

Global Epidemic of Obesity and Diabetes: World Diabetes Day-2018

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Editorial

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Editorial

It gives me great pleasure to write this editorial, for the International Journal of Diabetes and Obesity, on this special day, - World Diabetes Day-2018. In order to celebrate an anniversary day, we need to have something to celebrate, - some achievement or some game changer discovery, or a great mile stone. In the absence of any such thing to report on the progress we have made in containing the increase in the incidence, of metabolic diseases, we can say that it is a "Call for Action." It is believed, that owing to the vast quantities of energy-dense food consumed in the Western World, coupled with increasing sedentary lifestyle, excess weight, obesity, and diabetes, have become a major public health problem of epidemic proportions. On the contrary, in several developing countries, it has been noted that nutritional deficiencies also have acted in concert, to promote the development of metabolic diseases. For instance, it is safe to assume, that all citizens living in the USA, at least those with better socioeconomic conditions, will have the same advantage when it comes to health. According to a recent study from researchers at the University of Texas South Western Medical Center, nutrient deficient diet, seems to be the primary cause for excess diabetes in the South Asians living in the USA.

Hypertension, excess weight, obesity, diabetes (Type-2), and cardiovascular diseases (CVD), have become major public health issues worldwide [1-8]. Obesity has doubled and type-2 diabetes has increased four-fold, in the last three decades [5]. In the same period, China reports a 17-fold increase in the incidence of diabetes [9]. According to the Chinese researchers, potential risk

factors which could have contributed to the increasing prevalence and incidence of diabetes and impaired glucose tolerance in the Chinese population include social and economic development, urbanization, dietary pattern, and Westernized life style. They recommend that public health strategies should focus on modifying lifestyle and dietary factors. It is easy to recommend modification of lifestyle and diet, but very hard to achieve any progress at the population-level. Most recent report by the Center for Disease Control (CDC) USA, states that fourteen states and Washington DC, were significantly higher in achieving fitness goals, than the US average and top six of those are Colorado, Idaho, New Hampshire, Washington DC, Massachusetts and Vermont. Only 23% of the population meets the federally prescribed amount of weekly exercise. If the most advanced country in the world with thousands of fitness clubs and wellness programs, cannot convince its citizens the importance of adequate physical activity for a healthy life, think of the rest of the world population? Having said that, I want to assure the readers that a healthy lifestyle contributes significantly, to the decline in premature CVD-related mortality [8].

No wonder that, at the 2030 Agenda for Sustainable Development, Member States of the United Nations (UNO), have set an ambitious target to reduce premature mortality from noncommunicable diseases (NCDs)-including diabetes-by one third; achieve universal health coverage; and provide access to affordable essential medicines to - all by 2030. Dr. Margaret Chan, the Ex-Director General of the World Health Organization (WHO), says, "We have an enormous task at hand, which is why I welcome the first WHO Global report on diabetes. The report makes an important contribution to our

understanding of diabetes and its consequences [10].” In the preface to the report, Dr. Chan states that, “From the analysis it is clear, we need stronger responses not only from different sectors of the government, but also from the civil society and people with diabetes themselves, and also producers of food manufacturers of medicine and medical technologies.” The WHO report reminds us, that effectively addressing diabetes does not just happen: it is the result of collective consensus and public investment in interventions that are affordable, cost effective, and based on the best available science.

Let us just examine some recent advances in the diabetes management. In the UK, there is great excitement and heavy funding from National Health Service(NHS), for a project that aims at arresting or reversing diabetes. This enthusiasm of NHS comes from the success stories of Professor Roy Taylor, Newcastle University, who has demonstrated the reversibility of type-2 diabetes with low-calorie diets [11]. The hype about this success story is so high, that there are claims saying that, in the near future, “there would be no need for a doctor or pill – just diet.” The dietary approach definitely shows promise, but there are several reasons to be cautious at this stage. This sort of intensive calorie restriction (800 calories /day), may not be suitable for every one (much more difficult at the population level), and should be conducted under careful medical supervision. Then the major question would be, how long one can sustain this kind of diet, and also long-term effects of such a diet. There is also a renewed interest in ketogenic diet (again another low-carb diet) and Mediterranean diet.

The Healthy Eating Plate, created by nutrition experts at Harvard School of Public Health and editors of Harvard Health Publications, was designed to address deficiencies in the US Department of Agriculture (USDA)’s MyPlate. In brief, it recommends that fifty percent of the eating plate (Food Pyramid), should be fruits and vegetables, 25% grains and the rest healthy proteins. WHO report mentions, that recommendations at the population level, should be affordable and cost-effective. Major dietary recommendations in a way, are not affordable at the population level. In addition, several long-term nutritional studies have concluded, that very low carbohydrate or very high carbohydrate diets, were associated with increased mortality, with minimal risk observed at 50-55% carbohydrate intake [12]. The researchers concluded that, “Low carbohydrate dietary patterns favouring animal-derived protein and fat sources, from sources such as lamb, beef, pork, and chicken, were associated with higher

mortality, whereas those that favoured plant-derived protein and fat intake, from sources such as vegetables, nuts, peanut butter, and whole-grain breads, were associated with lower mortality, suggesting that the source of food notably modifies the association between carbohydrate intake and mortality.”

Since 1991, World Diabetes Day has been raising awareness about diabetes throughout the world. In 1993, we started a professional society, “South Asian Society on Atherosclerosis and Thrombosis (SASAT),” at the University of Minnesota, to create awareness and develop novel preventive strategies for chronic metabolic diseases. There is significant evidence that excess weight and obesity are the major driving force for the global epidemics of diabetes. Just consider, that the most advanced country in the world, the USA has the highest prevalence of diabetes. There are speculations, that in the near future, the USA may have the largest number of overweight and obese individuals in the world. Therefore, the Global theme for the World Diabetes Day should be “**Fight Obesity-Prevent Diabetes.**” The International Diabetes Federation (IDF) is an important partner in the Global Strategy on Diet, Physical Activity, and Health. It has encouraged and endorsed the adoption of this strategy.

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