

# WHO, World Bank and India's Disease control programs:

Questionable Strategies, Targets,  
Evidence, Practices

# The Case of Leprosy

- The National Leprosy Eradication Programme (NLEP), WHO, World Bank achieve a Virtual Elimination of Leprosy  
and a  
Real Elimination of Concern for Patients

# The disease

Disease of nerves, skin.

Diagnosis : clinical .

Treatment :

“Curable.”

Multi-drug therapy (MDT) for 6-12 months.

Treatment can be punctuated by worsening of status by reactions.



ज श्वास्थ्य सहयोग  
(पंजीकृत) **569**  
गनियारी, जिला-बिलासपुर **+**  
319107  
101201

जन स्वास्थ्य सहयोग

(पंजीकृत)

534

गनियारी, जिला-बिलासपुर

दिनांक : 11/5/07

रजिस्ट्रेशन : 96635

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Patients need care after  
'cure'

स्वास्थ्य सहयोग

(पंजीकृत)

नयारी, जिला-बिलासपुर

2313707

94,809

जन्मेजय पटेल

307

पुं

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522

†



85286

19/7/06



- Prevalence : total number of existing cases in a population at a point in time.
- Incidence: number of new cases of a disease occurring in a given time interval.
- $\text{Prevalence} = \text{incidence} \times \text{duration}$

# Some definitions from the CDC

- Control:  
Reduction of the incidence, prevalence, morbidity, mortality, to a locally acceptable level
- Elimination of a disease:  
Reduction to zero of the incidence of a disease in a specified geographical area as a result of deliberate efforts. E.g. neonatal tetanus.

- Eradication : Permanent reduction to zero of the worldwide incidence of an infection by a specific agent, as a result of deliberate efforts. E.g. smallpox.

**WHO sets an untenable target**

1986: WHO sets target for elimination of leprosy by 2000.

WHO CHANGES THE GOALPOSTS

# 1991

- Target : Elimination of leprosy *as a public health problem by 2000.*
- *Novel definition evolved:*  
Elimination not measured by absence of incidence but by reduction of prevalence below 1 case per 10,000.

# Liabile to create confusion.....

- National Health Policy as well as World Bank documents do not understand this delicate distinction!
- Use of the term detrimental to adequate control and effective treatment of leprosy.

