Sri Lanka Journal of Medicine

The Official Journal of the Kandy Society of Medicine
Volume. 24 No. 1 Jan - June 2015
Biannually ISSN 1021-2604

Prevention of non-communicable diseases – the time to act is now

Non-communicable diseases (NCDs) are responsible for the majority of deaths worldwide. In 2008, 36 million deaths globally (63% of all deaths) were attributed to these diseases. In South Asia, 51% of all deaths were related to NCDs in 2008, while this figure is predicted to rise to 72% by the year 2030[1]. Majority of NCDs fall into four categories - cardiovascular diseases, cancer, chronic respiratory diseases and diabetes. In addition to being the major cause of mortality, these diseases are also a significant cause of morbidity. Therefore, prevention of NCDs are of paramount importance, considering the impact these diseases are likely to have on the health system as well as the economy of the country in general.

According to the World Health Organization (WHO), the main risk factors for NCDs are use of tobacco, physical inactivity, alcohol abuse and unhealthy diet. The WHO Global NCD action plan 2013-2020 has identified key targets for the prevention and control of NCDs. These targets are: reduce mortality from NCDs, reduce harmful use of alcohol, reduce prevalence of physical inactivity, reduce salt intake, reduce use of tobacco, reduce prevalence of raised blood pressure, halt the rise in diabetes and obesity, provide drug therapy to prevent heart diseases and provide essential medicines. Since some of these targets have common elements, they can be collated into the following four groups and can be recognized as the priority areas for interventions:

- Tobacco use
- Dietary salt intake
- Obesity, unhealthy diets and physical inactivity
- Harmful alcohol intake
- Cardiovascular risk reduction

Of these, cardiovascular risk reduction primarily involves prescribing drugs at the individual level based on the cardiovascular disease risk.

Published by

The Kandy Society of Medicine,
General Hospital, Kandy

Tel: 081-2201702
Fax: 081- 2233336
Email:theksm66@gmail.com
Website: www.theksm.org

The other four areas involve lifestyle modification to reduce use of tobacco, curb excessive salt consumption, reduce alcohol intake and to promote healthy eating and regular physical activity. Bringing about lifestyle change can be a challenging task. To this end, a socio-ecological model can be used to design interventions to target the above areas. This model involves individual, interpersonal, organizational, community and society levels, which can be targeted for different lifestyle interventions. The onus of interventions targeting an individual lies with the doctor. In this regard, identification of tobacco / alcohol abuse and body mass index (BMI) screening is important. It is recommended that BMI be calculated annually or more frequently in each individual (both adults and in children)[2]. BMI cutoffs for Sri Lankan adults (normal: 18.5 to 22.9; overweight: 23 to 24.9; obese: 25 or above) or age-related BMI centile charts should be used to identify overweight and obesity[3].

Interpersonal interventions can be targeted at families and other such small groups. Organizational level interventions can be delivered at schools and work places. Indeed, diet and physical activity interventions can be effectively delivered at work sites[4]. Community level interventions include developing environments promoting physical activity such as roads with sidewalks and walking paths, and promoting a healthy food environment including increased access to fruits and vegetables at an affordable price and reduced accessibility to unhealthy food. Finally, society level interventions include policy making, laws and cultural changes to promote healthy lifestyles. Examples include increased taxation for tobacco, alcohol and unhealthy foods and providing tax concessions for fruits and vegetables.

Non-communicable diseases are set to impart a heavy burden on our health care system. A collaborative effort between government, non-governmental organizations, health care workers, media, universities, schools and the general public is needed to prevent and control the emergence of these diseases. The time to act is now.

Nishan Sudheera Kalupahana, Co-editor, SLJM, Department of Physiology, Faculty of Medicine, University of Peradeniya

Thilak Jayalath, Department of Medicine, Faculty of Medicine, University of Peradeniya

Udaya Ralapanawa, Department of Medicine, Faculty of Medicine, University of Peradeniya
Correspondence: N.S. Kalupahana: email: skalupahana@pdn.ac.lk

References:

1. Irina A. Nikolic, Anderson E. Stanciole, and Mikhail Zaydman, "Chronic Emergency: Why NCDs Matter," *World Bank Health, Nutrition and Population Discussion Paper* 2011

2. Jensen MD, Ryan DH, Apovian CM, Ard JD et al. American College of Cardiology/American Heart Association Task Force on Practice Guidelines; Obesity Society. 2013 AHA/ACC/TOS guideline for the management of overweight and obesity in adults. *Circulation* 2014; **129(25):**S102-38

3. Somasundaram N, Rajaratnam H, Wijeyarathne C et al. Clinical guidelines: The Endocrine Society of Sri Lanka: Management of Obesity. *Sri Lanka Journal of Diabetes, Endocrinology and Metabolism* 2014; **1**: 55-70

4. Racette SB, Deusinger SS, Inman CL, Burlis TL, Highstein GR, Buskirk TD, Steger-May K, Peterson LR. Worksite Opportunities for Wellness (WOW): effects on cardiovascular disease risk factors after 1 year. *Prev Med* 2009; **49(2-3)**:108-14