NON-COMMUNICABLE DISEASES (NCDs) – MALDIVES’ 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.

✓ Maldives have reached a stage of quick population aging. The proportion of the population 65 years and older will double, from 3.5% in 2000 to 6.3% 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 of Maldives, 2000 and 2025](source: U.S. Census Bureau. www.census.gov/ipc accessed July 1, 2010)

✓ NCDs already impose the largest health burden in Maldives. In terms of the number of lives lost due to ill-health, disability, and early death (DALYs), NCDs (inclusive of injuries) account for 78% of the total disease burden. Only 22% of the DALYs come from communicable diseases, maternal and child health, and nutrition issues all combined (Figure 2).

✓ Maldives’ major NCDs are Mental Health (neuropsychiatric conditions), Injuries, Cancers, and Cardiovascular diseases (CVD) (Figure 2). Road accidents are one of the main sources of injuries; they account for 4% of all NCD DALYs lost.

✓ Smoking, a major risk factor for NCDs, is among the highest in South Asia, with a prevalence of 45% for males and 12% for females.

✓ Another NCD risk factor, obesity is important for Maldives, particularly among women. Prevalence in the female population reaches 17% - against 9% for males. Prevalence increases with age: approximately 50% of women over 35 years are overweight and/or obese.

![Figure 2: Pattern of overall DALYs (age standardized) and NCD related DALYs in Maldives, 2004](source: World Health Organization, Global Burden of Diseases http://www.who.int/healthinfo/global_burden_disease/estimates_country/en/index.html)
MALDIVES’S RESPONSE TO NCDs

**POLICY AND LEADERSHIP**

Maldives have acknowledged NCDs as a top health priority. The country developed a Health Master Plan (HMP) 2006–2015, which states that, among NCDs, CVD, diabetes, renal diseases, COPD, and selected cancers will be given the main focus. The plan includes specific national targets for these diseases by 2015, with nine NCD-related indicators. Thalassaemia and mental health also receive priority attention. Services for the prevention and rehabilitation of physical and mental disabilities will be developed in partnership with social services and the private sector. In addition, Maldives has developed the Non-Communicable Diseases Strategic Plan 2008–2010. The plans intend to combine private and public sector efforts in the management and care of priority NCDs.

Maldives is making progress on tobacco control. However, progress has been limited due to lack of legislation. Maldives ratified the WHO Framework Convention on Tobacco Control in 2004. The enabling national legislation (Tobacco Control Act) was passed and ratified in August 2010. As per the stipulations of the Act, a national advisory body (Tobacco Control Board) has been formed and is currently formulating tobacco control regulations.

In parallel, the Center for Community Health and Disease Control, in collaboration with national stakeholders, is conducting awareness and advocacy activities targeted to the general population and to policy makers.

Despite these recent efforts, Maldives has the highest prevalence of tobacco use in South Asia. Tobacco products are widely available and comparatively low-priced. Also progress towards effective policy (e.g. taxation, supply control) is hindered by the strong lobbying from the tobacco industry.

The institutional structures for NCD prevention and control are adequate but key posts and positions remain unfilled limiting implementation efforts. The Center for Community Health and Disease Control (formerly the Department of Public Health) is mandated to deliver preventive health care programs. The Center’s work is clustered around two major divisions - Disease Control and Health Promotion. Under the Disease Control Division, the Non-Communicable Diseases Section leads health promotion activities, advocacy efforts, and conducts workshops with technical cooperation from WHO. In terms of human resources, the NCD division is still understaffed. The current staff also requires more training.

**HEALTH SERVICES DELIVERY**

Government’s current policy is to move service delivery from the public toward the private sector, through public-private partnerships. The health system in Maldives consists of primary, secondary, and tertiary care layers. The regional, atoll hospitals and health centers are located strategically among the islands to minimize access time. The public infrastructure is supplemented by the private sector. In the private sector, there is one major tertiary hospital and approximately 50 different clinics throughout the country.

Under new policy, health care services are being corporatized at the provincial level. However, oversight remains with Ministry of Health and Family.

