**DIABETES MANAGEMENT IN THE UNITED KINGDOM**

**Table of Content**

1.0 INTRODUCTION

2.0 HEALTHCARE SYSTEM ANALYSIS

3.0 EPIDEMIOLOGICAL EVIDENCE

Statistics and Trends

4.0 INFLUENCE OF INTERNATIONAL ORGANIZATIONS AND POLICY MAKING

4.1 Impact on National Healthcare Practices

5.0 CURRENT CHALLENGES

5.1 Barriers to Effective Diabetes Management

6.0 COMMISSIONING CYCLE APPLICATION

7.0 EVALUATION OF CURRENT SYSTEM AND HEALTHCARE MANAGEMENT

Effectiveness of Current Strategies

Strengths

Weaknesses

7.1 Roles of Health and Social Care Professionals

7.2 Recommendations for Improvement

8.0 SUMMARY AND CONCLUSION

8.1 Summary

8.2 Conclusion

**List of Tables and Figures**

Table I: Key Statistics on Diabetes in the UK

Table II: Complications and Economic Impact

Table III: Influence of International Organizations on UK Diabetes Care

Table IV: Challenges in Diabetes Management in the UK

Table V: Application of the NHS Commissioning Cycle to Diabetes Management

**1.0 INTRODUCTION**

Diabetes, a chronic disease characterized by high blood glucose levels, poses significant challenges to health systems worldwide. In the United Kingdom (UK), diabetes management is a critical public health issue given its prevalence and associated complications. This report provides a comprehensive analysis of the UK's healthcare system with a focus on diabetes management, evaluates current strategies, and proposes future improvements.

**2.0 HEALTHCARE SYSTEM ANALYSIS**

The UK operates a primarily publicly funded healthcare system, the National Health Service (NHS), which provides comprehensive health services to all residents. The NHS is funded through general taxation and National Insurance contributions, ensuring healthcare access based on need rather than the ability to pay (Boyle, 2011).

**Structure and Organization**

The NHS is organized into various trusts, including acute care, mental health, and community health services (NHS, 2019). Acute care trusts manage hospitals providing emergency care, surgery, and specialized treatments (Hirshon, et al., 2013). Mental health trusts offer psychiatric and psychological services, while community health services trusts focus on preventive and long-term care, including district nursing and health visiting (Boyle, 2011).

General Practitioners (GPs) serve as the first point of contact, providing referrals to specialized services as needed (NHS Long Term Plan, 2019). GPs play a crucial role in diabetes management by conducting initial screenings, managing medication, and coordinating care with specialists. According to Checkland et al. (2008), GPs are central to the primary care model, designed to facilitate early intervention and continuous management of chronic conditions like diabetes.

**Funding Mechanisms**

The NHS receives funding through a centrally allocated budget, which is distributed to local Clinical Commissioning Groups (CCGs) responsible for commissioning healthcare services based on local needs (NHS Digital, 2021). CCGs are clinically led statutory NHS bodies responsible for planning and commissioning healthcare services for their local area. They work closely with local authorities and other partners to assess community health needs and commission appropriate services (Ham & Curry, 2010).

Private healthcare exists but serves a smaller portion of the population, often providing supplementary services (Propper & Green, 2016). Private health insurance can cover services not typically provided by the NHS, such as elective surgeries with shorter wait times and private rooms in hospitals. However, the majority of the UK population relies on the NHS for their healthcare needs (LaingBuisson, 2020).

**Key Policies and Regulations**

Key policies impacting diabetes care include the NHS Long Term Plan and the guidelines set by the National Institute for Health and Care Excellence (NICE). The NHS Long Term Plan, published in 2019, emphasizes preventive care, integrated services, and digital health solutions to improve health outcomes and reduce health inequalities (NHS Long Term Plan, 2019).

The plan outlines several initiatives specifically targeting diabetes management:

1. Expansion of the NHS Diabetes Prevention Programme (NHS DPP) to support individuals at high risk of Type 2 diabetes.
2. Enhanced digital tools to support self-management of diabetes.
3. Improved access to structured education programs for people with diabetes (NHS England, 2020).

