Non Communicable Disease Prevention and Control in Sri Lanka

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Policy Measures on Prevention and Control of Major Non Communicable Diseases

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WHY OUR CONCERN ON NCDs?

- Increase of deaths, hospitalization & disability due to NCD
- Future increasing trend of NCDs

- Issues in the provision of health care

Unlike communicable diseases, NCDs are

- Chronic in nature
- Investigation & treatment are expensive
- Require lifelong treatment
Adverse effects of NCDs

- Individual
  - Premature deaths
  - Affected quality of life
- Family
- Society
- Health service
- Economy of country
Symptomatic Disease

- Deaths
- Mild or No S/S
- Non specific S/S
- Difficult to diagnose

EARLY DISEASE

RISK FACTORS

Chronic ill health

Screen to detect early disease

Health promotion
<table>
<thead>
<tr>
<th>PREVENTION</th>
<th>AIM</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primordial</td>
<td>Underlying conditions leading to exposure to causative factor</td>
<td>Total population or selected groups</td>
</tr>
<tr>
<td>Primary</td>
<td>Limit incidence by controlling causes &amp; risk factor</td>
<td>Total population High risk individually</td>
</tr>
<tr>
<td>Secondary</td>
<td>Cure and reduce serious complication</td>
<td>Early detection and treatment</td>
</tr>
<tr>
<td>Tertiary</td>
<td>Reduce progress of complications</td>
<td>Therapeutic &amp; Rehabilitative</td>
</tr>
</tbody>
</table>
Prevention of chronic disease

a) Population based approaches

- Legislation (Tobacco, Food Labeling)
- Policy (Healthy eating - Canteen policy in Schools)
- City Planning (Walking & Exercise areas for the community)
- Education (School curricula, Teacher training)
- Social Marketing / Health promotion

b) Individual based approaches

- High risk
- Smoking
- Exercise
- Alcohol
- Stress
- Diet + Saturated Fats
- Drugs
Key issues

- Increasing mortality and morbidity due to chronic NCDs
- High prevalence of risk factors in population
- High burden on institutions, health sector and economy as well
• Lack of cohesive, cost-effective preventive sector program aimed at NCD prevention

• Inadequate service provision in screening, treatment of NCDs at different levels of care

• Human resource constraints providing optimal care for NCDs

• Lack of comprehensive disease and risk factor surveillance system supporting policy makers

• Need more allocation on prevention of NCDs
Existing Measures in NCD Prevention & Control
## Existing measures in NCD prevention & Control

| Improving & strengthening service provision | Planned & piloted new interventions | Development of a national programme |
Our goal will be

National Programme –
for NCD prevention and Control

- With the experience and result of successfully completed pilot projects
- Comprehensive and country-wide
- Based on proper policy and strategic plan
National NCD Program

- National Health Policy
- National NCD Policy and strategic plan
- District and operational plan
- Central and district level structure
- Capacity development of NCD team
Annual Plan

Priority area I
✓ Initiation to develop the national programme
National NCD policy & strategic plan

Priority area II
✓ Develop the Structure and Mechanism to implement the programme
National Technical Working Group and with sub committees
Strengthen central level / provincial level NCD programme

Priority area III
✓ Capacity development of the NCD team

Priority area IV
✓ Activities based on strategic plan (At central / District level)
National NCD Policy

Vision:

A country that is not burdened with avoidable NCD deaths and disabilities.

Mission:

To reduce the burden due to chronic NCDs by promoting healthy lifestyles, reducing the prevalence of common risk factors, and providing integrated evidence based treatments for diagnosed patients.
Goal:

• The overall goal of the National NCD Policy of Sri Lanka is to reduce the burden due to chronic NCDs by promoting healthy lifestyles, reducing the prevalence of common risk factors, and providing integrated evidence based treatments for diagnosed patients.

