

Submission to Education and Health Standing Committee of the WA Parliament

Inquiry: The role of diet in type 2 diabetes prevention and management-

Reference to children and adolescents

Dear Sir/Madam,

The Child and Adolescent Health Service (CAHS) provides the only tertiary level paediatric health service in Western Australia. 'Caring for children, young people and families' and the provision of 'high value health care' are among important CAHS objectives. At Perth Children's Hospital (PCH), CAHS also provides state-wide services to all children and adolescents with Type 2 Diabetes (T2D) and we therefore acknowledge and commend the endeavours currently being undertaken by the Committee and take this opportunity to provide comment.

- ***Background***

T2D is a rapidly increasing global issue, leading to high morbidity and mortality ultimately increasing whole of health system costs. T2D is an aggressive progressive disease, which if not optimally managed is associated with complications which can be fatal. T2D also negatively impacts on an individual's quality of life which is critically significant for the child with T2D, as they have a higher disease burden across the lifespan. Whilst prevention is the key priority, strategies that target condition self-management to prevent diabetes complications and improve outcomes in young people are also vital.

The age of diagnosis of T2D has steadily become younger over several years. Twenty years ago, T2D was a disease of adulthood. This is no longer the case. Currently in Western Australia, 1 out of 12 children diagnosed with diabetes aged less than 16 years have T2D and 6% are diagnosed at less than 10 years of age. Furthermore, Aboriginal children have a 20 fold higher incidence of T2D compared to non-Aboriginal children and from 2000-2017 the mean increase in incidence for Aboriginal children was 12.5%.

It is not fully understood why children are developing T2D. Certain risk factors are known and include paediatric overweight and obesity, family history of T2D in a first or second degree relative, exposure to diabetes during pregnancy and being from a high risk Ethnic group. Importantly, an increase in T2D in young people and children has followed increasing trends in paediatric obesity. A transgenerational risk of developing T2D is known to occur in high risk populations, highlighting the importance of the pre-conception period and the optimisation of self-care during this time.

T2D also disproportionately affects individuals /families from a background of low socio-economic status (SES). 27% of children with T2D live in areas of the highest socioeconomic disadvantage (SEIFA economic index) when compared to children with Type 1 Diabetes (T1D) (8%).

Healthy dietary habits are known to have an important role in the prevention of T2D. The consistent adoption of healthy eating practices is also the cornerstone to T2D management and the prevention of diabetes complications. Healthy eating strategies aim to prevent further weight gain and maintain steady blood glucose levels (BGL's) by replacing energy dense foods and beverages with nutrient rich foods from each of the five food groups. In children and adolescents, there is no evidence that supports the role

of restrictive diets (where one food group or nutrient is eliminated to manage BGL's). Restrictive diets are in fact known to be harmful to children and can produce nutritional deficiencies and inadequate growth. A balanced diet, focusing on low GI (glycaemic index) carbohydrates, healthy fats, lean meats and adequate fruit and vegetables are the current recommendations.

The chronic and complex nature of paediatric obesity and T2D require a service model that is intense and prolonged with care provided by a specialised and comprehensive multi-disciplinary team (MDT). At PCH, the Healthy Weight Service (HWS) and the T2D service provides this care to affected children and their families. Consistent with evidence, both services focus on supporting families to attain and sustain healthy dietary practices and individualised dietary interventions whilst ameliorating barriers to change. However, service gaps do exist which are described below:

- The Healthy Weight Service (HWS) at PCH is only available to patients in the metropolitan area or those able/willing to travel to PCH.
- The state-wide patient assisted travel scheme (PATS) does not provide travel for stand-alone outpatient allied health appointments at PCH and the appropriate skill set does not exist in regional WA.
- Culturally appropriate care for the management of paediatric T2D and obesity in Aboriginal families is critically required. The Healthy Koolanga's (HK) program was trialled through grant funding in obese Aboriginal children and their families in 2015 to early 2017. The program produced sustained improvements in family dietary habits and in the weight status of the referred child. Importantly, the program was found to be culturally acceptable to Aboriginal families and identified to be readily transferable to the management of other chronic conditions affecting Aboriginal children including T2D. The program has now ceased with permanent funding unable to be achieved.
- Food insecurity and access to nutritional food requires consideration. Advice provided in the HWS and T2D service for dietary changes to improve weight status and T2D management may not be achievable by families where high cost and restricted access to nutritional food exists. Research shows that in WA the cost of food increases with distance from the metropolitan area and this is likely to affect many Australians at increased risk for T2D (Aboriginal Australians and those from a low SES background)

- ***Strategies for prevention and management of Type 2 diabetes in children and adolescents in Western Australia.***

On behalf of the HWS and the T2D service at PCH it is proposed that the following strategies require consideration by the Committee:

- A state-wide strategic plan is created with a vision and objective to address and reduce the incidence and burden of T2D in children and adolescents.

- An annual forum is established that promotes a collaborative effort by all relevant stakeholders with the aim to achieve state-wide consistency and integration of both current and proposed programs.
- The committee promotes and advocates for Aboriginal Health Promotion Officers and Aboriginal Health Care Workers to provide direct care to children and families at risk. This recommendation is based on outcomes of the HK program which was acknowledged as a finalist in the 2017 Health Excellence awards but is currently not funded and not provided to Aboriginal children with complicated obesity and T2D (*prevention and management*).
- Attempts are made to raise awareness in schools. This may include pilot family based programs on nutrition, food preparation and cooking. (*prevention*)
- The committee draws attention to food insecurity issues and advocates to reduce the cost AND improve the availability of healthy foods especially in remote Aboriginal communities. (*prevention and management*).
- Efforts to expand the established PCH's HWS into a state-wide service should be prioritised (currently limited to Perth metro) (*prevention*).
- Community based childhood lifestyle programs such as the Better Health Program should be expanded particularly in regional centres (*prevention*).
- An integrated evidenced based multidisciplinary bariatric program for childhood obesity and T2D is established in WA (*prevention and management*).
- The successful "livelighter" campaign is expanded to target childhood obesity and maternal (pre-gestational) obesity (*prevention*).
- A 'sugar tax' to reduce the intake of non-nutritious calories is realistically considered
- Regulation of media to minimise advertising of unhealthy food options and to control stigma against obesity and T2D is importantly deliberated and addressed.
- Regulations that restrict the purchase of sugar sweetened beverages by children be taken into account noting the success of this strategy in other countries such as Mexico that have high rates of obesity and T2D. Revenue created should be used for other public health prevention campaigns.
- Opportunities to increase physical activity be encouraged through increased rebates on membership to gyms or sporting clubs with grants and allowances made for those in high risk groups assured.

In conclusion the endeavours of the committee are again acknowledged and we trust this combined contribution by key CAHS personnel supports the groups ongoing efforts and outcomes.

Yours sincerely,

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