

National Tuberculosis Programme

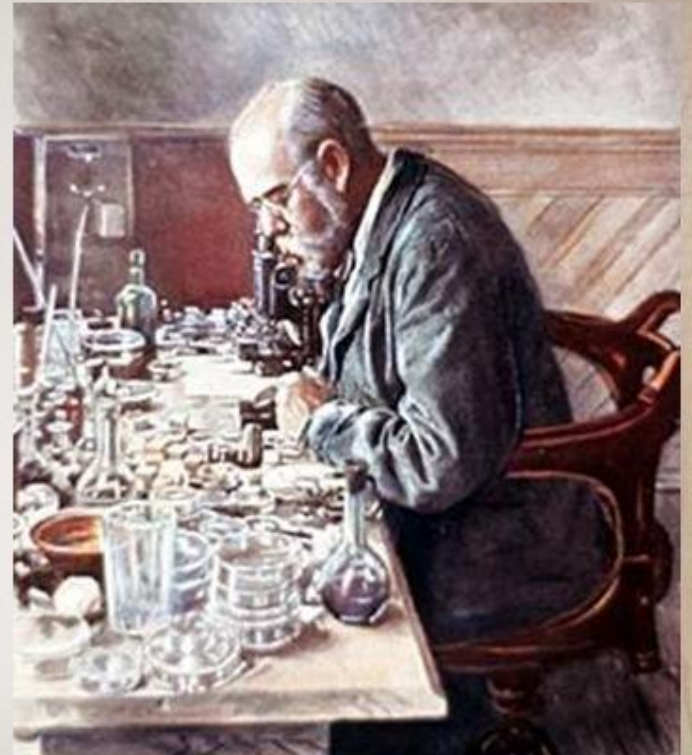


Dr. jyoti varthi
M.D. (Swasthavritta)

Robert Koch (1843-1910)

Developed the culture plate method to identify pathogens

Isolated the bacterium that causes tuberculosis



Tuberculosis

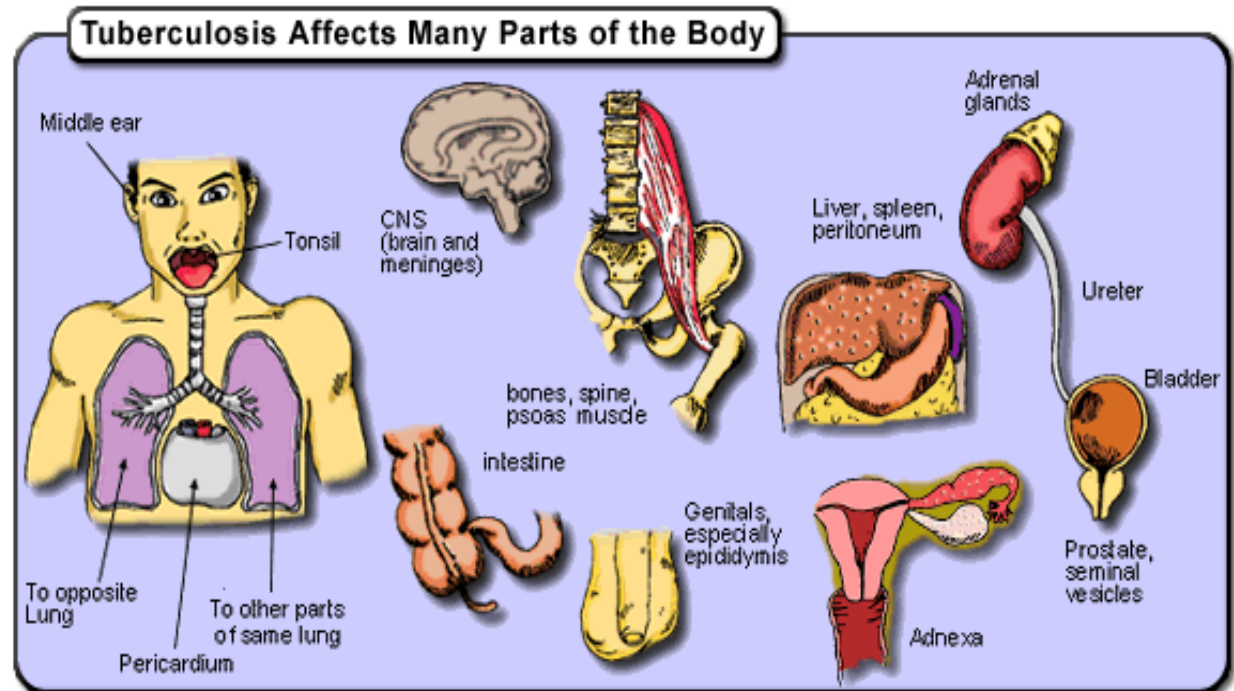
- Tuberculosis is a specific infectious disease caused by *Mycobacterium Tuberculosis*.