**Despite efforts to circumvent geographic constraints, access to NCD diagnostic and services remains an issue.** Patients with NCDs are treated primarily at regular out-patient departments.

However, the full range of tests and medications are not available at all clinic sites. There is no formal policy for the referrals which hinders quality and continuity of care. In addition, important NCD-related tertiary services that cannot be accessed in Maldives include oncological services, cardiac bypass, and invasive diagnostic procedures.
Telemedicine and e-health services are under development and expected to be available in 2011. Care guidelines and standard treatment protocols for the major NCDs have been developed and are undergoing dissemination and implementation.

**Access to essential NCD medications is limited in remote areas and among the poor.** Pharmaceutical products are imported by the private or public sector. The private sector imports and distributes to private pharmacies in Male and throughout the country. With few exceptions the government health facilities only stock medications for hospital and institutional use. Drugs for persons with NCD are purchased by patients from private pharmacies. The National Social Insurance scheme (Madhana) covers cost of medicines. A pilot is now underway to develop community pharmacies on less populated islands.

A high reliance on expatriate health professionals has proved a constraint to care efficiency. The number of physicians and nurses increased significantly between 1990 and 2005 (40 to 379 physicians, 137 to 974 nurses) due to the expansion of health system and the opening of the Indira Gandhi Memorial Hospital. However, the high dependence on short term expatriate providers (approximately 73%) reduces continuity of care, an important factor in NCDs management.

**Surveillance**

*The current information on NCDs is insufficient to guide decision-making.* Systematic data collection for NCD morbidity and the economic burden is limited, and there is no cancer registry, making it hard for the country to track the NCD burden and risk factors. A subnational NCD Risk Factor Survey was conducted in 2004 and another subnational Survey is planned for mid 2011. Global Youth Tobacco Survey was conducted in 2003 and 2007. A Global School Health survey was conducted in 2010. Demographic Health Survey conducted in 2009 also contained modules on NCD.

**Finance**

*Maldives’ health financial system still leaves individuals bearing a large share of health costs.* Under the recently introduced universal social insurance scheme, MADHANA, services can be sought from private institutions, hospitals, clinics, and pharmacies linked to the scheme. However the scheme is still in its early stages and is likely to face challenges with long term financial sustainability.

Pharmacies do not existing on most small islands, limiting benefits from these schemes.

**Policy Options for Maldives**

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 Efforts**

In 2008, the government created a separate NCD unit in the Center for Community Health and Disease Control, which has since been upgraded to a section. It would now be necessary to build the section’s capacity and provide sufficient resources and authority to meet its objectives. In order to address social, economic and environmental determinants that underlie NCDs, cross-sector collaborative mechanisms will be needed.

**Strengthen Tobacco Control Policies**

With the relevant legislation now available, efforts to control tobacco should shift to implementation and enforcement. This would require early formulation of regulations including the needed enforcement capacity across the implementing agencies.
DEVELOP COMPETENCY OF WORK FORCE TO TACKLE NCDs
In parallel with the introduction of the care guidelines and standard practices for NCDs, an assessment of human resource needs for the current and future is needed. Human resource for key areas, such as mental health, need to be addressed urgently.

CREATE A NATIONAL NCD SURVEILLANCE SYSTEM
The Center could work on the gradual creation of a national NCD surveillance system, to inform strategic planning and policy development. The system should include NCD mortality, morbidity, health services utilization, and economic burden data (available from national health accounts). This information will be critical as decentralization evolves. Core public health institutions are needed to provide technical support along with international institutions such as the WHO.

CREATE CAPACITY TO EVALUATE PROGRAMS AND POLICY
As more resources are committed to NCD efforts, the government would benefit from developing a capacity to evaluate policies and programs.

STRENGTHEN FINANCING FOR NCD CARE
Progress has been made with the introduction of social health insurance. However, equity and access can be improved. The restructuring of the health system should not compromise on the public expenditure for health - especially preventive health. New avenues for health financing, such as tax earmarks from tobacco and other unhealthy goods towards preventive health, should be explored.

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 ban 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
- Collaboration on group purchasing of essential medications to increase their assess 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.”