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Prioritising action on diabetes during COVID-19

Diabetes is emerging as an important determinant of disease severity in patients with COVID-19.^[1,2] International reports from China,^[3] Italy^[4] and the UK^[5,6] suggest that diabetes *per se*, and uncontrolled glycaemia in particular, and other non-communicable diseases (NCDs) are associated with increased mortality in COVID-19.

These findings are of concern in South Africa (SA), where >4 million people live with diabetes,^[7] and type 2 diabetes is recorded as the second leading cause of death after tuberculosis.^[8] The diabetes epidemic is fuelled by high rates of overweight and obesity, with almost 70% of women and 40% of men being either overweight or obese.^[9] Diabetes goes largely unnoticed until complications emerge, with 60% of cases being unscreened and undiagnosed. Close to 70% of people diagnosed with diabetes are uncontrolled.^[10] Without adequate diabetes screening and treatment, complications and premature death will exact a high toll on households and on the health sector. In 2018, type 2 diabetes cases alone (diagnosed and undiagnosed) cost the SA public healthcare system an estimated ZAR21.8 billion.^[11] This amount is more than the additional ZAR20 billion budget projected to address COVID-19.^[12]

The diabetes burden is also influenced by inequity. Despite free primary healthcare, income status is a determinant of access to diabetes services, with cost of transport and loss of wages emerging as key barriers.^[13-16] Analyses of health expenditure patterns among people with diabetes attending both rural and urban public hospitals found that catastrophic expenditure due to diabetes healthcare is highest in the lowest socioeconomic groups.^[16,17] Furthermore, self-management strategies, such as dietary diversity, are more accessible to patients in higher socioeconomic groups.^[18]

As emerging evidence shows the close interaction of diabetes and COVID-19, measures adopted to slow the spread of the virus should be reviewed carefully so that opportunities to manage known diabetes cases and to prevent further burden are not wasted.

Responses to COVID-19 could exacerbate excess morbidity and mortality related to obesity and diabetes if not anticipated and mitigated. Firstly, individuals with diabetes are more vulnerable during the pandemic. Their ability to visit health facilities may be limited by travel restrictions and cash constraints due to loss of employment during the lockdown, and the closure or reduction in size of routine clinics. Demand for care may be reduced due to fear of the virus at healthcare facilities. Potential interruptions in access to essential diabetes services and supply chains of essential medicines and supplies can lead to admissions to hospital for complications of both type 1 and type 2 diabetes. But beyond this direct impact, the lockdown is likely to aggravate dietary drivers of diabetes through: (i) food insecurity due to a rise in food prices and limited access to safe and nutritious foods;^[19] and (ii) reliance on nutrient-poor, cheap, ultra-processed foods. Both under- and overnutrition play a significant role in the development and management of type 2 diabetes, so disease prevention efforts should maximise impact on all forms of malnutrition. The effect of COVID-19 on the diabetes burden threatens to widen existing socioeconomic divides. Those in lower-income groups face greater threats to their source of income and are disproportionately affected by COVID-19-induced food insecurity. These inequities jeopardise one of the key health objectives of the National Development Plan, which is to improve equity of healthcare access.^[20]

This is not a time to lose focus and to favour only COVID-19 interventions. With the outbreak likely to continue through 2021, efficient allocation of resources is paramount. Evidence-

guided decisions should support prioritisation of interventions that maximise health impact, and we should identify areas where costs can be reduced. With regard to diabetes, we must prioritise interventions to save lives from within the health services as well as leveraging opportunities available in other sectors to prevent further obesity.

In order to reduce routine healthcare visits of people with diabetes, many of whom will be immunocompromised owing to poor glycaemic control, a number of strategies could be considered. For those with good glycaemic control, medication could be dispensed for longer periods, for example 2 - 3 months. For those with significant complications or poor control, targeted interventions such as telephone consultations, possibly enhanced with home visits by community healthcare workers, could be considered. For all, medication could be delivered to their homes, accompanied by clear short written messages around the need for adherence and self-care with indications for prompt presentation for care. Furthermore, toll-free telephone and zero-rated internet-based services for diabetes self-management education and support should be considered.

Additional COVID-19 delivery platforms that offer synergistic opportunities include targeted food aid. When addressing food insecurity, healthy diets must be the default measure to avoid undue harm from increased consumption of ultra-processed energy-dense prepackaged foods.^[21] It is recommended that the composition of targeted food parcels follows the SA food-based dietary guidelines^[22] and that subsidies or food vouchers concentrate on providing nutritious foods, excluding foods and beverages high in energy, sugar, fat and salt. In times when people are compelled to rely on prepackaged food, while at the same time prompted to safeguard their health, a policy on nutrition labelling of food would be invaluable and should be regulated without further delay. To further empower individuals to make healthier choices, we should consider additional cost-effective interventions, regulation of marketing, taxes on unhealthy foods, and subsidies for healthy foods.^[23,24] Concurrent implementation of these strategies could lead to reduced rates of overweight and obesity in the long term. For example, without an increase in the Health Promotion Levy, SA could see an additional 1 287 000 obese adults over a 2 year period.^[25]

Beyond the COVID-19 pandemic, to save the most lives in an equitable way, several questions remain. It is important to continuously review emerging evidence related to diabetes and obesity, as well as the impact of the virus on vulnerable populations, in order to determine implications for services.

If we let our focus on diabetes slip during this pandemic, the ripple effects may lead to greater levels of excess morbidity and mortality – for those who contract COVID-19, as well as those we manage to protect from the virus. This excess burden of illness and death threatens an already fragile healthcare system, with serious implications for the future: it cannot be ignored.

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