: 6%
- National Guidelines for child TB drafted
- Trained pediatrician- 1
- IPT provided to child <5 years
- Selling of TB drug banned since 2001
- WHO gifted one Gene-Xpert in 2016

# Nepal

- 1<sup>st</sup> National guideline for TB (2009):
  - Chapter 3 comprises 10 pages
  - Preventive chapter
- National child TB guideline in press 2017
  - Training module for doctors and health care workers finalized
- Plan to cover monasteries
- Active contact search and IPT is underway

# Myanmar

- Case notification: 26% in 2015, 23.6% in 2010
- Smear positive: 0.7% in 2010
- National Guideline for Child TB
  - 1<sup>st</sup> Edition- 2008
  - 2<sup>nd</sup> Edition- ?
- Pediatricians are actively engaged
- Contact tracing and reverse contact tracing has been stressed

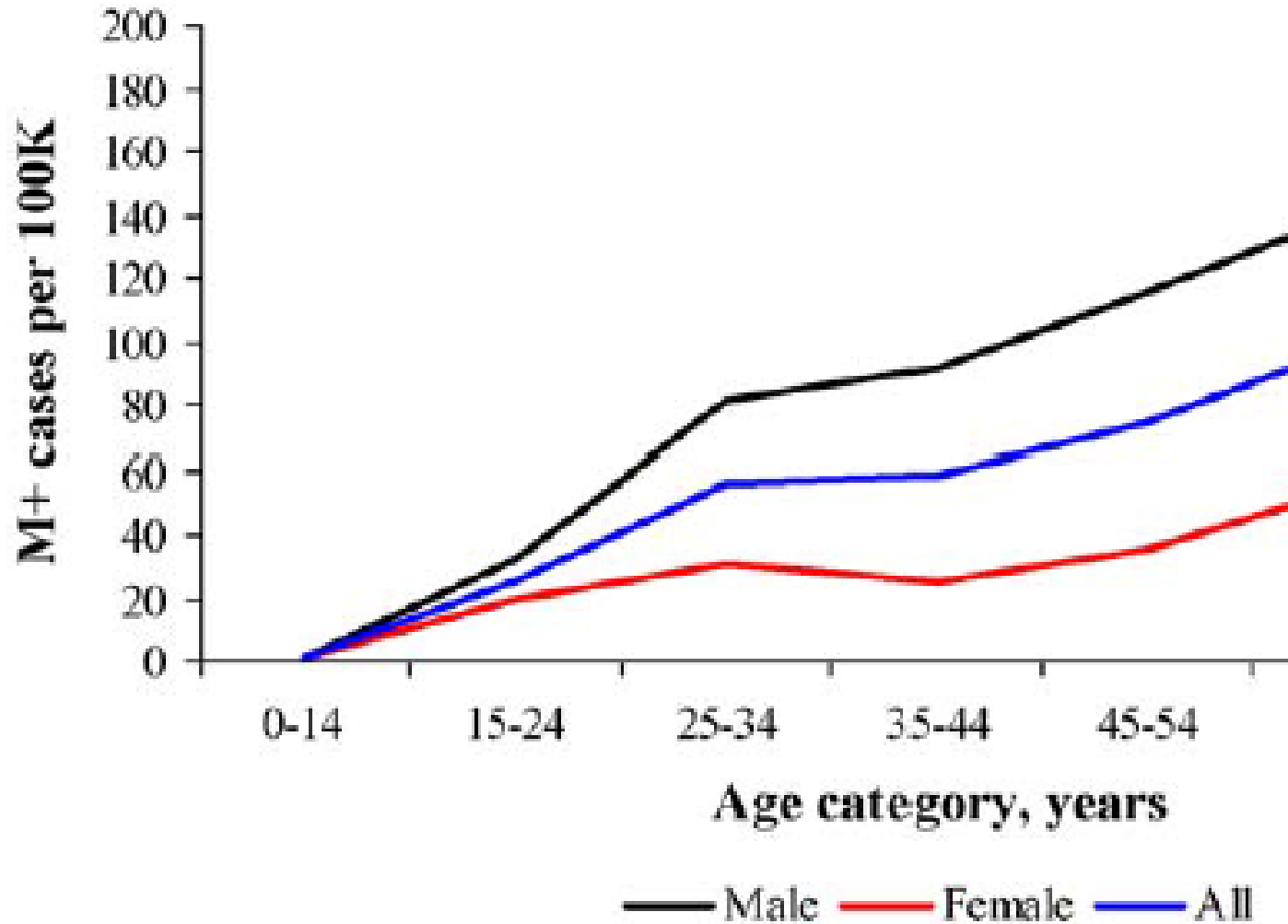
# Sri Lanka

- NSP has bold statement on child TB
- Case detection and treatment: Follows WHO guideline
- Integration: National Program for Tuberculosis Control and Chest Diseases (NPTCCD)
  - Collaboration with NCD
  - Training program for doctors at all levels
  - Activities for updating pediatricians on diagnosis and Rx
- National Guideline- ?
- Participation of professionals/Professional bodies ?

