**Background**

Diabetes is a lifelong condition that causes a person's blood sugar level to become too high. In the UK, diabetes affects approximately 2.9 million people. There are estimated to be around 850,000 people with undiagnosed diabetes. The source of this and the following information in this section except where specified is the publication 'Diabetes in the UK, 2012.'

The prevalence of diabetes has increased by 65% in men and 25% in women since 1991. Around 4.45% of the UK adult population are known to have the disease.

There are two types of diabetes. Type 1 diabetes occurs when the body produces no insulin and usually develops before the age of 40, and more commonly in the early teenage years. Type 2 diabetes occurs when there is too little insulin produced or when the cells in the body do not react properly to insulin (insulin resistance). In the majority of cases Type 2 diabetes is associated with obesity and usually develops after the age of 40, though it can develop much younger. It is avoidable in many cases.

Type 2 diabetes symptoms may be controlled simply by following a healthy diet and monitoring blood glucose levels. However, the disease is progressive if uncontrolled and complications are the same as for Type 1. Type 2 diabetes reduces life expectancy by up to ten years. It increases the risk of death from heart disease five-fold, and of death from stroke three-fold. It exacerbates the effect of risk factors for heart disease, such as high cholesterol levels and blood pressure, smoking and obesity. Diabetes is associated with other significant health problems such as renal failure, limb amputations and blindness, and can lead to serious complications in pregnancy.

Once a person has diabetes, if the condition is not well controlled (that is if blood sugar is not maintained at normal levels), there is a higher risk of developing circulatory problems, for example heart attack, stroke, and other vascular conditions involving small (microvascular) blood vessels which can lead to eye and kidney problems.

In terms of known inequalities:

- The most deprived people in the UK are 2.5 times more likely to have diabetes
- 80-85 per cent of people with Type 2 diabetes are overweight or obese at diagnosis
- 1.3 million people with diabetes are aged over 65
- People from Black and Asian minority ethnic (BAME) groups are up to six times more likely to develop diabetes
- One in five people with a severe mental illness have diabetes
- The prevalence of diabetes in nursing homes can be as high as 25 per cent, compared to three per cent in the general population

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Complications of diabetes such as heart disease, stroke and kidney damage are three and a half times higher in lower socio-economic groups. People from deprived or ethnic communities are less likely to have their body mass index or smoking status recorded. They are also less likely to have records for blood sugar levels, retinal screening, blood pressure, and neuropathy or flu vaccination. Those who are least well educated are more likely to have retinopathy, heart disease and poor diabetes control.

Risk factors
Obesity is the key risk factor for Type 2 diabetes (caused by poor diet and physical inactivity). However, as described above, diabetes is also more common in certain ethnic and social groups who are more likely to be overweight or have a genetic predisposition for the condition.

The Local Picture

Prevalence
As part of Quality and Outcomes Framework (QOF), general practices register the number of people diagnosed with diabetes. Sutton’s prevalence based on GP Registers for 2014-15 is 6.1% (both Type 1 and Type 2, adults only); that is about 1 in 16 adults have diabetes, similar to nationally (6.4%). This represents 8,988 Sutton GP-registered adults. The prevalence from QOF for each authority in London is shown in Fig. 1.

However, it should be noted that QOF prevalence will be an underestimate as it only includes disease that is both recorded and registered. Estimates from Public Health England for 2015 are that 7% of the Sutton population aged over 16 will have diabetes, including both diagnosed and undiagnosed cases.3

Fig. 1: Prevalence of Diabetes

Fig. 2 shows projections of the numbers of people in Sutton predicted to have Type 1 or Type 2 diabetes through to 2018 (based on a sample of current levels from the Health Survey for England). This indicates an 8.1% increase in Sutton from 2014 to 2018.

Fig. 2: Number of older people in Sutton predicted to have Type 1 or Type 2 diabetes by age group, projected to 2018

<table>
<thead>
<tr>
<th>Predicted to have diabetes</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged 55-64</td>
<td>1,471</td>
<td>1,506</td>
<td>1,552</td>
<td>1,601</td>
<td>1,665</td>
</tr>
<tr>
<td>Aged 65-74</td>
<td>2,046</td>
<td>2,072</td>
<td>2,124</td>
<td>2,176</td>
<td>2,202</td>
</tr>
<tr>
<td>Aged 75 and over</td>
<td>1,649</td>
<td>1,698</td>
<td>1,711</td>
<td>1,732</td>
<td>1,807</td>
</tr>
<tr>
<td>Total population aged 65 and over</td>
<td>3,695</td>
<td>3,769</td>
<td>3,835</td>
<td>3,908</td>
<td>4,010</td>
</tr>
</tbody>
</table>

Mortality
Statistics for mortality due to diabetes are likely to be an underestimate since the cause of death is more usually reported as the complications from diabetes such as CHD rather than the underlying disease itself. In Sutton in the three years 2012 to 2014, 25 people (all ages) died of diabetes.


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Fig. 3 shows that mortality due to diabetes in Sutton (Sutton DSR 5.2 per 100,000) is significantly lower compared to the London (DSR 10.1) and national average (DSR 10). Sutton ranks second lowest of the London local authorities.

Fig. 3: Mortality from diabetes all ages, Sutton compared to London authorities

Fig. 4 shows that overall, mortality rates from diabetes in Sutton are decreasing (there are fluctuations due to the relatively small numbers).