NICE provides evidence-based recommendations for diabetes management, covering areas such as diagnosis, treatment, and ongoing care (NICE, 2023). NICE guidelines emphasize individualized care plans, regular monitoring of blood glucose levels, and lifestyle interventions to manage and prevent diabetes complications (NICE, 2023).

**3.0 EPIDEMIOLOGICAL EVIDENCE**

Diabetes is a significant health concern in the UK, with approximately 4.7 million people diagnosed with the condition. The prevalence of diabetes is increasing, particularly among older adults and ethnic minority groups. The disease is associated with severe complications, including cardiovascular disease, kidney failure, and amputations (Diabetes UK, 2023).

**Statistics and Trends**

The prevalence of diabetes in the UK is approximately 7%, with Type 2 diabetes being the most common form (Hex et al., 2012). Diabetes-related complications account for significant NHS expenditure, estimated at around £10 billion annually (Diabetes UK, 2023). Trends indicate a rising incidence of diabetes, particularly linked to increasing obesity rates and an aging population (NHS Digital, 2021).

Table I: Key Statistics on Diabetes in the UK

|  |  |  |
| --- | --- | --- |
| **Statistic** | **Value** | **Source** |
| Total number of diagnosed cases | 4.7 million | Diabetes UK, 2023 |
| Prevalence of diabetes | 7% | Hex et al., 2012 |
| Annual NHS expenditure on diabetes | £10 billion | Diabetes UK, 2023 |
| Common complications | Cardiovascular disease, kidney failure, amputations | Diabetes UK, 2023 |
| Contributing factors to rising incidence | Obesity, aging population | NHS Digital, 2021 |

According to Diabetes UK (2023), diabetes prevalence has been increasing steadily over the past decade, with a significant impact on the healthcare system due to associated complications. The increase is most notable among older adults and ethnic minority groups, who are at higher risk for developing Type 2 diabetes due to genetic, lifestyle, and socioeconomic factors.

NHS Digital (2021) reports that obesity is a major contributing factor to the rising incidence of diabetes, particularly Type 2 diabetes. The Health Survey for England indicates that nearly 28% of adults in England are obese, and a further 36% are overweight, which significantly raises the risk of developing diabetes.

Table II: Complications and Economic Impact

|  |  |  |
| --- | --- | --- |
| **Complication** | **Annual NHS Cost** | **Source** |
| Cardiovascular disease | £2 billion | Diabetes UK, 2023 |
| Kidney failure | £1 billion | Diabetes UK, 2023 |
| Amputations | £300 million | Diabetes UK, 2023 |
| Other complications (e.g., neuropathy, retinopathy) | £6.7 billion | Diabetes UK, 2023 |

Hex et al. (2012) estimate that the economic burden of diabetes in the UK includes both direct medical costs and indirect costs related to loss of productivity and long-term disability. The total cost is projected to increase as the prevalence of diabetes continues to rise.

The epidemiological evidence highlights the growing challenge of diabetes management in the UK. The rising prevalence, particularly among vulnerable populations, and the significant economic burden on the NHS underscore the need for effective prevention and management strategies.

**4.0 INFLUENCE OF INTERNATIONAL ORGANIZATIONS AND POLICY MAKING**

International organizations such as the World Health Organization (WHO) and the International Diabetes Federation (IDF) play crucial roles in shaping diabetes care policies. The UK aligns with global standards and guidelines to ensure effective management and prevention strategies.

**4.1 Impact on National Healthcare Practices**

WHO Guidelines Influence

The World Health Organization (WHO) provides comprehensive guidelines on diabetes management and prevention, which significantly influence national screening and preventive measures in the UK. According to WHO (2023), their guidelines emphasize early detection through regular screening and effective management through lifestyle interventions and medication. The UK's adoption of these guidelines ensures a standardized approach to diabetes care that aligns with international best practices (WHO, 2023).

