

# FACTS AND STATS

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**DIABETES UK**

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# PREVALENCE OF DIABETES

## GLOBALLY

The estimated diabetes prevalence for adults between the ages of 20 and 70 worldwide for 2015 was 415 million and it is expected to affect one person in 10 by 2040 - 642 million. It is estimated globally that 1 in 2 adults with Type 2 diabetes are undiagnosed.

The International Diabetes Federation (IDF) estimated that in 2015 seven countries had more than 10 million people with diabetes: China, India, the United States of America; Brazil, the Russian Federation, Mexico and Indonesia.

The IDF also reported that in 2015 the ten countries with the highest diabetes prevalence in the adult population were Tokelau (30.0%), Nauru, Mauritius, Cook Islands, Marshall Islands, Palau, Kuwait, Saudi Arabia, Qatar and New Caledonia (19.6%).

Diabetes affects people in both urban and rural settings worldwide, with 65% of cases in urban areas and 35% in rural<sup>1</sup>.

## UK

There are an estimated 4.5 million people living with diabetes in the UK<sup>2</sup>.

## DIAGNOSED

Around 700 people a day are diagnosed with diabetes. That's the equivalent of one person every two minutes<sup>3</sup>.

Since 1996, the number of people diagnosed with diabetes in the UK has more than doubled from 1.4 million to almost 3.5 million<sup>4</sup>.

Today, there are almost 3.5 million<sup>5</sup> people who have been diagnosed with diabetes in the UK (2014)<sup>5</sup>.

In 2015, the number of people diagnosed with diabetes in the adult population across the UK was as follows<sup>5</sup>:

Country	Number of people
England	2,913,538
Northern Ireland	84,836
Scotland	271,312
Wales	183,348

## UNDIAGNOSED

It is estimated that there are around 1.1 million people in the UK who have diabetes but have not been diagnosed<sup>7</sup>.

**TYPE 1 AND TYPE 2**

For all adults and children, we estimate that:

- 10 per cent of people with diabetes have Type 1 diabetes.
- 90 per cent of people with diabetes have Type 2 diabetes<sup>8,9</sup>.

Slightly more men than women have been diagnosed with diabetes. Audits suggest that about 56 per cent of all adults with diabetes in the UK are men and 44 per cent are women<sup>8,9</sup>.

Distribution of diabetes by age group in England and Wales<sup>8</sup> and Scotland<sup>9</sup>.

Age	E&W	Scotland
0–9	0.21%	0.25%
10–19	0.94%	1.18%
20–29	1.69%	2.06%
30–39	3.76%	3.53%
40–49	10.67%	9.5%
50–59	19.3%	19.09%
60–69	26.2%	26.46%
70–79	23.92%	24.55%
80+	13.3%	13.38%

**CHILDREN**

There are about 31,500 children and young people with diabetes, under the age of 19, in the UK. The vast majority of them have Type 1 diabetes<sup>10</sup>. This is likely to be an underestimate as not all children over the age of 15 are managed in paediatric care. In Scotland there are as many children living with diabetes between the ages of 15-19 as there are under the age of 14. If this were the case in all four nations, we would expect to see around 42,000 young people under the age of 19<sup>11</sup>.

About 95.1 per cent have Type 1 diabetes; about 1.9 per cent have Type 2 diabetes; and 2.73 per cent have MODY, CF related diabetes or their diagnosis is not defined<sup>11</sup>.

Slightly more boys seem to have diabetes than girls: 52 per cent boys and 48 per cent girls, though girls are twice as likely to have Type 2 diabetes<sup>11</sup>.

**Children with Type 1 diabetes**

The current estimate of prevalence of Type 1 diabetes in children and young people under the age of 15 in England and Wales is 187.7 per 100,000<sup>11</sup>.

The incidence of Type 1 diabetes in children under the age of 15 is 22.8/100,000<sup>11</sup>.

The peak age for diagnosis is between 9 and 14 years of age<sup>11</sup>.

