Social protection interventions for TB control: The Brazilian Experience

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Brazil: factsheets

Surface: 8.514.877 km² (5th largest country)
States: 27
Borders: Argentina, Bolivia, Colombia, French Guyana, Guyana, Paraguay, Peru, Suriname, Uruguay and Venezuela
Population (2011): 193.917.083 inhab. (5th largest population)
Urban population: 84,0%

GNP (2012):
- Total: US$ 2.2 trillons USD (7th)
- Per capita: US$ 11.670 (68rd)
- Minimum wage: US$ 339

Social indicators
- HDI (2012): 0.73 (85th)
- Life expectancy: 73.8 years (102nd)
- Years of study: 7.2 years (last in South América)

Brazilian Health System – universal access, free of change ("Right of all, duty of the State" – Federal Constitution)
TB in Brazil: factsheets

• 70 thousand new TB cases reported in 2012
• 4,6 thousand deaths in 2010
• 17\textsuperscript{th} country in burden of disease (one of 22 high burden countries)
• 111\textsuperscript{th} country in TB incidence rate
• 4\textsuperscript{th} cause of death among infectious disease
• 1\textsuperscript{st} cause of death among infectious diseases defined in PLHA
Epidemiological Antecedents

• Decrease of incidence and mortality rates since mid 90’s

• Stability of operational indicators as cure and default rates in undesirable levels

• One fourth of TB patients are enrolled in the Unified Register for government social support programs (Cadastro Único)

• 14% of TB cases are beneficiaries of *Bolsa Família*

Per 100 thousand inhab.

Decrease = 30.2% (average 1.4% per year)

Source: MS/Sinan and IBGE. *preliminary data
TB mortality rate. Brazil, 2000 - 2010

Per 100,000 inhab.

Year

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

3.3 3.1 3.0 2.8 2.8 2.6 2.6 2.5 2.6 2.5 2.4

Source: MS/Sinan and IBGE.
TB cure and default rates. Brazil, 2001-2011

Source: MS/Sinan and IBGE. *preliminary data
Vulnerable Populations
(RR comparing with general population)

- Afrodescendent population: 1.5 times*
- Indigenous population: 3 times*
- Prisoners: 28 times*
- PLHA: 35 times*
- Homeless: 67 times**

* Source: MS/Sinan and IBGE
** Source: Adorno 2010
Relationship between family income (in minimum wages per capita) and TB occurrence. Brazil, 2008

Thinking about TB control in Brazil

According to Styblo`s rule, to control TB it would be enough to detect 70% of BK+ cases and cure, at least, 85% of them.

Several respected researches have questioned this rule, pointing that in different scenarios this two programmatic indicators won`t push down incidence trend until reaches <1/100 thousand inhab.

And several other have establish the relationship between social economic variables and tuberculosis.

So what should we do?...
Brazilian Social Protection System

Based on three pillars:

• National Health System (SUS)
• Social Security (National Social Insurance Institute - INSS)
• National Social Assistance Policy (SUAS)

Brazilian social security system covers the entire population against all basic social risks under the ILO Social Security (Minimum Standards) Convention (No. 102), 1952.
Social Security (INSS)

• Contributory and requires compulsory affiliation (except for retirement)

• The social insurance system covers individuals in old age, those with disabilities and survivors. In addition, it provides maternity coverage, involuntary unemployment protection and others

• INSS survey on infectious diseases that most cause insurance for been away from work in 2012:

• Tuberculosis was the disease among infectious ones that most caused payment of sickness benefits granted to formal workers by social security: 12,997 cases, representing 31.4% of the number of sickness benefits by DIP
Social Assistance Policy (SUAS)

- A non-contributory public policy to provide cash benefits and services to populations living in poverty, in need, or in a condition of social vulnerability.

- Social assistance is responsible for ensuring the following securities: income, shelter, coexistence, autonomy and the survival of circumstantial risks.

- Currently, there are 19.5 million households (around 80 millions people) enrolled in Unified Register for government social support program (CadÚnico).
CadÚnico (“Unified Registry”): key features

- Instrument to collect data to identify and characterize the poor families in Brazil

- Target population: families with per capita income of 1/2 minimum wage (US$170.00) up to three minimum wages (US$1,015.00)

- Purpose: identifying the characteristics of poor families and their individual members through the Social Identification Number (NIS); producing socioeconomic diagnosis of low-income families in Brazil, serving as an input for public policies in all levels of government

- Types of information about families enrolled: characteristics of household, family composition, civil identification, educational level, employment status, labor market situation of each family member, income and total household spending

- Transparency and control: auditing by crossing administrative databases of the federal government; biennial review of the socioeconomic situation of families registered; control by outside agencies and social control agencies
Bolsa Família Programme (BFP)

• Conditional cash transfer policy focused on poor and extremely poor families
• Immediate relief from poverty
• Poor families per capita monthly incomes range from US$ 35 to US$ 70; the extremely poor families’ per capita monthly income is below US$ 35 (based on World Bank US$1,25/day)
• Conditionalities as a tool for achieving families’ commitment with attendance to health and education services and enforcing the supply of services for the poor population
• Funding of financial benefits: Federal Government budget.
• Number of beneficiaries of BFP: 13,3 millions
• Fiscal Impact of BFP: 0.46% of GDP - US$ 10 billion
Bolsa Família Programme Social Outcomes

• Reduction in income inequality
  – 21% of the reduction achieved in income inequality was due to BFP (2004-2006).