Objective:

• To reduce premature mortality due to chronic NCDs by 2% annually through expansion of evidence based curative services and to reduce the prevalence of risk factors, through individual and community wide health promotion measures.
Support prevention of chronic NCDs by reducing level of risk factors of NCD in the population

Implement a cost-effective Cardio Vascular Disease screening program

Provide integrated, quality evidence based curative and preventive services appropriate for each level of care

Encourage Community participation and empowerment for health promotion and disease control

Enhance Human resource development to facilitate NCD prevention and care

Strengthen National health information system including disease and risk factor surveillance

Promote Research for prevention and control of NCD

Facilitate coordination, monitoring & evaluation of prevention and control of NCDs and their determinants

Ensure a sustainable financing mechanism that support both preventive and curative sector cost effective health interventions

Integrate NCD prevention into policies across all government ministries, departments and private sector organizations.
Main strategies for NCD control and prevention

- Risk factor reduction and health promotion
- Screening for early detection and treatment
- Strengthening and improving current curative service (coverage, quality of NCD care and compliance)
- Risk factors / disease surveillance and reporting system
- Organization development and health financing
- Research
Coordination of National NCD Programme

National Health Council

National Advisory Board on NCD
Chaired by Secretary / MoH

Provincial / District structure (MO / NCD)

NCD unit MoH

Stakeholders / Pilot projects

MOH

National Technical Working group
Capacity development of NCD team

- Medical Officers/NCDs and Medical Officers of Health already trained
- Training of Medical Officers in Primary & Secondary Care Institutions
- Public Health Midwife (PHM) and Public Health Inspector (PHI) NCD training
- ToT for volunteers and Leaders of target settings
- Development of National curriculum for training
Ongoing Activities
Coordination of current pilot projects

- NCD Prevention Project (NPP) – JICA
- PEN (Package of Essential NCD Interventions)- WHO
- NATA – Bloomberg Fund
- SLMA – MoH – WDF
  Diabetes Prevention project (NIROGI Lanka)
- WB (HSDP) – MoH
  Quality Improvement in Clinical Care
- Curative Care Survey - WB
NPP Vision

NPP

Purpose:
By 2013, to develop strategies for prevention & control of NCDs, particularly cardiovascular diseases.

Output:
- Socio-medical grounds obtained
- Intervention strategies formulated
- Implementation structures & mechanisms established
- Plan for island-wide scaling up
PEN

- Assess Capacity & Coverage
- Identify Needs
- Protocols for primary Care
- Essential Equipments
- WHO/ISH Risk Charts
- Essential Medicines
- Essential Recording Tools/MIS
DTF - Nirogi Lanka project

To improve the quality of care in management of NCDs (DM)

- **Component 1:**
  Training of Nurses

- **Component 2:**
  Development of NCD Screening Centers and Diabetes Clinics at Central Dispensaries of CMC

- **Component 3:**
  Health promotion
Future Plans
- Implementation of Comprehensive National Programme
- Development of mass media awareness programme—with focus on risk factor prevention, direction to screening & compliance
- Development of cost effective screening programme
- Strengthen health Promotion in all settings
- Mobilizing youth and leaders in each setting (e.g., community, work) towards prevention of NCD
- Development of effective surveillance system
- Preparation of country report with all compiled data and promote researches
- Incorporation of NCD prevention into existing school curriculum
• Revision of NATA legislation for Tobacco Control to:
  - Ban Point of Sales advertising
  - Ban Smoking in all Public Places (Instead of “enclosed” spaces)
  - Amend to a conisable offence
  - Inclusion of Pictorial Health Warnings

• Strengthen the tobacco and alcohol control activities at district level

• Establishment of “Nutrition & NCD centres ” in tertiary & secondary care institutions

• Strengthen primary care institutions in screening and management of NCDs

• Steps undertaken to initiate formulation of a National Cancer Control Strategic Plan

• Multidisciplinary Research effort underway to elucidate the cause of CKD of Unknown Origin
Involvement of other sectors / stakeholders
Health

is a collective responsibility of

- Individual
- Society
- Local government & other relevant sectors
- Health Ministry
- Government
National NCD Program

Health Ministry

Other Ministries

Media

NGOs

Sri Lanka Medical Association (SLMA)

Colleges (Physicians, GPs)
Health Ministry inter departmental collaboration

- NCD Unit
- Mental Health Unit
- Planning Unit
- Nutrition Division
- NATA
- Youth / Elderly & Disability Unit
- Trauma Secretariat
- Health Education Bureau
- Epidemiology Unit
- Family Health Bureau
Inter Ministerial Collaborations

- Ministry of Education
- Health & Nutrition Ministry
- Ministry of Agriculture
- Ministry of Public administration & Home Affairs
- Ministry of Social Services
- Ministry of Media & Mass Communication
Funding Agencies

