NCDs in the Arab world –
An Introduction

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Research on research in the Arab Region - The Case of Non-Communicable Diseases
Beirut, AUB
20 January 2017
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### A. Low-income countries

<table>
<thead>
<tr>
<th>Mean rank</th>
<th>Disorder</th>
<th>Mean rank</th>
<th>Disorder</th>
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<td>39.1</td>
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<td>5.6</td>
<td>Meningitis</td>
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### B. Middle-income countries

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<td>96.1</td>
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<td>Preterm birth complications</td>
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<td>Diabetes</td>
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<td>Hypertensive heart disease</td>
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<td>34.3</td>
<td>Cirrhosis</td>
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<tr>
<td>31.3</td>
<td>Protein-energy malnutrition</td>
<td>177.5</td>
<td>Preterm birth complications</td>
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<td>Other cardiovascular and circulatory disorders</td>
<td>177.0</td>
<td>Other cardiovascular and circulatory disorders</td>
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<td>29.1</td>
<td>Diabetes</td>
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### C. High-income countries

<table>
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</thead>
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<td>20.3</td>
<td>Ischaemic heart disease</td>
</tr>
<tr>
<td>8.3</td>
<td>Stroke</td>
<td>13.1</td>
<td>Road injury</td>
</tr>
<tr>
<td>7.7</td>
<td>Road injury</td>
<td>12.7</td>
<td>Stroke</td>
</tr>
<tr>
<td>6.6</td>
<td>Preterm birth complications</td>
<td>7.4</td>
<td>Lower respiratory infections</td>
</tr>
<tr>
<td>4.8</td>
<td>Lower respiratory infections</td>
<td>4.7</td>
<td>Diabetes</td>
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<tr>
<td>4.4</td>
<td>Congenital anomalies</td>
<td>3.9</td>
<td>Chronic kidney disease</td>
</tr>
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<td>Diabetes</td>
<td>3.8</td>
<td>Preterm birth complications</td>
</tr>
<tr>
<td>1.5</td>
<td>Hypertensive heart disease</td>
<td>2.6</td>
<td>Congenital anomalies</td>
</tr>
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<td>1.4</td>
<td>Diphtheria</td>
<td>2.5</td>
<td>Hypertensive heart disease</td>
</tr>
<tr>
<td>1.4</td>
<td>Other cardiovascular and circulatory disorders</td>
<td>2.2</td>
<td>Other cardiovascular and circulatory disorders</td>
</tr>
</tbody>
</table>

Legend:
- Red: Communicable, maternal, neonatal, and nutritional disorders
- Blue: Non-communicable diseases
- Green: Injuries

---

Ascending order in rank
Descending order in rank
Fig. 1.1 Total NCD deaths, by WHO region, comparable estimates, 2012

Fig. 1.2 Age-standardized NCD death rates (per 100,000 population), all ages, by WHO region, comparable estimates, 2012 (1)

Fig. 1.4 Probability of dying from one of the four main noncommunicable diseases between the ages of 30 and 70 years, by WHO region, comparable estimates, 2012

Global Status Report on noncommunicable diseases 2014

"Attaining the nine global noncommunicable diseases targets: a shared responsibility"
Global Monitoring Framework
9 voluntary global targets for 2025

- Premature mortality from NCDs 25% reduction
- Essential NCD medicines and technologies 80% coverage
- Drug therapy and counseling 50% coverage
- Diabetes/obesity 0% increase
- Raised blood pressure 25% reduction
- Tobacco use 30% reduction
- Salt/sodium intake 30% reduction
- Physical inactivity 10% reduction
- Harmful use of alcohol 10% reduction

Mortality and Morbidity
Risk Factors for NCDs
National Systems Response
Regional contributions of six preventable risk factors to achieving the 25 × 25 non-communicable disease mortality reduction target: a modelling study

Vasilis Kontis, Colin D Mathers, Ruth Bonita, Gretchen A Stevens, Jürgen Rehm, Kevin D Shield, Leanne M Riley, Vladimir Poznyak, Samer Jabbour, Renu Madanlal Garg, Anselm Hennis, Heba M Fouad, Robert Beaglehole*, Majid Ezzati*
Which risk factors would contribute the most to achieving the 25 x 25 target?

