WHO-PEN programme for the control of NCDS and the WHF Roadmaps – is there Congruence?

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Disclaimer

No conflict of interest
Outline

• What is WHO-PEN
• Rationale/Objectives
• Implementation
• WHF Roadmaps
• Congruency
Package of Essential Noncommunicable (PEN) Disease Interventions for Primary Health Care in Low-Resource Settings
Table 4. WHO PEN for primary care in low-resource settings overview

<table>
<thead>
<tr>
<th>Vision</th>
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<tbody>
<tr>
<td>Effective and equitable prevention and care for people with NCDs</td>
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<table>
<thead>
<tr>
<th>Goals</th>
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<tbody>
<tr>
<td>Closing the gap between what is needed and what is currently available to reduce the burden, health-care costs and human suffering due to major NCDs by achieving higher coverage of essential interventions in LMIC</td>
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<tr>
<td>To achieve universal access to high-quality diagnosis and patient-centred treatment</td>
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<tr>
<td>To reduce the suffering and socioeconomic burden associated with major NCDs</td>
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<tr>
<td>To protect poor and vulnerable populations from heart disease, stroke, hypertension, cancer, diabetes, asthma and chronic respiratory disease</td>
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<tr>
<td>To provide effective and affordable prevention and treatment through primary care</td>
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<tr>
<td>To support early detection, community engagement and self care</td>
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</tbody>
</table>
Figure 2 Projected global deaths, 2004–2030 (5)
Figure 1 Contribution of NCDs, communicable diseases, injuries, maternal and nutritional conditions to premature death in different regions of the world (5)
Table 1. Trends in NCD deaths, 2006–2015, in WHO regions (5)

<table>
<thead>
<tr>
<th>Geographical regions (WHO classification)</th>
<th>2005</th>
<th>2006–2015 (cumulative)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Total deaths (millions)</td>
<td>NCD deaths (millions)</td>
</tr>
<tr>
<td>Africa</td>
<td>10.8</td>
<td>2.5</td>
</tr>
<tr>
<td>Americas</td>
<td>6.2</td>
<td>4.8</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>4.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Europe</td>
<td>9.8</td>
<td>8.5</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>14.7</td>
<td>8.0</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>12.4</td>
<td>9.7</td>
</tr>
<tr>
<td>Total</td>
<td>58.2</td>
<td>35.7</td>
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LIMC

Characterized by:

• Rapid rise in RFs – changing lifestyles (urbanization, globalization)
• Extreme poverty – the poor particularly vulnerable
• Very low healthcare financing
• Poor healthcare systems
• Need for a unique approach
Develop or strengthen, where applicable, preventive, promotive and curative programmes to address noncommunicable diseases and conditions, such as cardiovascular diseases, cancer, diabetes, chronic respiratory diseases, injuries, violence and mental health disorders and associated risk factors, including alcohol, tobacco, unhealthy diets and lack of physical activity.

**Article 54(o) of the Plan of Implementation of the World Summit on Sustainable Development (2).**
By any measure, NCDs account for a large enough share of the disease burden of the poor to merit a serious policy response (World Bank)(16).
1.2 Strengthening health system equity and efficiency through integration of NCDs into primary health care
Actions

• Strengthening systems specifically PHC – universal coverage, service delivery, leadership, governance
• Integrated approach
• Equity
• Containing costs
• Lifespan approach
• Core set of cost effective interventions
### Essential Interventions for primary care (category of evidence)*

#### Primary prevention of heart attacks and strokes:
- Tobacco cessation (level 1), Regular physical activity 30 minutes a day (level 1),
  Reduced intake of salt <5 g per day (level 1), Fruits and vegetables at least 400g per day (Level 2)
- Aspirin, statins and antihypertensives for people with 10 year cardiovascular risk >30% (Level 1)
- Antihypertensives for people with blood pressure ≥160/100
- Antihypertensives for people with persistent blood pressure ≥140/90 and 10 year cardiovascular risk >20% unable to lower blood pressure through lifestyle measures (Level 1)