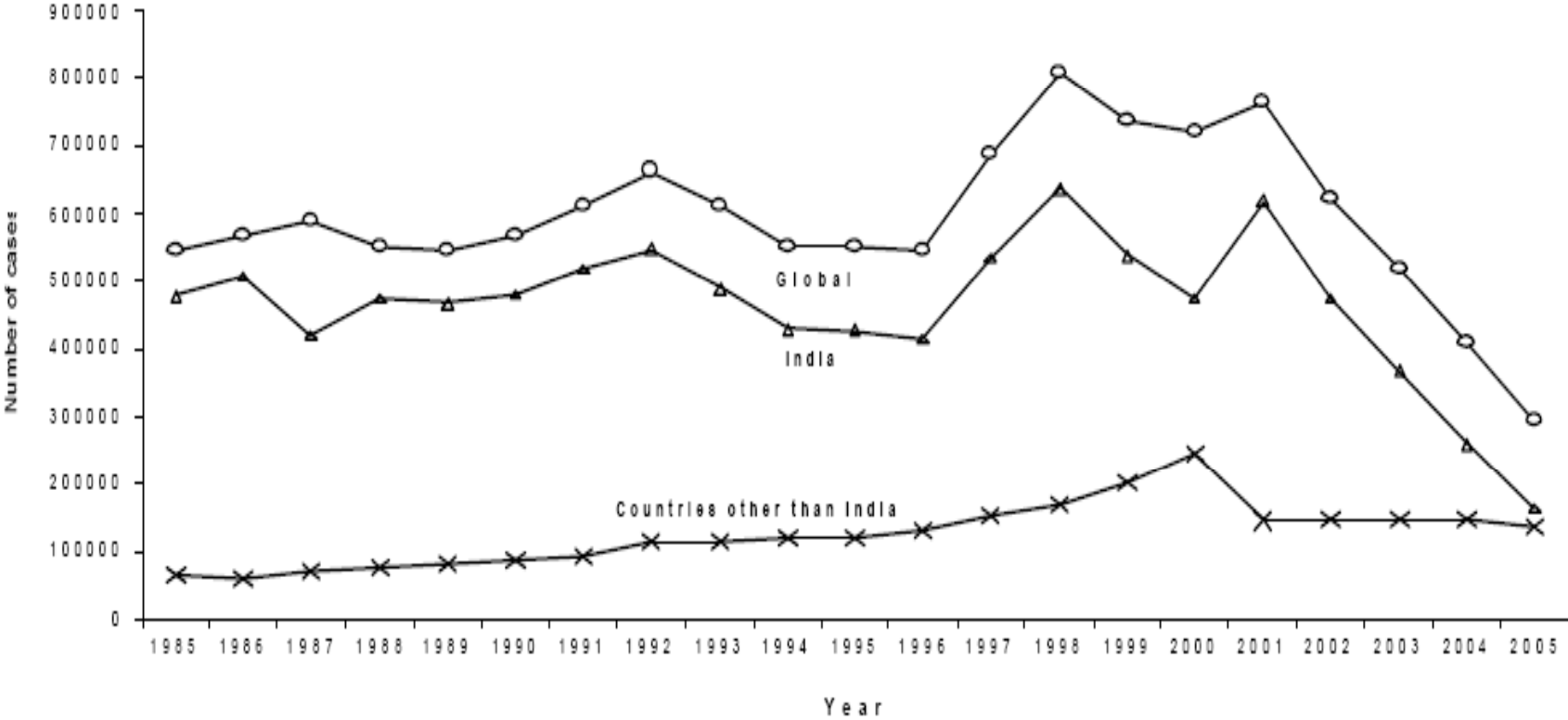


- WHO had no evidence that reduction of prevalence to this level would :
  1. Reduce the transmission.
  2. Reduce the number of new cases.

- “In 2001 WHO claimed that leprosy had been eliminated “at a global level,” even though 719,330 new patients were registered in 2000.
- IN endemic countries the incidence did not fall between 1985 and 1999.

- in the six countries that account for 88% of new cases the numbers and incidence of new cases are rising. Children comprise 15% of cases, indicating that active transmission continues.
- Lockwood D. Leprosy elimination –virtual or real

**Figure 1. Trends in new case detection by global, countries other than India and India, 1985-2005**



Source: Gupte MD, Pannikar V, Manickam P . Health Administrator Vol XVIII no.2 :

# WHO AND THE VIRTUAL ELIMINATION OF THE DISEASE

1. SHORTENING OF THE DURATION OF TREATMENT.

24 months to 12 months.

2. “CLEANING OF THE REGISTERS”.

- The elimination of leprosy will be a virtual phenomenon –elimination of registered cases through very short treatment regimes without reducing the number of new cases.

-Lockwood D. Leprosy elimination- virtual phenomenon or reality. **BMJ**

# 2001- 2005 : THE FINAL PUSH TO ELIMINATE LEPROSY



# WHO pushed treatment policies which have no Scientific evidence

1. Single dose treatment for single lesions.
2. Uniform MDT: shortening of treatment of Multibacillary treatment to only 6 months.
3. Accompanied MDT: provision of full year of drugs at first visit.
4. Treatment of reactions.

# The final push strategy attracted widespread criticism.

- Leprosy elimination – virtual phenomenon or reality – British Medical Journal 2002.
- Uniform MDT: Another example of wishful thinking . Leprosy 2003.
- Final push of leprosy in India: What is being pushed? Ind J Dermatology Venereology Leprology. 2005
- Leprosy : What is being eliminated ? Bull WHO.2007
- Treatment of Leprosy : Science or Politics? Tropical Medicine and Int . Health 2006

# The reaction

- Indifference.
- ILEP expelled from the Global Alliance for Elimination of Leprosy in December 2001.

# Unethical practices in India.

- “The SLO (State Leprosy Officer) issued an order in May 2000 that patients having no ration card or voter’s identity card should be treated separately.
- Their cases should not be reflected in the reports on the grounds that the PR (Prevalence Rate) was not coming down even after repeated efforts.” – Comptroller Auditor General’s report.

# Unethical practices : January 2005 : Kathmandu recommendations

- Every leprosy case detected was to be confirmed by a special team at district level.
- Active case detection to be discontinued

- Salutary effects of these practices.

- New cases detected in India in 1993: 423,000.
- New cases detected in 2002: 473,658.
- New cases detected in 2005: 161,457.
- India had a decline of 66% in 3 years which accounted for 96% of the global decline.