It affects lungs

Pulmonary TB

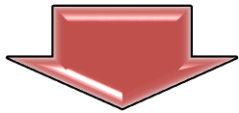
Also affect

- Intestine
- Bones & Joints
- Meninges
- Lymph Glands
- Skin and Other Tissues



Assistance National TB Programme

World Bank



GOI



WHO

Assistance RNTCP

Global TB Drug Facility

GFATM

The Global Fund to Fight AIDS, Tuberculosis
the Bill & Melinda Gates Foundation, Clinton
Health Access Initiative,

DFID

Department for International Development is a
United Kingdom

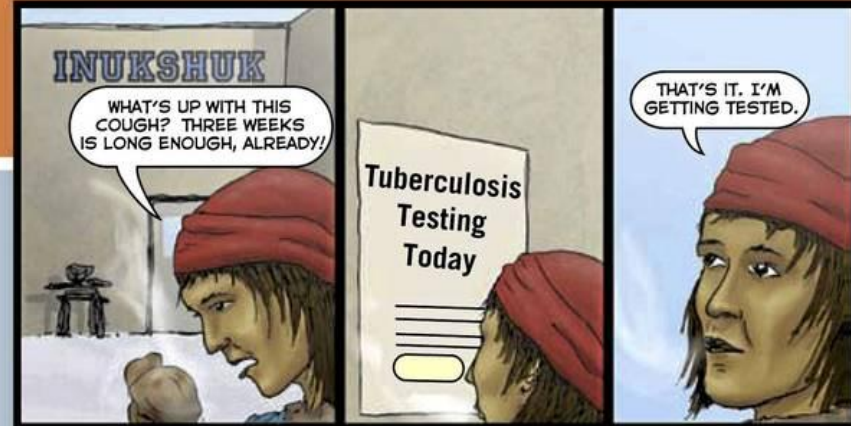
DANIDA ,

The Danish International Development Agency

USAID

United States Agency for International
Development

Get tested for TB!



TB control Algorithm

PREVENTIVE

- BCG
- Chemoprophylaxis

CURATIVE

- Case Finding
- Case Finding various Tools

Tools

- Sputum Examination
- Chest Radiography
- Sputum culture

Diagnosis

Symptoms of Pulmonary TB

- Cough (lasting for 3 weeks or longer) with or without sputum (hemoptysis)
 - Chest pain
- Loss of appetite
- Unexplained weight loss
- Night sweats • Fever
 - Fatigue

Symptoms of Possible Extrapulmonary TB Disease

- TB of the kidney **hematuria**
- TB meningitis **headache or confusion**
- TB of the spine **back pain**
- TB of the larynx **hoarseness**
 - Loss of appetite
- Unexplained weight loss
 - Night sweats
 - Fever
 - Fatigue

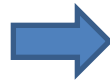
Pathological Diagnosis

Mantoux tuberculin Skin test
(TST)
not reliable primary screening

Chest Radiography

Bacteriologic Examination
specimens
(e.g., sputum, urine, or
cerebrospinal fluid
culture)