IDF Frameworks for Patient Education

The International Diabetes Federation (IDF) offers frameworks for patient education and lifestyle interventions that are essential in diabetes management. These frameworks provide detailed guidance on dietary practices, physical activity, and self-management education for patients. The IDF’s recommendations are integrated into the NHS’s diabetes care strategies, enhancing patient outcomes through education and empowerment (IDF, 2023). According to the IDF, structured education programs have been shown to improve glycemic control and reduce the risk of complications (IDF, 2023).

International Research Collaborations

International research collaborations enhance the understanding of diabetes and improve treatment protocols. The UK actively participates in global research initiatives that explore innovative treatment options and preventive strategies. For example, the UK has been involved in numerous international studies that investigate the genetic basis of diabetes, the efficacy of new medications, and the impact of lifestyle interventions on diabetes management (NICE, 2023). These collaborations ensure that the UK remains at the forefront of diabetes research and benefits from cutting-edge advancements in the field.

Table III: Influence of International Organizations on UK Diabetes Care

|  |  |  |
| --- | --- | --- |
| **Organization** | **Contribution** | **Impact on UK Practices** |
| WHO | Guidelines on screening and prevention | Standardized screening protocols, preventive measures |
| IDF | Frameworks for patient education and lifestyle changes | Improved patient education, lifestyle intervention programs |
| International Research Collaborations | Research on genetics, new treatments, lifestyle interventions | Adoption of innovative treatments, evidence-based practices |

According to WHO guidelines, regular screening for diabetes is crucial in early detection and management, which the UK has implemented through various national health campaigns and primary care practices (WHO, 2023). The IDF's focus on patient education has led to the development of structured education programs within the NHS, such as DESMOND (Diabetes Education and Self-Management for Ongoing and Newly Diagnosed), which empowers patients with the knowledge to manage their condition effectively (IDF, 2023).

Moreover, international research collaborations have allowed the UK to stay updated with the latest scientific discoveries and incorporate them into national healthcare policies. For instance, advancements in understanding the genetic factors contributing to diabetes have led to more personalized treatment approaches, enhancing the efficacy of diabetes care (NICE, 2023).

**5.0 CURRENT CHALLENGES**

Despite robust policies, the UK faces several challenges in diabetes management. These include healthcare disparities, variations in care quality, and rising healthcare costs associated with diabetes complications.

**5.1 Barriers to Effective Diabetes Management**

Inequities in Healthcare Access and Outcomes

Significant inequities in healthcare access and outcomes exist, particularly among ethnic minorities and low-income groups. According to Wilkinson et al. (2017), individuals from ethnic minority backgrounds are more likely to develop diabetes and experience worse health outcomes compared to the white population. Socioeconomic factors such as income, education, and employment status further exacerbate these disparities, leading to unequal access to healthcare services and preventive measures (Public Health England, 2019).

Inconsistent Adherence to Clinical Guidelines

There is inconsistent adherence to clinical guidelines across different regions in the UK, leading to variations in the quality of care provided to diabetes patients. The National Institute for Health and Care Excellence (NICE) guidelines, which outline evidence-based practices for diabetes management, are not uniformly implemented across all NHS trusts. This inconsistency results in unequal treatment and can negatively impact patient outcomes (NICE, 2023). For example, some regions may have better access to specialist diabetes services and structured education programs, while others may struggle to provide these essential services due to resource limitations (Diabetes UK, 2023).

Resource Constraints in Primary Care Settings

Resource constraints in primary care settings significantly impact early diagnosis and ongoing management of diabetes (Rushforth et al., 2016). Primary care providers, such as GPs, are often the first point of contact for patients with diabetes. However, due to high patient loads, limited time, and insufficient staffing, many primary care practices are unable to provide comprehensive diabetes care. This situation can lead to delayed diagnosis, suboptimal management of the condition, and increased risk of complications (Heath et al., 2015).

