Introduction

There is good evidence that with well delivered effective care, the complications of diabetes can be prevented and people with diabetes can enjoy a good quality of life.

This report outlines the current picture of diabetes in Kingston, current services, an update of a review of services in 2015 and the next steps planned for diabetes care.

The material presented here draws heavily on the Joint Strategic Needs Assessment (JSNA) for Diabetes which is about to be published on the Royal Borough of Kingston website, and a review of Diabetes Services which was overseen by the Diabetes Steering Group led by Kingston CCG during 2015.

What is diabetes?

Diabetes is a common, chronic condition that can cause distress, disability and sometimes early death, if it is poorly managed.

There are several forms of diabetes - Type 1 and Type 2 being the most common. People can also develop diabetes during pregnancy (gestational diabetes), and rarer forms also exist.

Type 1 diabetes is caused by an inability to produce insulin, and typically presents early in life. People with Type 1 diabetes will always require insulin therapy and are at risk of ketoacidosis (a severe, potentially life-threatening side effect). Type 1 diabetes accounts for 10-15% of all diabetics.

Type 2 diabetes is caused by a resistance within the body to insulin (despite normal or raised circulating levels of the insulin). It typically presents after the age of 30, although increasingly it is being diagnosed in younger individuals. Many lifestyle factors can increase a person’s risk of developing Type 2 diabetes including:

- **Overweight**: The greater the amount of fat the greater the body’s resistance to insulin.
- **Fat Distribution**: Fat stored around the abdomen increases risk compared to fat stored elsewhere such as the thigh or hips.
- **Inactivity**: Physical activity will use up glucose and make cells more sensitive to insulin, as well as helping maintain a healthy weight.
- **Age**: Risk increases as a person gets older.
- **Polycystic Ovary Syndrome**: Women with this disorder have an increased risk.
- **Family history**: Those with a family history of diabetes are at increased risk.
- **Ethnic group**: increased risk in South Asian, African, African-Caribbean, Polynesian, middle eastern and American Indian ancestry
Type 2 diabetes is managed with lifestyle management, may progress to needing tablets, and may eventually require insulin therapy. Type 2 diabetes accounts for roughly 85% of all diabetes.

**What symptoms do people with diabetes experience?**

Most symptoms are not specific to diabetes and might be caused by other illnesses. Nevertheless, common symptoms include

- Going to the toilet a lot, especially at night.
- Being really thirsty.
- Feeling more tired than usual.
- Losing weight without trying to.
- Genital itching or thrush.
- Cuts and wounds take longer to heal.
- Blurred vision

**Will diabetes get worse and what complications might occur?**

Disease progression and the development of complications can be slowed or stopped by good diabetes control.

People with poorly controlled diabetes are at a higher risk of having

- heart attack
- stroke
- peripheral vascular disease
- diabetic eye disease
- leg amputations (involving amputation of a toe, foot, lower leg, knee, or upper leg)
- renal problems

**Total number of people with diabetes in Kingston**

It is predicted that 6.9%\(^1\) of people age 16 and over in Kingston have diabetes (uncertainty limits 4.4% - 12.0%), but that only 4.9% are diagnosed (based on 2013/14 estimates)\(^2\).

That means if every person with diabetes had been identified, the total number of registered patients over the age of 17 with diabetes within Kingston CCG would be **10,902**\(^3\).

**People diagnosed with diabetes on GP registers**

There are **7,723**\(^4\) people who are **diagnosed** on GPs diabetes registers, which is lower than the total prevalence, indicating that **3,179** patients potentially remain **undiagnosed**. That is, 71%\(^5\) of people

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\(^2\) QOF 2013-14 returns, 158,002 being the total number of patients over the age of 17 registered with KCCG

\(^3\) QOF 2013-14 returns, 158,002 being the total number of patients over the age of 17 registered with KCCG

\(^4\) This number fluctuates each month as people join and leave the register and more people are diagnosed

who have diabetes have been formally diagnosed\(^6\), and this compares unfavourably to the national figure of 85%.