For pulmonary and
extrapulmonary



The Bacteriologic Examination 5
parts

Specimen Collection,

Processing,

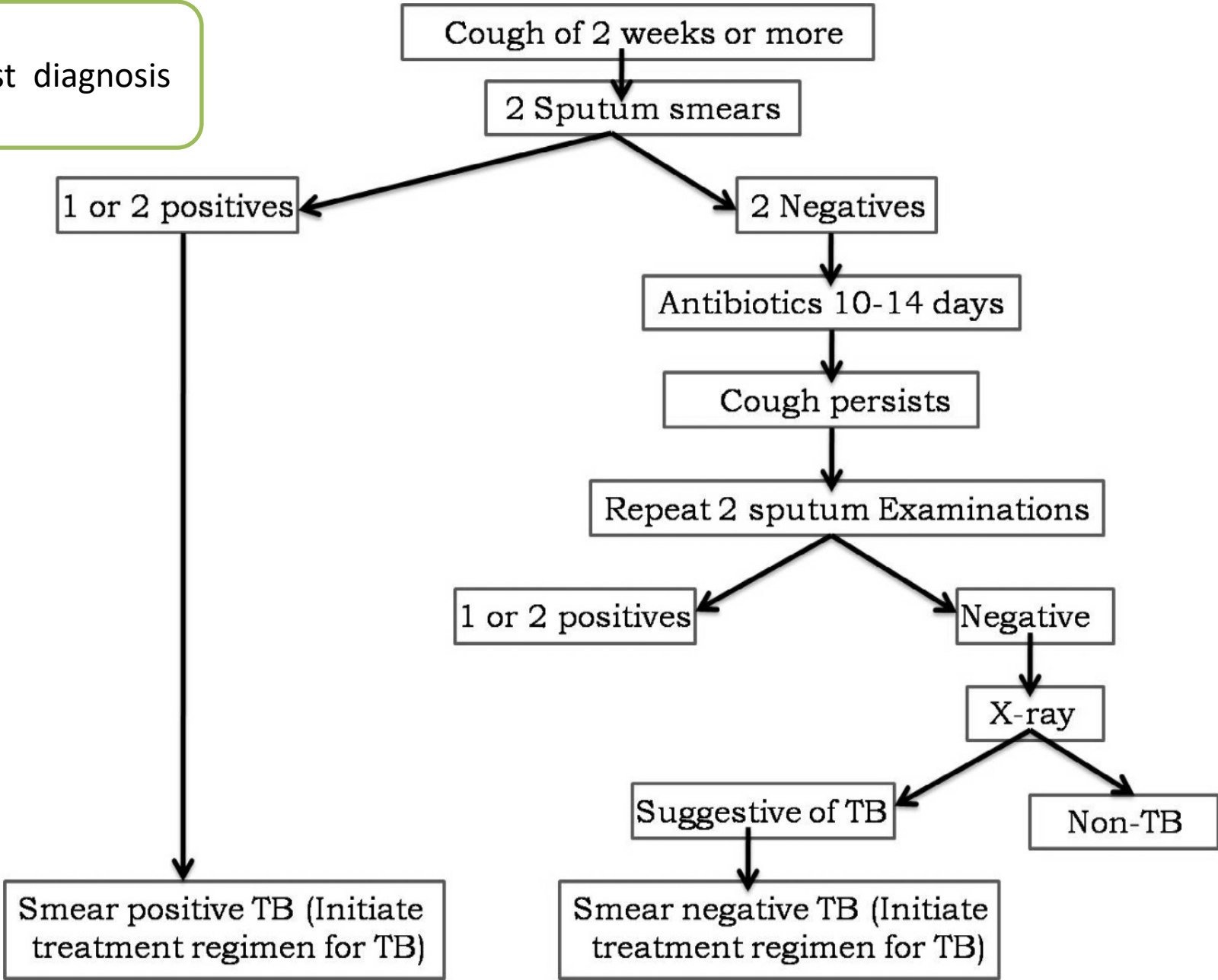
