Diabetes

What is diabetes?
2.1. Diabetes mellitus is a condition in which the amount of glucose in the blood is too high because the body cannot use it properly. There are two main forms of diabetes: Type 1 diabetes develops if the pancreas produces insufficient insulin hormone. This condition usually appears before the age of 40. Type 2 diabetes is the more common in the population and accounts for around 90 percent of cases of diabetes. (1)

Why is diabetes important?
2.2. Nationally, there were 1.9 million people diagnosed with diabetes on GP registers in 2006, it is estimated that a further half a million people were not yet diagnosed. Predictions indicate that the total number of patients (both detected and undetected) will grow by 15 percent between 2001 and 2010. (2, 3)
2.3. Poor control of diabetes can, in the short term, result in diabetic ketoacidosis, and a potentially fatal medical emergency. In the longer term, poor diabetic control increases the risk of complications such as heart attack, stroke, blindness, kidney failure and amputation. Studies have shown that good diabetic control is associated with a reduced risk of these complications developing. On average, diabetes reduces life expectancy by more than fifteen years for someone with Type 1 and up to ten years for Type 2.

Risk factors for type 2 diabetes
2.4. Type 2 diabetes is most prevalent among those who are overweight or obese, those who physically inactive, those with a family history of diabetes and people of South Asian, African, African Caribbean and Middle Eastern descent. People from black and minority ethnic groups are up to six times more likely to develop diabetes and the risk increases with age in both sexes. Socio-economic deprivation is also associated with increased risk of diabetes, with the most deprived people at two and a half times greater risk. (4)

Diabetes issues for Southwark
2.5 A review of diabetes services undertaken by the Health Care Commission (HCC) in 2006 identified a number of issues related to diabetes in Southwark:
- variation in general practices in terms of good diabetes management,
- possible under diagnosis of diabetes,
- inadequate self-management programmes, and
- high diabetes admission rates compared to nationally. (6)

Prevalence of diabetes in Southwark
2.6 The prevalence of diabetes in Southwark PCT in March 2009 was 3.34% (10,391). The expected prevalence based on the PBS model version 3 for 2010 is 4.73% (12,732 individuals). (5)
2.7. Figure 2.1 shows the unadjusted prevalence of diabetes in Southwark by practice. There is marked variation in prevalence by practice some of this will be accounted for by practice demography and some due to under-diagnosis. Figure 2.2 shows the registered to expected prevalence by practice and for Southwark PCT and NHS London. Under-diagnosis at PCT level is about 25% varying from about 66% to a few practices where actual registrations are similar to expected. Prevalence is estimated to increase to a high of 5.7% by 2020 in Southwark (Table 2.1).
Figure 2.1 Prevalence of diabetes in Southwark, by practice, unadjusted 2008/09

Southwark diabetes prevalence by practice, aged 17 and over, 2008-09 (QoF)

Source: QoF NHS IC
Table 2.1: Estimated diabetes prevalence projections (prevalence rates in brackets)

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<td>(5.03%)</td>
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Source: PBS3 YHPHO (5)
Hospital admissions

2.8. In Southwark, in 2008-09, there were 427 admissions for diabetes, 201 of which were emergency admissions. Southwark’s rate was fourth highest in London and well in excess of London and England rates. (Figure 2.3)

Figure 2.3 Hospital admissions for diabetes by PCT London 2008-09

Source: NHS Comparators accessed October 2009

Quality of care

2.9. Since good quality primary care reduces the occurrence of complications related to diabetes the General Medical Services (GMS) contract includes process and outcome indicators for treatment. These include control of blood glucose (HbA1c level >7.4 g/dl), control of blood pressure (>145/85), and retinopathy screening. (7, 8)

Diabetes related outcomes: three year trend

2.10. Good control of blood glucose and blood pressure is essential in preventing diabetic complications (8). Control of glucose is measured using the HbA1c test which gives an overview of blood glucose control in the three months prior to testing. Data on the percentage of diabetic patients with HbA1c < 7.5% and HbA1c < 10% and blood pressure less than 140/85 is collected from practices annually as part of the Quality and Outcomes Framework (QoF) process.

2.11. Trends in control of Hb A1c and blood pressure control since 2005/06 are shown below (Figure 2.4). They show that performance of HbA1c < 7.5% and < 10% peaked in 2007-08 before levelling off to 2006-07 levels in 2008-
The proportion of diabetics with adequate blood pressure control has continued to improve marginally since 2006-07. Overall there is some evidence of performance on these areas having plateaued.

Figure 2.4 Trends in blood glucose level and blood pressure in Southwark general practices 2008-9

Variation in quality of diabetic care delivered in primary care

Blood glucose control in Southwark PCT is somewhat worse than the London average both for HbA1c < 7.5 and HbA1c < 10. There is marked variation in practice performance and in exception reporting by practices. PCT performance on HbA1c < 7.5% is 53.3% for the PCT (London 57%) and varies from 29.9% of patients having a level less than 7.5 to 67.3% of patients in the best performing practice. On average 11.6% of diabetics were exception reported for this indicator varying from a low of 3.3% to a high of 40.2% (Figure 2.5). Performance on HbA1c < 10% for the PCT is 80.7% (84% for London) and varies from 55.2% to 91.2%. Exception reporting for the PCT is 7.9% varying from 1.6 to 19.5% (Figure 2.6).
Figure 2.5  Blood glucose monitoring and control among GP-registered diabetics in Southwark, percentages

Source: QMAS

Figure 2.6: Control of glucose in diabetic patients in Southwark general practices

Source: QMAS
2.13. 71.3% of Southwark diabetics have well controlled blood pressure (London 74.8%). The percentage varies across practices from 51.4% to 85.3%. Exception reporting at the PCT level is 7.7%, varying from 1.1 to 29.9% (Figure 2.7)

Figure 2.7: Control of blood pressure in people with diabetes

Source: QMAS

Policy
2.14. Substantial evidence about what constitutes good care for adults with diabetes is documented in the Diabetes NSF and relevant NICE guidelines. (8, 9, 10) There are 12 standards in 9 areas in the NSF that must be reached by 2013.