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Eastern Mediterranean region</th>
<th>World</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raised blood pressure</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Tobacco use</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Salt intake</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Obesity</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Raised blood glucose</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Tobacco use</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Alcohol use</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Deaths prevented or delayed between 2010 and 2025 if risk factor targets are met

Trends in the probability of dying from the four main NCDs under different scenarios
<table>
<thead>
<tr>
<th>Commitments</th>
<th>Strategic interventions</th>
<th>Progress indicators</th>
</tr>
</thead>
</table>
| In the area of governance | Each country is expected to:  
- Integrate noncommunicable diseases into national policies and development plans  
- Establish a multisectoral strategy/plan and a set of national targets and indicators for 2025 based on national situation and WHO guidance  
- Increase budgetary allocations for noncommunicable diseases prevention and control including through innovative financing mechanisms such as taxation of tobacco, alcohol and other unhealthy products  
- Periodically assess national capacity for prevention and control of noncommunicable diseases using WHO tools | Country has:  
- An operational multisectoral national strategy/action plan that integrates the major NCDs and their shared risk factors  
- Set time-bound national targets and indicators based on WHO guidance |

<table>
<thead>
<tr>
<th>Commitments</th>
<th>Strategic interventions</th>
<th>Progress indicators</th>
</tr>
</thead>
</table>
| In the area of prevention and reduction of risk factors | Each country is expected to:  
- Accelerate implementation of the WHO Framework Convention on Tobacco Control (WHO FCTC) and ratify Protocol to Eliminate Illicit Trade in Tobacco Products  
- Ensure healthy nutrition in early life and childhood including breastfeeding promotion and regulating marketing of foods and non-alcoholic beverages to children  
- Reduce average population salt intake in line with WHO recommendations  
- Virtually eliminate transfat intake and reduce intake of saturated fatty acids  
- Promote physical activity through a life-course approach  
- Implement the best buys to reduce the harmful use of alcohol | Country is implementing:  
- Four demand-reduction measures of the WHO FCTC at the highest level of achievement  
- Four measures to reduce unhealthy diet  
- At least one recent national public awareness programme on diet and/or physical activity  
- As appropriate, according to national circumstances, three measures to reduce the harmful use of alcohol in line with the WHO global strategy to reduce the harmful use of alcohol |

<table>
<thead>
<tr>
<th>Commitments</th>
<th>Strategic interventions</th>
<th>Progress indicators</th>
</tr>
</thead>
</table>
| In the area of surveillance, monitoring and evaluation | Each country is expected to:  
- Implement/strengthen the WHO surveillance framework that monitors mortality and morbidity, risk factors and determinants, and health system capacity and response  
- Integrate the three components of the surveillance framework into the national health information system  
- Strengthen human resources and institutional capacity for surveillance, monitoring and evaluation | Country has:  
- A functioning system for generating reliable cause-specific mortality data on a routine basis  
- A STEPS survey or a comprehensive health examination survey every 5 years |

<table>
<thead>
<tr>
<th>Commitments</th>
<th>Strategic interventions</th>
<th>Progress indicators</th>
</tr>
</thead>
</table>
| In the area of health care | Each country is expected to:  
- Implement the best buys in health care  
- Improve access to early detection and management of major noncommunicable diseases and risk factors by including them in the essential primary health care package  
- Improve access to safe, affordable and quality essential medicines and technologies for major noncommunicable diseases  
- Improve access to essential palliative care services | Country has:  
- Evidence-based national guidelines/protocols/standards for management of major noncommunicable diseases through a primary care approach, recognized/approved by the government or competent authority  
- Provision of drug therapy, including glycaemic control, and counselling for eligible persons at high risk to prevent heart attacks and strokes, with an emphasis on the primary care level |
Lebanon
Total population: 4,647,000
Income group: Upper middle
Percentage of deaths from NCDs: 85%
Total number of NCD deaths: 18,000
Probability of premature mortality from NCDs: 12%

National NCD targets and indicators
Mortality data
Risk factor surveys
National integrated NCD policy/strategy/action plan
Tobacco demand-reduction measures:
  a. taxation
  b. smoke-free policies
  c. health warnings
  d. advertising bans
Harmful use of alcohol reduction measures:
  a. availability regulations
  b. advertising and promotion bans
  c. pricing policies
Unhealthy diet reduction measures:
  a. salt/sodium policies
  b. saturated fatty acids and trans-fats policies
  c. marketing to children restrictions
  d. marketing of breast-milk substitutes restrictions
Public awareness on diet and/or physical activity
Guidelines for the management of major NCDs
Drug therapy/counselling for high risk persons
Summary report on the Consultation on building a regional noncommunicable disease research agenda and enhancing implementation of the action plan on noncommunicable disease