#### Acute myocardial infarction:
- Aspirin (level 1)

#### Secondary prevention (post myocardial infarction):
- Tobacco cessation (Level 1), healthy diet and regular physical activity (Level 2).  
- Aspirin, angiotensin-converting enzyme inhibitor, beta-blocker, statin (Level 1):

#### Secondary prevention (post stroke):
- Tobacco cessation, healthy diet and regular physical activity (Level 2).
- Aspirin, antihypertensive (low dose thiazide, angiotensin-converting enzyme inhibitor), and statin (Level 1)

#### Secondary prevention (Rheumatic heart disease):
- Regular administration of antibiotics to prevent streptococcal pharyngitis and recurrent acute rheumatic fever (Level 1)

#### Type 1 diabetes:
- Daily insulin injections (Level 1)
<table>
<thead>
<tr>
<th>Essential Interventions for primary care (category of evidence)*</th>
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<tbody>
<tr>
<td><strong>Type 2 diabetes:</strong></td>
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<tr>
<td>■ Oral hypoglycemic agents for type 2 diabetes, if glycemic targets are not achieved with modification of diet, maintenance of a healthy body weight and regular physical activity (Level 1)</td>
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<tr>
<td>■ Metformin as initial drug in overweight patients (Level 1) and non overweight (Level 4).</td>
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<tr>
<td>■ Other classes of antihyperglycemic agents, added to metformin if glycemic targets are not met (Level 3)</td>
</tr>
<tr>
<td>■ Reduction of cardiovascular risk for those with diabetes and 10 year cardiovascular risk &gt;20% with aspirin, angiotensin converting enzyme inhibitor and statins (Level 1)</td>
</tr>
<tr>
<td><strong>Prevention of foot complications through examination and monitoring (Level 3)</strong></td>
</tr>
<tr>
<td>■ Regular (3-6 months) visual inspection and examination of patients’ feet by trained personnel for the detection of risk factors for ulceration (assessment of foot sensation, palpation of foot pulses inspection for any foot deformity, inspection of footwear) and referral as appropriate</td>
</tr>
<tr>
<td><strong>Prevention of onset and delay in progression of chronic kidney disease:</strong></td>
</tr>
<tr>
<td>■ Optimal glycemic control in people with type 1 or type 2 diabetes (Level 1)</td>
</tr>
<tr>
<td>■ Angiotensin converting enzyme inhibitor for persistent albuminuria (Level 1)</td>
</tr>
<tr>
<td><strong>Prevention of onset and delay of progression of diabetic retinopathy:</strong></td>
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<tr>
<td>■ Referral for screening and evaluation for laser treatment for diabetic retinopathy (Level 1)</td>
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<tr>
<td>■ Optimal glycemic control (Level 1) and blood pressure control (Level 1)</td>
</tr>
<tr>
<td><strong>Prevention of onset and progression of neuropathy:</strong></td>
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<tr>
<td>■ Optimal glycemic control (Level 1)</td>
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**Bronchial asthma:**
- Relief of symptoms: Oral or inhaled short-acting β2 agonists (Level 1)
- Inhaled steroids for moderate/severe asthma to improve lung function, reduce asthma mortality and frequency and severity of exacerbations (Level 1)

**Prevent exacerbation of COPD and disease progression:**
- Smoking cessation in COPD patients (Level 1)

**Relief of breathlessness and improvement in exercise tolerance**
- Short-acting bronchodilators (Level 2)

**Improvement of lung function**
- Inhaled corticosteroids when FEV1 < 50% predicted (Level 2)
- Long-acting bronchodilators** for patients who remain symptomatic despite treatment with short-acting bronchodilators (Level 1)

**Cancer:**
- Identify presenting features of cancer and refer to next level for confirmation of diagnosis (Level 3)

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* Category of evidence Level 1=meta-analyses or systemic reviews of randomized controlled trials or randomized controlled trials, Level 2= Case control studies or cohort studies or systematic reviews of such studies, Level 3 =Case reports and case series, Level 4 = Expert opinion

