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Assessment 2 - Report on a Health Issue

Assignment Title: Report on Type 1 Diabetes

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Introduction

Public health and well-being are important subject areas which involve critical knowledge related to key diseases and their influence on human health. In this context, the report aims to discuss type 1 diabetes, which is a chronic autoimmune condition. According to Roep *et al.* (2021), a disease like type 1 diabetes is characterised by the destruction of insulin-producing beta cells in the pancreas, which leaves lifelong insulin dependency. In that case, this immune-mediated destruction of insulin causes various other effects on the human body that the report is going to discuss. In terms of public health regarding this particular disease, an estimated one in ten people in the UK has type 1 diabetes (Diabetes UK, 2023). It means the prevalence of this disease is not widespread at a larger scale, but it exists in the country's population. The study provides details on key social care practices related to this to demonstrate the exact medical implications needed for people affected by this condition. The study provides these interpretations based on both literary and theoretical underpinnings to ensure the evidence-based outcomes from the report.

Main Body

Different approaches used to measure and monitor type 1 diabetes

A disease like type 1 diabetes is not very common compared to type 2 diabetes, but it is evidently a disease that may concern people. In terms of measuring or monitoring the diabetes level under its type 1 variation, there are some methods that have been applied. Firstly, Continuous Glucose Monitoring (CGM), which is an agreeable approach for common users who can receive the data to their smartphones and get results (Kwon and Moon, 2025; Holt *et al.*, 2017). However, due to the potential risks of inaccuracy, this type of data is not considerable to medical diagnosis or any form of medical implications.

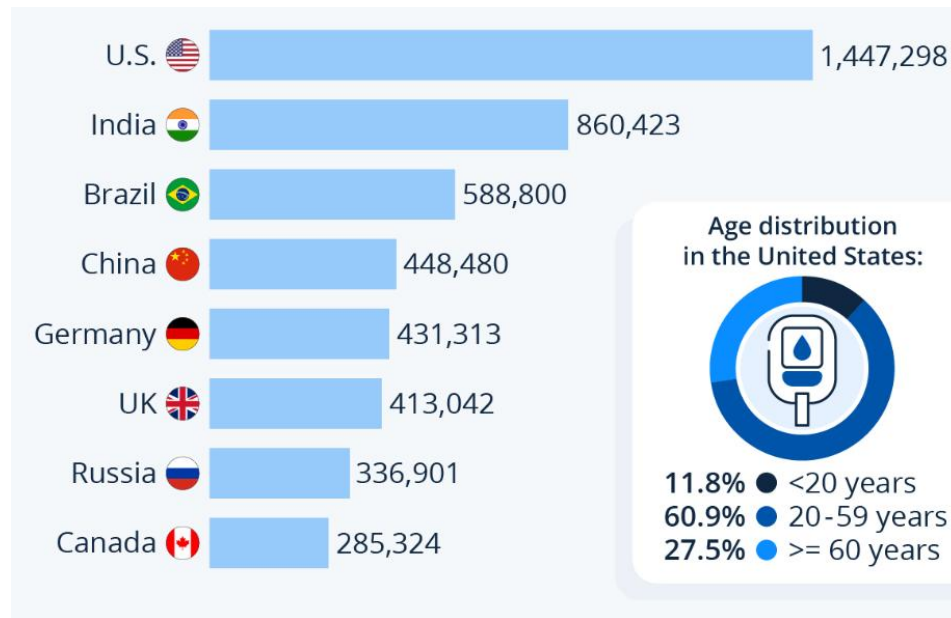


Figure 1: Key Countries with the highest number of type 1 diabetes

(Source: Fleck, 2023)

