Chronic non-communicable disease

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Non-communicable disease (NCD), including chronic and at times complex disease has overtaken communicable or infectious disease as the number one cause of illness, disability and death globally. Whilst this has been the case for decades in developed countries. NCD is also emerging as the major health problem in developing countries. There are a number of reasons for this change in disease trends. They include better control of infectious disease through sanitation, vaccination and judicious use of antibiotics (notwithstanding the emergence of antibiotic resistance), population aging, urbanisation, sedentary lifestyle, obesity, cigarette smoking and alcohol. Although the threat of epidemics/pandemics remains real, and we have lived through some of these in the past 20 years, such as SARS, H1N1 Swine flu, Ebola virus, the World Health Organization (WHO) has over this period of time directed much of its attention to recommending the prevention and management of non-communicable disease.

In its 2014 Global Status Report on noncommunicable diseases [1], WHO reporting on 2012 data indicated that 56 million deaths occurred that year of which 68.0% were due to non-communicable causes. In Australia, chronic disease accounts for 90.0% of all deaths and in China that figure is 79.0%. Globally and in both Australia and China the four commonest forms of NCD are cardiovascular disease, cancer, chronic lung disease (mostly smoking related), and type 2 diabetes (often obesity related). WHO predicts that over the next 10 years over 80 million people in China will die from chronic diseases and that deaths from diabetes will increase by 50.0%.

These disturbing predictions have led to a series of recommendations and targets for action emerging from a meeting of countries Health Ministers in July 2014 at the United Nations General Assembly. Around 40.0% of deaths from NCD occur in people aged less than 70 and a large proportion of these are preventable. WHO has set a target of 25.0% reduction of premature death from NCD by 2025 with each country developing policies and practices to achieve this target. The economic cost of failure to achieve this reduction in low and middle income countries by 2025 is estimated at US \$7 trillion. In the past disease burden was expressed as mortality alone with international comparisons based on "cause of death" data. However over the past two decades burden of disease (BOD) is used which takes into account morbidity, mortality, financial cost and quality of life and is expressed as quality adjusted life years (QALYs) or disability adjusted life years (DALYs). Both of these terms refer to the number of productive years of life lost due to the disease (YLDs). Nations set targets based on burden of disease prevalence in their particular country. As well WHO has set global targets.

The following 9 global targets have been ambitiously set [1]:

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- 1. A 25.0% relative reduction in overall mortality from cardiovascular disease, cancer, diabetes and chronic respiratory disease.
- 2. At least 10.0% relative reduction in the harmful use of alcohol as appropriate within national contexts.
- 3. A 10.0% relative reduction in the prevalence of insufficient physical activity.
- 4. A 30.0% relative reduction in the mean population intake of salt/sodium.
- 5. A 30.0% relative reduction in prevalence of current tobacco use in persons aged 15+ years.
- 6. A 25.0% relative reduction in the prevalence of raised blood pressure, or contain the prevalence of raised blood pressure according to national circumstances.
- 7. Halt the rise in diabetes and obesity.
- 8. At least 50.0% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes.
- An 80.0% availability of the affordable basic technologies and essential medicines, including generics, required to treat major non-communicable diseases in both public and private facilities.

Achieving many of these targets will require a concerted effort on our public and private health systems. Whilst population based health promotion strategies including social marketing are essential to achieve these ambitious goals, they cannot be achieved without and effective and efficient primary health care delivery system. In most countries this means well trained, well resourced, well motivated, and well rewarded general practitioners working in concert with public health campaigns and with secondary and tertiary specialist providers, as well as allied health professionals. Integration of the various health sectors using information technology is essential and patients should have access to their health records at all times on smart phones or similar devices.

This issue of *Family Medicine and Community Health* concentrates on chronic and complex disease and introduces clinical as well as organisational solutions to dealing with the growing demands of NCDs. The topics covered include diabetes, cardiac failure, care planning for chronic disease management, e health solutions as well as education and training of GPs in the care of patients with chronic disease with a focus on training of GPs in China for the management of patients with chronic disease. The contributing authors include academic GPs and specialist physicians experienced in the management of patients with chronic disease as well as influencing policy and practice at a community level.

Reference

 WHO. Global status report on noncommunicable diseases 2014. Geneva, Switzerland: WHO; 2014, ISBN: 978 92 4 156485 4.