As more people are diagnosed, the gap between total prevalence and diagnosed prevalence should get smaller. It is important to note that the national model used to calculate diabetes total prevalence has flaws and probably underestimates the total prevalence.

Every practice has some people with diabetes, although this varies markedly between practices depending on the practice list size and the type of population they serve (number of older people, deprivation, ethnic group etc.). Please note the numbers in the table below change all the time as people leave and join the diabetes register.

<table>
<thead>
<tr>
<th>GP practice</th>
<th>Number of Patients 2015*</th>
<th>Number on Diabetes Register 13/14*</th>
<th>Diagnosed Prevalence (13/14)*</th>
<th>Location of practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairhill Medical Practice</td>
<td>18,175</td>
<td>443</td>
<td>2.44%</td>
<td>Canbury/Norbiton</td>
</tr>
<tr>
<td>Claremont Medical Centre</td>
<td>8,214</td>
<td>213</td>
<td>2.59%</td>
<td>Surbiton Hill</td>
</tr>
<tr>
<td>Gosbury Hill GP Clinic</td>
<td>1,226</td>
<td>35</td>
<td>2.85%</td>
<td>Chessington N &amp; Hook</td>
</tr>
<tr>
<td>Richmond Road Medical</td>
<td>5,387</td>
<td>154</td>
<td>2.86%</td>
<td>Canbury</td>
</tr>
<tr>
<td>Churchill Medical Centre</td>
<td>13,339</td>
<td>482</td>
<td>3.61%</td>
<td>Canbury/Norbiton</td>
</tr>
<tr>
<td>Canbury Medical Centre</td>
<td>7,752</td>
<td>344</td>
<td>4.44%</td>
<td>Canbury</td>
</tr>
<tr>
<td>The Groves Medical Cnt</td>
<td>9,552</td>
<td>432</td>
<td>4.52%</td>
<td>Coombe Vale</td>
</tr>
<tr>
<td>Central Surgery</td>
<td>9,783</td>
<td>446</td>
<td>4.56%</td>
<td>Surbiton Hill</td>
</tr>
<tr>
<td>Brunswick Surgery</td>
<td>5,248</td>
<td>252</td>
<td>4.80%</td>
<td>Surbiton Hill</td>
</tr>
<tr>
<td>Tudor Drive Surgery</td>
<td>2,074</td>
<td>100</td>
<td>4.82%</td>
<td>Tudor</td>
</tr>
<tr>
<td>Langley Medical Practice</td>
<td>5,693</td>
<td>282</td>
<td>4.95%</td>
<td>Surbiton Hill</td>
</tr>
<tr>
<td>Manor Drive Surgery</td>
<td>10,211</td>
<td>529</td>
<td>5.18%</td>
<td>Old Malden</td>
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<tr>
<td>Village Surgery</td>
<td>3,766</td>
<td>197</td>
<td>5.23%</td>
<td>Beverley</td>
</tr>
<tr>
<td>Berrylands Surgery</td>
<td>3,111</td>
<td>174</td>
<td>5.59%</td>
<td>Surbiton Hill</td>
</tr>
<tr>
<td>West Barnes Surgery</td>
<td>6,196</td>
<td>352</td>
<td>5.68%</td>
<td>Out of Borough</td>
</tr>
<tr>
<td>Holmwood Corner Surgery</td>
<td>9,332</td>
<td>535</td>
<td>5.73%</td>
<td>St James</td>
</tr>
<tr>
<td>St Albans Medical Centre</td>
<td>4,969</td>
<td>293</td>
<td>5.90%</td>
<td>Tudor</td>
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<tr>
<td>Gray’s Medical Centre</td>
<td>2,024</td>
<td>120</td>
<td>5.93%</td>
<td>Chessington N &amp; Hook</td>
</tr>
<tr>
<td>Hook Surgery</td>
<td>4,611</td>
<td>285</td>
<td>6.18%</td>
<td>Chessington South</td>
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<tr>
<td>The Orchard Practice</td>
<td>5,619</td>
<td>364</td>
<td>6.48%</td>
<td>Chessington N &amp; Hook</td>
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<tr>
<td>Chessington Park Surgery</td>
<td>4,978</td>
<td>338</td>
<td>6.79%</td>
<td>Chessington South</td>
</tr>
<tr>
<td>Maypole Surgery</td>
<td>1,461</td>
<td>107</td>
<td>7.32%</td>
<td>Surbiton Hill</td>
</tr>
<tr>
<td>Roselawn</td>
<td>4,222</td>
<td>310</td>
<td>7.34%</td>
<td>St James</td>
</tr>
<tr>
<td>Red Lion Road Surgery</td>
<td>2,379</td>
<td>175</td>
<td>7.36%</td>
<td>Surbiton Hill/Tolworth</td>
</tr>
<tr>
<td>Sunray Surgery</td>
<td>2,704</td>
<td>222</td>
<td>8.21%</td>
<td>Alexandra</td>
</tr>
<tr>
<td>Kingsdowne Surgery</td>
<td>3,209</td>
<td>271</td>
<td>8.45%</td>
<td>Surbiton Hill/Tolworth</td>
</tr>
</tbody>
</table>