**Children with Type 2 diabetes**

In 2000, the first cases of Type 2 diabetes in children were diagnosed in overweight girls aged nine to 16 of Pakistani, Indian or Arabic origin. It was first reported in white adolescents in 2002<sup>12</sup>.

According to the National Paediatric Diabetes Audit in 2012, children of Asian origin were 8.9 times more likely to have Type 2 diabetes than their White counterparts and children of Black origin were 5.8 times more likely<sup>13</sup>.

## WHO IS AT RISK OF DIABETES?

Diabetes is a common health condition. The chances of developing it may depend on a mix of genes, lifestyle and environmental factors.

The risk factors are different for Type 1 and Type 2 diabetes. Type 1 diabetes develops when the insulin-producing cells in the pancreas have been destroyed. No one knows for certain why these cells have been damaged, but the most likely cause is the body having an abnormal reaction to the cells. This may be triggered by a viral or other infection.

Type 2 diabetes usually appears in middle-aged or older people, although more frequently it is being diagnosed in younger overweight people, and it is known to affect people from BAME backgrounds at a younger age. Type 2 diabetes occurs when the body is not making enough insulin, or the insulin it is making is not being used properly. The risk of developing Type 2 diabetes can be reduced by changes in lifestyle<sup>14</sup>.

Recently published information, based on data from the Health Survey for England, estimates that 10.7 per cent of the English population (approximately 5 million people) are at increased risk of Type 2 diabetes with an HbA1c between 42-46 mmol/mol (6.0-6.4)<sup>86</sup>. Diabetes UK estimates that nearly 6 million people across the UK fall into this category<sup>87</sup>.

The at-risk population would still be greater than this, even if their level of risk was not as high. Without further research it is impossible to establish exactly how many people in the UK are at risk of developing Type 2 diabetes. However, the main modifiable risk factors of Type 2 diabetes are increased waist circumference and being overweight/obese.

According to the HSCIC, using data from the Health Survey in England, 22 per cent of men and 24 per cent of women in England have a very high risk of developing long-term health problems (based on NICE guidelines on prevention, identification, assessment and management of overweight and obesity) because they have both an increased BMI and an increased waist circumference<sup>88</sup>. Using these two risk factors alone, based on the adult population, 5.54 million men and 6.36 million women would be at risk of Type 2 diabetes - 11.9 million people in the UK<sup>89</sup>.

Some of the risk factors are provided in more detail below.



## GENES

### Type 1 diabetes

Although more than 85 per cent of Type 1 diabetes occurs in individuals with no previous first degree family history, the risk among first degree relatives is about 15 times higher than in the general population<sup>15</sup>.

On average:

