Dear Sir/Madam,

I have been working as the sole endocrinologist in the North West of Tasmania for the last 2 years and would like to answer the following question:

Reform 3b

1 How should the *Health Workforce 2040* strategy be further refined to guide and inform the development of a strong and sustainable professional workforce that is aligned to meeting the future health needs of Tasmanians?

The *Health Workforce 2040* strategy acknowledges Endocrinologists as high priority for workforce planning. Endocrinologists play an important role in the management of a range of chronic diseases such as diabetes, osteoporosis and obesity.

The Diabetes Research and Discussion Paper from 2018/19 (1) identified diabetes management as a priority for health care delivery in Tasmania. The prevalence of diabetes in Tasmania is higher compared to all other states in Australia. There are inequalities within Tasmania due to socioeconomics and remoteness which particularly affect the North West. To this extent, people living in the lowest socioeconomic region are 3.6 times more likely to have diabetes and the majority of the North West Tasmanian population falls within the socially disadvantaged group (SEIFA). Living in the lowest socioeconomic area or living remotely increases the risk of hospitalisation by 1.8 times.

The Australian National Diabetes Audit in 2019 (2) revealed poorer glycemic control in patients with type 1 and type 2 diabetes and higher rates of diabetes related complications in the North West compared to other participating Australian centres. It was also evident that the obesity rate in patients with diabetes is higher in the North West compared to other Australian centres. Of particular concern for the North West is that the rate of obesity in pregnancy is above the Tasmanian average.

The mortality rates from diabetes in North West Tasmania are the highest in Tasmania (1). These data show that there is a high demand for endocrine services in the North West due to the prevalence and the complexity of people with diabetes.

It is well established that chronic conditions cause significant healthcare expenditure and that early intervention is cost effective. Healthcare costs for people with diabetes who have complications are significantly higher than for those without diabetic complications. For example, annual costs for people with type 1 diabetes who have micro- and macro-vascular complications were $16698 in 2009 versus $3468 for somebody without complications (3). The annual health cost for people with obesity compared with those with normal weight is 26% higher; and 46% higher for those with obesity and diabetes (4). The estimated healthcare costs in Tasmania for osteoporosis, another endocrine condition, were $60 million in 2017 (5). In all, 68% of the costs are due to fractures and only 32% are due to management and prevention of further bone loss in patients with osteopenia or osteoporosis (5).

Early intervention for these chronic conditions are cost effective. For example, treatment of obesity helps prevent diabetes, stroke, myocardial infarction and many other conditions and hence reduces medical costs (6). Diabetes management is cost effective as it prevents complications (7). Prevention of fractures will reduce costs. In this instance, a fracture liaison service, which liaises patients who experienced a recent fracture with a bone health service, is cost effective and has been shown to reduce subsequent fractures by 80% (5). This service could be implemented in the North West once another full time endocrinologist has been employed.

The number of endocrinology specialists in Tasmania was 10 in 2018 with an FTE of 7.7. The number of endocrinologists per 100,000 population was lower in Tasmania in 2018 than in Australia generally, with Tasmania having 1.9 clinicians per 100,000 people compared with 2.5 nationally. The distribution of endocrinology specialists throughout Tasmania is not evenly spread. In 2018, there were 2.6 endocrinologists per 100,000 people in the South and 2.1 in the North (8). For the last 2 years, there has been coverage at 0.9/100,000 in the North West. Consequently, the North West population has less than half the FTE provision compared to the rest of Tasmania and Australia as a whole. There are also data from the UK suggesting that at least 2 FTE endocrinologists are required for a population of 125,000 (9).

In order to reduce extremely high waitlists in the North West, 2 locum endocrinologists were employed from September 2020 until February 2021 for a total of 1.0 FTE for the 5-month period. Furthermore, a business case for a second endocrinologist was prepared in September 2020. The business case was put on hold when an additional endocrinologist was recruited. However, this specialist, who started in February 2021, will primarily work as a general physician and provide only one diabetes or endocrine clinic per week.

In order to improve the mismatch between the increased demand for endocrine care in the North West and an endocrine service which is numerically below the Tasmanian and well as the national average, I strongly recommend the appointment of a second endocrinologist at 1.0FTE.

An additional endocrinologist would help provide a sustainable and effective program of care for the people of the North West. An adequately resourced service would improve health and well-being of patients and would be cost effective for the health care system.

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Endocrinologist

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