TB And Society: Levels of Analysis And Solutions

Dr Thelma Narayan

1. Introduction - The Problem

Tuberculosis - an ancient disease, long known in India in the Ayurvedic Samhitas, Sanskrit vedas and by early physicians in 500 AD as Rajya Roga, 'king of diseases', became a major public health problem since the 1900s. A summary of the problem below, indicates the magnitude and complexity of TB in India.

Prevalence of infection decreased from 70-88% to 52-30% of the population in 1998, with equal urban-rural distribution, increasing with age. A gradual decline in incidence of infection to 1-2% per year indicates a natural decline. Prevalence of disease 16/1000 (all forms) indicates 3-4/1000 bacillary TB, increases with age, is lower in women and higher in lower socio-economic groups. Regional variations and a declining prevalence is noted. The incidence of TB is 1/1000 year (sputum smear positive), and 1-5/1000 (all forms) There are 13.5-14 million TB patients of whom, 3.6 million are infections. In absolute numbers the magnitude is larger now than in 1947, due to demographic reasons. Patients or persons affected are widely dispersed in all villages and towns, affecting adults and men more. The problem has the same urban rural distribution as the population i.e., 78% rural. The secular epidemic (with a long time frame) appears to be on the decline. Drug resistance, chronic excretors and the TB-HIV co-infection are added dimensions to the problem. Socio-economic determinants were considered during policy formulation, but later overshadowed by technical programme components. Poor functioning of the TB control programme is indicated by high case-fatality rates, high ratios of prevalence to incidence, increasing proportions of chronic excretors and rising drug resistance.

TB control programmes conventionally frame the problem within epidemiological, biomedical and public health, based programmatic parameters, including case-funding, case holding, default, relapse and treatment failure. Beneath these useful articulations lie conflictual societal relations and interests from local to global levels, which become apparent in decision making, sectoral action and non-action and shades of implementation. However, societal and political economy issues which critically affect health policy processes including TB control receive inadequate policy attention, adding an additional layer to an already complex problem. These factors which are nor simple or static, the strength of the dominant paradigms and the power or (perceived) powerlessness of various actors (policy makers, implementors and patients) influence the understanding of the problem and the choice of solutions.

2. Layers of causal understanding

Different types of causal understanding can lead to different strategic approaches to intervention, with the recognition that a broader number of allies need to work together to address this major problem.

Levels of analysis of tuberculosis	Casual understanding of tuberculosis	Solutions / Control strategies for tuberculosis
Surface phenomenon (medical and public health problem)	Infectious disease / germ theory	BCG, case finding and domiciliary chemotherapy
Immediate cause	Under nutrition/ low resistance, poor housing, low income / poor purchasing capacity	Development and welfare – income generation / housing
Underlying cause (symptom of inequitable relations)	Poverty / deprivation, unequal access to resources	Land reforms, social movements towards a more egalitarian society
Basic cause (international problem)	Contraindications and inequalities in socio-economic and political systems at international, national and local levels	More just international relations, trade relations etc.

Source : A study of Policy Process and Implementation of the National Tuberculosis Control Programme in India by Dr. T. Narayan, 1998.

The historical review clearly reveal that major social distress, due to war, displacement, change of political regimes causing impoverishment resulted in a higher incidence of the disease. Similarly human development with better housing, nutrition, secure livelihoods resulted in a decline. In the current context of globalisation, privatisation and liberalisation, there is an urgent need to understand and address the underlying determinants of the disease that operate at deeper societal levels, be they local, national or global. They relate to terms of trade and impoverishment, loss of livelihood, situations of war, violence and uncertainty. The health sector may need to recognise its important role in raising these issues affecting TB and several other diseases (eg., HIV/AIDS, infectious diseases, non communicable diseases) and causes of ill-health, especially mental health.

3. Profiles of programme performance

A summary is given below based on in-depth interviews with 90 TB patients and 211 persons from different levels, besides field visits to health institutions at different levels.

4. Implementation gaps in TB control

Implementation gaps in the study were defined as the difference between policy statements, promises, expectations and subsequent performance. In addition to important qualitative findings in section 3 above, some of the quantifiable components of the implementation gap are outlined in the table below.

Since the past fifty years, 500-700,000 deaths from TB occured annually, totalling to about 5 million deaths, large by preventable. The burden of suffering on persons and families is immeasurable. Additionally as shown below, there is disablement in advanced cases, particularly among the poor and significant indebetedness due to the disease among the poor leading to further pauperisation.

5. Conceptual gaps in the NTP

There was an internal discrimination between sputum positive patients (infectious and hence of public health importance) and those sputum negative in regard to chemotherapeutic regimen, with the latter receiving only INH and Thiacetazone. This has been rectified in the Revised National Tuberculosis Control Programme. The choice of the cheapest regimen may also be cost-ineffective on the whole. There were insufficient efforts by programme managers in negotiating strongly with decision makers for the development of a sound health system through which short course chemotherapy could be administered. After the early years, there was an overall neglect of socio behavioural analysis leading to supportive action in favour of the poor and indigent, women, occupational and other high risk groups. The role of nutrition and social support was negated. Institutional capacity building was undermined by factors external to NTP. The approach was techno-managerial, top-down, drug dependant, relying primarily on bio-medicine, epidemiology and public health. These are all very useful and necessary but perhaps insufficient. Socio-political issues, conflicts of interests (and how to handle them), implementation factors and management in a complex federal system need much greater attention. The dynamics of the pharmaceutical industry and its impact on production and distribution were inadequately understood and harnessed. This leads us to the question whether science and technology led solutions are adequate for socially embedded problems. The direction of research, composition of teams and components of the intervention package need to be suitably altered.