Review AFB Smear

Classification

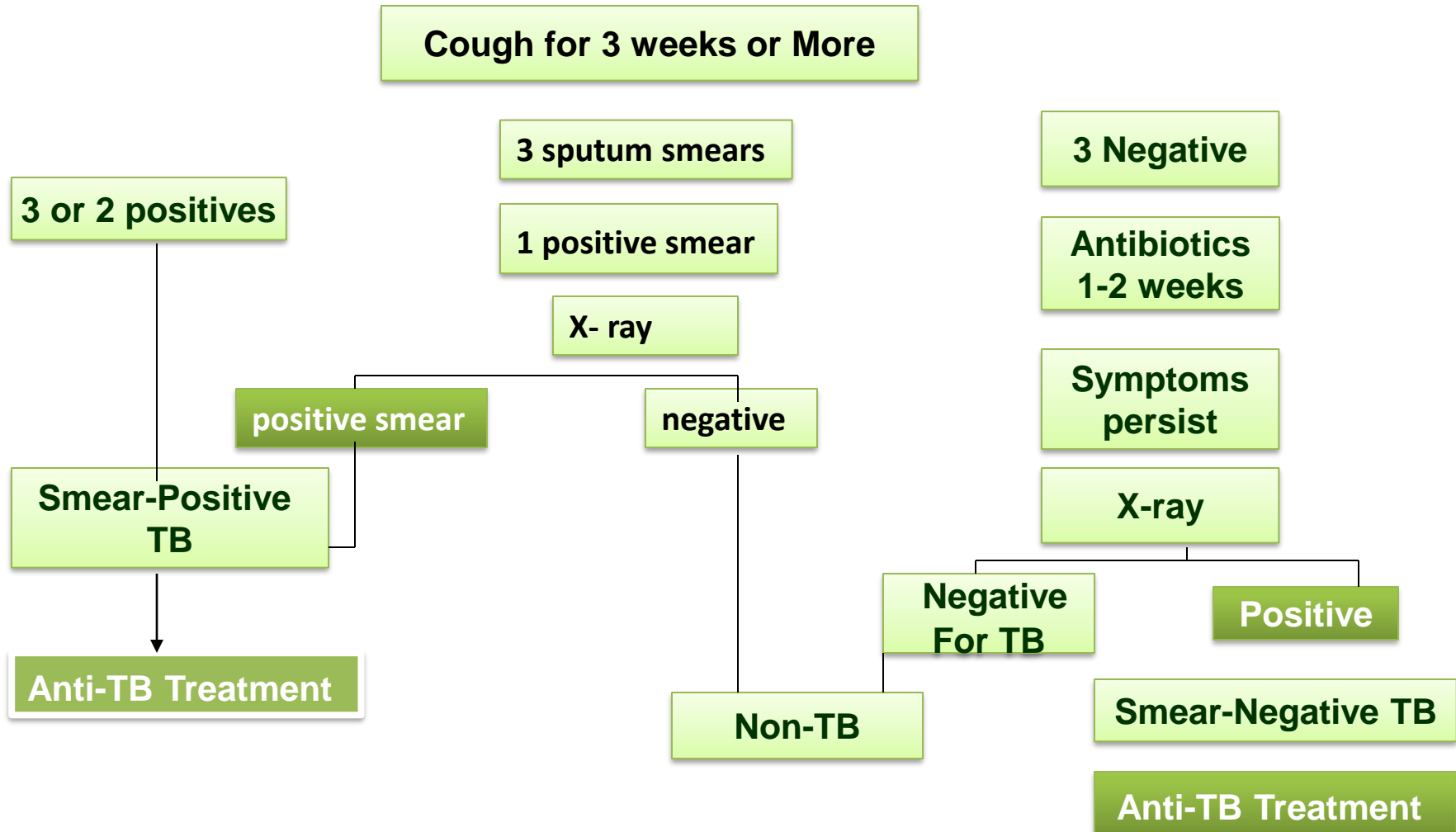
Results

Specimen Using Nucleic Acid
Amplification (NAA)

