ELECTIVE (SSC5a) REPORT (1200 words)

A report that addresses the above four objectives should be written below. Your Elective supervisor will assess this.

For my Elective, I spent three weeks at the Mater Dei Hospital, the principal acute general teaching hospital in the Maltese Islands. Malta is an archipelago of five islands located in the Mediterranean. These islands are Malta, which is the largest, followed by Gozo, and then Comino. The Cominotto and Filfla are the smallest islands of the archipelago and are uninhabited. Overall, Malta makes up 316 km^2 of land and is the most densely populated country in Europe (Azzopardi-Muscat *et al.,* 2017). The Maltese population has become more diverse in the last decade owing to increased immigration. This has caused a shift from a mono-ethnic and devout roman catholic society to a more socially liberal and multi-ethnic population. During these weeks, I shadowed one of the Diabetes and Endocrinology medical teams for specialist and general medical practice.

On average, Maltese people spend approximately 72.7 years (88% of life expectancy) of their life in good health, compared to 61.4 years in the UK (EUROSTAT, 2020b). Life expectancy at birth was estimated at 82.4% in 2017 compared to the UK at 81.3%, and the EU average at 80.9%. This is a substantial increase from 78.4% in 2000 (Azzopardi-Muscat *et al.,* 2017). This rise has been attributed to two main factors, a decline in death rates particularly in preventable mortality and increased investment into the healthcare system. Although there have been an overall rate reduction in preventable mortality particularly cardiovascular diseases reduced by 50% from 2000 to 2016, the rate of diabetes has remained stagnant (OECD/EU, 2019). Currently, it is estimated that 8.3% of the 20 to 79-year-old Maltese population lives with diabetes (Sammut, 2021), which is the third highest in Europe with the UK at an estimate of about 7% of the population (Whicher *et al.*, 2020). This high incidence of diabetes is linked to a high prevalence of obesity which is currently considered a major public health threat.

In 2017, 25% of adults in Malta were obese and in 2015, 27% of 11 to 15-year-olds were obese (Azzopardi-Muscat *et al,* 2017; OECD/EU, 2019). Several factors have resulted in this high rate including sedentary lifestyles, larger portion sizes, and access to ready-made foods. About two in five adults do not undertake the recommended 150 minutes of moderate physical activity. This coupled with the increasing change from a traditional Mediterranean diet to a more westernised diet with increased access to processed foods with high sugar and salt content creates a highly obesogenic environment (OECD/EU, 2019). The high incidence of obesity in both childhood and adulthood can also be attributed to epigenetic influences. Evidenced in studies showing that under and over-nutrition of a mother during pregnancy can lead to altered gene regulation (Formosa *et al,* 2015). These alterations change the function of the DNA without changing the inherited DNA sequence. Thus, causing an overall effect where the individual responds differently to lifestyle and environmental factors such as diet and exercise.

The Maltese health system is very similar to the UK National Health Service (NHS). The World Health Organisation ranked Malta 5th in the world compared to the UK at 18th place (Welcome Center Malta, 2022). Within the Maltese National health service, inpatient care is usually provided by public funding while outpatient services and primary care are funded by private/ individual funding. Although, there are also state-run public primary care facilities, privately funded services are more commonly used. This is thought to be due to cultural preference to be able to choose their physician rather than a walk-in service and attempts to bypass long waiting times. This is often seen in the UK particularly since the COVID-19 pandemic patients often must wait long periods to be able to get appointments in their GP surgery.

Great efforts have been put into improving the health system. Malta was shown to have one of the highest rises in per capita health expenditure in the EU. In 2017, health spending per person rose 60% since 2007 to EUR 2,732. However, this is likened to 9.3% of Gross domestic product (GDP) which is still lower than the EU average (9.8%) (OECD/EU, 2018; OECD/EU, 2019). The Maltese health system provides universal coverage however this is subsidised by patient out-of-pocket spending. In 2017, Malta was the fourth-highest out-of-pocket spending in the EU. Malta had 34.6% compared to the EU average of 15.8% (OECD/EU, 2018; OECD/EU, 2019). This increased expenditure was due to high private healthcare in outpatient services, primary care, and pharmaceuticals.
With regards to access to healthcare services, Malta is low compared to other EU countries including the UK. This is surprising as with the health system a public-private partnership, one would expect a high impact on the low socioeconomic group. Figure 1 (OECD/EU, 2019) below, shows the reported unmet medical needs of several EU countries. The data shows a low difference between socioeconomic groups within Malta compared to the other EU

countries.

