

Twin Epidemics of Obesity and Diabetes: Call for Action

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Chronic metabolic diseases, such as hypertension, excess weight, obesity, type-2 diabetes and vascular diseases, have increased to epidemic proportions worldwide [1-4]. In the case of acute diseases, by and large, the emphasis is on cure. Contrarily, in the case of chronic diseases, emphasis should be on primary prevention. Framingham heart studies (FHS), which are one of the earliest epidemiology studies, supported by the National Heart, Blood, and Lung Institute (NHLBI) of the National Institutes of Health (NIH), USA, demonstrated the presence of risk factors, that promoted the development of cardiovascular diseases (CVDs) [5]. Just about this time, epidemiologists at the University of Minnesota initiated, what is now known as the Seven Countries Studies [6-8]. Early on in the study, Professor Ancel Keys, the principal investigator and his associates noticed, that cultures, lifestyle, and the diet, differed in these seven countries, and corresponding differences were seen in saturated fat, serum cholesterol and coronary heart disease incidence, during 5- and 10-years follow-up [8]. Based on the results of these studies, as well as that of FHS group, several risk calculators were developed for the prediction of risks for the development of CVD [9]. Once these risks were well established, the pharma industry developed drugs, that inhibited or managed these modifiable risks for CVD.

Several studies have demonstrated, that robust management of modifiable risks will reduce, or prevent, premature mortality [10-12]. In spite of the fact, that we know the consequences of these risks, we have not been able to reduce, reverse, or prevent, the increase in the incidence or prevalence of chronic metabolic diseases. On the other hand, these diseases have increased in the last three decades, to epidemic proportions as we have described earlier. Modern medicine, to a great extent has failed, to prevent chronic metabolic diseases. The unhealthy diet, lifestyle, sedentary habits and the dependence on drugs for the management of all the modifiable risks, have significantly contributed to the increase and prevalence of chronic diseases. For instance, in the three countries with a high incidence and prevalence of type-2 diabetes, China, India, and the USA, there are more prediabetics (USA, 100 million) than diabetic patients (USA, 24 million). Number of hypertensives has surpassed a billion, so is the number of people with excess weight and obesity. Incidence of type-2 diabetes has increased four- fold worldwide. According to Chinese experts, the incidence of type-2 diabetes has increased 17- fold in the last three decades [13]. Cardiovascular disease is the number one killer and has remained in that position for over a century.

According to our professional society, South Asian Society on Atherosclerosis and Thrombosis (SASAT), as well as that of Diabetes 'Awareness & You', (www.day.org.in) India, creating awareness, development of educational, early diagnosis, and prevention strategies, are the key elements for a successful community level prevention program. According to Christ Lukas of the Nordic Welfare News (23.5.2018), North Karelia Project-was "An unrepeatable success story in Public health." The North Karelia Project, carried out from 1972-1995, was an immense health policy intervention. To make people change their behaviour, the risk factors were publicised. Training events were organised in partnership with non-governmental organisations. The Martha Organization, which promotes the wellbeing of homes and families and the appreciation of household economics, taught North Karelian women to cook traditional meals in a healthier way. In schools, pupils took part in health projects and wrote compositions on health subjects. The movement was managed from top-down, engaging both society and individuals [14]. One of the few cases a top-down approach has resulted in success.

The 2030 Agenda for Sustainable Development, adopted at the United Nations Summit Sustainable Development in September 2015, recognizes noncommunicable diseases (NCDs) as a major public health challenge, for sustainable development. All of the participating Nations, agreed to undertake active role, to reduce by one third premature mortality from NCDs, achieve universal health coverage, support the research and development that primarily affect developing countries, provide access to affordable essential medicines and vaccines for NCDs. It was a huge undertaking, the question now is, what have we achieved? Not a single country has achieved universal health care, not a single country has reduced, reversed, or prevented the increase in the incidence or prevalence of chronic diseases. Of course, it is easy to sign documents, pass bills, or even release funds. But, without a careful planning, -developing needed human resource, developing infrastructure, involving the administration, society and the individuals, achieving any success in preventing the chronic diseases is not possible. That is one of the reasons, you read statements like, "North Karelia success story is an unrepeatable experiment in preventive medicine". Having said that, what are our alternative options for improving population health? Population health is about creating a collective responsibility across many organisations and individuals, in addition to recruiting public health specialists.

National Health Services of England has been increasingly vocal in its aim of reducing health inequalities and has identified prevention as one of the key themes, in the long-term plan. The plan includes, emphasis on population health, which will be a key focus for integrated care systems, as they are rolled out across the country. Recently, the 30 years result of the Chinese Da Qing Diabetes Prevention Outcome Study in people with impaired glucose tolerance showed, that it not only delayed the onset of type-2 diabetes, but also incidence of CVDs and its clinical complications [15]. The Government of India, for instance announced recently, to transfer the currently available 150,000 primary health care (PHCs) centres, into health and wellness centres. Of course changing the name of the centre means nothing, they should bring in the needed human resource, financial resources, and integrated medicine approach, to achieve the goals of universal affordable healthcare. Providing much needed access to quality health care is essential. Having said that, what we want to see happen is, that there should be an immediate shift and emphasis on preventive care, in other words, emphasis on newer concepts in healthcare, healthy lifestyle, physical fitness, yoga and wellness. There is considerable evidence, that investment in prevention strategies are cost-effective, but the benefits of that investment or return on that investment, will not be realised until several years later. In view of this fact, it is hard to convince private and public participants to invest in such a venture. This is such an important subject, that it needs to be debated in all the responsible countries, about how best to redistribute their financial and human resources, to support population health. Time for action is now, not tomorrow!

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