People on the diabetes registers are of all ages and from many different ethnic backgrounds. Diabetes prevalence increases with age, but there is a decreased prevalence in later years due to the comorbidities and mortality associated with diabetes. Most diabetes in youngest age groups is Type 1. Diabetes prevalence model for Local authorities and CCGs, national cardiovascular intelligence network, available from http://www.yhpho.org.uk/resource/view.aspx?RID=154049

\(^7\) When comparing the prevalence of diabetes recorded in QOF in 2013/14 to the expected prevalence of diabetes taken from the diabetes prevalence model produced in 2012 by the Cardiovascular disease network.
1 diabetes. Diabetes is more common among certain ethnic groups, and is particularly prevalent in those of Pakistani and Bangladeshi origin. A more detailed discussion around these characteristics is available in the forthcoming JSNA.

We do not have details of the dietary habits of this group to report here, but the GP practices and other services providing diabetes care keep these details in medical notes.

Preventing diabetes

Alongside direct patient care a significant amount of effort goes into risk factor modification which can reduce the number of patients developing Type 2 diabetes in later life. Kingston Public Health and partners provide multiple services around this including:

- Get Active
- Walk for Health
- Cycle Kingston
- Weight Management referrals
- Active Gardening
- Fit as a Fiddle
- Weigh to Go

Further details of the services that Kingston Public Health provide can be found in the ‘Purple Book’ or online at http://www.kingston.gov.uk/info/200287/health_and_wellbeing

Kingston Public Health commissions a Health Checks programme which is provided by GPs and a community outreach service. These are available to all people between 40-74 years old, who have not previously been diagnosed with high blood pressure, diabetes, heart disease, stroke or kidney disease and have not been offered an NHS health check within the previous five years. The aim of these checks is to identify patients with previously undiagnosed illness, or risk factors for developing diseases such as diabetes, so they can be offered appropriate treatment and be supported to modify risk factors thereby potentially preventing future disease.

NHS England are starting a Diabetes Prevention Programme and Kingston CCG will work with South London CCGs and local organisations including Kingston Council Public Health Directorate, to deliver the NHS Diabetes Prevention Programme (NHS DPP), either in the first or subsequent waves.

Outcomes for people with diabetes

The National Institute for Clinical Excellence recommends that every person with diabetes should receive the following care processes at least once a year: 1)HbA1c (indicates medium term blood sugar control), 2)serum cholesterol measurement, 3)serum creatinine measurement, 4) urine albumin measurement, 5)blood pressure measurement, 6) body mass index (BMI) measurement, 7)smoking status recorded, 8)foot surveillance. Each person should also receive eye screening which is commissioned by NHS England. In addition to these, there are also outcome measures.