Latest diagnosis



Diagnosis of TB in RNTCP: Smear examination



Sputum Microscopy

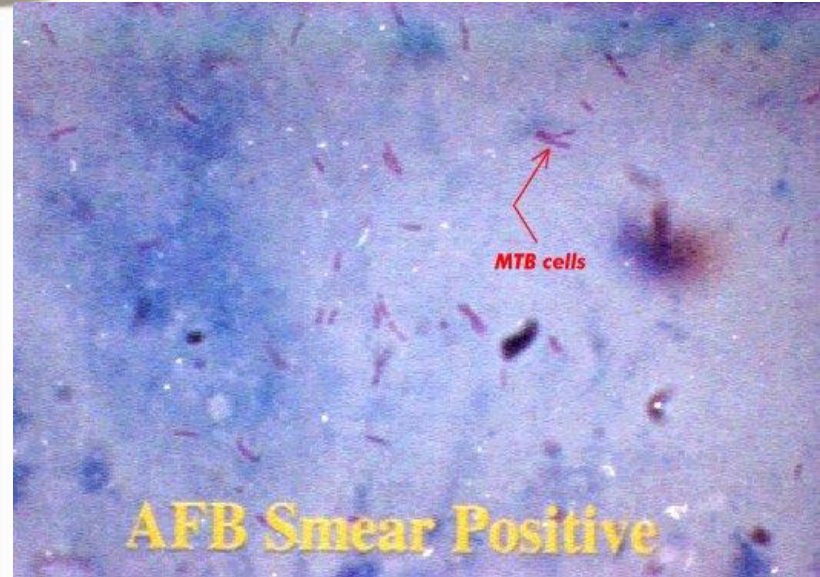
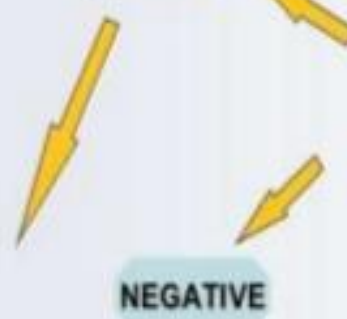
5000 – 10000 bacilli per ml sputum



CONVENTIONAL or MOLECULAR METHODS



CONVENTIONAL or MOLECULAR METHODS



- > 10 bacilli/ field +++
- 1 – 10 / field ++
- 10 – 99 / 100 field +
- 1 – 9 / 100 field Write the no
- No bacilli seen Negative

Classification of Patients in Categories for Standardized Treatment Regimen

Category	Type of Patient	Regimen	Duration
<p>I</p> <p>Color of box: RED</p>	<p>New Sputum Positive Seriously ill sputum negative, Seriously ill extra pulmonary,</p>	<p>2 (HRZE)₃, 4 (HR)₃</p>	<p>6 Months</p>
<p>II</p> <p>Color of box: BLUE</p>	<p>Sputum Positive relapse Sputum Positive failure Sputum Positive treatment after default</p>	<p>2 (HRZES)₃, 1 (HRZE)₃ 5 (HRE)₃</p>	<p>8 Months</p>
<p>III</p> <p>Color of box: GREEN</p>	<p>Sputum Negative, extra pulmonary not Seriously ill</p>	<p>2 (HRZ)₃, 4 (HR)₃</p>	<p>6 Months</p>

AKT mnemonic

I Remember Every Patient Sincerely

- Isoniazid(H) 10mg/kg
- (range 10-15 mg/kg); maximum dose 300mg/day.
- Rifampicin(R) 15mg/kg
- (range 10-20 mg/kg); maximum dose 600 mg/day.
- Ethambutol(E) 20mg/kg
- (15-25 mg/kg) maximum dose 1200mg/day
- Pyrazinamide(Z) 35mg/kg
- (30-40) mg/kg) maximum dose 1500mg/day
- Streptomycin (S) 0.75gm



CATEGORY I - B

Anti-TB Calendar Combi-Packs
for Continuation Phase (Schedule 2)

"RNTCP Central Government Supply
NOT FOR SALE"



Batch No. : H HH39H9B
R RR38I9B
X XX20I9B
Mfg. Dt.: 09/2009
Exp. Dt.: 04/2012

Schedule H Drug Warning - This
is sold by retail on the prescription of a
Registered Medical Practitioner only.

Types of Drug-Resistant TB DOTS PLUS

- Mono-resistant** Resistant to any one TB treatment drug
- Poly-resistant** Resistant to at least any two TB drugs (but not both isoniazid and rifampicin)
- Multidrug-resistant (MDR TB)** Resistant to at least isoniazid and rifampicin, the two best first-line TB treatment drugs
- Extensively drug-resistant (XDR TB)** Resistant to isoniazid and rifampicin, PLUS resistant to any fluoroquinolone AND at least 1 of the 3 injectable second-line drugs (e.g., amikacin, kanamycin, or capreomycin)

HISTORY

- NTP was launched in 1962.
- 1992 NTP was renamed as Revised National Tuberculosis Control Programme(RNTCP)

OBJECTIVES OF NTP

- 1.LONG TERM OBJECTIVE:

