Evolution in the approach to chronic diseases

Jeroen De Man

Institute of Tropical Medicine
Antwerp
Non-Communicable Diseases, what’s in a name?

Life-style diseases? e.g. T2DM, HT

NCDIs? acute appendicitis, traffic accidents...

Chronic infections? HIV, TB

Multi-morbidity

Complexity

Chronicity

Compliance

Environmental diseases? e.g. asthma

Innate diseases? e.g. T1DM
NCDs IN THE SDGs
NCDs gain in importance

• **3.4:** “By 2030 reduce by one third premature mortality from NCDs through prevention and treatment and promote mental health and wellbeing.”

• Strongly related to NCDs: tobacco control, access to essential medicines and environmental measures

• Multisectoral and multistakeholder approach:
  – Interlinkages between NCDs and the other 169 targets should be supported by cross-cutting policies and implemented through multisectoral partnerships: food and nutrition security, climate change, and sustainable urbanization.

Source: NCD Alliance Briefing: 70th UN General Assembly September 2015
But,

• What are NCDs?
• Health looses terrain: from 3/8 MDGs -> 1/17
• goals are broad, targets without concrete quantification*
• Industrialization and economic growth vs. environmental measures?**

* Shifting to Sustainable Development Goals — Implications for Global Health
Christopher J.L. Murray, M.D., D.Phil.
September 16, 2015 DOI: 10.1056/NEJMp1510082
Moreover,

- Focus on ‘what’ > ‘how’ things should change:
  - Sustainable?
  - e.g.: prevention of premature deaths by NCDs

- Do not address commercial interests related to sugar, alcohol, tobacco, etc. *

A BRIEF HISTORY OF A SHIFTING PARADIGM
The Chronic Care Model

Community
Resources and Policies
Self-Management Support

Health Systems
Organization of Health Care
Delivery System Design
Decision Support
Clinical Information Systems

Informed, Activated Patient
Productive Interactions
Prepared, Proactive Practice Team

Improved Outcomes

Innovative Care for Chronic Conditions Framework

Positive Policy Environment
- Strengthen partnerships
- Support legislative frameworks
- Integrate policies
- Provide leadership and advocacy
- Promote consistent financing
- Develop and allocate human resources

Community
- Raise awareness and reduce stigma
- Encourage better outcomes through leadership and support
- Mobilize and coordinate resources
- Provide complementary services

Health Care Organization
- Promote continuity and coordination
- Encourage quality through leadership and incentives
- Organize and equip health care teams
- Use information systems
- Support self-management and prevention

Better Outcomes for Chronic Conditions

Community Partners
- Informed
- Prepared

Health Care Team
- Motivated

Patients and Families

EVOLVING THREATS
Open adaptive systems

• A system can be: a human being, a society, a network...

• Crucial to survive is the systems’ ability to detect and recognize a threat and the ability to react effectively to it

• Most sustainable systems developed a learning capacity to react more adequately against recurrent threats
  – E.g. Immune system
  – Resilience building, health system strengthening
from “simple” threats

Adaptive systems reaction

Detection of system damage

Recognition of threat

Reaction

More appropriate Reaction

Learning - adapting

Random threat

Recurrent threat
To more “advanced” threats:

The system is not able to link a threat to system damage:

• The threat is difficult to detect
• System damage is not (immediately) being detected: e.g. time lag between exposure and damage
• Outcome is unpredictable and non-linear (complex) (e.g. tipping points in NCDs)

-> systems take long (if at all) to adapt to these kind of threats without an enabling environment and enabling information
Global shift to more ‘advanced’ health problems

**Simple**
- Acute infectious
- Environmental disasters
- Treatment inexistent
- Treatment inaccessible
- Inaccessible health systems

**Advanced**
- Chronic lifestyle
- Climate change
- Resistance to treatment
- Compliance problems
- Overconsumption/misuse
Requiring different Solutions

**Simple threats**
- Treatment/2-3 prevention
- System strengthening
- Resilience building
- Natural selection
- Competition

**Advanced threats**
- Primary prevention
- Appropriate system use
- Lifestyle change
- Solidarity
- Cooperation, multisectorial
But how to get there?

• Create insight more than awareness
• Stimulate autonomy rather than trying to control
• Endorse skills and competences enabling self-management
• Create an enabling environment
• Focus on the threat not on the damage: respect systems’ limits (overconsumption...)
• Stimulate cooperation among & within different ‘systems’ instead of competition
• Stimulate (the perception of) relatedness
Thanks!