• Extreme poverty
  – BFP explains 18% of the reduction in the poverty gap
  Soares and Satyro, 2009.

  – In 2009, 4.3 million out of 12.4 million beneficiary families have crossed the extreme poverty line (US$35 per capita monthly) by receiving the financial benefits
  Senarc, 2010.
Bolsa Família Programme Health Outcomes

• **Impacts on health**

  – Increase of child immunization rates (15-25%, according to the vaccine).

  – Beneficiary pregnant women have 1.5 as many pre-natal doctor attendances as non-beneficiaries with the same social and economic profile

  – Probability of being born full term is 14.1% higher for children in families that receive the benefit

  (Bolsa Familia Impact Evaluation Research, 2010)
Political Commitment
Brazilian federal budget (US$) for TB, 2000-2012*

Source: NTP Brazil
Improvement of social indicators in Brazil in recent years

• Over the last few years, there was a significant reduction of the population living under conditions of poverty. Poverty in Brazil decreased 67% and 35 million people left the poverty line since 2004.

• This outcome was the result of the economic growth and political decisions.

• Highlights: the increase of the number of jobs and its formalizations, the real valuation of the minimum wage, the extension and consolidation of conditioned income transfers programs (Bolsa Família, Benefício de Prestação Continuada) and credit expansion.

• However, in spite of this recognized effort, 16.2 million people still live under conditions of extreme poverty.
Political advances in the Ministry of Health
Participation at National Health Council
(the highest health forum in country)

Recommendation # 003 of March 17\textsuperscript{th} 2011
National Health Council

"It is recommended that the Ministry of Health: joined with other areas of the Federal Government, with the participation and support of social movements, the National Congress and institutions from other sectors, the creation and maintenance of social benefits for people with tuberculosis, so as to increase treatment adherence and reduce abandon rates. "

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The text is a recommendation from the National Health Council, urging collaboration between the Ministry of Health and other sectors to improve the treatment of tuberculosis, focusing on increasing adherence and reducing abandonment rates.
Decided:
(...)
11. Develop actions and strategies that consider the needs of impoverished communities, the afrodescendent population, the homeless people, prisoners and indigenous population and people living with HIV/AIDS in order to improve TB control among these populations.
12. To establish an intersectoral committee with the participation of civil society, to develop joint actions in order to address social determinants related to TB, especially those who have direct relationship with poverty and poor access.
(...)
I ratify the National Health Council resolution # 444 of July 6th, 2011.

Alexandre Rocha Santos Padilha
Minister of Health
1. Creation of the Parliamentary Front against TB, at the National Congress, to promote the discussion on TB control in the Brazilian parliament.

2. Supply of social incentives for TB patients by 85% of States and municipalities (food packages, travel vouchers, free of charge to community restaurants).

3. Research funding and development in social protection and TB in partnership with universities (UFBA, UFES, UFRJ, UNB, Fiocruz).

4. Creation of the special committee at the National Congress to study and produce reports in diseases of poverty.

5. Linkage between TB information system (Sinan-TB) and the Unified Register for government social support programs (CadÚnico).
Social Determinants

Linkage between Sinan (2011) x CadÚnico:
• Out of 73,833 TB new cases 25.1% live in poverty
• 13.9% (10,278) of new TB cases receive Bolsa Família
First findings

• Among cases beneficiaries of BF only 17.8 had more than eight years of education

• And only 36.1% had any kind of work in the previous year before enrollment in Cadastro Único

• For those who worked the amount received during this period (one year) had a median of US$900 (min US$1 and max of US$21,000)

• Cure rate in cases recipients of BF was 6% greater than in the all other cases

Source: MS/Sinan and Cad.Único
Treatment outcome of TB new cases according to receipt of benefit. Brazil, 2011*

Source: MS/Sinan and Cad.Único
TB new cases under DOTS according to receipt of benefit. Brazil, 2011*

Source: MS/Sinan and Cad.Único
Next steps

1. To evaluate the impact of Bolsa Família Programme in TB treatment outcome
2. To uphold the special committee for study in diseases of poverty, at the National Congress
3. To increase research partnership in social protection and TB
4. To strengthen the intersectoral actions both at state and municipality levels
5. Social income transfer for TB patients living under social vulnerability linked to adherence to the treatment.
Visit our website for further information:
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