# Thailand

- Estimated Child TB case: 6600 in 2015
- Notification Child TB: 0.4% of smear positive
- Data on <15 years not available
  - Age group is only collected for Smear +ve cases

# Thailand





# Timor-Leste

- School health program
- “TB Nurses” training and refreshers
- IPT has been initiated
- 3 Hospitals in Dili
  - Bairo Pite Clinic
    - Provides IPT in children
    - 16 bed TB ward
- Prevalence- 758/100,000

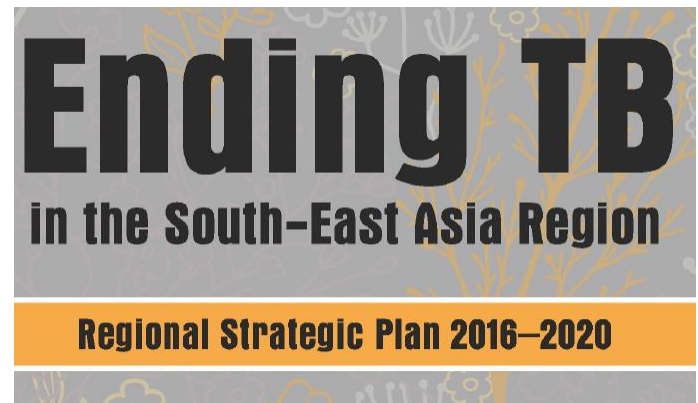
# SAARC TB & AIDS Center



- An organization by SAARC member states
- Established in 1994 in Nepal
- To support TB activities of member states
- Child TB guideline and Training module developed
- One training on TOT held August 2017 in Sri Lanka
- Regularly publishes Journal since 2004
  - <http://www.saarctb.org/new/saarc-journal-of-tb-lung-diseases-and-hivaids/>

# SEARO/WHO

- Sensitized countries: workshop in Singapore in 2011 by Prof. Steve Graham
- SAERO
  - strategic plan: 2016-2020
- WHO: Today's meeting



# SEA Strategy on End TB

Strategic directions	Strategies	Key interventions	Section
	Strategy 1.2: Ensure equitable access to quality treatment of people with TB including TB resistant to first-line anti-TB medicines, and provide patient support	<p>Treat all forms of TB sensitive to first-line anti-TB medicines</p> <p>Treat all cases of TB resistant to first-line and second-line anti-TB medicines</p> <p>Treat all children with TB</p> <p>Ensure patient-centred mechanisms and systems for social and psychological support to patients in need to ensure effective health services and other institutions</p>	7.1.2
	Strategy 1.5: Ensure preventive treatment of people at high risk; and vaccination against TB	<p>Expand preventive treatment of people with high risk of tuberculosis, especially children below 5 years of age in close contact with adults affected with TB</p> <p>Ensure that WHO recommendations on BCG immunization are implemented through the EPI</p>	7.1.5

# MDR TB in Children

- Detection of MDR-TB in children is low
  - Bangladesh: Estimated 200 MDR/year
  - India: Estimated 3000 MDR/ year
- Mostly treated by adult physicians with expertise in treating in MDR TB
  - India pediatric hospitals/clinics
- Resistance pattern is changing:
  - > Fluroquinolones: 39.1% to 93.7%
- Pediatrician needs to get eyes
  - Better sensitization
  - More orientation

# TB-HIV

- Thailand: 24% of all TB (15-45 years) HIV+ve
- India: 130,000 (estimated) among all cases
- HIV/AIDS program and TB program working in collaboration yet to strengthen
  - Bangladesh: One Line Director for both program now instead of two
- Nepal: HIV child cases are treated by NGOs

# Prevention

- BCG Coverage: > 90%
  - TB meningitis is declining!
- One of the top-10 indicator of monitoring of End TB Strategy
- Target coverage: 90%
- Global 2015: 87,236 (7.1% of eligible children)
- Bangladesh: 9,833 (22% of eligible)
- Myanmar: 552 (3.6% of eligible)
- SEA: 510,000 eligible; 11,398 (2.3%) covered

# Partners

- USAID- through TB Care II and Challenge TB
- AUSAID- Supporting Timor-Leste
- TB Reach
- GF
- UNITAID
- Others