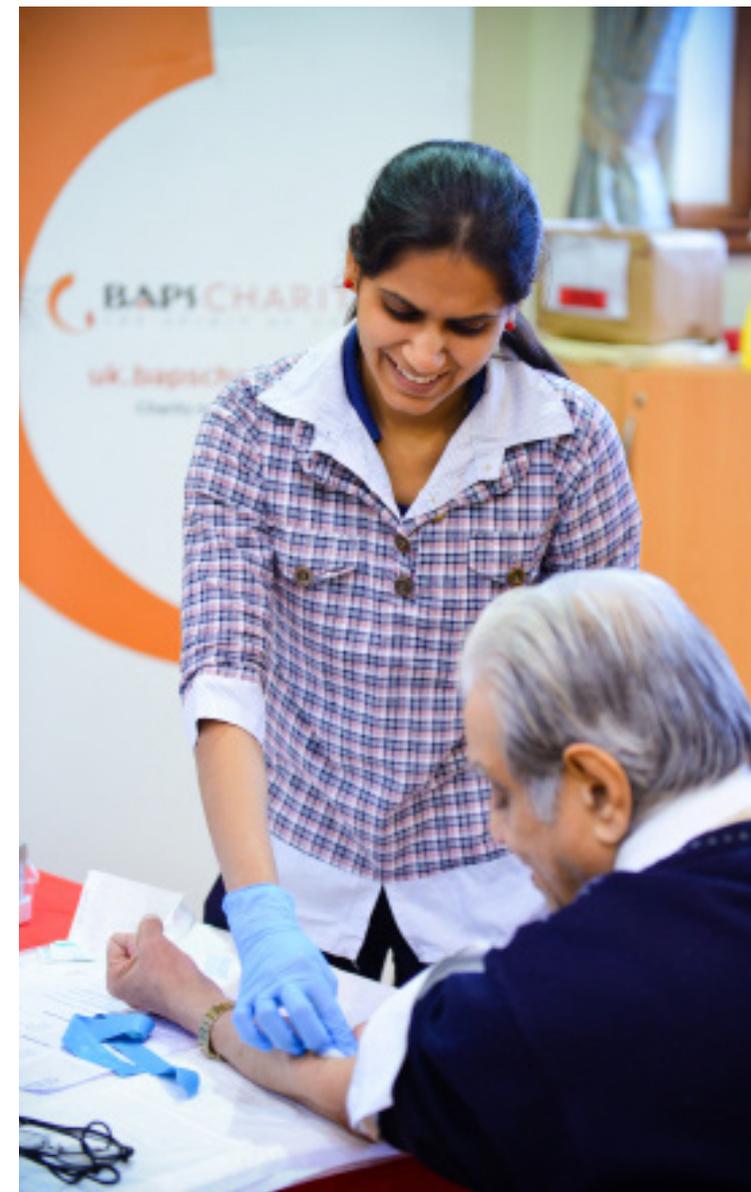
- if a mother has the condition, the risk of developing it is about 2–4 per cent
- if a father has the condition, the risk of developing it is about 6–9 per cent
- if both parents have the condition, the risk of developing it is up to 30 per cent
- if a brother or sister develops the condition, the risk of developing it is 10 per cent (rising to 10–19 per cent for a non-identical twin and 30–70 per cent for an identical twin)<sup>16</sup>.

### Type 2 diabetes

There is a complex interplay of genetic and environmental factors in Type 2 diabetes. It tends to cluster in families. People with diabetes in the family are two to six times more likely to have diabetes than people without diabetes in the family<sup>17</sup>.

## ETHNICITY

Research suggests that people from South Asian and Black communities are two to four times more likely to develop Type 2 diabetes than those from Caucasian backgrounds<sup>18</sup>.



**OBESITY**

Obesity is the most potent risk factor for Type 2 diabetes. It accounts for 80–85 per cent of the overall risk of developing Type 2 diabetes and underlies the current global spread of the condition<sup>19</sup>.

Almost two in every three people in the UK are overweight or obese (59 per cent of women and 68 per cent of men)<sup>20</sup>. This is an increase of 13% between 1980 and 2013. The same study suggests that 26 per cent of boys and 29 per cent of girls are also overweight or obese.

In England, most people are overweight or obese. This includes 61.3 per cent of adults and 30 per cent of children aged between 2 and 15<sup>21</sup>.

The proportion that were overweight, including obese, increased from 58 per cent to 65 per cent in men and from 49 per cent to 58 per cent in women between 1993 and 2011. There was a marked increase in the proportion of adults that were obese from 13 per cent in 1993 to 24 per cent in 2011 for men and from 16 per cent to 26 per cent for women<sup>22</sup>.

In 2011, in England around three in ten boys and girls (aged 2 to 15) were classed as either overweight or obese (31 per cent and 28 per cent respectively)<sup>22</sup>.

The Department of Health recommends that adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more – one way to approach this is to do 30 minutes on at least 5 days a week<sup>23</sup>.

Alternatively, comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week or combinations of moderate and vigorous intensity activity<sup>23</sup>.

Adults should also undertake physical activity to improve muscle strength on at least two days a week<sup>23</sup>.

All adults should minimise the amount of time spent being sedentary (sitting) for extended periods<sup>23</sup>.