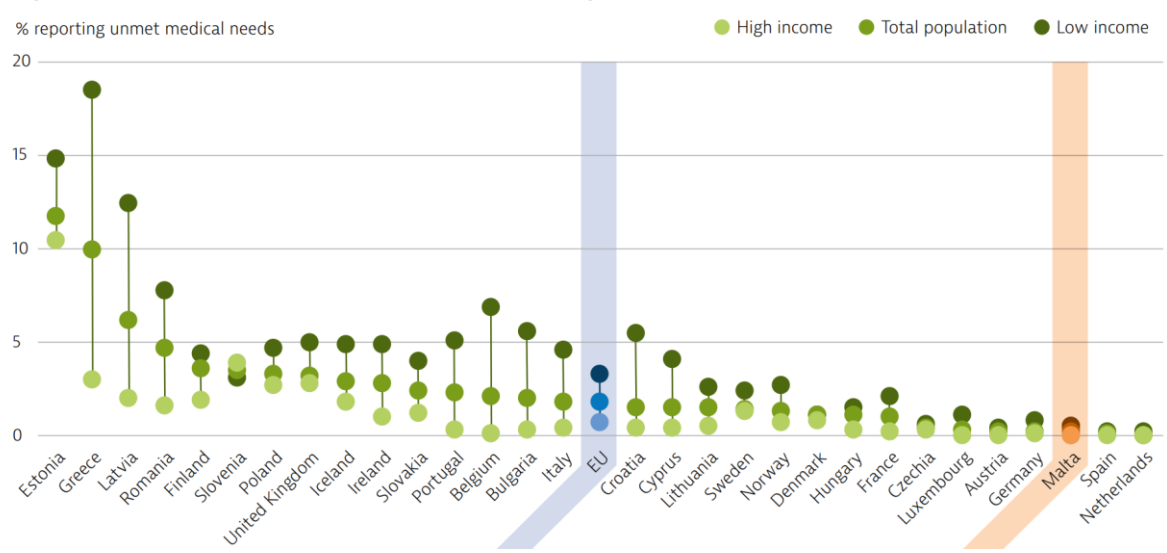

Figure 1: Comparison of reported unmet medical needs for low and high socioeconomic groups in EU countries. (OECD/EU, 2019)

The high prevalence of diabetes has made it a public health concern thus, several strategies have been employed to combat it. Integrated care is at the centre of these strategies. In 2016, the National Diabetes Strategy was developed to improve the prevention, early diagnosis and intervention of diabetes (Azzopardi-Muscat *et al*., 2017). This strategy allowed newer diabetic therapies to become available under public funding in the Maltese health services. Shared care between primary care providers and the Endocrinology and Diabetes Department in Mater Dei Hospital was implemented, where diabetics are principally managed in primary care, with computerised systems to coordinate care from different specialists with regards to diabetic complications such as ophthalmologists and podiatrists and sent to the hospital for emergencies or treatment-resistant diabetes (Sammut, 2021). This is very similar to the UK where diabetic patients are primarily seen at the GP surgery by the GP and diabetic nurse specialist for at least annual reviews. GPs also initiate screening for Diabetes among the older population. Previously, patients struggled with their diabetic control as many could either not afford the cost of primary care and had to use walk-in services or did not feel the need to visit outpatient services as symptoms of diabetes are not always imminent. As a result, they would only be reviewed in the hospital, when symptoms have already progressed significantly. Thus, this strategy allows for continuity of care in the primary setting while being supported by the hospital services. My elective with the Endocrinology and Diabetes Department at Mater Dei Hospital allowed me to see first-hand the effects of this strategy.

References

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