Besides this, Haemoglobin A1C (HbA1c) is a common and quite effective lab-based testing method that is also considerable at medical diagnosis to help to attain a retrospective view of average blood sugar control (Sacks, Kirkman and Little, 2024). Moreover, in terms of public health against this illness globally, the UK stands in lower ranked compared to the US and India as top countries with higher type 1 diabetes (**Refer to Figure 1**). It remains quite a valid way to measure type 1 diabetes because it is useful for 2 to 3 months. It means the report after this period will help to judge whether a person evidently has type 1 diabetes or not. Furthermore, Self-Monitoring of Blood Glucose (SMBG) is another self-operated way to monitor blood sugar level by considering the glucose meter technique (Ewunetu *et al.*, 2025). It involves a simple and pain-free method often used to calibrate CGMs. On a daily basis, this is quite effective and certainly more accurate than the general CGM technique. However, in medical treatment or diagnosis, it is always prescribed tests or instruments to attain the most accurate, considerable and valid results. Therefore, there are multiple methods of monitoring or measurement that can be found in a medical setting to map type 1 diabetes.

The way type 1 diabetes is controlled

In diabetes control, several medical and general methods have been common among people who have been affected by this. As defined by Sikorskaya *et al.* (2021), in several cases, an effective control measure is adding metformin to insulin therapy, which, as a medical technique, helps to

temporarily lower HbA1c in T1DM. In that case, the fundamental goal here is to maintain the medical implications over the control measure that will support both patients affected by the disease and also the medical examiners to attain a simple and profound method. On the other hand, Bogduk (2022) and Castro (2022) also defined that in medical diagnosis, the risk of inaccuracy is common and constant, which might not be well-balanced until all possible measurements are imposed. In that case, a medical examiner is also supposed to work integrated with all possible safety measures and a time plan to dietary measurements is needed.

Besides this, another control method has been adopted in medical settings while diagnosing or treating patients with type 1 diabetes, which is Carbohydrate Counting & Nutrition. According to Hossain, Al-Mamun and Islam (2024), diabetes is a common disease for several people across the globe, and this is the reason it also possesses a common treatment attribute as well. Lifestyle involving food habits has a strong influence on the diabetes level. In that case, carbohydrate is a specific food component that comes from every meal and contributes a significant amount of daily glucose level. In that case, for extreme outreach, insulin therapy is needed, but when it is controllable, daily food carbohydrate counting and nutrition are needed in terms of managing the daily sugar level. According to Cordon *et al.* (2021), carbohydrate intake per meal and the insulin-to-carbohydrate ratio are two important factors in this control process. Therefore, in the long-term assessment, in insulin measurement, the possible ways to measure the type 1 ratio into daily food habits, this method is quite effective.

Consequences of this illness on people in the community

In terms of effects, a disease like type 1 diabetes has a direct impact on an individual's health, emotional and physical conditions, while also becoming an economic burden. It is because, as Moensted *et al.* (2023) have defined, a medical condition which has a chronic influence is not a simple issue to resolve at once. In that case, the functional interventions which have been found are mostly based on the way it is driving people toward medical improvements. For example, a study found there are several medical conditions like vision problems, nerve issues, kidney disease and other issues that can be found among people affected by diabetes (Breakthrough T1D, 2025). In that case, most of the population has common side effects from the disease, which is mainly associated with internal organ damage, physical fatigue, and other critical conditions as well. The longer these conditions affect people the longer they have these types of medical conditions. Due to this, the fundamental consequence of this critical disease is to have more internal diseases associated with human internal organs.