Across Great Britain, only 39 per cent of men and 29 per cent of women are meeting recommended physical activity levels<sup>24</sup>.

**DEPRIVATION**

Deprivation is strongly associated with higher levels of obesity, physical inactivity, unhealthy diet, smoking and poor blood pressure control. All these factors are inextricably linked to the risk of diabetes or the risk of serious complications for those already diagnosed<sup>25</sup>.

It is difficult to get clear evidence of absolute risk related to deprivation.

The Health Survey for England 2011 found that men in the lowest quintile of equivalised household income were 2.3 times more likely to have diabetes than those in the highest quintile, and for women the risk was 1.6 times higher. For people in the most deprived quintile of the Index of Multiple Deprivation, men had a 1.8 times increased risk and women had 3.1 times increased risk<sup>26</sup>.

However, data from the National Diabetes Audit suggests that people in the most deprived quintile are 1.5 times more likely to have diabetes than those in the least deprived<sup>8</sup>. The variation in deprivation and diabetes is only seen in those with Type 2 diabetes. Deprivation has no effect on developing Type 1 diabetes, which is unsurprising as it is not lifestyle related.

## GESTATIONAL DIABETES

Gestational diabetes is a type of diabetes that arises during pregnancy (usually during the second or third trimester). In some women, it occurs because the body cannot produce enough insulin to meet the extra needs of pregnancy. In other women, it may be found during the first trimester of pregnancy, and in these women, the condition most likely existed before the pregnancy.

Gestational diabetes affects up to 5 per cent of all pregnancies<sup>27</sup>. However, new diagnostic criteria, which introduces an additional fasting plasma glucose measurement for gestational diabetes<sup>28</sup>, could lead to an increase in the number of pregnancies affected by gestational diabetes. Those from BAME groups are at a much higher risk<sup>20,30</sup>.

Women who are overweight or obese are at a higher risk of gestational diabetes<sup>31</sup>.

Women who have had GDM are at a sevenfold increased risk of developing Type 2 diabetes later in life, especially if they gain weight<sup>32</sup>. For every 1kg increase over their pre-pregnancy weight, there is a 40 per cent increased odds of developing Type 2 diabetes<sup>33</sup>.

Other factors that increase the likelihood of them going on to develop Type 2 are pre-pregnancy weight, not breast-feeding and needing insulin during the pregnancy.

Children born to mothers with diabetes during pregnancy tend to have a greater BMI, raised fasting glucose levels and an increased risk of developing Type 2 diabetes later in life<sup>34</sup>. The latest research suggests they have a sixfold increased risk of developing Type 2<sup>35</sup>.



# THE IMPACT OF DIABETES

Good diabetes management has been shown to reduce the risk of complications<sup>36,37</sup>. But when diabetes is not well managed, it is associated with serious complications including heart disease, stroke, blindness, kidney disease and amputations leading to disability and premature mortality. There is also a substantial financial cost to diabetes care as well as costs to the lives of people with diabetes.

Traditionally, by the time they were diagnosed, half of the people with Type 2 diabetes showed signs of complications<sup>38</sup>. Complications may begin five to six years before diagnosis and the actual onset of diabetes may be ten years or more before clinical diagnosis<sup>39</sup>. It is likely that these figures have reduced with better diabetes screening programmes and raised awareness but there is no definitive evidence.

## CARDIOVASCULAR DISEASE

The term cardiovascular disease (CVD) includes heart disease, stroke and all other diseases of the heart and circulation, such as hardening and narrowing of the arteries supplying blood to the legs, which is known as peripheral vascular disease (PVD). People with diabetes have about twice the risk of developing a range of CVD, compared with those without diabetes<sup>40</sup>. Research shows that improving dietary habits, managing weight, keeping active and using medication where required to help control risk factors like diabetes, high cholesterol, triglyceride levels and high blood pressure reduces the overall chance of developing CVD<sup>41,42,43,44</sup>.