Fig. 4: Trend in mortality from diabetes all ages

Amputation

People with diabetes have a higher risk of minor and major amputation than those without diabetes. People with diabetes in Sutton have a higher additional risk of minor amputation than for England overall, though rates are similar for major amputation.4

Sutton progress

1. Diabetes is a long term condition. The management of long term conditions is one of five priorities specified in Sutton CCG’s Plan for 2014-16. The overall aim is to improve quality of life for people with long term conditions.

The programme includes integration at locality level to support care for high risk patients’ health, including risk stratification and senior community nurse alignment, and active case management, helping to integrate local health and social care professionals.

Practices in Sutton CCG are grouped into three geographically based localities, Carshalton, Sutton and Cheam, and Wallington. Every practice in Sutton has had a risk profile tool installed to help them identify their patients most in need of support. GPs work with colleagues from community health services, social services and the voluntary sector to support patients through a multi-disciplinary, integrated team approach. The steps of the process are as follows:
- Practices use the tool to identify patients
- Practices discuss internally via Multi Disciplinary Team meetings and develop a case management plan

2. Sutton CCG is working towards an integrated model of diabetes care with the aim of as many patients as possible having their diabetes managed at their GP practice and in the community – Sutton Community Health Services have been commissioned to employ a community diabetes consultant to manage the service. The overall aim is to see patients in the right place at the right time, and if more patients are managed away from an acute setting this will improve resources for those who need to be seen in a specialist hospital based clinic.

3. NHS England commissions diabetic retinal screening services out of hospital in the community, ensuring that quality services are available for Sutton residents.


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What works

- The desired outcome is to prevent onset of Type 2 Diabetes by improving the Sutton population’s lifestyle and diet.
- Whilst some risk factors such as age, gender and ethnicity cannot be changed, there are others concerned with lifestyle that can be. The majority of cases of Type 2 diabetes are associated with obesity and are avoidable in many cases.
• Treatment aims to control diabetic symptoms and to reduce the chances of developing blood vessel-related complications. This is based on evidence from the UK Prospective Diabetes Study (UKPDS), one of the world’s largest studies of the health of people with diabetes.5

What Works to manage and prevent Type 2 Diabetes


PH 35: Preventing type 2 diabetes: population and community-level interventions

NICE recommends community level intervention in preventing type 2 Diabetes (2011):
• Integrating national strategy for Type 2 diabetes with national activities to prevent other non-communicable diseases (such as cardiovascular disease and certain cancers)
• National action to promote a healthy diet and physical activity
• Local needs assessments and strategies, including local action to promote a healthy diet and physical activity among communities at high risk
• Training for those involved in helping to spread awareness of the risks and how to prevent the condition
• Implementation of the National Diabetes Prevention Programme, funded by NHSE, to identify those individuals at risk of diabetes and enrol them on an intensive 9 month course aimed at preventing progression of increased glycaemia

PH 38: Preventing type 2 diabetes: risk identification and interventions for individuals at high risk

NICE recommended action identifying people at high risk of Type 2 Diabetes (2012) is as follows:
• Risk assessment by GPs and other health professionals and community health practitioners
• Encouraging people to have a risk assessment
• Risk identification using a validated computer-based risk assessment tool in all primary health care settings and venous blood tests
• Matching interventions to risk
• Commissioning risk identification and intensive lifestyle change programmes
• Quality assurance intensive lifestyle change programmes
• Training and professional development for professionals involved

Relevant indicators

Public Health Outcomes Framework
http://www.phoutcomes.info/
- **Health Improvement**: 2.13: Percentage of physically active adults, 2.17: Recorded diabetes
- **Healthcare and premature mortality**: 4.12 Preventable sight loss, AMD and diabetic eye disease

Links to further information
- See also Factsheets on Child and Adult Obesity, Circulatory Disease, NHS Health Check
- Public Health England, Diabetes prevalence model for Sutton at:
- NICE. Diabetes.
- Public Health England. National Cardiovascular Intelligence Network. Cardiovascular disease profiles for each CCG

Priorities for Sutton
To address increasing rates of diabetes, action should be targeted towards prevention and identification. Early detection and management through the NHS Health Check, and working to improve health and lifestyles to address obesity, smoking, physical inactivity and poor diet should contribute towards prevention. Targeting those at highest risk should be the priority.

There are high and increasing levels of obesity in Sutton, which is the most significant risk factor for diabetes, and potential issues relating to ‘at risk’ populations including specific ethnic groups accessing appropriate services. More needs to be done to help people achieve and maintain a healthy weight, to identify those at risk and those with the disease earlier, and to ensure access to appropriate services to support people to control their blood sugar levels and reduce potential complications.

A focus on improving uptake of the NHS Health Check would support early identification of those at risk of both diabetes and heart disease, but it is crucial that interventions are available to support individuals reduce their risk factors such as obesity.

Actions:
- Increase the number of people achieving healthier lives (by stopping smoking, increasing physical activity, eating healthily and reducing harmful drinking) particularly those at risk of disease
- Promote the NHS Health Check service to population and practices with its links to Smoking Cessation, LiveWell and Leisure Services
- Actively identify those individuals at risk of developing Type 2 diabetes and offer referral into local National Diabetes Prevention Programme services
As described in the ‘Sutton Progress’ section, Sutton CCG is working towards an integrated model of diabetes with the aim of as many patients as possible having their diabetes managed in the community.