Additionally, TB is biologically difficult to eliminate with the large pool of infected persons at life long risk of breakdown to disease. It is an ancient intra cellular bacteria with immense coping capacity. Historically, several technical approaches have been promoted as being scientific and effective only to be disproved later or found of limited value eg., BCG, immunotherapy, gold therapy, sanatoria, drug mono-therapy, thiacetazone, standard regimen etc. Knowledge gaps persist. However, studies and experience show that sustained care or interventions with a variety of methods have yielded positive results. The natural history of the disease also shows spontaneous healing in 33% of sputum positives.

It appears that societal relations and inequities influence the development of TB and equally importantly the implementation of control programmes.

In the absence of a broad goal conflicts occured between clinicians and public health professionals, vertical versus integrated approaches, specialist versus primary health care approaches and urban versus rural patients, with a fragmentation of the programme.

Along with apathy, non-decision making and non-action this resulted in a stagnant and counterproductive (in some ways) intervention.

6. What then?

TB policy should address not only what needs to be done (policy content), but how it is to be achieved at various level, with special focus on implementation issues.

Leadership development is crucial at national, state and institutional levels. Expertise in technical and administrative aspects of TB need to be supplemented by abilities to create political support and adequate authority for the TB programme, to mobilise resources, interact with a variety of agencies, foster growth of important institutions and nurture leadership at other level. This requires commitment, vision, imagination, flexibility and human relation skills in addition to competence.

Human resource development, including of front lines workers, thus far under-estimated compuses a foremost component of policy implementation. This comprises not just techhical training but regarding the primary health care approach and with personality development, communication and group skills. A programme of this complexity need the best personal, who will then require adequate recognition and compensation.

Institutional actors requrie the necessary autonomy, responsibility, authority, resources and status.

The policy should contain enough flexibility to make it responsive to local conditions, with trust in implementors, patients and their families.

Negotiations with organisations of medical and all health professionals, the pharmaceutical industry, federating agencies of NGOs need to promote the philosophy of NTP more assertively, effectively, countering resistance.

Incomplete coverage and the urban bias needs redressal. The strategy needs to build from bottom upwards, strengthening the base particularly primary health centres and attached sub-centres through capacity building, provision of means and resources (staff, dragmatics, drugs, transport) with adequate supervision and encouragement. Efforts to increase community participation are intreal. Working linkages with local bodies, social networks and NGOs could help ensure that adequate financial and social support.

Building up the self confidence and self-worth of periferal health teams, showing that their contributions are valued can enhance that performance, rather than the present hierarchical, top-down prescriptive approach.

The policy environment and political processes are never going to be easy or optimal. Strong policy leadership is required to respond to contextual changes and steer policy implementation compact, knowledgeable task forces with government and NGO

members can monitor and support the programme. Linkages with poverty alleviation and housing programmes are needed.

In the context of wide social disparities, the public sector plays an important role in TB treatment, care and control, to countervail adverse social forces. It is the only sector which is organised, funded by the tax payer, mandated to provide services for which it can be held accountable. The private sector with profit making interests have never been consistently involved with TB or with issues of poverty. However, their potential needs recognition, with setting up of educational, facilitatory and regulatory mechanisms.

Other actors, particularly NGOs, have played policy roles as watchdogs, issue raisers and researchers. If programme managers took greater cognisance of critical issues raised by NGOs, the media and legislators, they would find an additional service of information regarding the changing field realities and also of support.

It is frequently reiterated that policy content is technically sound. However, the study shows that implementation alters and distorts policy content in the field. The technical component forms an essential core of the policy. Focus on policy process dimensions wil enable its proper implementation and refinement. Besides early diagnosis especially at primary health centres, quality sputum microscopy and complete treatment, additional technical elements need policy attention and action. These include notification, action oriented data analysis at district and state level, regulation of TB treatment practices in the private sector, monitoring drug resistence at state level co-infection with HIV/AIDS, dual infection with kala-azar, etc., and safeguarding health personnel working with TB.

In conclusion, the policy analysis approach identifies several factors other than technical that influence the success of implementation. It highlights conflicts and dilemmas at different levels and the interdependent interests of patients, medical professionals (public and private), allied health professionals and workers, the pharmaceutical and diagnostic industries and of the state. Though apparently working towards a common goal, they represent strongly conflicting interests, needing mediation and resolution, so that the well being of the majority of patients is safeguarded.

References

Narayan T, 1998, A study of policy process and implementation of the National Tuberculosis Control Programme in India, Doctoral Thesis, University of London.

Walt G, 1994, Health Policy : An introduction to process and power, Zed books, London.

Porter JDH, McAdam KPWJ (eds) 1994, Tuberculosis Back to the Future, John Wiley and Sons Chichestor

Narayan T & Narayan R, Educational