Cardiovascular disease is a major cause of death and disability in people with diabetes, accounting for 44 per cent of fatalities in people with Type 1 diabetes and 52 per cent in people with Type 2<sup>43</sup>.

People with Type 2 diabetes have a two-fold increased risk of stroke within the first five years of diagnosis compared with the general population<sup>40,45</sup>.

Data from the NDA show that there is a 138.8 per cent increased risk of angina, a 94.2 per cent increased risk of myocardial infarction (heart attack), a 126.2 per cent increased risk of heart failure and a 62.5 per cent increased risk of stroke among people with both types of diabetes<sup>8</sup>. This means that about one fifth of hospital admissions for heart failure, heart attack and stroke are in people with diabetes<sup>76</sup>. The same data show that heart failure is the most common and the most deadly cardiovascular complication of diabetes.

## KIDNEY DISEASE

Kidney disease can happen to anyone but it is much more common in people with diabetes and people with high blood pressure. The kidneys are the organs that filter and clean the blood and get rid of any waste products by making urine. They regulate the amount of fluid and various salts in the body, helping to control blood pressure. They also release several hormones. Kidney disease (or nephropathy) is caused by damage to small blood vessels making the kidneys work less efficiently and this can cause the kidneys to start to fail. The development of diabetic nephropathy usually takes at least 20 years<sup>46</sup>. Keeping blood glucose levels as near normal as possible and blood pressure well controlled can greatly reduce the risk of kidney disease developing as well as other diabetes complications<sup>36,37</sup>.

About three in four people with diabetes will develop some stage of kidney disease during their lifetime with the condition with nearly one in five developing overt kidney disease which may need treatment<sup>76</sup>.

Diabetes is the single most common cause of end stage renal disease requiring dialysis or transplant (renal replacement therapies – RRT) with over a quarter of all patients having diabetes recorded as the primary cause of their kidney failure<sup>47</sup> and more than a third of all patients starting RRT having diabetes<sup>47</sup>. For those on RRT, survival rates are lower than for people without diabetes especially in younger patients. In the age group 18–44, 89 per cent of patients without diabetes were alive five years after start of RRT compared to 70 per cent for those with diabetes. In the age group 45–64, 66 per cent of those without diabetes were alive 5 years after start of RRT compared to 49 per cent for those with diabetes<sup>47</sup>. People with diabetes are nearly three times as likely to need RRT as the general population<sup>76</sup>.

Kidney disease accounts for 21 per cent of deaths in Type 1 diabetes and 11 per cent of deaths in Type 2<sup>48</sup>.

End stage renal disease (for which RRT is required) appears to be decreasing in people with both types of diabetes<sup>76</sup>. This is most likely related to improved management and tighter control of HbA1c and earlier detection in Type 2.

## EYE DISEASE

People with diabetes are at risk of developing a complication called retinopathy. Retinopathy affects the blood vessels supplying the retina – the seeing part of the eye. Blood vessels in the retina of the eye can become blocked, leaky or grow haphazardly. This damage gets in the way of the light passing through to the retina and if left untreated can damage vision. Keeping blood glucose, blood pressure and blood fat levels under control will help to reduce the risk of developing retinopathy<sup>36,37</sup>. For protection against retinopathy, current recommendations are that it is best to have eyes screened with a digital camera when first diagnosed and then every year, to identify and then treat eye problems early.

Diabetic retinopathy accounts for about 7 per cent of people who are registered blind in England and Wales<sup>49</sup>.

Diabetes is the leading cause of preventable sight loss in people of working age in the UK<sup>50</sup>.

Within 20 years of diagnosis nearly all people with Type 1 and almost two thirds of people with Type 2 diabetes (60 per cent) have some degree of retinopathy<sup>51</sup>.

People with diabetes have nearly 50 per cent increased risk of developing glaucoma, especially if they also have high blood pressure<sup>52</sup>, and up to a three fold increased risk of developing cataracts<sup>53</sup> both of which can also lead to blindness.

