Translating Evidence into Public Health Action and Practice

Dato’ Sri Dr. Hasan bin Abdul Rahman
Director General of Health Malaysia
thinking becomes very difficult & complex in evolving and uncertain world

always involving dynamic & ever changing multi-factorial & multi-faceted array of many players & many causative agents which are living & interacting with living & non living environment

Health care will, in the future, be determined particularly by changes in structures and values in society (sociology) and economic necessities (economics), as well as by theory, research and technical advances (natural science).

“NOTHING IN THE WORLD OF LIVING THINGS IS PERMANENTLY FIXED”

– Hans Zinnser (Rats, Lice and History 1935)
There are some 6 billion people in the world, and hundreds of millions experience disease or injury each year. Taken as a whole, the combined pain, suffering, loss of productivity and unrealised hopes and dreams are our world’s burden of disease!

Public Health challenges in 21st Century
**Burden of Disease**

**Global Burden of NCD**

Chronic diseases are the major cause of death in almost all countries.

Projected global deaths by cause, all ages, 2005

- **HIV/AIDS**: 2,630,000 deaths
- **Tuberculosis**: 1,607,000 deaths
- **Malaria**: 83,000 deaths
- **Cardiovascular diseases**: 17,528,000 deaths
- **Cancer**: 7,586,000 deaths
- **Chronic respiratory diseases**: 4,057,000 deaths
- **Diabetes**: 1,126,000 deaths

35,000,000 people will die from chronic diseases in 2005.

60% of all deaths are due to chronic diseases.
How NCDs Contribute to Poverty and How Poverty Contributes to NCDs

- Poverty at household level
- Populations in low and middle income countries

Globalization
Urbanization
Population ageing

Increased exposure to common modifiable risk factors:
- Unhealthy diets
- Physical inactivity
- Tobacco Use
- Harmful use of alcohol

Non Communicable diseases:
- Cardiovascular diseases
- Cancers
- Diabetes
- Chronic Respiratory diseases

- Loss of household income from unhealthy behaviours
- Loss of household income from poor physical status and premature death
- Limited access to effective and equitable health-care services which respond to the needs of people with NCD
- Loss of household income from high cost of health care

- Global Health Report 2010, WHO
Malaysia's Health Care System

Since Independence…..

Malaysia Health System

Performed well – compared with countries with similar per capita GDP

Based on - sound vision & good access to health services
  • well distributed healthcare network
  • effective rural health delivery system
  • highly specialized care at regional level
  • successful health promotion & preventive strategies

Malaysians - enjoy relatively good health

International recognition by WHO & other agencies
Federal Government Development Allocation By Sector

FEDERAL GOVERNMENT DEVELOPMENT ALLOCATION BY SECTOR

<table>
<thead>
<tr>
<th>Sector</th>
<th>1st MP</th>
<th>2nd MP</th>
<th>3rd MP</th>
<th>4th MP</th>
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<td>16.6</td>
<td>21.1</td>
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<td>9.0</td>
<td>10.2</td>
<td>7.5</td>
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Source: Mid-term Review of 1st to 9th. Malaysia Plan
### Top Ten Causes of DALYs for Males in Malaysia, 2000

<table>
<thead>
<tr>
<th>Rank</th>
<th>Disease Category</th>
<th>Total DALY</th>
<th>% Total</th>
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<tbody>
<tr>
<td>1</td>
<td>Ischaemic heart diseases</td>
<td>164,846</td>
<td>10.0</td>
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<tr>
<td>2</td>
<td>Road traffic injuries</td>
<td>133,789</td>
<td>8.2</td>
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<tr>
<td>3</td>
<td>Cerebrovascular disease/stroke</td>
<td>94,059</td>
<td>5.7</td>
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<tr>
<td>4</td>
<td>Septicaemia</td>
<td>70,232</td>
<td>4.3</td>
</tr>
<tr>
<td>5</td>
<td>Acute lower respiratory tract infections</td>
<td>49,649</td>
<td>3.0</td>
</tr>
<tr>
<td>6</td>
<td>Diabetes mellitus</td>
<td>47,060</td>
<td>2.9</td>
</tr>
<tr>
<td>7</td>
<td>Chronic obstructive pulmonary disease</td>
<td>45,459</td>
<td>2.8</td>
</tr>
<tr>
<td>8</td>
<td>Hearing loss</td>
<td>44,566</td>
<td>2.7</td>
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<tr>
<td>9</td>
<td>Unipolar major depression</td>
<td>42,259</td>
<td>2.6</td>
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<tr>
<td>10</td>
<td>Cirrhosis</td>
<td>37,902</td>
<td>2.3</td>
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</table>