In Kingston, between January 2012 and 31st March 2013 the National Diabetes Audit (NDA) found that only 50.3% of people received all eight care processes, putting Kingston in the lowest quintile of
performance. Not every Kingston practice took part in the NDA, so the Public Health Team\(^8\) looked at the variation in care across all CCG practices and produced an extensive report for the CCG. It identified considerable variation between practices with poor performance on care processes being mainly focused in a small number of practices. The high use of exclusions\(^9\) in some GP data (QOF data) makes interpretation complex.

In response to the findings, the CCG required each practice to produce or refresh their diabetes improvement plans, and to focus on some care processes where performance was poor. The CCG’s Primary Care Development Group will consider how best to support practices in continual improvement.

In Kingston over a three year follow-up period following the 2009-10 National Diabetes Audit (NDA) 37 people with diabetes had a heart attack and 25 had a stroke. Although this is a lower rate of these complications compared to England, secondary prevention opportunities remain.

Each year there are a small number of amputations. In 2014/15 there were 3 unplanned amputations and 2 planned\(^10\). These numbers will continue to be monitored in future to ensure there is no increase in the amputation rate. Ideally there would be no amputations in people with diabetes.

When all complications are taken together, patients with diabetes in Kingston CCG during 2012/13 had a lower rate of complications compared to England (measured as the indirectly age and sex standardised ratio of 77.3% risk of complication versus England). This placed Kingston CCG as one of the best performing CCGs being 21\(^{st}\) of 211 CCGs in this reporting period; an improvement on 2011/12 where the ratio stood at 87.7% and Kingston was ranked 61\(^{st}\). Comparatively this indicates that Kingston is doing well at preventing complications.

**Primary Care and Secondary Care services for people with diabetes**

In 2013/14 the CCG spent £4,257,000 on direct diabetes care across all services in 2013/14. This includes hospital admissions, some community care, GP prescribing costs, but not other primary care costs. It also doesn’t include the very substantial costs of care of the complications such as heart disease that have developed in people with diabetes. Nor does it include costs borne by social care and wider society.

Currently local services are provided in four tiers, which are funded by the CCG and NHS England in a variety of contractual forms. This is the traditional diabetes care model which can result in a fragmented service for patients.

Tier 1 is provided within the GP core contract and covers basic prevention, diagnosis and care of patients with diabetes.

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\(^8\) In the mandatory role of Public health advice to the NHS/CCGs

\(^9\) A GP practice can exclude a patient from QOF performance monitoring for 9 main reasons which include the patient being terminally ill or frail, already on maximum doses of medicines, refusing treatment, they are inappropriate for inclusion as they have another overriding need, a treatment is contraindicated and so on.

\(^10\) SUS data, Kingston CCG, Extracted by B. Roberts
Tier 2 provides enhanced care for patients and is provided in selected GP practices, under the Local Commissioned Service (LCS) budget, usually where clinicians have completed enhanced training in diabetes care.

Tier 3 care focuses on patients with more complex needs. This service is provided both in certain GP practices, funded through the LCS budget, where clinicians have enhanced skills, or in a community based service (separately contracted by the CCG), where they have not.

Tier 4 services are provided in an acute (hospital) setting focusing on patients with complex specialist needs including inpatient diabetes, foot complications, poorly controlled Type 1 diabetes, including adolescents, insulin pump services, low eGFR or patients on renal dialysis and antenatal diabetes. This is funded as part of the CCGs acute contract portfolio.

Additional services for patients with diabetes are offered by other providers; including podiatry provided by Your Health Care (community provider) and dietetics by Kingston Hospital. There is no dedicated psychology provision for people with diabetes but referrals may be made through the Kingston CCG commissioned IAPTs (talking therapies) service.

Self-help training courses for patients with Type 1 and 2 diabetes are also offered to newly diagnosed patients through Your Healthcare and Kingston Hospital.

**Targeting people with diabetes through other settings**

People mainly access health care services for diabetes through their GP or other health services. The Public Health ‘Health Checks’ programme also targets people in the community.

