

Protecting and improving the nation's health

# Health inequalities: Type 2 diabetes

## Introduction

Type 2 diabetes is a condition affecting the pancreas which leads to disruption of the hormone insulin and high blood sugars<sup>1</sup>. Risk factors include aging, being overweight or obese, having a family history of diabetes, or being from certain ethnic backgrounds. If left untreated, diabetes can lead to uncontrolled blood sugar, poor circulation and consequent damage to feet (including amputations) and eye problems<sup>1</sup>.

# Prevalence

The General Practice Extraction Survey or (GPES) is data extracted from GP records for a range of purposes, including research<sup>2</sup>. GPES data for 2017/18 indicates that type 2 diabetes rises sharply across the lifespan for both people with learning disabilities and those from the general population. According to GPES data, an average 6.8% of people with learning disabilities have type 2 diabetes compared with 4.8% of the general population, although the 4.8% figure for the general population is lower than that reported in the Quality and Outcomes Framework<sup>3</sup>.

The figures disaggregated by age indicate that people with learning disabilities develop type 2 diabetes at an earlier age. For example in the 35-44 age group, 6.7% of people with learning disabilities have type 2 diabetes compared with 1.8% from the general population.

A study that examined the rates of undiagnosed diabetes put the overall prevalence rate for people with learning disabilities at 8.5%, slightly higher than the overall GPES prevalence<sup>4</sup>.

## Impact on people with learning disabilities

It is known that people with learning disabilities are more likely to be obese or overweight and inactive, both of which are risk factors for type 2 diabetes. In a study of people with learning disabilities and diabetes in Northern Ireland, half of the participants were overweight/obese with 17% of the sample morbidly obese<sup>5</sup>. Bryant and others noted that both the general population and people with learning disabilities had similar levels of glycaemic control, although they note that most

people with learning disabilities were receiving either informal or formal support<sup>6</sup>. A recent national audit for England and Wales<sup>7</sup> reported that people with learning disabilities and Type 2 diabetes, compared to people with Type 2 diabetes and no learning disability, were slightly less likely to receive NICE-recommended diabetes care processes (typically relating to regular monitoring and surveillance), annual diabetes checks and structured education, but were more likely to meet treatment targets for HbA1c, blood pressure and cholesterol.

## **Risk factors**

Although some people have a genetic predisposition to becoming type 2 diabetic, particularly people from south Asian backgrounds, the main risk factors are being obese or overweight, poor diet, and inactivity<sup>1</sup>. People with learning disabilities living in supported living may be reliant on staff members to prepare food, who may themselves have poor knowledge of healthy eating<sup>8</sup>. A relationship between having learning disabilities, type 2 diabetes, being obese and having low mood was identified by Bryant and others<sup>6</sup>.

## Healthcare and treatment

Interventions for type 2 diabetes include dietary changes, weight loss, increasing activity levels and medication<sup>1</sup>. At the early stages of the disease, changes in diet and exercise may be enough to keep blood sugar levels under control, but most people with type 2 diabetes take medication. A feasibility trail looking at supported self-management of type 2 diabetes for people with learning disabilities found participants to be willing and able to participate in self-management sessions and blood tests<sup>9</sup>. The National Diabetes audit found people with learning disabilities and type 2 diabetes were less likely to have their annual health check than those with type 1 diabetes<sup>7</sup>. Learning disability health checks are undertaken by GPs with the aim of reducing health inequalities for people with learning disabilities<sup>10</sup>.

## Social determinants

Research from the general population suggests that people from lower income groups are more likely to develop type 2 diabetes, however this has not been the focus of any research with people with learning disabilities<sup>11</sup>.

## Resources

NHS RightCare (2017) <u>NHS RightCare Pathway: Diabetes. Reasonable adjustments</u> for people with a learning disability who have diabetes

The Healthcare Quality Improvement Partnership (HQIP), NHS Digital & Diabetes UK (2018) <u>National Diabetes Audit, 2016-17. Report 1: Care Processes and Treatment</u> <u>Targets England and Wales</u> Learning Disability – Supplementary Information

# References

<sup>1</sup> NHS Choices <u>Type 2 diabetes</u>

<sup>2</sup> NHS Digital (2019) <u>Health and care of people with learning disabilities:</u> <u>Experimental statistics 2017 to 2018</u>

<sup>3</sup> NHS Digital (2019) <u>Quality and Outcomes Framework, Achievement, prevalence</u> and exceptions data 2018-19 [PAS]

<sup>4</sup> Dunkley AJ and others. Type 2 diabetes and glucose intolerance in a population with intellectual disabilities: the STOP diabetes cross-sectional screening study. Journal of Intellectual Disability Research, 2017. 61(7): p. 668-681

<sup>5</sup> Taggart L, Coates V and Truesdale-Kennedy M. Management and quality indicators of diabetes mellitus in people with intellectual disabilities. Journal of Intellectual Disability Research, 2013. 57(12): p. 1152-1163

<sup>6</sup> Bryant LD and others. Characterizing adults with Type 2 diabetes mellitus and intellectual disability: outcomes of a case-finding study. Diabetic Medicine, 2018. 35(3): p. 352-359

<sup>7</sup> NHS Digital (2018) National Diabetes Audit, 2016-17 Report 1: Care Processes and Treatment Targets 2018

<sup>8</sup> Melville CA, Hamilton S, Miller S and others. Carer Knowledge and Perceptions of Healthy Lifestyles for Adults with Intellectual Disabilities. Journal of Applied Research in Intellectual Disabilities, 2009. 22(3): p. 298-306.

<sup>9</sup> Walwyn REA and others. Supported self-management for adults with type 2 diabetes and a learning disability (OK-Diabetes): study protocol for a randomised controlled feasibility trial. Trials, 2015. 16

<sup>10</sup> NHS (2018) <u>Annual health checks Learning disabilities</u>

<sup>11</sup> Agardh E and others. Type 2 diabetes incidence and socio-economic position: a systematic review and meta-analysis. International Journal of Epidemiology 2011. 40(3): p. 804-818