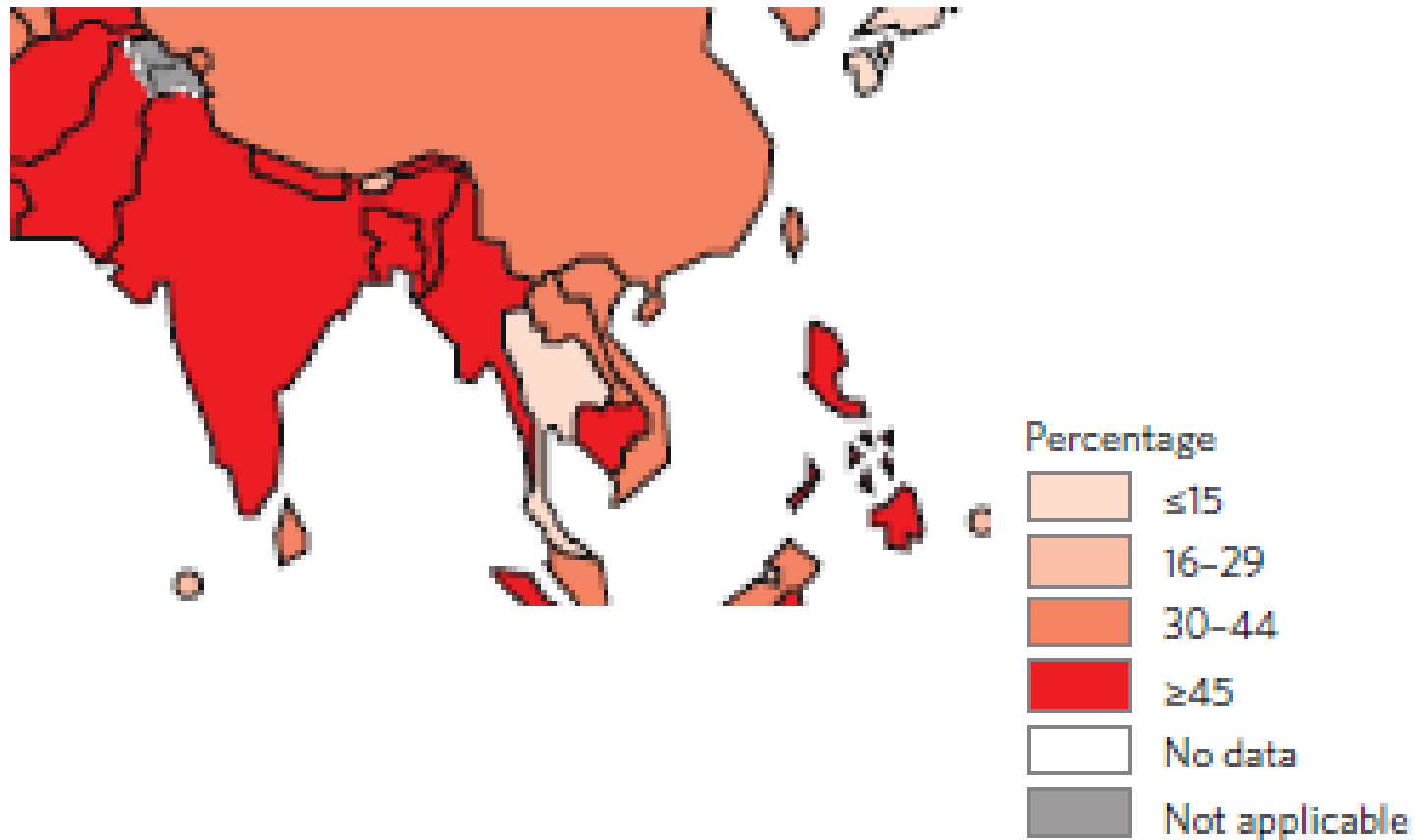
# Summary

- Policies and Activities are in place
- Momentum generated
- Integration with other programs to be fostered
- Case detection in < 5 years to be intensified
- Pediatrician actively engaged
- Regional efforts strengthened
- Bhutan ,Timor-Leste, Maldives need support

# Thanks from remarkable Rwanda



# Out of the pocket expenses



# Universal Health Coverage and social support

- Indonesia: Insurance paid by employee, employer, and government for poor
- Thailand: 99% of Thai population are covered by 3 schemes. 75% financing from Govt for UCS.
- Bangladesh: Social protection scheme for investigation of suspected TB
- Myanmar: Social franchising model. 15% additional case from private practitioner
- India: “Private provider interface agency”. 2000 cases/month in Mumbai alone.

# Catastrophic cost

- Myanmar: 65% TB patient suffers catastrophic cost: income-41%, Nutritional support- 25%, Medical cost-14%