Importance of the private sector in response to TB and MDR TB in India

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Medical Officer TB
WHO, New Delhi
The private sector dominates health care in India.

Source of healthcare that household members generally use when sick, 2005-6

Wealth Quintile

NHFS-III table 13.12, p436
...no matter how you look at it...
...and TB patients are no different

Health care facilities reported by 6,771 TB patients included in 60th round of National Sample Survey, India, 2004 (representative sample)

<table>
<thead>
<tr>
<th>Type of care</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>Inpatient</td>
<td>56%</td>
<td>43%</td>
</tr>
</tbody>
</table>

- No difference: age, urban vs rural, education level
- Most common reasons for private: Dissatisfaction, long waiting times (not access!)

Hazarika JGID 2011
Impact of diagnostics on TB incidence

Dx will have biggest effect by shortening time to diagnosis

## Why focus on early diagnosis?

*Prevalence surveys since 2000*

Per 100K: 200-400 smear+, 300-1200 bac+

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Age</th>
<th>Smear+/100K</th>
<th>Range</th>
<th>Bac+/100K</th>
<th>Range</th>
<th>Smear+/Bac+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>2002</td>
<td>10y-</td>
<td>362</td>
<td>284-461</td>
<td>1208</td>
<td>997-1483</td>
<td>0.30</td>
</tr>
<tr>
<td>Philippines</td>
<td>2007</td>
<td>10y-</td>
<td>260</td>
<td>170-360</td>
<td>660</td>
<td>510-810</td>
<td>0.39</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>2007</td>
<td>15y-</td>
<td>197</td>
<td>149-254</td>
<td>307</td>
<td>248-367</td>
<td>0.64</td>
</tr>
<tr>
<td>Myanmar</td>
<td>2009</td>
<td>15y-</td>
<td>239</td>
<td>182-315</td>
<td>605</td>
<td>495-741</td>
<td>0.40</td>
</tr>
</tbody>
</table>

More than half s-c+ had no symptoms.
Doctors and delays, Bangalore

No. doctors seen by TB patients

<table>
<thead>
<tr>
<th>Number of doctors</th>
<th>No. female patients</th>
<th>No. male patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>7</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

More doctors, longer treatment

Total duration (days) vs. Number of doctors

- Each extra doctor seen adds 12 days

Pantoja 2009
Reducing delay essential to interrupting transmission

Dye IJMR 2011, publication pending
Use of TB medicines: could it be worse?

Source: Global Alliance for TB Drug Development, Annual Report, 2010
**Working approaches globally to dealing with private sector**

### Collaboration
- Social franchising
  - *Pakistan, Myanmar*
- Contracting
  - *Bangladesh, Cambodia*
- TB insurance packages
  - *Philippines, Thailand*

### Regulation
- Restricting access to TB drugs
  - *Brazil, Ghana, Tanzania, South Africa*
- Certification / Accreditation
  - *Philippines*
- Mandatory notification (web)
  - *China, Thailand*
PPM: contribution to case notifications

<table>
<thead>
<tr>
<th>Country</th>
<th>Types of non-NTP care providers engaged</th>
<th>Coverage</th>
<th>Number of cases notified per year</th>
<th>Contribution to total notifications (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>Diverse public and private providers</td>
<td>Countrywide</td>
<td>4,591</td>
<td>12%</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Pharmacies, private clinics and hospitals</td>
<td>Countrywide</td>
<td>6,550</td>
<td>17%</td>
</tr>
<tr>
<td>Chile</td>
<td>General public hospitals</td>
<td>Countrywide</td>
<td>337,486</td>
<td>31%</td>
</tr>
<tr>
<td>Ghana</td>
<td>Diverse public and private providers</td>
<td>Countrywide</td>
<td>2,124</td>
<td>15%</td>
</tr>
<tr>
<td>India</td>
<td>Diverse public, private and NGO providers</td>
<td>14 large cities (50 million population)</td>
<td>12,450</td>
<td>36% of new smear-positive cases</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Public and private hospitals</td>
<td>Countrywide</td>
<td>38,361</td>
<td>13%</td>
</tr>
<tr>
<td>Islamic Republic of Iran</td>
<td>Diverse public and private providers</td>
<td>Countrywide</td>
<td>24</td>
<td>25%</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>Prison health services</td>
<td>Countrywide</td>
<td>1,151</td>
<td>8%</td>
</tr>
<tr>
<td>Mexico</td>
<td>Social security organizations</td>
<td>Countrywide</td>
<td>1,708 (2008)</td>
<td>29% of new smear-positive cases</td>
</tr>
<tr>
<td>Myanmar</td>
<td>Private practitioners through the professional medical association</td>
<td>Countrywide</td>
<td>599 (2008)</td>
<td>21%</td>
</tr>
<tr>
<td>Nepal</td>
<td>Diverse public and private providers</td>
<td>Countrywide</td>
<td>1,319</td>
<td>8%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Private clinics and hospitals</td>
<td>Countrywide</td>
<td>29,418</td>
<td>34%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Private practitioners, NGOs and hospitals</td>
<td>Countrywide</td>
<td>43,162</td>
<td>14%</td>
</tr>
<tr>
<td>Philippines</td>
<td>Private clinics and hospitals</td>
<td>30 million population</td>
<td>3,994</td>
<td>26% of new smear-positive cases</td>
</tr>
<tr>
<td>United Republic of Tanzania</td>
<td>Private and NGO hospitals</td>
<td>Countrywide</td>
<td>11,492</td>
<td>19%</td>
</tr>
</tbody>
</table>

*Data from 2009, except where specified.

