First Global Ministerial Conference on Healthy Lifestyles and Noncommunicable Disease Control
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The Focus: Four Major Groups of Noncommunicable Diseases
Four major risk factors

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<tr>
<th>Noncommunicable diseases</th>
<th>Modifiable causative risk factors</th>
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<td></td>
<td>Tobacco use</td>
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<td>Heart disease and stroke</td>
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<td>Diabetes</td>
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<td>Cancer</td>
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<td>Chronic lung disease</td>
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Proportion of global NCD deaths

Under the age of 60
- Cancers: 34%
- Cardiovascular disease: 28%
- Chronic respiratory diseases: 8%
- Diabetes: 16%
- Digestive diseases: 3%
- Other NCDs: 3%

Under the age of 70
- Cancers: 39%
- Cardiovascular disease: 27%
- Chronic respiratory diseases: 9%
- Diabetes: 4%
- Digestive diseases: 9%
- Other NCDs: 12%
World Health Assembly in 2000:
The Global Strategy for NCD Prevention and Control

*Surveillance*
Mapping the epidemic of NCDs

*Prevention*
Reducing the level of exposure to risk factors

*Management*
Strengthen health care for people with NCDs
World Health Assembly in 2008: The Action Plan to implement the Global Strategy

Six objectives:

1. Raising the priority accorded to NCDs in development work at global and national levels, and integrating prevention and control of NCDs into policies across all government departments
2. Establishing and strengthening national policies and programmes
3. Reducing and preventing risk factors
4. Prioritizing research on prevention and health care
5. Strengthening partnerships
6. Monitoring NCD trends and assessing progress made at country level
NCD surveillance

- The ongoing, systematic collection and analysis of data on NCD burden, risk factors and determinants.
- Provides ability to track health outcomes and risk factor trends over time.
- Critical for informing policy and programme development, and for monitoring progress.

Accurate data from countries is vital to reverse the global rise in death and disability from NCDs.
What is the current situation?

• NCD surveillance is generally weak in many Member States

• There is often lack of clarity on what NCD surveillance means and on its components

• Good progress in risk factors surveillance over the last decade but improvement is not uniform; monitoring is not sustained nor standardized

• A great proportion of countries do not report reliable mortality statistics

• Lack of standardized indicators to monitor NCD trends at national and global levels – duplication/inconsistencies

• When it exists, NCD surveillance work is often not institutionalized and rarely integrated into the national health information systems of many LMICs

• Surveillance activities are often poorly funded

• Limited capacity in epidemiology and surveillance in Member States
Implementation of Objective 6 of the Action Plan


- Development of tools for monitoring NCD trends, progress and country capacity (Global Survey on assessing national capacity - 2009-2010)

- Consensus within WHO on the components and core indicators of NCD Surveillance systems (2010)

- Development of targets and indicators for global monitoring (ongoing work with other partners)
Framework for national NCD surveillance

1. **Exposures**
   - Behavioural risk factors: *tobacco use, physical inactivity, harmful use of alcohol and unhealthy diet*
   - Metabolic risk factors: *raised blood pressure, overweight/obesity, raised blood glucose, and raised cholesterol.*

2. **Outcomes**
   - Mortality: *NCD specific mortality*
   - Morbidity: *cancer incidence and type*

3. **Health System Capacity and Response**
   - Interventions and health system capacity: *infrastructure, policies and plans, access to key health care interventions and treatments, partnerships.*
Surveillance indicators

An indicator should be

• central to NCD with an established science base
• modifiable as a result of intervention
• measurable with valid tools
• feasible and affordable to collect
• practical and achievable within a country's technical capacity
• policy relevant
Core indicators for NCD surveillance – Exposures

Behavioral risk factors:

• Prevalence of current daily tobacco smoking among adults aged 15+ years.

• Prevalence of insufficiently active adults (defined as % not meeting any of the following criteria: 30 minutes of moderate activity on at least five days per week or 20 minutes of vigorous activity on at least three days per week or an equivalent combination).

• Prevalence of adult population consuming more than 5 grams of dietary sodium chloride per day (%).

• Prevalence of population consuming less than five total servings (400 grams) of fruit and vegetables per day (%).

• Proportion of all energy derived from saturated and total fats (%).

• Adult per capita consumption of pure alcohol, in litres (recorded and unrecorded).
Core indicators for NCD surveillance – Exposures
Phyysiological and metabolic risk factors

• Prevalence of raised blood glucose among adults (defined as fasting plasma glucose value ≥ 7.0 mmol/L (126g/dl) or on medication for raised blood glucose) (%).

• Prevalence of raised blood pressure among adults (defined as systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥90 mmHg or on medication for raised blood pressure (%).

• Prevalence of overweight and obesity in adults, adolescents and children under 5 (defined as body mass index greater than 25 kg/m2 for overweight or 30kg/m2 for obesity, for adolescents according to the WHO Growth Reference and for children according to the WHO Growth Standards) (%).

• Prevalence of low weight at birth (< 2.5 kg) (%).

• Prevalence of raised total cholesterol among adults (defined as total cholesterol ≥ 5.0 mmol/l or 190mg/dl) (%).
Core indicators for NCD surveillance - Outcomes

**Mortality:**
- All-cause mortality by age, sex and region (urban and rural, or by other administrative areas, as available).
- Cause-specific mortality data (urban and rural, or other administrative areas, as available).
- Unconditional probability of death between ages 30 and 70 years from cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases.

**Morbidity:**
- Cancer incidence data from cancer registries, by type of cancer.
- Diabetes
Monitoring exposures:
Using the WHO STEPS approach

Different levels of risk factor assessment:
- STEP 1 – questionnaire
- STEP 2 – physical measurements
- STEP 3 – blood samples

Three modules per Step:
- Core
- Expanded
- Optional
Monitoring outcomes - challenges

- High quality mortality data requires long-term investment
- Accurate cause of death certification is a challenge, particularly in LMICs.
- Strengthening vital registration systems, and cause-specific mortality statistics are a key priority.
- In the meantime, alternative options like verbal autopsy methods should be considered
Monitoring health system response: WHO NCD Country Capacity Survey

- Designed to gather information about individual country capacity to respond to NCD prevention and control.

- Assessment focused on current strengths and weaknesses related to: NCD policy response, infrastructure, surveillance and health systems response and partnerships.


- 95% response rate from Member States.

- Periodic monitoring of national progress would assist countries in identifying gaps in prevention and control efforts and assist with future planning.

- Challenges
Monitoring health systems response
% countries with specific policies, plans or strategies, 2000 - 2010
Monitoring NCDs: Do we need to set global targets?
Conclusions

• Current capacity for NCD surveillance is weak and requires more attention by health policy makers.

• A framework, with common core indicators is essential.

• High quality risk factor surveillance is possible even in low resourced countries but it needs to be standardized and institutionalized.

• Strengthening cause specific mortality registration is a priority.

• Cancer morbidity data is essential for planning cancer control strategies.

• Sustainable surveillance systems need integration into national health information systems, with resources.

• Consensus on NCD targets is required if a monitoring framework is a likely outcome of the HLM.
The strategic vision and road map for NCD prevention and control

Global Strategy for the Prevention and Control of Noncommunicable Diseases

Action Plan on the Global Strategy for the Prevention and Control of NCDs

High-level Meeting on NCDs (New York, 19-20 September 2011)
Thank you
Dr Ties Boerma
Director Health Statistics and Informatics
World Health Organization
Professor Majid Ezzati
Chair in Global Environmental Health
Imperial College London
UK
Dr Mihaly Kökény
Chairman of the Executive Board WHO
Hungary
Professor Rob Moodie
Thank you