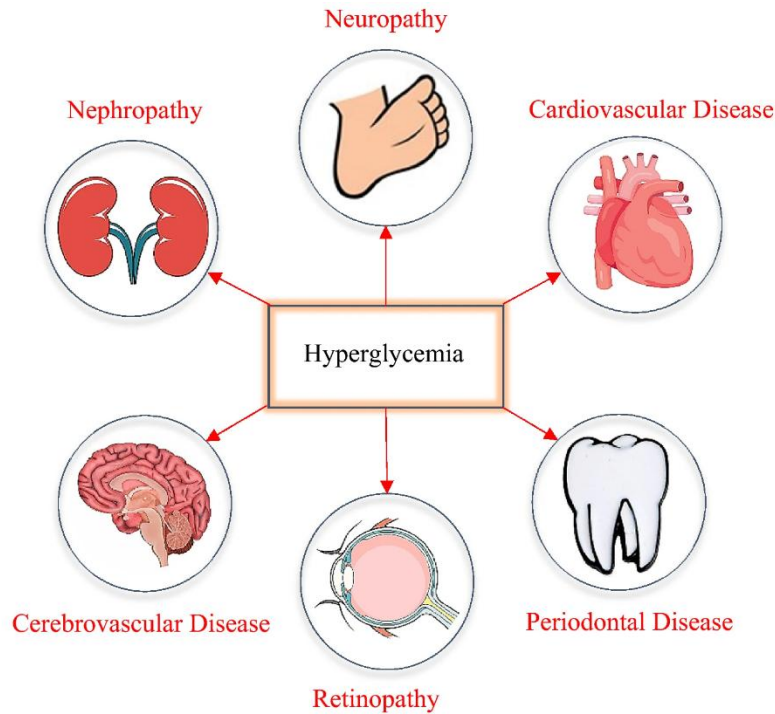


Figure 2: Hyperglycemia or Key medical conditions by Diabetes

(Source: Zahedifar and Keymasi Khalaji, 2022)

On the other hand, there are also some sorts of additional issues people have been facing by being under the medical condition of type 1 diabetes that directly impact overall public health aspects. There are several outcomes or medical conditions under hyperglycaemia or diabetes that people face (**Refer to Figure 2**). There is another study that found that diabetes has a negative impact on family relationships for those who have conditions with type 1 diabetes (Gopisetty *et al.*, 2018). In that case, it is proven that the medical condition does create emotional effects that either become a problem for users in their individual family or personal background. However, it is also true that a medical condition is primarily based on the physical health context, which also influences mental conditions and becomes a problem for a longer period. Thus, it can be stated that there are several consequences that have been found within type 1 diabetes that critically affect people's physical, mental and relational aspects.

Required health and social care support services for people affected by this

In the current social setting where medical treatments and interventions have already been implemented, the disease's prevalence is still not decreasing. It is because of a lack of social awareness regarding this disease and its negative consequences among a significant population across the world. According to the International Diabetes Federation (2026), across 9 million

people in 2024 living with type 1 diabetes, but nearly half of them have been diagnosed after the age of 20. It means the medical intervention over these populations could have been settled earlier if the diagnosis goes before its symptoms came into appearance. However, it is quite common that when symptoms come, the disease already creates a strong impression over one's health. Due to this reason, even before medical intervention, early detection through authentic medical interventions is needed. However, in doing so, social support is needed to spread awareness regarding this.

Global agencies like WHO, the International Diabetes Federation (IDF) and even small-scale medical camps have been undertaken across the globe. These types of agency-based camps provide adequate social support and learning scope while also offering free testing facilities (International Diabetes Federation, 2026). It is now important to retain the public through voluntary services to increase the spread of the word globally. Specifically in the regions where medical infrastructure is very low. It will further become a way to increase public awareness regarding the disease so that they can individually opt for early detection through medical check-ups. For underdeveloped areas, governmental aids and interventions will be useful as part of the social support.

Conclusion

Following the overall discussion throughout the report, the context of diabetes as a critical health disease is very much comprehensive in scale and its prevalence among the global population. In this disease, the variation like Type 1, found as an advanced-level health condition generally rare but is now affecting people consistently. In that case, the fundamental goal here is to identify all the possible ways to measure them, monitor and control them. In doing so, the discussed areas that showed new possible ways along with existing adopted practices. In both medical and daily lifestyle-based practices, the illness can be treated while it has severe consequences to public health. In terms of social care support, mainly public awareness, daily lifestyle changes have been found as key implications made, but still, there is further development needed. Overall, the study evidently showed the medical aspects of the disease and showed the possible ways to control or measure it, while also showing negative aspects related to this disease to show possible ways to avoid this.

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