Leprosy was  
Declared Eliminated as a  
Public Health Problem  
from India  
on the **Predetermined Date** of  
*December 31, 2005*



On this Auspicious Date the  
Point Prevalence of Leprosy  
Supposedly fell below  
1 case per 10,000 Population

In Everybody's Mind,  
**Elimination** has become  
Equated with **Eradication**

The Consequences are  
Tragic for the Thousands of  
Patients for whom the  
Leprosy Bacillus forgot to  
keep its tryst with destiny

# NLEP and the World Bank

# World Bank : funded the program

- NLEP-I : 1993-94 to September 2000.
- NLEP-II: April 2001 to March 2004.
- Funded about 70% of project costs, about 32 million dollars.

# From the WB implementation completion report no. 32044

- The NLEP II had the advantage of a well-recognized, internationally accepted outcome: *'elimination of leprosy' defined as PR <1/10,000.*
- Though an element of confusion was evident in the issue of whether this would be *'actual'* prevalence or
- *'recorded'* prevalence, *GOI essentially interpreted it to mean the latter*, as is apparently the *internally*
- *accepted practice.*

- Reduction of 'actual' prevalence of leprosy to less than 3/10,000 by the end of 2004: As 'actual' prevalence has not been measured, it is not possible to rate the achievement of this target.
- The final IDA supervision mission of December 2004 raised this issue, and suggested the conduct of robust, scientifically designed surveys of representative sample populations to estimate the 'actual' prevalence rates.

# Post-script

- New WHO strategy :: **Global Strategy for Further Reducing the Leprosy Burden and Sustaining Leprosy Control Activities**
- (Plan period: 2006-2010)

Use case detection as the main indicator to monitor progress.

Discontinue the campaign approach.





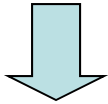
# Case 2: Tuberculosis

A look at the Revised National Tuberculosis

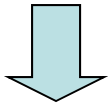
Control Program

# BIOLOGY OF THE DISEASE

- Exposure to infection



- Infection.



- Development of disease



- Extensive disease.



- Death.

- Infection with M.tuberculosis: 38% of all Indians are infected – 400 million.
- Infection remains latent in 90% of people because of development of immunity.
- *Only 10% develop disease after infection.*-about 2 million every year in India
- About 400,000 deaths every year.

# Global Tuberculosis Strategy of WHO.

- Case detection rate of 70%
- Cure rate of 85% in those treated.

Shall control the disease and decrease prevalence.

# The RNTCP

- Political commitment to TB control.
- Diagnosis based on smear microscopy
- Standardised short course regimes given under DOT.
- Rigorous monitoring

- Does not address the basic question

of

who develops the disease

and

why they do so?

# Only case detection and treatment of those with disease, does not lead to control!

- In the Chingleput trial area inspite of 95% case detection rate and good cure rate, there was an increase in the incidence of sputum positive tuberculosis in those who were uninfected at the beginning of the study.
- T Jacob John: Tuberculosis control without protection from BCG. Indian Pediatrics, Jan 2000





TB patient, Orissa

Ref: Status Report of the RNTCP  
2001:



*“Not only is the persistence of widespread undernourishment in India — more than in all other regions in the world — quite extraordinary, so is the silence with which it is tolerated, not to mention the smugness with which it is sometimes dismissed.” ( Amartya Sen in The Little Magazine, issue on Hunger)*



# Comparing body weights in patients with TB in rural Chattisgarh with sub-Saharan Africa

- Weights (Mean) of Patients with Pulmonary TB at Zomba, Malawi\* (~70% were HIV positive):

Males: 52 kg.

Females: 45 kg.

\* Van Lettow M, et al. Int.J Tuberc Lung Dis 2004:8(2): 211-17.

In Rural Chattisgarh the weights are 10 kg lower!

There were 244 patients **below** the weight of 35 kg.

# Malnutrition and its effects on immunity.

Malnutrition is the leading cause of acquired *correctable* immune system dysfunction throughout the world. [\[i\]](#)

[\[i\]](#) - US surgeon general's report.

# Nutritionally acquired immune deficiency syndrome

- N-AIDS is far greater in prevalence than HIV disease and equally devastating in its effects.
- 50% of all childhood deaths are attributable to the effects of PEM.
- It is entirely preventable and correctable.

