Understanding and addressing underreporting of detected TB cases: mandatory notification and inventory studies

Dr Sunil D Khaparde
DDG(TB), Central TB Division,
Ministry of Health & Family Welfare,
Government of India

WHO Global Task Force on TB Impact Measurement,
Glion-sur-Montreux, 1-4 May 2018
Problem: Missing cases

The graph shows the incidence of TB cases per 100,000 population from 2000 to 2016. The incidence data are divided into three categories:

- **Notified, new and relapse** (black line)
- **Incidence** (green shaded area)
- **Incidence (HIV+TB only)** (red line)

The shaded area represents the range of incidence rates, with red arrows indicating missing cases. The graph illustrates the trend of decreasing incidence over time, with notable fluctuations represented by the red arrows.
Access barriers:
(detected but unreported) 5 & 6

1. No / delayed access to health care
   - Cost of services
   - No health facilities
   - Inflexible timings
   - Long distances
   - No transport
   - OOP

2. Access to health services, but do not go to health facilities or go late
   - Lack of knowledge about symptoms
   - Lack of trust in public facilities
   - Lack of risk perception
   - Competitive priorities
   - Ignoring symptoms

3. Accessing health facilities but missing diagnosis
   - Low operational efficiency of diagnostic algorithm
   - Lack of skills to elicit symptoms
   - Lack of staff motivation
   - High workload

4. TB Cases diagnosed but not initiated on treatment
   - Initial loss to follow-up
     (No Registration at diagnosis under RNTCP)

5. Cases diagnosed and treated but details Nota available or sub-optimal treatment
   - No Follow-up of patients notified by private laboratories
   - Notification system does not include treatment outcome
   - Unacceptable treatment regimens
   - No Incentives for notification
   - Sub-optimal treatment adherence system

6. Sub-optimal programme implementation
   - Aggregated system of manual drugs and logistics management
   - sluggish financial management
   - Aggregated reporting system
   - Delayed salaries of contractual staff
Cascade of care - where detected patients missed?

Public sector:
• Diagnosed patients – Initial loss to follow-up
• Some patients not reported to RNTCP (treated outside NTP)

Private sector:
• Laboratories not reporting
• Private practitioners / hospitals not reporting
• Chemists not reporting
TB Notification Order

7th May 2012
First Order

21st July 2015
First Amendment

19th March 2018
Second Amendment

- Laboratories
- Practitioners / hospitals
- Public Health action
- Chemist
- Self notification by patient
**TB Notification**

**Carrot & Stick**

**Incentives:**
- Private provider Rs.1000/-
- Patients – Rs.500/- pm
- Tribal patient – Rs.750/-

**Mandatory notification:**
- Laboratories,
- Private practitioners & hospitals
- Chemists

**Public Health Action by health staff**
- Counseling, home visit
- Treatment adherence
- HIV, DM screening

**IPC 269 – Act of Omission**
**IPC 270 – Act of Commission**
How one can notify TB?
(Tools)

• Hard copy (by post, courier, by hand)

• Soft copy by email (word, Excel)

• Online on Nikshay portal (https://nikshay.gov.in/)

• Mobile application

• TOLL FREE number 1800-11-6666

Proposed (in-process)
What has India achieved after mandatory notification?

Total TB patients notified

1.45 million → → → → 1.9 million
Challenges

- Hassle free notification system should be available
- Huge number of private providers
- Private sector engagement is resource intense
- Notification is just first step – it has to be followed with public health action
- Optimal balance of carrot and stick approach for mandatory notification needed