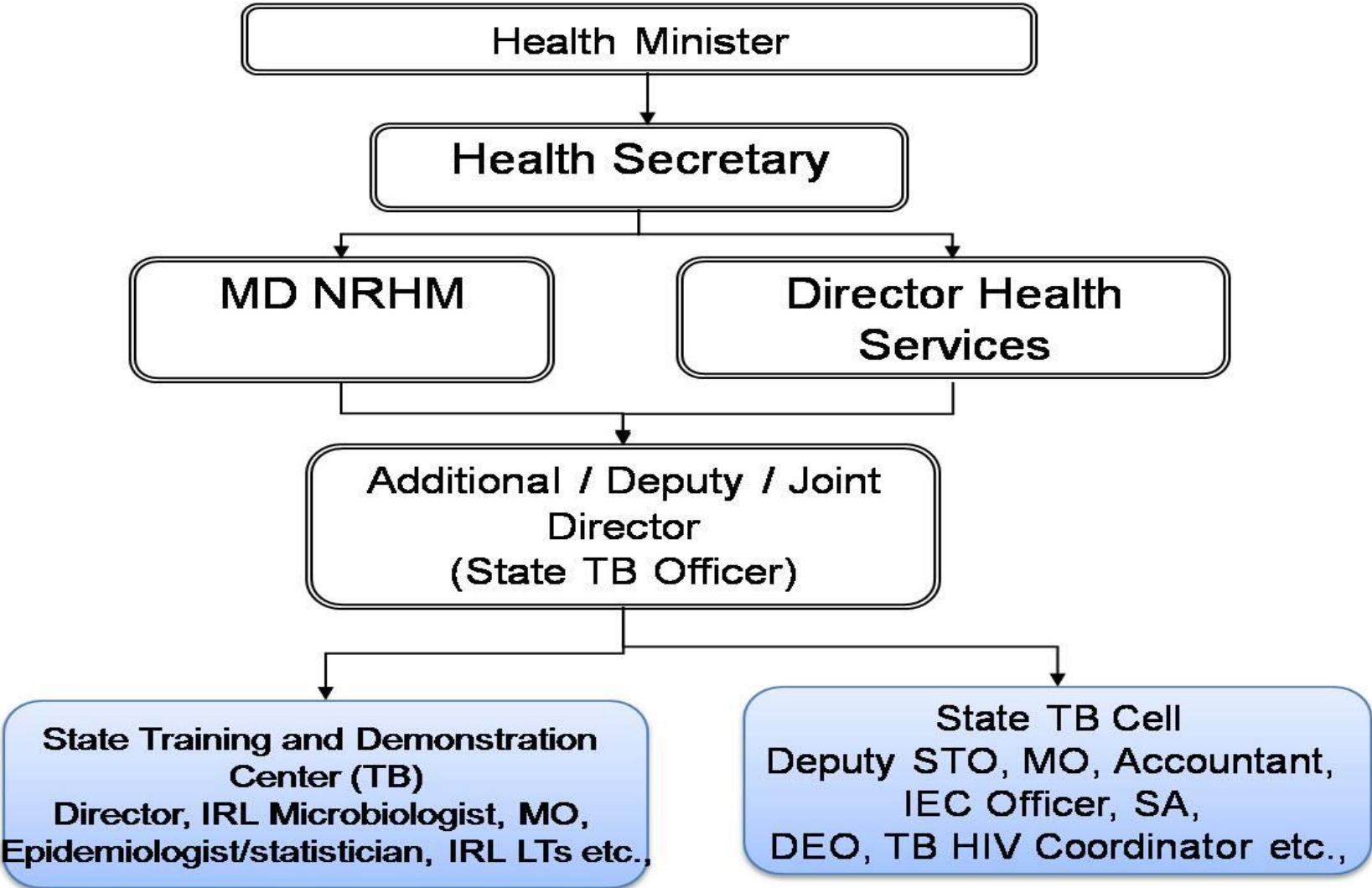
To reduce tuberculosis in the community.

