NON-COMMUNICABLE DISEASES (NCDs) — INDIA’S NEXT MAJOR HEALTH CHALLENGE

This policy brief is based on the World Bank’s recent publication: Capitalizing on the Demographic Transition: Tackling Non-communicable Diseases in South Asia (2011). It assesses the NCD burden and develops policy options at both country and regional levels.

- **Aging in India is occurring rapidly.** The population above 65 is expected to increase from 4.4% in 2000 to 7.6% in 2025. (Figure 1) Older populations are more likely to be affected by NCDs. Thus, the health burden from NCDs will rise in parallel with aging.

![Figure 1: Age structure in India in 2000 and 2025](image)

- **NCDs now impose the largest health burden in India.** In terms of the number of lives lost due to ill-health, disability, and early death (DALYs), NCDs (inclusive of injuries) accounts for 62% of the total disease burden while 38% is from communicable diseases, maternal and child health, and nutrition all combined (Figure 2). NCDs largely affect middle aged and older populations, the groups growing the fastest, which will lead to future increases.

- **Cardiovascular Diseases (CVD), Injury, Mental Health, Cancer, Respiratory Diseases, and Diabetes are the major NCDs in India** (Figure 2). CVD and injuries each alone accounts for 12% of total disease burden. Along with the economic development and highway and road systems, road traffic injuries and deaths may increase dramatically, particularly among males.

- **Smoking, a major risk factor for NCDs, is already responsible for 1 in 5 deaths among men and 1 in 20 deaths in women.** By comparison with other countries, smoking is a major NCD risk factor in India. Smoking prevalence among youth is particularly high: 17% for boys and 9% for girls.

![Figure 2: Pattern of overall DALYs (age standardized) and NCD related DALYs in India, 2004](image)

**INDIA’S RESPONSE TO NCDs**

**LEADERSHIP AND COORDINATION**

The Directorate of Health Services has a dedicated NCD division that acts as the focal point for coordinating the NCD control programs in the country. However, an overarching policy, strategy, or coordinating body for NCDs is missing. The division’s structure is currently under reorganization to accommodate the expansion of the National Program on Diabetes, Cardiovascular Diseases and Stroke (NPDCS). The National Rural Health Mission (NRHM) provides an overarching umbrella, subsuming the existing programs of the Ministry of Health including all NCD control programs.

**NCD-RELATED INSTITUTIONS**

*India’s has several major institutions dealing with NCDs at the national level.* The key institutions include: The Indian Council for Medical Research (ICMR), the National Institute of Communicable Diseases, the All India Institute of Medical Sciences (AIIMS), and the Public Health Foundation of India (PHFI).

**PROGRAMS/INITIATIVES**

*India is gradually developing a broad array of public programs targeting NCDs.* The India Public Health Standards for NCDs, now under development, will contain recommendations for services, human resources, drugs, investigations, and equipment that should be provided for NCDs at various health care levels under the NPDCS, which has been piloted in ten states. NPDCS has three major components: health promotion for general population; disease prevention for those with high risk; and assessment of the risk factor burden. The National Cancer Control Program has twenty-five regional cancer centers. The National Trauma Control Program intends to address the growing number of road traffic injuries. The four components of its program are pre-hospital trauma care; hospital care; rehabilitation of the injured; and injury prevention.

In the area of *smoking*, India has adopted the Framework Convention on Tobacco Control (FCTC) and has prepared a tobacco action plan. A comprehensive law, the *Cigarette and Other Tobacco Products Act, 2003* (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution), aims to reduce the exposure of people to tobacco smoke; prohibit advertisements; prohibit sale to minors; and regulate the contents of tobacco products. Prevention efforts for tobacco are also developed and planned for integration into the NRHM and the NPDCS.

Those programs add up to a sound basis for tackling NCDs and are only now just beginning.

**SURVEILLANCE**

*The paucity of good quality data is seriously affecting NCD planning processes.* Currently, no data are collected for NCD complications, quality of health care, or health expenditures. Reliable and timely consolidation of health information from multiple agencies and multiple health programs at national level is seldom achieved.

Currently, surveillance is conducted by the states. The Integrated Surveillance Project (ISP) NCD arm used WHO methodology and planned for population-based NCD risk factor surveys for all states in three phases. Phase 1 covered seven states and the field work is complete and reports are finalized. These surveys collected risk factor and morbidity prevalence, but no information on mortality, complications, or health expenditures. In late 2009, due to delays and a reorganization of the overall IDSP, the phase 2 and 3 surveys (for the remaining states) are not currently planned. *The National Cancer Registry Program* has
population-based cancer registries in 13 different sites and calculates estimates of cancer incidence wherever feasible. Using registry data, an atlas has been published which highlights cancer incidence patterns across the country.

The 11th Five-Year Plan includes development of a comprehensive national health information system, integrating information from various reporting elements and including systematic monitoring and evaluation. Ultimately, this system could much improve the quality of information available for decision-making. However, progress has been slow.

**Human Resources**

The supply of health professionals qualified in NCDs will likely be insufficient to meet the rising demand. Tackling the increasing NCD burden would require important efforts to develop a qualified workforce. Training specific to NCDs, particularly that for diabetes, CVD, and stroke at the primary care level, are not included in the “Human Resources Qualification Standards,” established by the Medical Council of India, Pharmacy Council of India, and the India Nursing Council. There is also no clear system for planning future supply of human resources (HR), particularly for NCDs.