2.15. Standard 2 of the Diabetes NSF requires the NHS to plan, monitor and implement strategies to identify people who are not aware that they have diabetes. At the time of diagnosis, up to a quarter of people have complications such as eye disease, which suggests that the true onset of diabetes occurs several years before it is recognised clinically. (8)

2.16. In London HealthCare for London have developed a 4 tier model of care for diabetes which envisages much of diabetes care being delivered in the community setting. Southwark PCT is currently implementing this model (11).

Screening of high risk groups
2.17. Diabetes and impaired glucose tolerance will be screened for in patients who are obese and hypertensive as part of the Health Checks (vascular risk assessment programme).
Retinal screening
2.18. Guy’s & St Thomas’ Hospital Foundation Trust (GSTFT) has been commissioned by Lambeth, Southwark and Lewisham PCTs to deliver the Diabetic Retinopathy Screening programme via the Diabetes Eye Complication Screening Service (DECS). Screening services are based at the following sites (St Thomas’ Hospital, Guy’s Hospital, King’s College Foundation Trust and University Hospital Lewisham).

2.19. The National Screening Committee requires an annual retinopathy screen for all patients with diabetes aged over twelve. A central call-recall register is now in place at GSTT to ensure that all patients who have diabetes are identified and appropriately invited for screening. This involved close working with primary care so that the list of patients is updated on a regular cycle. Further work is required to quantify Quality Assurance criteria and report this to the PCTs.

2.20. One hundred percent of eligible diabetes patients were offered retinal screening at the end of 2008-09 and 88% of these availed of screening.

Prevention
2.21. General health promotion as well as and primary prevention for diabetes continues to be a priority for public health in Southwark PCT. A wide range of initiatives is ongoing in the borough addressing diet, physical activity, and smoking cessation. Specific work that is ongoing to modify risk factors for diabetes includes:

- Smoking cessation programmes and primary prevention through healthy school initiative
- Healthy Walks programme
- Exercise Referral programme
- Five a day programme
- Community based health promotion on a number of sites
- Southwark Obesity Strategy.

Patient education and participation
2.22. Patient education and empowerment is crucial for self-management of diabetes. Patient focus groups in one locality in Southwark recommended the implementation of structured education across the sector.

- Dose Adjustment for Normal Eating (DAFNE) is a five-day skill course and education programme for those with Type I diabetes.
- Diabetes Education and Self Management for Ongoing and Newly Diagnosed (DESMOND) is an award winning education programme that meets NICE criteria for structured education and has shown positive outcomes on diabetes control and patient satisfaction.

2.23. Southwark has adopted both DESMOND and DAFNE models. Presently the Southwark Diabetes Specialist Nurse Team provides DESMOND, and so far 63 newly diagnosed patients and nine carers have participated. There are sufficient numbers to run two groups a month which indicates that there is a strong need to expand delivery of the model.
2.24. GSTFT & KCH enrol Type I diabetes to DAFNE and the network has recommended ongoing audit of the programme. (12)

Co-Creating Health (CCH)

2.25. CCH is a self-management initiative for people with long-term conditions, which will be implemented over the next three years. Its aim is two-fold: to develop the individuals’ ability to self-manage their condition effectively, and to train clinicians and non-clinicians involved in their care to support them. The first round of the training has been completed and the initial feedback received from sessions is very encouraging. The local target is to deliver CCH for up to 240 patients.

2.26. What are we doing in Southwark

A number of initiatives to improve diabetes services have been undertaken:

- The PCT has developed a business plan which focuses on implementing the HealthCare for London diabetes model. The aim is to provide about 80% of care for type 2 diabetics in the community either in primary care or with the assistance of an expanded specialist intermediate tier that will have diabetologist input. The intermediate team will also be an educational and advice resource for practices as well as providing increased access to the DESMOND programme.
- Southwark Provider Services have won an award from the Transforming Communities initiative that they are using to improve diabetes services.
- A Local Implementation Scheme to improve diabetes service has been offered to practices.
- The PCT is funding a range of diabetes training for clinicians.
- A local QoF has been developed that focuses on improving glycaemic and blood pressure control in diabetics.
- Inclusion of diabetes in practice performance monitoring.

2.27. Current challenges

- Under-diagnosis of diabetes in Southwark
- Prevalence will increase
- Overall somewhat poorer outcomes compared to the London average
- Variation in the quality of clinical care in diabetes delivered by practices
- Inequalities in prevalence of risk factors and demand related to diabetes
- High diabetes admission rates
- Poor though improving coverage of the DESMOND intervention for newly diagnosed Type 2 diabetes.
- Training is needed for Community Diabetic Specialist Nurses; GPs and Practice Nurses; other trained professionals to deliver the DESMOND model.
- Need for improving personalised shared care plans with patients
- Facilitating patients’ concordance with medication and lifestyle advice.
2.28. Recommendations
- Use software at practice level to identify diabetics that may not be on registers (Practice Focus)
- Monitor pick up of diabetes and impaired glucose tolerance as result of the Health Checks programme
- Monitor effect of local QoF
- Monitor uptake of educational activity by clinicians and link to practice performance
- Suggest a maximum rate of exception reporting for individual indicators
- Develop a plan to evaluate the implementation of and effect of the Diabetes Business Plan
- Investigate reasons for high admission rates
- Increase access to patient education and self-management training