DIABETES PREVALENCE IN IRELAND

2019

Overview

The total number of people living with diabetes in Ireland is estimated to be 225,840. The International Diabetes Federation Diabetes Atlas (2013) estimate that there are 207,490 people with diabetes in Ireland in the 20 – 79 age group (prevalence of 6.5% in the population) which is in line with previous estimates that by 2020 there would be 233,000 people with the condition, and by 2030 there would be 278,850 people with the condition.

Type 1 Diabetes

The prevalence of Type 1 Diabetes, an auto-immune condition, is on the rise and is typically diagnosed in childhood. People with type 1 diabetes account for approximately 20,000 of the total diabetes population in Ireland i.e. 10-15% of the population of people living with diabetes.

It is estimated there are 2,750 people under 16 years of age living with Type 1 diabetes (based on the Irish Paediatric Diabetes Audit 2012) results and other young adults under 20 years attending transition clinics). – **Revised September 2019**

Type 2 Diabetes

According to the Healthy Ireland survey, 854,165 adults over 40 in the Republic of Ireland are at increased risk of developing (or have) Type 2 diabetes. More alarmingly, there are a further 304,382 in the 30 – 39-year age group that are overweight and not taking the weekly 150 minutes recommended physical activity, leaving them at an increased risk of chronic ill-health. This means that there are 1,158,547 adults in Ireland that need to consider making changes to their daily behaviours in terms of eating healthily and being more active.

It is estimated that there are over 15,600 people over 80 years of age living with Type 2 diabetes based on the TILDA study which showed a prevalence of 11.9% in the over 75 age group. The International Diabetes Federation's (2012) estimates that by 2030 there will be 278,850 people with the condition (prevalence of 7.5% in the population).

Pre- diabetes

A VHI Healthcare Screening Projects tested 30,000 people for type 2 diabetes between 2009 and 2013 the findings were published in PLOS ONE (Public Library of Science). VHI Healthcare's findings demonstrated that 17% of participants (nearly 5,000 people) had abnormal initial fasting blood sugar levels, 1.8% had undiagnosed diabetes and 10% had confirmed pre-diabetes. Abnormal blood sugar levels, pre-diabetes and diabetes were more

common in men than in women with men 2-3 times more likely to have abnormal blood sugar levels and undiagnosed diabetes.

The study also found that the risk of having undiagnosed diabetes increased by 89% for every 5 KG / m2 increase in body mass index which demonstrates the importance of modifiable lifestyle factors in preventing diabetes.

The Slan 2007 study reported of the prevalence estimate of pre-diabetes (high risk of developing diabetes) in participants over 45 years was 19.8% which would imply there are 338,956 people in the over 45 age group at high risk of developing diabetes in Ireland in the next five years. Given rising obesity levels in younger age groups, the figure is more likely 450,000.

Economic Cost of Diabetes to Ireland

The economic burden of diabetes on the Irish health care system is becoming a major challenge for the government and the HSE. Prof. J. Nolan's seminal CODEIRE study is still the most accurate estimate of costs. The CODEIRE study was an international accredited study and examined the cost of treating type 2 diabetes in Ireland during Nov-Dec 1999 and suggested that 4-6% of the national health budget was being consumed treating the condition (49% on hospitalization for complications and wages; 42% on drug costs; 8-9% on ambulatory care and attending non-diabetes specialists for diabetes related complications).

Preventing Type 2 Diabetes

There is great potential to prevent type 2 diabetes in high-risk individuals by lifestyle intervention. There is sufficient evidence based on several clinical trials such as American Diabetes Prevention Programme8 and The Finish Prevention Study9, supporting this. These studies had a strong focus on increased physical activity and dietary modification as well as weight reduction among high-risk participants. The Diabetes Prevention Program Outcomes Study showed in their follow-up of participants at 10 years (from the initial randomization to lifestyle intervention or no action), that Type 2 diabetes incidence in the group with lifestyle changes was reduced by 34% compared with the control group8. The Finish Diabetes Study was more intensive with participants offered intensive lifestyle support (dietary intake, physical activity, smoking and alcohol intake) with some participants also getting oral hypoglycaemic agents and showed that addressing all the diabetes risk factors could reduce Type 2 diabetes by 80%. Thus, to reduce the risk of developing Type 2 diabetes, it is recommended that all people have a healthy balanced diet, take regular physical activity and attain a weight appropriate to their height.

References:

1. International Diabetes Federation Diabetes Atlas (2013) www.idf.org/sites/default/files/EN_6E_Atlas_Full_0.pdf

2. Hawkes CP, Murphy NP. (2012). Pediatric Type 1 Diabetes in Ireland – Results of First National Audit: Irish Medical Journal.

3. Kearney (2014). Oral Presentation September 4th Farmleigh Estate, Dublin.

4. Federation of European Nurses in Diabetes and International Diabetes Federation. (2012) Diabetes: The Policy Puzzle, Is Europe Making Progress? Brussels, Europe.

5. VHI Healthcare Screening Project 2013 findings / Margaret Sinnott , Brendan T. Kinsley , Abaigeal D. Jackson, Cathal Walsh, Tony O'Grady, John J. Nolan, Peter Gaffney, Gerard Boran, Cecily Kelleher, Bernadette Carr: Fasting Plasma Glucose as Initial Screening for Diabetes and Prediabetes in Irish Adults: The Diabetes Mellitus and Vascular Health Initiative (DMVhi) PLOS ONE Journal, published: April 15, 2015 http://dx.plos.org/10.1371/journal.pone.0122704

6. Buckley C, Madden J, Balanda K, Barron S, Fahy L, Harrington J, Perry IJ, M Kearney P. (2013) Pre-diabetes in adults 45 years and over in Ireland: the Survey of Lifestyle, Attitudes and Nutrition in Ireland 2007. Diabetes Medicine, Oct;30 (10):1198-203.

7. Nolan J, O'Halloran D, McKenna TJ, Firth R, Redmond S (2006).The cost of treating type 2 diabetes (CODEIRE). Irish Medical Journal 2006 Nov-Dec; 99(10):307-10.

8. Knowler WC, Fowler SE, Hamman RF, et al. (2009) 10-Year follow-up of diabetes incidence and weight loss in the Diabetes Prevention Program Outcomes Study. Lancet ;374:1677–1686.

9. Tuomilehto J. Peter Schwarz, P, Lindström, J. (2011) Long-Term Benefits From Lifestyle Interventions for Type 2 Diabetes Prevention Time to expand the efforts. Diabetes Care. vol. 34 no. Supplement 2 S210-S214