### Sources

### Diseases that still pose threat
- NCD
- TB
- Dengue & DHF
- Malaria
- Viral Hepatitis
- Emerging Diseases
- HIV/AIDS

**Sources:** Malaysian Burden of Disease & Injury Study 2004
Malaysian National Health and Morbidity Survey


<table>
<thead>
<tr>
<th>Year</th>
<th>All Diabetes</th>
<th>Known Diabetes</th>
<th>Newly Diagnosed</th>
<th>Impaired Fasting Glucose</th>
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<tr>
<td>1996</td>
<td>8.3</td>
<td>6.5</td>
<td>4.3</td>
<td>1.8</td>
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<tr>
<td>2006</td>
<td>14.9</td>
<td>9.5</td>
<td>5.4</td>
<td>4.7</td>
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<td>2011</td>
<td>31.2</td>
<td>11.12</td>
<td>10.64</td>
<td>21.94</td>
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The graph shows the comparison among the diabetes between years 1996, 2006, and 2011 for individuals 30 years and above. The estimates for different categories of diabetes are displayed for each year.
PREVALENCE OF TOTAL HYPERTENSION, ≥18 YEARS, NHMS 1996, NHMS 2006 AND NHMS 2011

Malaysian National Health and Morbidity Survey
Malaysian National Strategic Plan For NCD

• NSP-NCD approved by JDPKK Bil.1/2010
• Document launched by YBMK on December 2010, in Putrajaya
• Cabinet approved Memorandum on Implementation of NSP-NCD on 17 December 2010
  – Establishment of “Cabinet Committee on Creating A Health Promoting Environment”
  – Funding of RM90 million for 2011-2014
Cabinet Committee for A Health Promoting Environment

- To support the implementation of NSP-NCD, the Cabinet on 17 December 2010 approved the establishment of a Cabinet-level committee, chaired by the Right Honourable Deputy Prime Minister, and composed of 10 members:

1. Minister of Health
2. Minister of Education
3. Minister of Information, Communications, Arts & Culture
4. Minister of Rural & Regional Development
5. Minister of Agriculture and Agro-based Industry
6. Minister of Youth & Sports
7. Minister of Human Resource
8. Minister of Domestic Trade, Co-operatives and Consumerism
9. Minister of Housing and Local Governments
10. Minister of Women, Family and Social Affairs

**Main TOR:** To determine policies that creates a living environment which supports positive behavioural changes of the population towards healthy eating and active living
NSP-NCD: 7 Strategies

1. Prevention and Promotion
2. Clinical Management
3. Increasing Patient Compliance
4. Action with NGOs, Professional Bodies & Other Stakeholders
5. Monitoring, Research and Surveillance
6. Capacity Building
7. Policy and Regulatory interventions

Evidence-based approach
EVIDENCE-BASED APPROACH
Support healthy behavior change in community

Health city approach

Governmental advocacy

Social norm change

Multi-Sectoral/Involvement Multi Agency

Reducing inequality

Population-based program

Behavior change
Evaluation
Competent Workforce in Learning Organization

- Competencies required to manage required Processes
- Competencies required to utilize the needed Resources
- Competencies required to develop social network and partnerships
- Competencies required to become an effective and Valuable person
Every morning in Africa, a gazelle wakes up. It knows that it must run faster than the fastest cheetah or it will be killed. Every morning a cheetah wakes up. It knows that it must outrun the slowest gazelle or it will stave to death. It doesn’t matter whether you are a gazelle or a cheetah. When the sun comes up, you better start running.

WE ALL HAVE TO LEARN
.....DOES NOT MATTER WHO WE ARE
.....LEARN...HOW TO RUN FASTER, BETTER & SMARTER
Monitoring and Evaluation Framework

**Performance**
- Effectiveness
- Efficiency
- Relevance
- Financial viability

**Motivation**
- History
- Mission
- Culture
- Incentives
- Rewards

**Capacity**
- Structure
- Leadership
- Financial
- Technology
- Infrastructure
- Human resources
- Program / services
- Linkages

**Environment**
- Political
- Economic
- Technological
- Administrative
- Social / cultural
- Stakeholder
THE LEVELS OF PERFORMANCE

- Poor
- Expected
- Excellent
- Extra-ordinary
Quality Initiatives in Malaysia
Setting Health Research Priorities

Public Health Challenges

Globalization

Malaysian Health Policies

Political Economy & Government

Setting Health Research Priorities

- Public Health Challenges
- Globalization

- Sourcing the Evidence
  - Knowledge
  - Research
  - Ideas/Interests
  - Politics
  - Economics

- Using the Evidence
  - Introducing, Interpreting, Applying
  - Knowledge Utilisation

- Considering Capacity to Implement
  - Individual
  - Organisational
  - System/Policy

- Policy Idea
- Adopt
- Adapt
- Act
- Reject

Policy Influences
Organization of Health Care

• Evidence-based, planned care
  – Clinical Risk Mgt, Clinical Guidelines, Clinical pathways, SOP, Circulars
• Reorganization of practice (team approach)
  – Includes ancillary professionals with the patient as the most important member
• Attention to patient needs (information)
  – Counseling, education, information feedback
• Access to clinical expertise
  – Patient and provider education, access to specialists
• Supportive information systems
  – Patient registries
  – Provider feedback on preventive service utilization
PEOPLE FIRST, PERFORMANCE NOW

Informed, Activated Patient

Functional and Clinical Outcomes

Productive Interactions

Prepared, Proactive Practice Team

Community

Resources and Policies

Health System

Organization of Healthcare

Clinical Information Systems

Evidence-based Approach

Self-Management Support

Delivery System Design

Decision Support

Evidence-based Approach
Thank You.

Dato’ Sri Dr. Hasan bin Abdul Rahman
Director General of Health Malaysia