Dubai, United Arab Emirates
11–13 December 2011
Care of non-communicable diseases in emergencies

Slim Slama, Hyo-Jeong Kim, Gojka Roglic, Philippa Boulle, Heiko Hering, Cherian Varghese, Shahnawaz Rasheed, Marcello Tonelli

Lancet 2017; 389: 326–30

Introduction

Emergencies include natural disasters such as...
Thank you!

sj22@aub.edu.lb
### Strategic interventions

Each country is expected to:

- Integrate noncommunicable diseases into **national policies and development plans**
- Establish a **multisectoral strategy/plan** and a set of **national targets and indicators** for 2025 based on national situation and WHO guidance
- **Increase budgetary allocations** for noncommunicable disease prevention and control including through **innovative financing mechanisms**, such as taxation of tobacco, alcohol and other unhealthy products
- Periodically **assess national capacity** for prevention and control of noncommunicable diseases using WHO tools

### Process indicators

Country has:

- An **operational multisectoral national strategy/action plan** that integrates the major noncommunicable diseases and their shared risk factors
- **Set time-bound national targets and indicators** based on WHO guidance
- A high-level national multisectoral commission, agency or mechanism to oversee engagement, policy coherence and accountability of sectors beyond health
- **Increased budgetary allocations** measured by tracking and reporting on health expenditures on prevention and control of major noncommunicable diseases, by source, per capita
<table>
<thead>
<tr>
<th>Strategic interventions</th>
<th>Process indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each country is expected to:</td>
<td>Country is implementing:</td>
</tr>
<tr>
<td>• Accelerate implementation of the WHO Framework Convention on Tobacco Control (WHO FCTC) and ratify Protocol to Eliminate Illicit Trade in Tobacco Products</td>
<td>• Four demand-reduction measures of the WHO FCTC at the highest level of attainment</td>
</tr>
<tr>
<td>• Ensure healthy nutrition in early life and childhood including breastfeeding promotion and regulating marketing of foods and non-alcoholic beverages to children</td>
<td>• Four measures to reduce unhealthy diet</td>
</tr>
<tr>
<td>• Reduce average population salt intake per WHO recommendations</td>
<td>• At least one recent national public awareness programme on diet and/or physical activity</td>
</tr>
<tr>
<td>• Virtually eliminate trans-fat intake and reduce intake of saturated fatty acids</td>
<td>• As appropriate, according to national circumstances, three measures to reduce the harmful use of alcohol, in line with WHO global strategy to</td>
</tr>
<tr>
<td>• Promote physical activity through a life-course approach</td>
<td></td>
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<tr>
<td>• Implement the best buys to reduce the harmful use of alcohol</td>
<td></td>
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<td>Strategic interventions</td>
<td>Process indicators</td>
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<td>----------------------------------------------------------------------------------------</td>
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<td>Country has:</td>
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<tr>
<td>• Implement/strengthen the WHO surveillance framework that monitors mortality and morbidity, risk factors and determinants, and health system capacity and response</td>
<td>• A functioning system for generating reliable cause-specific mortality data on a routine basis</td>
</tr>
<tr>
<td>• Integrate the three components of the surveillance framework into the national health information system</td>
<td>• An operational population-based cancer registry</td>
</tr>
<tr>
<td>• Strengthen human resources and institutional capacity for surveillance, monitoring and evaluation</td>
<td>• A STEPS survey or a comprehensive health examination survey every 5 years</td>
</tr>
<tr>
<td></td>
<td>• A framework to monitor effective coverage of hypertension and diabetes treatment</td>
</tr>
</tbody>
</table>
## Strategic interventions

Each country is expected to:

- Implement the **best buys** in health care
- Improve **access to early detection and management** of major noncommunicable diseases and risk factors by including them in the **essential primary health care package**
- Improve **access to safe, affordable and quality essential medicines and technologies** for major noncommunicable diseases
- Improve **access to essential palliative care services**

## Process indicators

Country has:

- Evidence-based national **guidelines/protocols/standards for management** of major noncommunicable diseases through a primary care approach, recognized/approved by the government or competent authority
- **Provision of drug therapy**, including glycaemic control, and counselling for eligible persons at high risk to prevent heart attacks and strokes, with an emphasis on the primary care level