## AMPUTATION

Foot problems can affect anyone who has diabetes. Diabetes, particularly if it is poorly controlled, can damage your nerves, muscles, sweat glands and circulation in the feet and legs leading to amputations. Reviewing the feet of people with diabetes regularly and keeping blood glucose, blood fats and blood pressure under control can prevent some of the complications associated with the feet<sup>36</sup>.

Diabetes is the most common cause of lower limb amputations<sup>54</sup> and around 7,400 leg, toe or foot amputations happen each year in England alone<sup>55</sup>. This is over 140 amputations a week amongst people with diabetes or 20 a day<sup>55</sup>. People with diabetes are estimated to be up to 30 times more likely to have an amputation compared with the general population<sup>56</sup>.

According to some studies, amputation carries with it a significantly elevated mortality at follow-up, ranging from 13 per cent to 40 per cent at 1 year to 39–80 per cent at 5 years<sup>57</sup>.

There are huge geographical variations in amputation rates – across England there is a ten-fold variation in the incidence of major amputation<sup>58</sup>.

Many amputations are preceded by foot ulceration caused by a combination of impaired circulation and nerve damage. Various studies suggest that about 2.5 per cent of people with diabetes have foot ulcers at any given time<sup>59</sup>. This would suggest that there are about 86,000 people with foot ulcers across the UK<sup>60</sup>.

## DEPRESSION

The emotional well being of people is important and is integral to the overall health of an individual, particularly for people with long term conditions such as diabetes. People with diabetes may have emotional or psychological support needs resulting from living with diabetes or due to causes external to the condition.

Coming to terms with diagnosis, the development of a complication, the side effects of medication, or dealing with the daily responsibility of self-managing diabetes can take their toll on emotional wellbeing. In some cases this can lead to depression, anxiety, eating disorders or phobias.

Evidence in this area comes from a variety of studies, showing a wide range of prevalence. More recent studies, using better methods and meta-analyses, have shown lower estimates of prevalence.

However, most studies suggest that people with diabetes are twice as likely to suffer an episode of depression<sup>61</sup>. It also appears likely that people with diabetes may have depressive episodes for longer periods than those without diabetes and they may recur more frequently<sup>62</sup>.

People who suffer with depression however are very likely to develop Type 2 diabetes – with a 60 per cent increased risk<sup>62</sup>.

## NEUROPATHY

Neuropathy causes damage to the nerves that transmit impulses to and from the brain and spinal cord, to the muscles, skin, blood vessels and other organs. The best way to reduce the risk of developing neuropathy, or prevent it becoming worse, is to control blood glucose levels<sup>36</sup>.

Neuropathies (or nerve damage) may affect up to 50 per cent of patients with diabetes<sup>63</sup>.

Chronic painful neuropathy is the most common type of neuropathy and is estimated to affect up to 26 per cent of people with diabetes<sup>64</sup>. It is this type of neuropathy which reduces sensation in the lower limbs and feet and contributes to the increased likelihood of ulceration and amputation in diabetes.

Autonomic neuropathy can have severely debilitating effects on various functions of the body. Gastroparesis – delayed emptying of the stomach leading to abdominal pain, nausea and vomiting – affects up to 50 per cent of people with diabetes at some time<sup>65</sup>. Cardiovascular autonomic neuropathy (CAN) affects the nerves that control the heart and blood vessels. This can lead to rapid heartbeat, exercise intolerance, sudden hypotension (low blood pressure) on standing, and silent myocardial infarction (heart attack). Although there is not good evidence of the prevalence, people who are diagnosed with CAN have a higher mortality risk than those without<sup>66</sup>.

## SEXUAL DYSFUNCTION

Erectile dysfunction (ED) or impotence, the inability to achieve or maintain an erection for sexual intercourse, is one of the most common sexual problems experienced by men.

In 2009, a world literature review found that the reported prevalence of erectile dysfunction was between 35 per cent and 90 per cent among men with diabetes<sup>66</sup>.