# Evidence from the POW camps of World War II.

- Russian soldiers: 1600 calorie diet.
- British soldiers : 1600 calories + 1000 calories/day from Red Cross rations.
- Prevalence of TB in British soldiers: 2%.
- Prevalence of TB in Russian soldiers: 19%.
- GB Leyton.Lancet 1946.

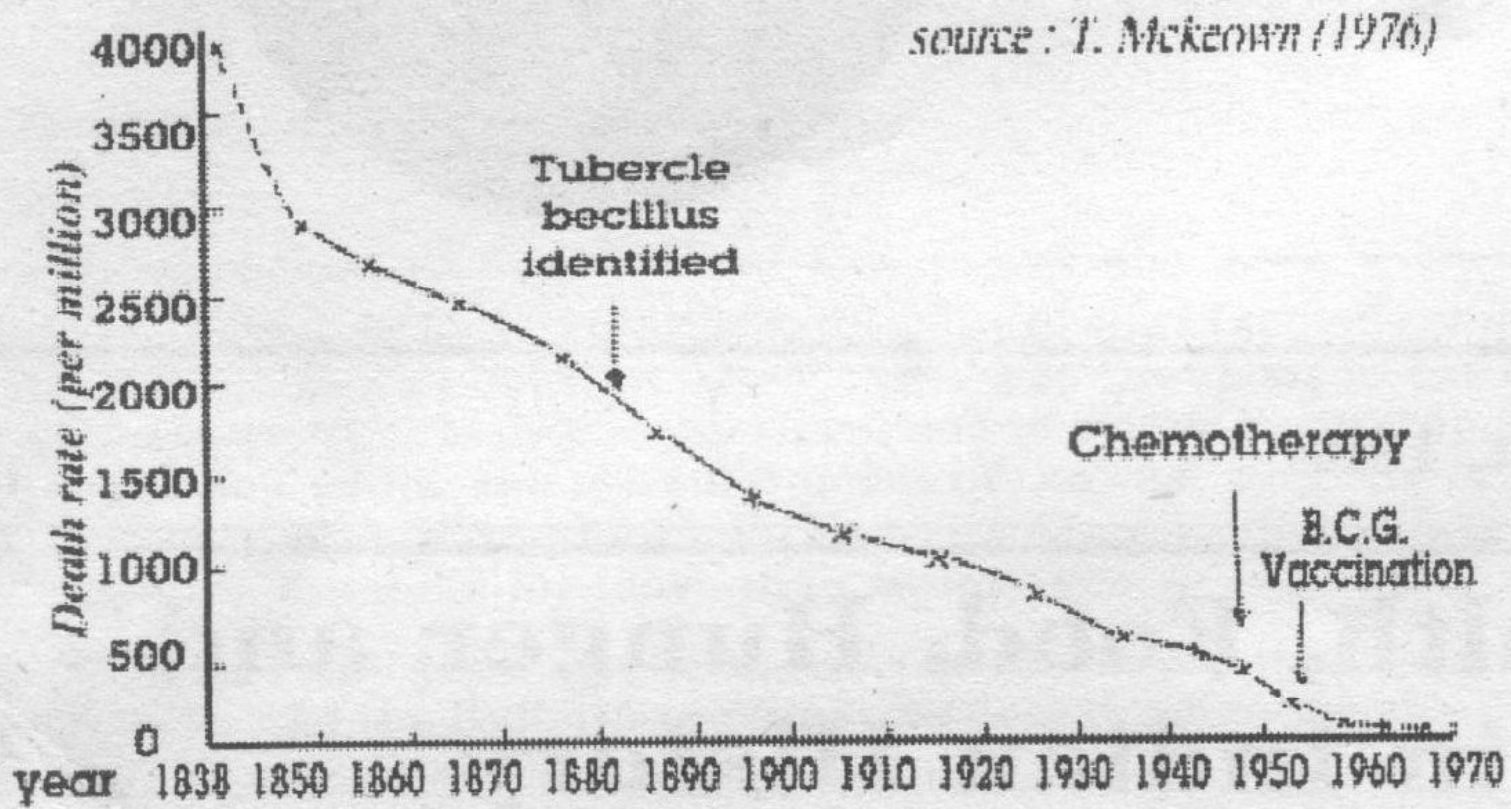


Fig. 1 : Respiratory tuberculosis : death rates, England and Wales