- 2.Short term objectives :

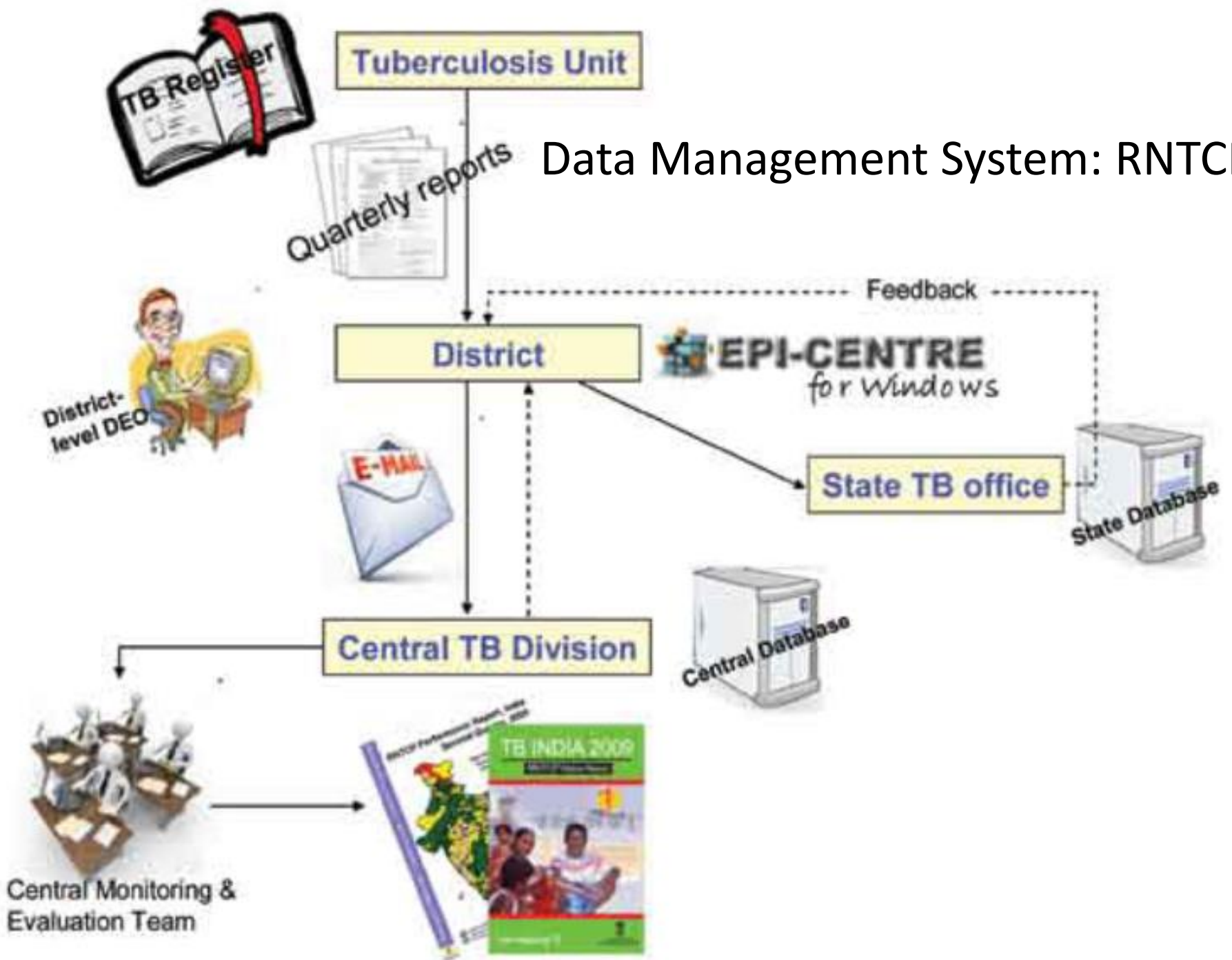
To detect maximum no. of T. B. cases and treated.

To vaccinate newborn and infant with BCG.

RNTCP Organization structure: State level



Data Management System: RNTCP



The core element of RNTCP I

Pilot Phase I

(1993-1998)

- The World Health Assembly (WHA) adopted the Directly Observed Treatment, Short-course (DOTS) strategy as a cost-effective tool
- It had declared TB as a global emergency in 1993 due to the enormous morbidity, mortality and socio-economic burden caused by the disease.