Table IV: Challenges in Diabetes Management in the UK

|  |  |  |
| --- | --- | --- |
| **Challenge** | **Description** | **Source** |
| Inequities in healthcare access and outcomes | Ethnic minorities and low-income groups experience worse health outcomes | Wilkinson et al., 2017; Public Health England, 2019 |
| Inconsistent adherence to clinical guidelines | Regional variations in the implementation of NICE guidelines | NICE, 2023 |
| Resource constraints in primary care settings | High patient loads and limited resources impact diabetes care | Heath et al., 2015 |

According to Wilkinson et al. (2017), addressing these disparities requires targeted interventions that consider the unique needs of diverse populations. Public Health England (2019) suggests implementing community-based programs and improving access to culturally appropriate healthcare services to mitigate these inequities.

NICE (2023) emphasizes the need for uniform implementation of clinical guidelines to ensure that all patients receive high-quality diabetes care. Strategies to address this issue include enhancing training for healthcare professionals, standardizing care pathways, and using digital tools to support guideline adherence.

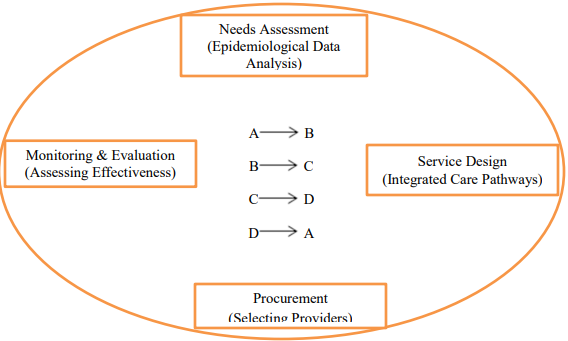
Heath et al. (2015) highlight the importance of increasing resources in primary care settings to improve diabetes management. This can involve investing in additional staff, extending consultation times, and providing ongoing education and support for primary care providers.

The UK faces several challenges in diabetes management, including healthcare disparities, variations in care quality, and resource constraints. Addressing these barriers is crucial for improving diabetes outcomes and reducing the burden on the healthcare system.

**6.0 COMMISSIONING CYCLE APPLICATION**

The NHS commissioning cycle involves needs assessment (A), service design (B), procurement (C), and monitoring (D) and evaluation. These processes are critical for effective diabetes management in the UK.

Figure I: Commissioning Cycle



**Needs Assessment**

Identifying population-specific needs is the first step in the commissioning cycle. This involves analyzing epidemiological data to identify high-risk groups and areas with poor health outcomes. According to Public Health England (2019), ethnic minorities and low-income groups are at a higher risk for diabetes, necessitating targeted interventions.

**Service Design**

Service design involves developing comprehensive diabetes care pathways that integrate primary, secondary, and tertiary care services. The NHS Long Term Plan (2019) emphasizes the importance of coordinated care pathways that ensure patients receive consistent and high-quality care across all levels of the healthcare system. This integration helps in managing diabetes effectively by facilitating smooth transitions between different types of care and ensuring that all healthcare providers involved in a patient’s care are working together.

**Procurement**

Procurement entails selecting and contracting with service providers who meet quality standards and can deliver necessary services (Duica et al., 2018). The NHS uses a rigorous procurement process to ensure that all contracted service providers are capable of delivering high-quality diabetes care. This process includes evaluating potential providers based on their ability to meet clinical guidelines, provide necessary infrastructure, and ensure patient safety (NHS England, 2020).

**Monitoring and Evaluation**

According to Adindu (2010), regular monitoring and evaluation are crucial for assessing service effectiveness, patient outcomes, and satisfaction. This feedback loop informs continuous improvements. For instance, the Quality and Outcomes Framework (QOF) provides a structured approach for monitoring diabetes care quality across the NHS, with indicators that track clinical performance and patient outcomes (NICE, 2023).

