

## Type 2 Diabetes in Oman: Can we learn from the Lancet editorial

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The recent Lancet editorial made a bold statement which should make us feel dejected: “The fact that Type 2 Diabetes, a largely preventable disorder, has reached epidemic proportion is a public health humiliation.” Since 2000, the number of people with diabetes has more than doubled to 285 million.<sup>1</sup> As envisaged in the editorial, the situation in Oman is reviewed with reference to the burden, management and scope for research.

The World Health Organization estimates a 190% increase in the number of people living with diabetes in Oman over the next 20 years, from 75,000 in 2000 to 217,000 in 2025.<sup>2</sup> Currently, more than 75% of the disease burden in Oman is attributable to non-communicable diseases (NCDs) with the distribution of chronic diseases and related risk factors among the general population being similar to that of industrialized nations; 12% of the population have diabetes, 30% are overweight, 20% are obese, 41% have high cholesterol, and 21% have the metabolic syndrome. The findings related to diabetes from the above recent review article,<sup>2</sup> does not paint a good picture regarding diabetes control, since Omanis have high rates of diabetes-related complications; more than 14% were found to have diabetic retinopathy, 27% had microalbuminuria, and more than 50% of amputations are attributed to diabetes mellitus.

Another review also noted that as Oman continues through the epidemiological transition and socioeconomic development, the burden of NCDs, particularly cardiovascular diseases and diabetes, can only be expected to increase.<sup>3</sup> Higher prevalence rates of diabetes have been identified in more urbanized areas of the country (18%) relative to more rural areas (11%).<sup>4</sup> An earlier study found that only one-third of people with diabetes knew that they had the condition.<sup>5</sup>

There are concerns about the financial implications of diabetes in the Arab countries. A recent conference on health economics proposed to issue the ‘Riyadh Declaration’ as a guiding framework to address the challenges of diabetes particularly from an economic standpoint.<sup>6</sup> Some of the objectives of the conference were in fact in tune with what the Lancet editorial is now proposing. These include shedding light on all aspects of economics of diabetes including the medical and social issues at the international, regional and gulf

level; illuminate the immense challenges imposed by diabetes on the health systems and healthcare costs (whether direct or indirect); propose and present responses to confront these challenges, with presentation of effectiveness models; involve key stakeholders in the management of Diabetes and impart significance to their role in combating diabetes; increase the knowledge of governmental officials and others concerned with and interested in the economic aspects of diabetes; and present outstanding international initiatives and experiences in the management of Diabetes.

The Lancet editorial stated that even if care was widely accessible, increasing evidence suggests that glucocentric treatment might not result in better overall outcomes.” Clearly, different strategies are needed to reach a wider population and deliver better results. Type 2 diabetes, which accounts for 90% of diabetes, is largely rooted in reversible social and lifestyle factors, a medical approach alone is unlikely to be the solution. Medicalization disempowers individuals and excludes communities, schools, and urban planners who have the potential to reduce diabetes incidence. A collective approach provides predisposed individuals with better protection from the environmental hazard of decreased opportunities for physical exercise and the abundance of “energy-dense food.”<sup>1</sup>

It appears to be a crisis situation perhaps in Oman against the above background. The knowledge and preventive measures required to cope with the increasing prevalence of diabetes in Oman seems to be lacking in a significant number of Omanis.<sup>7</sup> However, Al Shafee et al. are optimistic that health education could be a powerful tool as they found that level of education is the most significant predictor of desirable knowledge and perceptions of diabetes risk factors, complications and prevention.<sup>7</sup> While, Al Lawati et al. explicitly stated that in Oman, “despite the fact that preventive health care services were emphasized in every 5-year plan of Oman’s Ministry of Health, until recently, health care policy makers have focused on meeting public demand for health facilities and services by providing curative clinical services to the newly developing regions of Oman.”<sup>2</sup> They further stated that “The Ministry of Health has ensured availability of Arabic-speaking diabetes specialists in every region of Oman. Small diabetes

clinics, run by family physicians on specific days of the week, have been established in most primary health care (PHC) centers. Management guidelines to treat diabetes and hypertension have been developed and are updated regularly” but this does not translate into the current primary care system meeting the needs arising from the growing burden of NCDs as most primary care physicians and nurses are not educated beyond their basic training to deal with common complex diseases like diabetes, hypertension, asthma, and psychiatric conditions.<sup>2</sup>

In fact, more work needs to be addressed on a recent observation from a report by McKinsey that “In light of the Gulf Cooperation Council’s unusual risk-factor profile, substantial opportunity exists in primary care to better manage chronic diseases such as diabetes and obesity before they result in cardiovascular complications.”<sup>8</sup> The editorial laments that “medicine might be winning the battle of glucose control, but is losing the war against diabetes. Though research publications represent great progress in the understanding of diabetes and the ability to lower concentrations of blood glucose, there is a glaring absence: no research on lifestyle interventions to prevent or reverse diabetes.”<sup>1</sup>

Researchers in Oman have dedicated their efforts to the first component stated above but now need to redirect their efforts as recommended by this timely editorial.

It is not that no concern has been voiced in the past. Al Adawi categorically stated that it is widely accepted that many problems, previously thought of as primarily medical and, hence, demanding conventional medical intervention, are in fact more appropriately disentangled by changing individual and social attitudes and behaviors.<sup>9</sup>

Health promotion has in fact already been emphasized in the context of Oman as a means to help people to increase control over their health and to improve it.<sup>2</sup>

It appears that researchers in Oman are perhaps till now under the notion that commitment for provision of chronic disease services from decision makers and health planners is assured if more evidence is produced nationally by just demonstrating the increasing burden of NCDs.<sup>2</sup> The Lancet editorial provokes us to think and research on different lines.

Preventive health programs require inter sectoral collaborations and would have better outcomes if public policies on taxation, trade, food, urban planning, and the like are evidence-based and set with due consideration of public health.<sup>2</sup>

Al Lawati et al. admit that “collaborations and joint planning among government sections in Oman are still rudimentary and need to be strengthened.”<sup>2</sup> They reported that “unless reforms are

introduced to the current health care system, chronic diseases will constitute a major drain on Oman’s human and financial resources, threatening the advances in health and longevity achieved over the past four decades.”<sup>2</sup>

While Al Mandhari et al.<sup>10</sup> have stated that “given the background of a less than desirable quality of care of diabetes in Oman, one of the applications of their findings to patient care management is that interventions should focus on patient education, training of primary care physicians and other patient care providers in behavioral change and redesign of local systems of delivery care.” We really need to think whether there is a need in Oman to plan and execute better quality intervention studies with greater emphasis on proven, cost-effective primary prevention services (to suit our local needs) that focus on lifestyle and behavior change. These will definitely be in tune with the implied recommendation of the Lancet editorial to conduct research on lifestyle interventions to prevent or reverse diabetes. The results will help decision makers take appropriate steps to avert the threat mentioned above.

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