The incidence of sexual dysfunction in women with diabetes appears to be generally linked less to organic factors and more to psychological factors, especially coexisting depression<sup>68</sup>. One study found that 27 per cent of women with Type 1 diabetes reported sexual dysfunction. However, this is an under-researched area<sup>69</sup>.

## COMPLICATIONS IN PREGNANCY

Pregnancy poses additional risks for women with diabetes. The chances of having difficulties are greatly reduced through tight blood glucose control before and during pregnancy<sup>70</sup>.

Babies of women with diabetes are:

- five times as likely to be stillborn<sup>71</sup>
- three times as likely to die in their first months of life<sup>71</sup>
- three to six times as likely to have a major congenital anomaly. This number could be higher as this figure is not adjusted for the higher rate of abortions in women where congenital abnormalities are found<sup>72</sup>.

Women with diabetes are five times more likely to have a pre-term baby than women without diabetes and three times more likely to have a Caesarean section delivery. They are also twice as likely to have a baby weighing more than 4kg<sup>71</sup>.

NICE guidance<sup>73</sup> states that 2–5 per cent of pregnancies involve women with diabetes. Of all pregnancies complicated by diabetes, 7.5 per cent are estimated to be due to Type 1 diabetes and 5 per cent are due to Type 2. This balance will be changing as more women develop Type 2 diabetes at a younger, child-bearing age.

In 2013 there were 770,223 recorded pregnancies in the UK<sup>74</sup>. If 5 per cent of pregnancies involved diabetes (given the likely increase in diabetes affected pregnancies due to the rise in numbers with diagnosed diabetes and those who are overweight/obese) this would suggest that 2,888 women with Type 1 diabetes and 1,926 with Type 2 went through pregnancy. In reality, especially with the rise in Type 2 diabetes in younger women, these figures are likely to be an underestimate.

## DEMENTIA

People with Type 2 diabetes are at a 1.5 – 2.5-fold increased risk of dementia<sup>75</sup>, but this is a highly complex area and research as to the reason for this is still at a relatively early stage. It's likely that years of further study will be needed to unpick the mechanisms involved.

## LIFE EXPECTANCY AND MORTALITY

Globally, diabetes causes one death every 6 seconds and attributes for 14.5 per cent of all global mortality in the 20–79 age group. 47 per cent of deaths occur in those under 60 years of age<sup>1</sup>.

People with diabetes in England and Wales are 34.4 per cent more likely to die earlier than their peers. For Type 1 diabetes, mortality is 131 per cent greater than expected and for Type 2 diabetes it is 32 per cent greater. The greatest increased risk of death is in younger ages and in females<sup>76</sup>.

Life expectancy is reduced, on average, in both types of diabetes.

In Type 1 diabetes, the remaining life expectancy figures between those with Type 1 and those without reduces as the age range increases. In men, the difference between the 20 to 24 groups is 11 years, and 5 years in the 65 to 69 groups. Similarly, in women the difference is 14 years between the 20 to 24 groups, and 7 years in the 65 to 69 groups<sup>77</sup>.

In Type 2 diabetes, the average reduced life expectancy for someone diagnosed in their 50s is about 6 years<sup>78</sup>.

Data from the NDA for the last few years suggest that more than 24,000 people with diabetes die before their time each year in England

and Wales<sup>76</sup>. Another way of saying this is every day 65 people die early from diabetes<sup>76</sup>.

## FINANCIAL COSTS

It is currently estimated that about £10 billion is spent by the NHS on diabetes. 10 per cent of the NHS budget is spent on diabetes<sup>79</sup>.

This works out at around:

- £192 million a week
- £27 million a day
- **£1 million an hour**
- £19,000 a minute
- £315 a second.

The total cost (direct care and indirect costs) associated with diabetes in the UK currently stands at £23.7 billion and is predicted to rise to £39.8 billion by 2035/6<sup>79</sup>.

One in seven hospital beds is occupied by someone who has diabetes. In some hospitals, it is as many as 30 per cent<sup>80</sup>. People with diabetes are twice as likely to be admitted to hospital<sup>81</sup>.