Table V: Application of the NHS Commissioning Cycle to Diabetes Management

|  |  |  |
| --- | --- | --- |
| **Commissioning Stage** | **Key Activities** | **Impact on Diabetes Management** |
| Needs Assessment | Identifying high-risk groups and areas with poor outcomes | Targeted interventions and resource allocation |
| Service Design | Developing integrated care pathways | Improved coordination and quality of care |
| Procurement | Selecting quality service providers | Ensured delivery of high-standard diabetes care |
| Monitoring and Evaluation | Regular assessment of service effectiveness and outcomes | Continuous improvement in diabetes management |

**7.0 EVALUATION OF CURRENT SYSTEM AND HEALTHCARE MANAGEMENT**

**Effectiveness of Current Strategies**

Current strategies in the UK focus on early diagnosis, patient education, and integrated care. The NHS Diabetes Prevention Programme (NHS DPP) is a key initiative aimed at reducing the incidence of Type 2 diabetes through lifestyle interventions (NHS England, 2020). The programme has been effective in educating at-risk individuals and promoting healthier lifestyles, which has shown promising results in preventing the onset of diabetes.

**Strengths**

1. Comprehensive Guidelines and Standardized Care Pathways: NICE provides detailed guidelines for diabetes management, ensuring that care is evidence-based and standardized across the country (NICE, 2023).
2. Strong Emphasis on Preventive Care and Patient Self-Management: Programs like the NHS DPP focus on prevention and empower patients to manage their condition through education and lifestyle changes (NHS England, 2020).
3. Established Infrastructure for Delivering Multidisciplinary Care: The NHS has a robust infrastructure that supports multidisciplinary teams in providing comprehensive diabetes care, including GPs, diabetes specialists, and dietitians (Diabetes UK, 2023).

**Weaknesses**

1. Variability in Care Quality and Access Across Regions: There are significant regional differences in the quality of diabetes care, with some areas lacking adequate resources and access to specialist services (Wilkinson et al., 2017).
2. Insufficient Resources and Support for Primary Care Providers: Primary care settings often face resource constraints, which can impact the early diagnosis and ongoing management of diabetes (Heath et al., 2015).
3. Challenges in Reaching and Engaging High-Risk Populations: High-risk populations, such as ethnic minorities and low-income groups, are often difficult to engage in preventive and management programs due to various barriers (Public Health England, 2019).

**7.1 Roles of Health and Social Care Professionals**

Healthcare professionals, including GPs, endocrinologists, diabetes nurse specialists, and dietitians, play vital roles in managing diabetes. GPs are usually the first point of contact and are crucial in the early detection and ongoing management of diabetes. Endocrinologists provide specialist care for complex cases, while diabetes nurse specialists offer education and support for self-management. Dietitians help patients with dietary modifications essential for diabetes management (NHS, 2019).

Social care professionals support patients with comorbidities and social determinants of health, ensuring a holistic approach to diabetes care. They assist with aspects such as housing, employment, and psychosocial support, which can significantly impact a patient's ability to manage their condition (Wilkinson et al., 2017).

**7.2 Recommendations for Improvement**

1. Enhance Primary Care Capacity: Increase funding and training for primary care providers to improve early diagnosis and ongoing management of diabetes (Heath et al., 2015).
2. Implement Targeted Interventions: Develop and deploy targeted interventions for high-risk and underserved populations to reduce health disparities (Public Health England, 2019).
3. Strengthen Integration Between Health and Social Care Services: Improve coordination between health and social care services to address the broader determinants of health and provide comprehensive support to diabetes patients (Wilkinson et al., 2017).
4. Promote the Use of Digital Health Tools: Leverage digital health tools for remote monitoring and patient engagement, which can enhance self-management and improve health outcomes (NHS Long Term Plan, 2019).

**8.0 SUMMARY AND CONCLUSION**

**8.1 Summary**

The UK operates a primarily publicly funded healthcare system, the National Health Service (NHS), which provides comprehensive health services to all residents, funded through general taxation and National Insurance contributions. The NHS is organized into various trusts, including acute care, mental health, and community health services. General Practitioners (GPs) are the first point of contact and provide referrals to specialized services as needed. Funding mechanisms involve a centrally allocated budget distributed to local Clinical Commissioning Groups (CCGs). Private healthcare exists but serves a smaller portion of the population.

Key policies impacting diabetes care include the NHS Long Term Plan, which emphasizes preventive care and integrated services, and guidelines set by the National Institute for Health and Care Excellence (NICE), which provide evidence-based recommendations for diabetes management.