**Finance**

The current financing burden for NCD treatment falls disproportionately on the poor. In 2008, India spends 4.0 percent of its GDP on health care. Public expenditures total approximately 1.1 percent of GDP, leaving most funding coming from private sources. Of private resources, 80 percent is out of pocket. Persons with NCDs in India incurred significantly higher treatment costs (about double) in terms of out of pocket expenses compared to persons with other conditions and illnesses. Approximately 40 percent of household spending for NCDs is with distressed pattern, and the odds of catastrophic spending and impoverishment was much higher among those with NCD hospitalizations, as compared to communicable disease hospitalizations. With the chronic nature of NCDs and the high cost for some medications, financial vulnerability is likely the result and this accounts for some of the distress financing of care.

**Policy Options for India**

The World Bank’s recent publication: Capitalizing on the Demographic Transition: Tackling Non-communicable Diseases in South Asia (2010) introduces a policy framework for identifying NCD-related policy options. The options below follow this framework.

**Coordinate National NCD Efforts**

The current challenge is coordinating efforts in many areas to improve efficiencies and to assure that resources will have the largest impact. India could develop an overarching policy or strategy specific to NCDs, and create a higher-level coordination mechanism.

**Strengthen Tobacco Control Policies**

Prevention and control efforts outside the health sector, while substantial, could be enhanced.

Specifically, considering a tax framework that includes all major tobacco products, including bidis could have a large impact. This framework would need to consider tax impacts outside the sector on finance, agriculture, commerce, and labor.

**Strengthen Injury Control Policies with a Focus on Road Traffic Injuries**

Progress has been made with injury surveillance data, but it is still not well developed. Prevention policy, especially for road traffic injuries is badly needed.

**Implement Clinical and HR Training Standards**

Efforts could now concentrate on implementing the clinical standards and guidelines developed under the India Public Health Standards, and integrating NCD training into training curricula. With the NRHM and
the NPDCS both coming on line, this will become critically important.

**CREATE A NATIONAL NCD SURVEILLANCE SYSTEM**

*India could resume its efforts to constitute a national ongoing surveillance system for strategic planning and policy development.* Using a state-base approach is reasonable but national and regional funding and technical support will be needed. In addition, systematic surveillance of morbidity and mortality is needed. With regional variation in disease burden likely an issue, assessments may need to be done in representative subsamples of the national population. Surveillance must be designed to meet planning and policy development needs. It will be important to link institutions with NCD research capacity to create a disease burden evidence-base for population- and individual-based interventions. Finally, expanding surveillance outside the health sector for exposure to harmful products and foods (tobacco, processed foods, edible oils, etc), will be needed for health policy planning.

**DEVELOP FINANCING STRATEGIES FOR NCD PREVENTION AND CONTROL EFFORTS**

*Creating financing schemes that protect the poor is priority.* Most clinical prevention and treatment services are from private out-of-pocket sources, impose a large burden on the poor, and lead to both poverty induction and catastrophic spending.

*In parallel, India could seek to develop schemes relying on risk pooling and expenditure smoothing targeting population with higher means.* Indeed, a substantial proportion of the total population will also be susceptible to financial stress from health care costs from NCDs. Some models are currently being examined but a strategic plan is not evident.

*Finally, India could develop a strategy for financing population-based prevention interventions within and outside the health sector.*

**EVALUATE NCD PROGRAMS AND POLICIES INITIATIVES**

Few evaluations have been done and there is little demand for them. As more and more resources are targeted toward NCDs and as policies and programs are scaled up, understanding their benefits will become increasingly critical. *Areas that would greatly benefit from impact evaluations include tobacco control, NRHM, and NPDCS.*

**TAKE AN ACTIVE ROLE IN REGIONAL COLLABORATION**

Regional collaboration can be very effective for preventing and controlling NCDs. *India could induce positive developments in key areas to tackle NCDs in South Asia, by using its significant cultural and economic influence to promote regional cooperation.* Several promising areas for regional cooperation have been identified. Actively participating in regional collaboration on NCDs prevention and control would be beneficial. Activities include:

- Expanding and harmonizing tobacco advertising band to reduce demand
- Increasing and harmonizing tobacco taxation to reduce consumption
- Harmonizing tobacco taxes and strengthening anti-smuggling measures
- Standardizing and mandating food labeling policy to improve knowledge and awareness of food composition
- Collaborating on group purchasing of essential medications to increase their access and affordability
- Establishing a regional health technology assessment institution to improve the comparative effectiveness of interventions for NCDs and other conditions
- Using regional education and training capacity to complement the national needs for human resources in order to improve both staffing and skill levels
- Establishing a regional network of surveillance and burden assessment to improve national capacity through knowledge sharing and experience exchange

**Reference**

1. Non-communicable Diseases (NCDs) are defined by World Health Organization to include chronic diseases, principally cardiovascular disease, diabetes, cancer, and asthma/chronic pulmonary disease (COPD), in addition to injuries and mental illness.
2. Disability Adjusted Life Years (DALYs) are defined by World Health Organization as "the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability."