

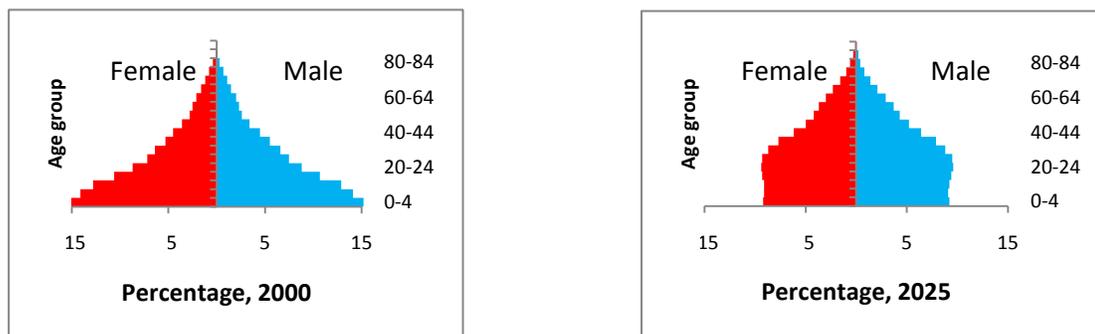


NON-COMMUNICABLE DISEASES (NCDs)¹ – PAKISTAN’S NEXT MAJOR HEALTH CHALLENGE

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 changes in Pakistan’s demography will increase the burden of NCDs** (Figure 1). The proportion of the population 65 years and older – particularly prone to NCDs – will move from 3.9 % to in 2000 to 5.4 % in 2025. Thus, the health burden from NCDs will rise in parallel with aging.

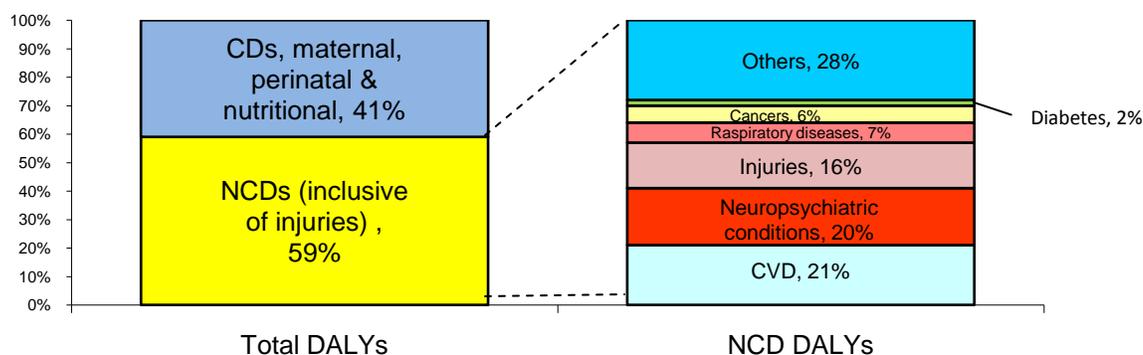
Figure 1: Age structure in Pakistan, 2000 and 2025



Source: U.S Census Bureau. www.census.gov/ipc accessed July 1, 2010

- ✓ **NCDs impose the largest health burden in Pakistan.** In terms of the number of lives lost due to ill-health, disability, and early death (DALYs),² NCDs (inclusive of injuries) accounts for 59% of the total disease burden while 41% is from communicable diseases, maternal and child health, and nutrition issues all combined (Figure 2).
- ✓ **The major NCDs are Cardiovascular Diseases (CVD), Mental Health (neuropsychiatric conditions), Injuries,** and to a more moderate extent, Chronic Respiratory Diseases, Cancers, and Diabetes (Figure 2). A third of the population was classified as having metabolic syndrome, a risk factor for CVD. Approximately 10% to 16% of the population suffers from mild to moderate psychiatric illness.
- ✓ **Smoking is a significant major risk factor and use is in the mid range compared to other South Asian countries among both adults and youth.** The prevalence for adult males is 35% and 7% for females. For youth, the prevalence is 12% for boys and 8% for girls.

Figure 2: Pattern of overall DALYs (age standardized) and NCD related DALYs in Pakistan, 2004



Source: World Health Organization, Global Burden of Diseases http://www.who.int/healthinfo/global_burden_disease/estimates_country/en/index.html

PAKISTAN'S RESPONSE TO NCDs

POLICY

Pakistan's has made important efforts to tackle NCDs. The National Health Policy, 1997, emphasized NCDs. In 2003, the country was the first developing countries to develop an integrated national plan of action, which addressed the four major NCDs with common risk factors along with injuries and mental health: *The National Action Plan for the Prevention and Control of Non-communicable disease and Health Promotion in Pakistan*. Both the policy and plan could not be implemented due to the change in government. In 2009, the MOH proposed the establishment of a National Commission for Prevention of NCDs, with public and private partnerships and volunteerism as its driving force. The process of creating the Commission has come under legal question and has been halted.

Tobacco control policies point in the right direction, but their implementation has largely been stalled. In 2002, Pakistan enacted the *Prohibition of Smoking and Protection of Non-Smokers Health Ordinance 2002*, which included measures to stop smoking in public places and a ban on cigarette advertisements. However, implementation has been slow. In 2004, Pakistan adopted the Framework Convention on Tobacco Control (FCTC) and the MoH took several actions to implement control measures. In 2009, the MoH announced new control measures. For instance, no tobacco company is allowed to offer free goods, cash rebates, or discounts, as marketing incentives to cigarette buyers. In 2010, the MoH also imposed mandatory pictorial warnings on all cigarette packs and outlets. Still, in spite of current excise tax levels, the price of cigarettes remains low and easily affordable, limiting the impact of tobacco control efforts.

Road safety policy implementation and enforcement capacity is minimal. In Karachi, about 42% of the vehicle crashes involved public transport or heavy goods vehicles. About half of the fatal cases were among motorbike riders. Most drivers involved in serious road crashes escape criminal and civil penalties. Current fines are unhelpful in changing driver behavior because they are too low. Enforcement of existing laws is weak. For example, despite a helmet law, over 90 % of all riders wear no helmet. Little headway has been made with urban planning and construction of roads that take into account the needs of pedestrians.

HEALTH SERVICE DELIVERY

The primary care level is not well programmed to deliver preventive or treatment services for NCDs. The MoH has developed a public sector health system with four major levels: primary care facilities for outpatients (basic health units and dispensaries), district hospitals for basic inpatient and outpatient care, tertiary hospitals in urban areas, and vertical programs. ***Public institutions lack core elements and capacity to manage integrated NCD programs.*** Population-based prevention is not addressed – with the exception of tobacco (see above). Promising pilots for community based hypertension control have recently been conducted. Since the majority of people seek care from private general practitioners, it is essential to integrate the private sector into any NCD strategy. ***Currently, a primary care service delivery model for NCDs suitable for the Pakistan context is missing.*** The private sector dominates service delivery for outpatients. It is primarily geared toward provision of individual treatment and preventive care services. Services are delivered in parallel with public service and

there is no formal integration, or referrals system between the two sectors.

Human resources are not well-distributed and not trained to manage NCDs. The number of physicians may be sufficient for population coverage ratios for public service delivery. However, there is maldistribution with understaffing in rural areas—85% of physicians practice in urban areas. General practitioners tend to manage common NCD conditions poorly, such as hypertension, diabetes, and lipid lowering. For mental health, the total number of psychiatrists is 250, insufficient for such a large population. Further, fewer than half of them have a postgraduate qualification in psychiatry. **Lady health workers (LHWs)**, health care providers trained for two years in community health nursing and midwifery, provide badly needed services. However, LHWs are not trained for NCDs.

A National Essential Drugs List exists, but the stock and availability of the drugs are problematic. The list contains 452 drugs (the largest in South Asia), including anti-hypertensive, lipid lowering, and anti-diabetic drugs, as well as bronchodilators and anti-depressants. However, only a quarter of primary health centers are stocked with basic medicines such as aspirin and many lack bronchodilators.

SURVEILLANCE AND INFORMATION SYSTEMS

The MoH introduced a **Health Management Information System (HMIS)** for first-level care facilities in 1992. Plans are to integrate monitoring of communicable and NCDs within HIMS at the district level.

National NCD surveillance efforts are starting slowly. In 2003 a pilot was implemented in one district (population 1 million) for developing a model for

population based surveillance of NCDs.¹ A World Bank/CDC/WHO joint study in 2004 recommended that it be replicated and taken to nationwide scale.² The country's NCD mortality data is of poor quality, and there is no risk factor surveillance. Only scant morbidity data are available as there are no systematic clinic- or hospital-based registries of public and private health facilities. One exception is the **Road Traffic Injury Research & Prevention Center**, a joint collaborative effort of several academic institutions and a hospital. It has collected road traffic injury-related data from five major trauma centers in Karachi and a road traffic injury database has been created.

FINANCE

The current financing system will let individuals foot most of NCD costs. The vast majority of private spending on health is out of pocket and most of that goes to purchase medicines. Private health services are poorly regulated, thereby letting the market dictate prices to semi-literate consumers.

¹ Nishtar S, Bile KM, Ahmed A, Amjad S, Iqbal A. Integrated population-based surveillance of non-communicable diseases—the Pakistan model. *Am J Prev Med.* 2005 Dec;29(5 Suppl 1):102-6.

² The World Bank. Public health surveillance system: a call for action. Islamabad, Pakistan: Ministry of Health, World Bank, Centres for Disease Control, World Health Organization; 2005.

POLICY OPTIONS FOR PAKISTAN

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.

DEVELOP AND ADOPT AND NATIONAL NCD POLICY

There have been two good starts but both have stalled. The *National Action Plan for the Prevention and Control of Non-communicable Diseases and Health Promotion* has been in existence for the last 7 years.³ Its recommendations can be updated with the outputs of the more recent rounds of planning conducted in anticipation that an NCD commission will be created. Implementation of the recommendations needs to be tasked to a unit with the capacity and resources adequate for implementation.

STRENGTHEN TOBACCO CONTROL POLICIES

With some sound policies approved, the government could now concentrate its efforts on their implementation and enforcement.

STRENGTHEN INJURY CONTROL POLICIES WITH A FOCUS ON ROAD TRAFFIC INJURIES

Road safety policy should initially be oriented towards better prevention, e.g. to promote the use of seat belts and helmets. The ongoing surveillance programs may help target efforts.

RETOOL THE HEALTH WORK FORCE FOR NCD PREVENTION AND CONTROL

Pakistan would need to develop a specific approach to training physicians and other health staff in NCDs - specifically including mental health. For the current workforce, in-services and skills training is needed. Particularly, a primary care NCD training track is of high priority. Efforts to ensure availability and access to NCD services and drugs for the poor are similarly crucially needed.

CREATE A NATIONAL NCD SURVEILLANCE SYSTEM

A comprehensive national NCD surveillance system would inform strategic planning and policy. It would also help better target implementation of the future national NCD policy. The system should build on previous efforts from 2003. Ultimately, it will need to include mortality, morbidity, utilization of services, and risk behaviors data. Tobacco, road traffic injuries, mental health, youth, and high risk ethnic groups are priority areas for initial efforts. Special studies in representative subsamples will also help understand the burden. Core public and private institutions with experience and capacity should be tapped for capacity development and technical assistance.

DEVELOP EVALUATION CAPACITY AND SYSTEM

The HMIS system developed can be a major asset, but it may need retooling to include NCDs adequately. As the national NCD plan is implemented, an evaluation plan will be needed to fine tune and redirect efforts and resources. Indicators and monitoring mechanism of the *Integrated Framework for Action of the National Action Plan* can guide this process.

The government could prepare an evaluation plan for the measuring the impact of national NCD policy that are adopted.

³ Ministry of Health, WHO and Heartfile. National Action Plan for the Prevention and Control of Non-communicable Diseases and Health Promotion in Pakistan. 2003 <http://www.heartfile.org/nap.htm> (accessed Jan. 4, 2011)

TAKE AN ACTIVE ROLE IN REGIONAL COLLABORATION

Regional collaboration can be very effective for preventing and controlling NCDs. 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

Notes

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.”