** Not in essential medicines list at present
<table>
<thead>
<tr>
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<th>Tools</th>
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<tr>
<td>1</td>
<td>Tool for assessment of gaps, capacity and utilization of primary care</td>
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<tr>
<td>2</td>
<td>Tool for assessment of population coverage of NCD care</td>
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<tr>
<td>3</td>
<td>Templates to collect Health Information</td>
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<tr>
<td>4</td>
<td>Evidence based protocols for essential NCD interventions for PHC</td>
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<tr>
<td>5</td>
<td>Core lists of essential technologies and medicines</td>
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<tr>
<td>6</td>
<td>Tools for cardiovascular risk prediction</td>
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<tr>
<td>7</td>
<td>Tools for auditing and costing</td>
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<tr>
<td>8</td>
<td>Tools for monitoring and evaluation</td>
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<tr>
<td>9</td>
<td>Training material</td>
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<tr>
<td>10</td>
<td>Aids for self care</td>
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Table 3. Contribution of WHO PEN to Health System Building Blocks

| Leadership/ governance | ■ Assess needs and gaps and facilitate the use of available resources for prevention and control of NCDs efficiently and equitably  
| ■ Support government efforts to drive the agenda towards universal coverage. |
|---|---|
| Financing | ■ Prioritize NCD interventions to support raising of adequate funds for universal coverage  
| ■ Facilitate phased-out provision of financial protection for NCDs. |
| Medical products and technologies | ■ Define prerequisites for integrating a core set of essential NCD interventions into primary care  
| ■ Develop an affordable list of essential medicines and appropriate technologies  
| ■ Improve access to essential medicines. |
| Health information system | ■ Provide templates to gather reliable health information of people |
| Health workforce | ■ Provide training material to enhance knowledge and skills for NCDs prevention and control  
■ Audit performance |
| Service delivery | ■ Improve access to essential preventive and curative NCD interventions  
■ Provide equitable opportunities for early detection  
■ Define core set of cost-effective NCD interventions  
■ Provide tools for their implementation  
■ Improve quality of care  
■ Improve gate-keeper function of primary care  
■ Reduce costs due to hospital admissions and complications. |
| People | ■ Develop tools for community engagement and empowerment of people for self care  
■ Improve health outcomes. |
Tools in Implementation

• Essential technology
• Essential drug list
• Low resource risk prediction tools
Figure 5. Framework for implementation of WHO PEN in primary health care

1. Political commitment for NCD prevention and control
2. Advocacy, Mobilization of resources, NCDs in the Development agenda
3. National NCD policy framework
   - Strengthening equity and efficiency of the health system
   - Implementation of tobacco control policies
   - Consideration of health impact of all government policies
   - Policies to promote a healthy diet and physical activity
4. Implement WHO PEN to make PHC responsive for NCD prevention and control
5. Assessment of gaps
6. Monitoring and evaluation
7. Feasibility project (district) to estimate costs and for adaptation to local contexts
8. Conducive policy environment
9. Community engagement
10. Train and supervise health-care workforce
11. Sustainable national extension
Measurement of quality, equity, performance and impact
WHF ROADMAPS
The WHF Roadmaps align with the WHF goal of reducing premature mortality from CVD by at least 25% by 2025. They focus on three GAP targets:

- Preventing heart attack and stroke through drug therapy and counselling for at least 50% of eligible populations (e.g., secondary prevention).
- Reducing tobacco use by 30%.
- Improving control of raised blood pressure by 25%.
A roadmap for reducing cardiovascular mortality through prevention and management of raised blood pressure
Similarities

- Both derive from NCD global action plan to reduce CVD (NCD) mortality
- Strong emphasis on health systems
- Involvement of wide array of stakeholders
- Evidence based interventions
- Cost effectiveness
- Focus on low resource settings
- Evaluation of programmes
Differences

• WHF Roadmap:
  ▪ Focus on CVD
  ▪ More “disease” specific
  ▪ Aimed at wider spectrum of healthcare
  ▪ Implementation through various stakeholders

• WHO-PEN
  ▪ More integrated approach to NCD
  ▪ Focused exclusively at “PHC”
  ▪ Implementation model through MOH
  ▪ Rather prescriptive and inflexible
Is there congruence?

• Different organizations – different constituencies, mandates etc
• WHO vs. WHF
• Complementary approaches
• Recognize weight of WHO on governments
• Work synergistically – influence PEN
• Like human beings more the same than different.
Ahsante Sana