Epidemiological evidence indicates that diabetes is a significant health concern in the UK, with approximately 4.7 million people diagnosed. The prevalence of diabetes is increasing, particularly among older adults and ethnic minority groups. Diabetes-related complications account for significant NHS expenditure, estimated at around £10 billion annually.

International organizations such as the World Health Organization (WHO) and the International Diabetes Federation (IDF) influence UK diabetes care policies. WHO guidelines affect national screening and preventive measures, while IDF provides frameworks for patient education and lifestyle interventions.

Despite robust policies, the UK faces several challenges in diabetes management, including healthcare disparities, variations in care quality, and rising healthcare costs. Inequities in healthcare access, inconsistent adherence to clinical guidelines, and resource constraints in primary care settings are significant barriers.

The NHS commissioning cycle involves needs assessment, service design, procurement, and monitoring and evaluation. In diabetes management, needs assessment identifies high-risk groups, service design integrates care services, procurement ensures quality service providers, and monitoring and evaluation inform continuous improvements.

Evaluation of current strategies reveals strengths such as comprehensive guidelines, preventive care emphasis, and established multidisciplinary care infrastructure. Weaknesses include regional care variability, insufficient primary care resources, and challenges in engaging high-risk populations. Healthcare professionals, including GPs, endocrinologists, diabetes nurse specialists, and dietitians, play crucial roles in managing diabetes. Social care professionals support patients with comorbidities and social determinants of health.

**8.2 Conclusion**

Diabetes management in the UK benefits from a robust healthcare system and comprehensive policies. However, addressing current challenges requires targeted improvements in resource allocation, care quality, and equity. Enhancing primary care capacity, implementing targeted interventions for high-risk and underserved populations, and leveraging digital health tools for remote monitoring and patient engagement are crucial steps. Effective management also necessitates reducing healthcare disparities, ensuring consistent adherence to clinical guidelines, and adequately resourcing primary care settings to manage this growing public health issue. By focusing on these areas, the NHS can further improve diabetes outcomes and reduce the overall disease burden in the UK.

**REFERENCES**

Adindu A. (2010). Effective Monitoring and Evaluation of Primary Health Care Interventions Requires Participatory Approach. Journal of Advancement in Medical and Pharmaceutical Sciences. 4. 93-97.

Boyle, S. (2011). The UK National Health Service: Structure and Funding. British Journal of General Practice, 61(582), 224-225.

Checkland, K., Harrison, S., & McDonald, R. (2008). Biomedicine, holism and general medical practice: Responses to the 2004 General Practitioner contract. Sociology of Health & Illness, 30(5), 788-803.

Diabetes UK. (2023). Diabetes in the UK 2023: Key statistics on diabetes. <https://www.diabetes.org.uk/professionals/position-statements-reports/statistics>

Duica M, Florea N. & Duica A. (2018). Selecting the Right Suppliers in Procurement Process along Supply Chain-a Mathematical Modeling Approach. Valahian Journal of Economic Studies. 9. 47-58. 10.2478/vjes-2018-0005.

Ham, C., & Curry, N. (2010). Clinical commissioning groups: Supporting improvement in general practice? British Journal of General Practice, 60(582), 288-294.

Heath, I., Hippisley-Cox, J., Smeeth, L. (2015). Measuring performance and missing the point? British Journal of General Practice, 65(641), e161-e162.

Hex, N., Bartlett, C., Wright, D., Taylor, M., & Varley, D. (2012). Estimating the current and future costs of Type 1 and Type 2 diabetes in the UK, including direct health costs and indirect societal and productivity costs. Diabetic Medicine, 29(7), 855-862.

Hirshon J. M., Risko N., Calvello E. J., Stewart de Ramirez S., Narayan M., Theodosis C., O'Neill J. (2013). Acute Care Research Collaborative at the University of Maryland Global Health Initiative. Health systems and services: the role of acute care. Bull World Health Organ. 2013 May 1;91(5):386-8. doi: 10.2471/BLT.12.112664. Epub 2013 Jan 31. PMID: 23678202; PMCID: PMC3646345.