The core element of RNTCP 1

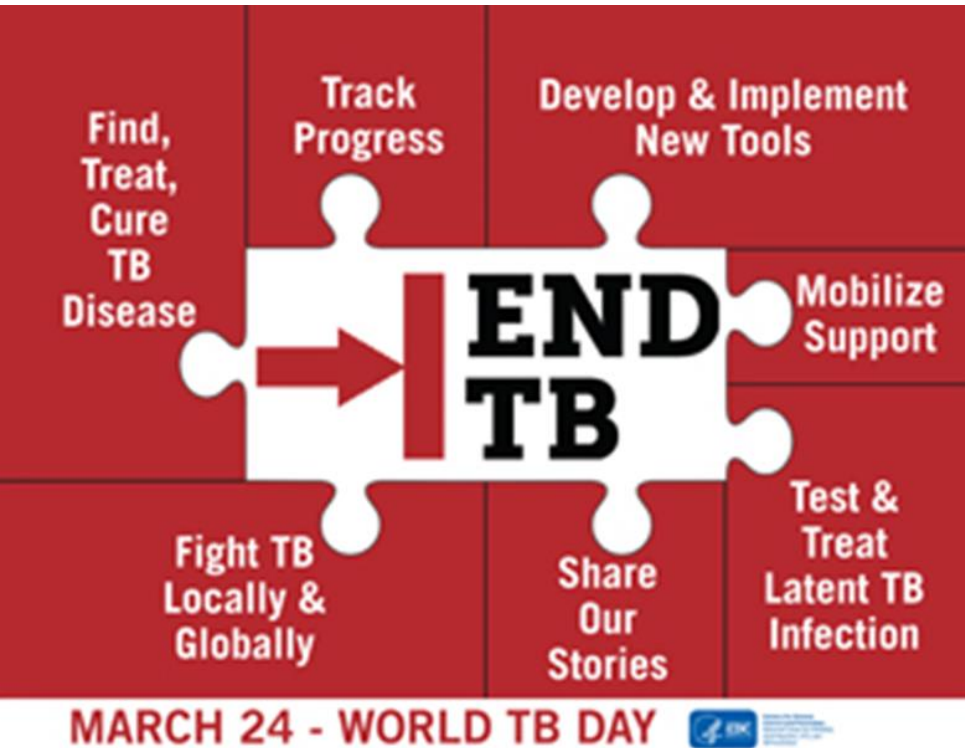
Phase II & III

(1997-2006)

- was to ensure high quality DOTS expansion in the country, addressing the five primary components of the DOTS strategy
 1. Political and administrative commitment
 2. Good Quality Diagnosis through sputum Microscopy
 3. Directly observed treatment
 4. Systematic Monitoring and Accountability
 5. Addressing stop TB strategy under RNTCP

STOP TB Strategy 2006

- Core of this strategy is DOTS
- Global Plan for 10 years
- Progress measures by 5 indicators



1. Case Detection

2. Treatment

3. Success

4. Incidence

5. Prevalence and Death rate

www.NIKSHAY.gov.in



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- Government of India
- May 2012 that every single private practitioner or private laboratory must notify all TB cases to the RNTCP through its user-friendly electronic portal called NIKSHAY.

BCG Vaccine

- Supportive chemo prophylaxis to relatives

Drug(s)	Duration	Dose	Frequency	Total Doses
Isoniazid (INH)	12 months	Adult:15 mg/kg Children: 20-40 mg/kg** Maximum dose: 900 mg	Twice weekly	96
	12 months	Adult: 15 mg/kg Children: Not recommended Maximum dose: 900 mg	Twice weekly	96
Isoniazid (INH) and Ethanbutol	9 months	Adults and Children 12 years of age and over: INH*: 15 mg/kg Etb 20mg/kg	Twice weekly	72

vk;qosZnh; fopkj

vk;qosZnh; fpfdRlk

- #X.kcykuqlkj oeu
- 'keu fpfdRlk %
 - flrksiykfn pw.kZ
 - y?kqekfyuh olar
 - lqo.kZekfyuh olar
 - rkfylkfn pw.kZ
 - v'oxa/kk {khjiku

vk;qosZnh; iF;kiF;

- y?kq lariZ.k vkgkj
- vtk % ekal nqX/k ?k`r
lgokl



NEVER GIVE UP

Go over, go under, go around, or go through.
But never give up.