People living in some care homes are supported by the IMPACT team, who give additional support to complex patients with diabetes who are at risk of deterioration.

Awareness raising of diabetes is provided in many different settings. For example, if diabetes awareness was an issue in a particular school, the health link workers would be able to provide education and material on this.

The ECET team work with Black and Minority Ethnic groups who are at increased risk of diabetes, and can offered tailored health support and signposting to these groups.
**Diabetes Public Engagement Event**

As part of the review of diabetes services (review described in next section) a public engagement forum was undertaken by Kingston CCG in early 2015. Amongst the attendees at the forum, it was generally thought that when care was provided by a Diabetes specialist nurse or a GP with Special Interest (GPwSIs) in diabetes, in whatever setting, it was considered excellent and easy to access. Patients reported that GP appointments for diabetes are good, however, some felt there is not enough time given in these consultations, and in addition some inconsistency in terms of clinicians’ knowledge and expertise was reported. Concern was expressed about variations in care and communication across and between some GP practices.

When asked what patients with diabetes would like to see, those at the forum highlighted a desire for:

- Co-ordinated appointments
- Unified services
- Accessibility
- Increased involvement around diet and nutrition
- To see specialists, or GPs with an interest in diabetes rather than a generalist GP.
- Increased prevention services and screening

Another key point was that many of those at the event said that they would be happy to travel further if it meant greater flexibility with times and a more specialised service.

In a response to the event the CCG agreed that any changes to current diabetes services will focus on ‘outcomes’ rather than numbers of patients, and that patient and health provider education should form part of the service re-design.

**Review of diabetes services in Kingston, 2015**

Late in 2014 the CCG set up a representative Diabetes Steering Group, including primary, community, public health and secondary care clinicians, medicines management, Diabetes UK and patient representatives. The purpose of the steering group was to review the current community-based diabetes Tier 3 service. Initial work quickly identified that Tier 3 could not be reviewed in isolation and that it was important to understand the diabetic patient’s journey (whether type 1 or 2) and pathway from diagnosis to treatment in all settings and at all tiers. It was also important to consider all aspects of treatment including the role of prevention and psychological services. The group focused on both the current Kingston CCG services but also on development and innovations both locally and nationally in diabetes care.

As indicated above, local services across the four tiers are contracted in different ways with different organisations using different budgets. The aim was to identify the total expenditure on diabetes

across the CCG. Although, all excluding the GP core contract, are commissioned (or co-commissioned) by the CCG on an activity basis, disaggregating the diabetes focused elements of support services including patient education, podiatry and dietetics, proved problematic. Using a variety of methodologies to review current services including contract review processes, available national data, surveys and a patient engagement event (described in the previous section), services were reviewed. Overall services were considered to be acceptable, with areas of very good practice and areas where improvements and coverage could be improved, with access to support services variable. Specialist education of clinicians particularly at primary care level was variable, with no coherent local programme in place specialising on diabetes education, with competencies not routinely monitored.

The Steering Group concluded that services were not streamlined or integrated. The view reached by the steering group was that more services could be delivered in a community setting, with GPs being supported by Diabetic Specialist nurses and community-based consultants, and with better access to support services.

In the last four or five years a considerable volume of work has been carried out both at national level via Diabetes UK and other national bodies, focusing on new integrated models of care across all tiers. Mirroring the steering groups’ aspirations, the model has GPs at its core, working with other primary community and secondary care clinicians, in a collaborative integrated multidisciplinary team, based in the community, with patients only accessing acute care facilities in very limited circumstances. This model has now been extensively piloted and commissioned and developed across England. In parallel to this, diabetes care is ever-evolving with a clear shift from activity based contracts, to focus on outcomes based commissioning, looking at the ‘Year of Care’ methodology and other outcome based models.

Next steps for diabetes services

Building on the work undertaken by the CCG Diabetes Steering Group during 2015, the CCG intends to procure an integrated model of diabetes care during 2016/17.

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