Poverty and TB control

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Voices of the poor

- World Bank study: 60,000 poor, 60 countries

Findings

- Poverty is multi-dimensional
  - Food, income, access
- States have been ineffective in reaching poor
- Role of NGOs for poor is limited
- Households suffering from poverty
- Social fabric is unravelling

Source: World Bank, Voices of the Poor: Can Anyone Hear Us; 2000
Poverty is voiceless: components of poverty

- Lack of material well-being
  - Food, housing, land
- Absence of infrastructure
  - Access
- Lack of voice, power, independence
- Illness is dreaded

Source: World Bank; Voices of the Poor, 2000
Distribution of Poverty

Distribution of population living on less than $1 a day, 1998 (1.2 billion)

- South Asia: 43%
- Sub-Saharan Africa: 24%
- East Asia & Pacific: 23%
- Latin America & Caribbean: 7%
- Europe & Central Asia: 2%
- Middle East & North Africa: 1%

Source: World Bank, WDR 2000
Causes of Poor-Rich Health Status Gap

1990 Deaths

- Communicable Diseases: 77%
- Injuries: 8%
- Non-Communicable Diseases: 15%

*“poor” and “rich” represent poorest countries / richest countries

Disproportionate disease burden among the poor*

* “poor” and “rich” represent poorest countries / richest countries
TB incidence and poverty

Poverty and estimated TB cases

% or population living below the poverty line (1998)

Estimated smear-positive incidence rate (1999; per 100,000)

- Sub-Saharan Africa
- Latin America & Caribbean
- Europe and Central Asia
- Eastern Mediterranean
- South Asia
- Western Pacific
22 Highest TB burden countries

- None are high-income countries
- 78% have GNP per capita of less than $760 (low income)
- Estimate: over 50% new TB patients without access to DOTS are living on less than $2 per day
TB prevalence among poor and non-poor, Philippines

Source: Tupasi et. al.; IJTLD 4(12): 1126-1132
TB and poverty: correlation in a high-income country

Average Case Rate

<table>
<thead>
<tr>
<th>East End, London</th>
<th>England &amp; Wales</th>
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<td>70</td>
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per 100,000
Limits to case detection under DOTS?

70% target case detection

Smear-positive case detection (%)

- all ss+ notifications
- ss+ notifications under DOTS
Income poverty and TB

The poor lack:
- Food security
- Income stability
- Access to water, sanitation
- Access to health care

TB may lead to:
- Loss of 20-30% of annual wages among poor
- Global economic costs: $12 billion annually
TB Epidemiology

Risk factors → Exposure

Risk factors → Sub-clinical infection

Risk factors → Infectious TB → Non-infectious TB → Cure, chronic or Death

Source: adapted from Urban & Vogel; Am Rev Respir Dis 1981
Poverty links to TB exposure, infection and disease

- Overcrowding
- Malnutrition
  - TB ➔ anemia, low retinol & zinc, wasting
  - Vit D deficiency ➔ 10x risk of TB disease
- Gender differentials
  - Higher prevalence among men
  - Women: faster breakdown to TB disease (2x)
- Marginalized populations
  - Ethnicity
  - Prisoners
Sm+ prevalence rates: China

Source: Ministry of Health, China prevalence survey, 1990
TB in the homeless

San Francisco homeless: TB cases 1992-1996

- African Americans
- Other non-white
- White
- Botswana* (1997)

Annual incidence per 100,000

* Notified cases

Source: Moss, Hahn, Tulsy et al.; Am J Respir Crit Care Med 2000
TB case rates by SES indicator: United States 1987-1993

Source: Cantwell, McKenna, McCray, et al.; Am J Respir Crit Care Med, 1998
Poverty & TB disease outcome

- Impoverishing effects of TB
  - Economic: 20-30% of household wages
  - Social: stigma
  - Women fear social impoverishment, men fear economic

- Delayed treatment seeking
- Worse outcomes?
  - Barriers to access
  - Inhibited continuity
Change in wealth profile of patients along the continuum of diagnosis and treatment

Public sector patients in Nairobi

n=85

Stage in treatment process

average asset factor score

- Outpatient; TB symptomatics
- Diagnostics; TB suspects
- New PTB (1st month of tx)
- Patients completing tx (8th month of tx)

Source: Hanson and Kutwa (unpublished)
Reasons for treatment delay: China

- Financial: 45%
- Inaccessible health providers: 10%
- Others: 12%
- Perception of illness: 23%
- Not informed: 10%

Source: Ministry of Health, China; 1990 prevalence survey
Financing public health: caring for the poor?
Financial subsidy from Government health services to poorest & richest 20%

Regional averages

Source: World Bank, 2001
Expenditures on TB care by level of wealth

Sample of patients in Nairobi

Source: Hanson and Kutwa (unpublished)
Mounting a response
Korea case study

TB And Economic Development

Year


Unemployment rates

Per capita GNI

TB cases

TB deaths

Rates per 100,000

Korean War

NTP
Global Response to Health Inequities

- **Millennium Development Goals**
  - Intermediate target: reduce deaths due to TB by half by 2010

- **Poverty-Reduction Strategy Papers**
  - Re-orienting development agenda toward pro-poor approaches
  - Debt-relief, increased funds for social sectors

- **Global Fund for AIDS, TB and malaria**
  - Proposals from 101 countries ($1.15 billion)
  - Disburse $700-800 million in 2002
Pro-Poor Strategies

- Income poverty leads to ill health
- Ill health contributes to income poverty
- Health services not reaching the poor

Evidence gap: are the poor being reached?

Evidence gap: food supplementation, income replacement, jobs

Evidence gap: monitor public financing for poor, impact of pro-poor strategies

- Reaching the poor with quality essential services
- Limiting the impoverishing effect of health expenditures
- Agenda for system responsiveness and accountability to poor
DOTS as a pro-poor approach

- Costs of care
- Distance to health facility
- Service availability
- Service quality
- Lack of knowledge

- Free drugs, ambulatory treatment, incentives, income replacement
- PHC-based, Community based DOTS, outreach
- DOTS expansion, PPM DOTS, HR incentives
- Monitoring, equity monitoring
- IEC
Limits to case detection under DOTS?

- 70% target case detection
- all ss+ notifications
- ss+ notifications under DOTS

Smear-positive case detection (%)
Increasing case detection: next steps for an equity approach

- **Who’s being reached** (public, private)? Benefit – incidence

- **Who is being missed?** Where are they?: formative research
  - Urban/rural, poor/non-poor, public/private

- **Evaluate** impact and cost-effectiveness of existing approaches
  - Incentives, geographical targeting, community based care

- Understand what matters to the poor (demand)
  - Socio-behavioural analysis (supply)
  - Demand analysis

- Understand how to motivate poor health workers

- **Monitoring**
  - Specify and monitor equity objectives and targets

- **Policy considerations**: subsidize diagnostics, sm- patients
Voices of the poor: Can anyone hear us?

“The authorities don’t seem to see poor people. Everything about the poor is despised, and above all, poverty is despised.”

- Brazil, 1995