*Contribution to all notifications in the geographical areas covered by PPM is shown, except where specified.
India

- Widespread availability of non-accredited DST and second-line drugs
- Diagnosed MDR TB referred to medical colleges for specialist management
- Private chest physicians using 2\textsuperscript{nd} line drugs
PPM in India

- Early recognition that private sector is central
- Efforts to engage private sector focused on promoting referrals
- PPM ‘pilot projects’ from 1996 till today
Intensified PPM DOTS sites

14 intensified PPM sites

<table>
<thead>
<tr>
<th>Pilot Site</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahmedabad</td>
<td>Gujarat</td>
</tr>
<tr>
<td>Bangalore</td>
<td>Karnataka</td>
</tr>
<tr>
<td>Bhopal</td>
<td>Madhya Pradesh</td>
</tr>
<tr>
<td>Bhubaneswar</td>
<td>Orissa</td>
</tr>
<tr>
<td>Chandigarh</td>
<td>Chandigarh</td>
</tr>
<tr>
<td>Chennai</td>
<td>Tamil Nadu</td>
</tr>
<tr>
<td>Delhi</td>
<td>Delhi</td>
</tr>
<tr>
<td>Jaipur</td>
<td>Rajasthan</td>
</tr>
<tr>
<td>Kolkata</td>
<td>West Bengal</td>
</tr>
<tr>
<td>Lucknow</td>
<td>Uttar Pradesh</td>
</tr>
<tr>
<td>Patna</td>
<td>Bihar</td>
</tr>
<tr>
<td>Pune</td>
<td>Maharashtra</td>
</tr>
<tr>
<td>Ranchi</td>
<td>Jharkhand</td>
</tr>
<tr>
<td>Thiruvanthapuram</td>
<td>Kerela</td>
</tr>
</tbody>
</table>
15 intensified urban PPM Districts (1Q – 4Q 2010): Contribution to RNTCP suspect examination, case notification, and treatment provision by different health sectors

**Contribution to referral of TB suspects**

- NGO, 6%
- Private, 3%
- Corporate, 1%
- Medical Colleges, 24%
- Govt, other than health, 8%
- Health dept, 58%

**Contribution to New Smear case detection**

- NGO, 5%
- Private, 5%
- Corporate, 1%
- Medical Colleges, 23%
- Govt, other than health, 11%
- Health dept, 55%

**Contribution to DOT provision**

- NGO, 8%
- Private, 9%
- Corporate, 1%
- Medical Colleges, 7%
- Govt, other than health, 5%
- Health dept, 69%

**Contribution to Treatment success of NSP Cases reg.**

- NGO, 8%
- Private, 10%
- Corporate, 1%
- Medical Colleges, 5%
- Govt, other than health, 3%
- Health dept, 72%
Uptake of PP schemes

- PPs Adher, 8892, 88%
- PPs TBHIV, 0, 0%
- PPs TU, 1, 0%
- PPs Slum, 25, 0%
- PPs SL, 25, 0%
- PPs ACSM, 706, 7%
- PPs Spu Col, 222, 2%
- PPs Spu Trans, 97, 1%
- PPs DMCA, 56, 1%
- PPs CDST, 1, 0%
- PPs LT, 6, 0%
- PPs DMCB, 57, 1%
Lessons of PPM project and subsequent surveillance

• “Low hanging fruit” reachable by public health sector
  – Medical college and Large NGOs
  – Large public sector industry health services

• Less success in reaching larger number of for-profit providers

• No growth in private provider contribution over time
Private sector drug market

- Private market SLD still small in both markets (except FQ)
  - 2009 – IMS estimated 4.1 million USD
    - Cs 1.7m
    - Eto 1.2m
    - Rest 1.3m
    - Only 6% on dollar basis of entire 67m private ATT market
- Little evidence to suggest that MDR being treated at scale in private sector
Opportunities for engaging private sector for strengthening response to MDR TB

• Improve airborne infection control
• Earlier case finding
• Subsidized, high-quality rapid DST
• Leverage (and subsidize) private labs for early reach of patients seen at private providers
• Strengthen quality of case management
  – Extend supervision to private sector
  – Leverage private hospitals, medical colleges for inpatient care requirements
thanks

Acknowledgments:
KS Sachdeva, Shruti Seghal
Mukund Uplekar, Chris Dye