Status of Non-communicable Diseases in India in Global Context

Seminar on Nutrition & Lifestyle for Emerging NCD Challenges

26th April 2012

Dr. Damodar Bachani
Director Professor & Head, Community Medicine, Lady Hardinge Medical College, New Delhi
Disease Burden due to NCDs
Mortality estimates due to NCDs

- Globally all deaths (2005): 58 million*
- Globally deaths due to NCD (2005): 35 million* (60.3%)
- All deaths in India (2004): 10.3 million #
- Deaths due to NCDs in India (2004): 5.2 million # (50.5%)

* Source: WHO
# Source: ICMR
Percentage of NCD deaths, by cause in WHO Regions, 2008

Four major NCDs cause 80% of deaths due to NCDs in all WHO Regions.

Source: WHO global Health observatory 2011 http://apps.who.int/ghodata/
Distribution of deaths by major cause-India 2001-2003

Deaths due to NCDs outnumber deaths due to communicable diseases, maternal and perinatal causes and nutritional conditions combined.

Source: RGI-CGHR Million Death Study
Among men, NCDs cause majority of deaths whereas among women, communicable diseases along with maternal and child health and nutritional conditions are leading causes of deaths closely followed by NCDs.

Source: RGI-CGHR Million Death Study
Causes of Death (%) in Urban Population (25 to 69 years)
India: 2001-2003

4 major NCDs- Cardiovascular diseases, Malignant & other Neoplasms, COPD, Asthma & other respiratory diseases & Diabetes Mellitus contributes to 55% of the total reported deaths in urban area

Source: Special Survey of Deaths, Registrar General of India
Causes of Death (%) in Rural Population (25 to 69 years)
India: 2001-2003

3 major NCDs-Cardiovascular diseases, COPD, Asthma & other respiratory diseases, Malignant & other Neoplasms contributes to 43% of the total reported deaths in rural area

Source: Special Survey of Deaths, Registrar General of India
Disease Burden due to NCDs

• More than 20% of the population have at least one chronic disease
• More than 10% have more than one chronic disease
# Current Status & Future Trends on Key NCDs in India

<table>
<thead>
<tr>
<th>Diseases</th>
<th>Existing Burden and Trends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>28 lakh (2010); Incidence 10 lakh in a year; 20-25% increase in 5 years</td>
</tr>
<tr>
<td>Cardiovascular Diseases</td>
<td>2.9 crore (2000); Expected to rise to 6.4 crore by 2015</td>
</tr>
<tr>
<td>Stroke</td>
<td>20 lakh</td>
</tr>
<tr>
<td>Diabetes</td>
<td>5.1 crore (2010); Expected to rise to 8 crore by 2030</td>
</tr>
<tr>
<td>Chronic Kidney Disease</td>
<td>Incidence of End Stage Renal Disease /year = 175/ million population</td>
</tr>
<tr>
<td>Chronic Lung Disease</td>
<td>Burden: 3.9 crore</td>
</tr>
<tr>
<td>Mental Disorders</td>
<td>6-7% of population; 1-2% have severe mental disorders;</td>
</tr>
</tbody>
</table>
Risk Factors & Determinants of NCDs
NCD: From Risk Factors to Disease
“Evidence, Policy, Action, Partnership”

**Behavioural Risk Factors**
- Tobacco use
- Unhealthy Diet
- Alcohol
- Phys. Inactivity

**Intermediate Risk Factors**
- Raised BP
- High BMI
- Dyslipidemia
- Raised blood glucose

**Endpoints**
- CVD
- Cancers
- COPD
- Diabetes

Determinants and Facilitators

Social Economic Cultural Environmental

Age Gender Genes
The four major NCDs are caused by four *common* lifestyle related risk factors—tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol.

<table>
<thead>
<tr>
<th>NCDs</th>
<th>Shared Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tobacco use</td>
</tr>
<tr>
<td>Cardiovascular diseases</td>
<td>✓</td>
</tr>
<tr>
<td>Diabetes (Type II)</td>
<td>✓</td>
</tr>
<tr>
<td>Cancer</td>
<td>✓</td>
</tr>
<tr>
<td>Chronic respiratory disease</td>
<td>✓</td>
</tr>
</tbody>
</table>
Deaths caused by NCD Risk Factors in India
Disease Prevention and Health Promotion

Social Determinants

Hit the Route & Trunk, branches will fall automatically