Diabetes contributes 44 per cent of the combined angina, myocardial infarction, heart failure and stroke hospital bed days<sup>76</sup>.

45.1 million prescription items were dispensed in primary care units across England in 2013/14 at a net ingredient cost of over £803 million. This is an increase in cost of 5.1 per cent over 2012/13<sup>82</sup>.

# DIABETES CARE

The National Diabetes Audit 2012-13<sup>8,76</sup> includes the following key findings about the quality of care for people with diabetes in England and Wales.

58.7 per cent of people with Type 1 diabetes and 38.1 per cent of people with Type 2 diabetes in England and Wales do not receive all eight annual health checks to manage their diabetes effectively.

There are big variations in the percentage of patients receiving the care processes. People living in the worst performing CCGs are 2.5 times less likely to receive the eight health checks than those living in the best performing.

Only 35.9 per cent of all people with diabetes are achieving the targets recommended to reduce their risk of developing diabetes complications. In Type 1 diabetes this is only 16.2 per cent and 37.4 per cent in Type 2, so despite many people being tested for blood pressure, cholesterol and HbA1c, relatively few are then achieving the targets they should.

Achieving target:	Type 1	Type 2
HbA1c below 6.5%	7.5%	26.4%
Cholesterol below 4mmol/l	28.7%	40.5%
BP below 140/80	73.4%	68.7%

These figures have not changed significantly over the last three years.

## REFERENCES

- 1 International Diabetes Federation (2015). Diabetes Atlas, seventh edition: [www.diabetesatlas.org](http://www.diabetesatlas.org)  
Note: These figures are based on what countries report, and the figures will depend on screening strategies
- 2 Quality and Outcomes Framework (2014/15), Diabetes Prevalence Model 2016 (Public Health England) and 2012 APHO Diabetes Prevalence Model.
- 3 Figure based on newly diagnosed figures from the 2011/12 and 2012/13 National Diabetes Audit, extrapolated up to the whole population with diabetes indicated by the QoF data for the equivalent years and divided by two to give an annual average
- 4 British Diabetic Association (1996), Diabetes in the UK, United Kingdom, London, BDA compared to 2014/15 Quality and Outcomes Framework
- 5 Quality and Outcomes Framework (QOF) 2014/15  
England - <http://www.hscic.gov.uk/catalogue/PUB18887>  
Wales - <http://gov.wales/statistics-and-research/general-medical-services-contract/?lang=en>  
Scotland - <http://www.isdscotland.org/health-Topics/General-Practice/Quality-And-Outcomes-Framework/>  
Northern Ireland - <http://www.dhsspsni.gov.uk/index/statistics/qof.htm>
- 6 Figures based on AHPO diabetes prevalence model: <http://bit.ly/aphodiabetes>  
The APHO model estimates that by 2025 there will be 4,189,229 million people with diabetes in England, 371,310 people in Scotland, and 287,929 people in Wales. The model was not used to give a 2025 prediction for Northern Ireland so we are using the current APHO model estimate total for diagnosed and undiagnosed for 2010 of 109,000 [unpublished]. Adding these up gives us the estimate of five million people with diabetes in 2025 (4,957,468)
- 7 This figure was worked out using the diagnosed figure from the 2014/15 Quality and Outcomes Framework, the 2016 Diabetes Prevalence Model and the 2012 AHPO diabetes prevalence model. A figure for Northern Ireland was not predicted by the AHPO model, so undiagnosed prevalence for Northern Ireland was extrapolated on the % undiagnosed figure for Scotland.
- 8 HSCIC: National Diabetes Audit 2012/13: Report 1: Care Processes and Treatment Targets
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Table of children diagnosed Type 1 at January 2014. Northern Ireland Childhood Register at Queen's University. (1133 under the age of 18 – estimated to be 1,200 as newly diagnosed 15,16 and 17 year olds aren't included in the register)
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