International Diabetes Federation (IDF). (2023). IDF Diabetes Atlas. <https://www.diabetesatlas.org>

LaingBuisson. (2020). Private healthcare market report. <https://www.laingbuisson.com>

National Health Service (NHS). (2019). About the NHS. <https://www.nhs.uk/using-the-nhs/about-the-nhs>

NHS Digital. (2021). Statistics on Obesity, Physical Activity and Diet, England. <https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-obesity-physical-activity-and-diet/statistics-on-obesity-physical-activity-and-diet-england-2021>

NHS England. (2020). NHS Diabetes Prevention Programme. <https://www.england.nhs.uk/diabetes/diabetes-prevention>

NHS Long Term Plan. (2019). <https://www.longtermplan.nhs.uk>

National Institute for Health and Care Excellence (NICE). (2023). Diabetes - type 1 and type 2: Diagnosis and management. <https://www.nice.org.uk/guidance/ng17>

Propper, C., & Green, K. (2016). The impact of private hospitals on the NHS: Summary report. <https://www.bristol.ac.uk/cmpo/publications/papers/2016/impact-of-private-hospitals-on-nhs>

Public Health England. (2019). Health matters: Health equity and addressing the wider determinants of health. <https://www.gov.uk/government/publications/health-matters-health-equity-and-addressing-the-wider-determinants-of-health>

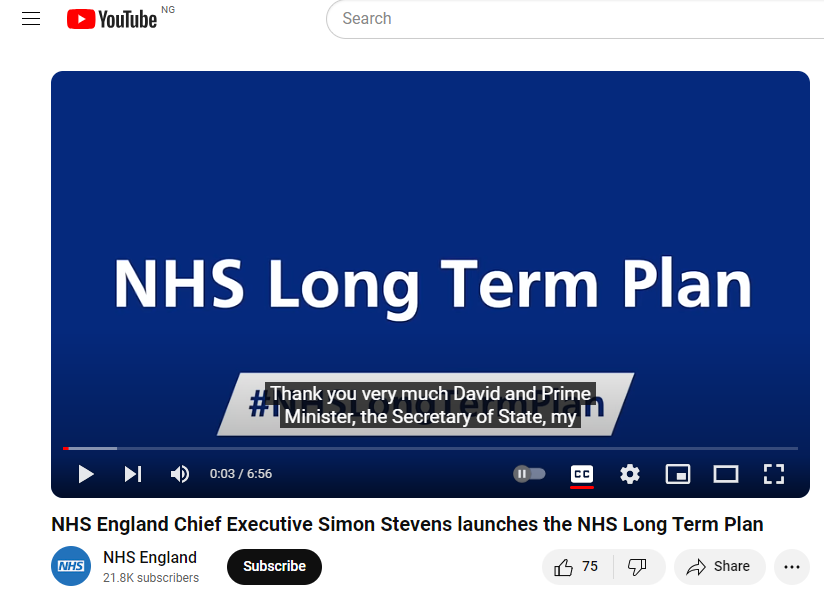
Rushforth B., McCrorie C., Glidewell L., Midgley E. & Foy R. (2016). Barriers to effective management of type 2 diabetes in primary care: qualitative systematic review. Br J Gen Pract. 2016 Feb;66(643):e114-27. doi: 10.3399/bjgp16X683509. PMID: 26823263; PMCID: PMC4723210.

WHO. (2023). Diabetes country profiles. <https://www.who.int/diabetes/country-profiles>

Wilkinson, E., Waqar, M., & Goodyer, L. (2017). Health inequalities, diabetes and the South Asian community. British Journal of General Practice, 67(655), 472-473.

**APPENDIXES**

NHS LONGTERM PLAN: <https://youtu.be/dWFs70mcilU>



**IDF DIABETES ATLAS REPORTS**: <https://diabetesatlas.org/atlas-reports/?report-year=2023>



NHS DIABETES PREVENTION PROGRAMME (NHS DPP): <https://www.england.nhs.uk/diabetes/diabetes-prevention/>