World Bank

JICA

WHO
STATUS QUO

Act Now

THE CAUSES ARE KNOWN.
THE WAY FORWARD IS CLEAR.
IT’S OUR TURN TO TAKE ACTION.
Thank You
Challenges in Implementing National NCD Programme
Challenges in the System:

- Lack of adequate NCD /risk factor surveillance system
- Lack of unified screening methodology and tools
- Quality improvement in clinical care
- Lack of standard guidelines for care, drugs and best practices
- Maintaining coordination between all sectors & stakeholders
- Behavioral change among the public
- Lack of cohesive, cost-effective preventive sector program aimed at NCD prevention
- Lack of adequate Monitoring & Evaluation system
Challenges in Human Resources:

- Improving central level capacity
- Filling gaps in appointing of MO / NCD in all 26 districts
- Gaps in recruiting and training of staff for NCD care at primary and secondary care
- HR constraints for providing optimal care for NCDs
- Lack of Policy decision on model of primary health care set up
- Lack of policy decision on involvement of field officers (PHI & PHM) for community level health promotion, basic screening and follow up for NCDs
Challenges in Funding:

• Lack of funding for development of district level NCD implementation units
• Lack of funding for district level activities especially to replicate the WHO PEN in other districts
• Lack of funding for social marketing campaign
Mortality by major Disease category

Causes of Deaths

- Chronic NCDs: 71%
- Injuries: 18%
- Communicable Diseases: 11%

Morbidity - Prevalence of major NCDs

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>HT</td>
<td>20%</td>
</tr>
<tr>
<td>DM</td>
<td>10.50%</td>
</tr>
<tr>
<td>Metabolic Syndrome*</td>
<td>18.70%</td>
</tr>
<tr>
<td>Cholesterol &gt;240 mg/dl *</td>
<td>20.60%</td>
</tr>
</tbody>
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* Katulanda unpublished data
Projected increase of Hospitalisation due to Diabetes, Hypertension and IHD

Diabetic epidemic in Sri Lanka

Rapid increase over last 20 years

# Diabetic prevalence

<table>
<thead>
<tr>
<th>Population Type</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban / semi urban population</td>
<td>18%</td>
</tr>
<tr>
<td>Rural population</td>
<td>10%</td>
</tr>
<tr>
<td>Average</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Age specific prevalence of diabetes**

![Age specific prevalence of diabetes chart](chart.png)

## Diabetes - Definitions

<table>
<thead>
<tr>
<th>Stage of hyperglycaemia</th>
<th>Venous plasma glucose mmol/l (mg/dl)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diabetes mellitus</strong></td>
<td></td>
</tr>
<tr>
<td>• Fasting</td>
<td>&gt;7.0 (126)</td>
</tr>
<tr>
<td>• 2h post glucose load or random blood sugar</td>
<td>&gt; 11.1 (200)</td>
</tr>
<tr>
<td><strong>Impaired glucose tolerance (IGT)</strong></td>
<td>7.8-11 (140-199)</td>
</tr>
<tr>
<td>• 2h post glucose load</td>
<td></td>
</tr>
<tr>
<td><strong>Impaired fasting glucose (IFG)</strong></td>
<td>5.6-6.9 (100-125)</td>
</tr>
<tr>
<td>• Fasting</td>
<td></td>
</tr>
<tr>
<td><strong>Normal</strong></td>
<td></td>
</tr>
<tr>
<td>• Fasting</td>
<td>&lt;5.6 (100)</td>
</tr>
<tr>
<td>• 2h post glucose load</td>
<td>&lt;7.8 (140)</td>
</tr>
</tbody>
</table>
Prevalence of IHD among 35-59 central province in 1994

<table>
<thead>
<tr>
<th>Category</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitive evidence of ischemic heart disease (positive symptoms + ECG changes of ischemia)</td>
<td>16/1000</td>
</tr>
<tr>
<td>Evidence of IHD based on history alone</td>
<td>54/1000</td>
</tr>
<tr>
<td>Evidence of ECG changes of ischemia without symptoms</td>
<td>32/1000</td>
</tr>
</tbody>
</table>

(Shanthi M et al)
Prevalence of hypertension

Systolic blood pressure - 140mm Hg
Diastolic blood pressure - 90mm Hg

Katulanda et al., Unpublished data (Sri Lanka Diabetes and CVD Study)