Diabetes: Factsheet

Tower Hamlets Joint Strategic Needs Assessment 2010-2011

Executive Summary

Diabetes is a long term condition that affects 11,859 people in Tower Hamlets, as a result of high levels of glucose in their blood. It is an important health issue as diabetes increases someone's risk of a heart attack or stroke, eye problems and limb problems. Prevalence is higher in Tower Hamlets than the nationally average, in part due to the large Bangladeshi community. Prevalence is also increasing at a faster rate here than elsewhere, and there are a sizeable number of people with diabetes in younger age groups.

A National Service Framework for diabetes was published in 2001, outlining twelve standards for high quality diabetes care. We have introduced the diabetes care package in primary care to support care planning and self-management. The Diabetes Specialist Nurse team has recently been reorganised to provide glycaemic control clinics within the community. Diabetes education services have been developed at a local level to increase uptake.

The proportion of people with controlled diabetes has steadily increased over the last 18 months. Blood pressure and cholesterol control has proved cost-effective though more work is required to improve blood glucose control. The Diabetes Retinal Screening Service has reached over 75% uptake. Patients have been responsive to repeated phone contact to ensure take up of service. Local services and promoting social contact and support within services were also valued. Success in these areas endorses the current strategy to continue with these programmes of care.

Another factsheet is available on gestational diabetes.

Recommendations

- The identification and management of people at risk of diabetes should be investigated for local implementation to combat the increasing prevalence within Tower Hamlets.
- A multi-level strategy is required to target the stabilised prevalence of smoking and obesity in the diabetes population. Reducing levels of these behaviours would reduce diabetes complications, even within one-five year timescales.
- The diabetes care package in primary care requires ongoing monitoring of its implementation to feedback to GP networks on progress and provide areas of key learning.
- The Care Planning Approach needs to consider diabetes and mental health as common comorbidities. The mental health Whole Systems Review should incorporate diabetes.
- Improving the quality of care for people with diabetes in secondary care should be prioritized. This would need to address the findings of the National Diabetes Inpatient Audit.
- Improve local understanding of type 1 diabetes in Tower Hamlets.

1. What is Diabetes?

Diabetes is a long term condition that affects around 2.8million people in the UK, and a predicted additional 850,000 people who have not yet been diagnosed. It is an important health issue as diabetes increases someone's risk of a heart attack or stroke, eye problems and limb problems. Diabetes is present when there are high levels of glucose in the blood, as a result of the body not being able to use it properly. There are two main types of diabetes: Type 1 diabetes and Type 2 diabetes.

Type 1 diabetes accounts for approximately 10% of all cases. Type 1 diabetes occurs when the body is unable to produce insulin, the hormone required for glucose to enter cells and be used for producing energy for the body. It is unknown why some people are unable to produce insulin, though we understand that this is usually detected early in life, and there is a likely genetic link. There is no preventative action that can be taken. Type 1 diabetes is treated by daily insulin injections, a healthy diet and regular physical activity.

Type 2 diabetes occurs when insufficient insulin is produced, or the insulin produced does not work properly, which has the same effect on the body as type 1 diabetes. Typically, this type of diabetes occurs later in life. It is treated with a healthy diet and regular physical exercise, and medication is often also required.

Type 2 diabetes is most common in people over 40 years of age, though there is an increasing trend in younger people. There is a high prevalence among south asian and black populations in whom it is more common to develop diabetes at a younger age. There is a familial link also, so people with a close family member with diabetes is at increased risk of developing it themselves.

Obesity is the primary risk factor for diabetes. Without the intervention of healthy diet and exercise, obesity can develop into diabetes in a relatively short period of time. The increasing prevalence of diabetes in younger people can be attributed to the obesity epidemic in these age groups. In addition to obesity, smoking and poor control of one's diabetes are risk factors for vascular complications in people with diabetes.

Other risk factors for type 2 diabetes include high blood pressure, having previously had a stroke or a heart attack, polycystic ovary syndrome and severe mental health problems.

Prediabetes occurs in people with raised levels of glucose in their blood, but they are not high enough for a diagnosis of diabetes. It puts the person at increased risk of developing type 2 diabetes and of heart disease so it is important to focus on the steps that can be taken to minimize this risk. A Finnish study found that an intensive lifestyle intervention produced long-term beneficial changes in diet, physical activity, and clinical and biochemical parameters and reduced diabetes risk[1].

Another factsheet is available on gestational diabetes.

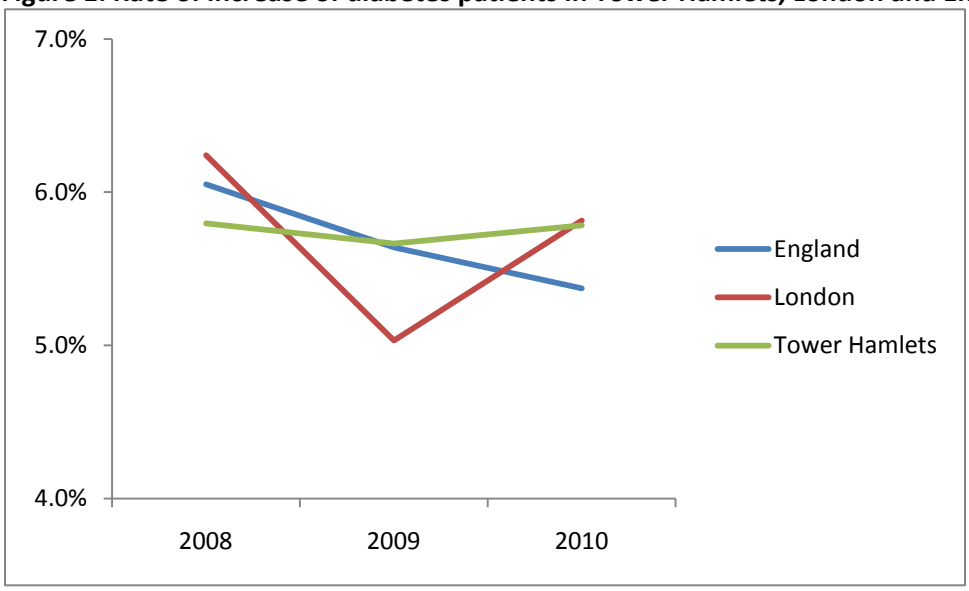
[1] Lindstrom, J. et al, (2003), *The Finnish Diabetes Prevention Study (DPS)*, Diabetes Care December 2003 vol. 26 no. 12 3230-3236

2. What is the local picture?

In March 2010 this equated to 11,859 diagnosed cases of diabetes in Tower Hamlets. This equates to 6.1% of the population, which is significantly higher than the England and London averages of 5.4% and 5.3% respectively (QOF, 2009/10). 1,000 of the cases are attributable to type 1 diabetes and the rest have type 2. National predictive prevalence models do not work well with the outlier Tower Hamlets population and produce estimates that are less than the observed numbers. Based on our bespoke local predictive model, we estimate that at the end of 09/10 there were at least 1,815 people with undiagnosed diabetes in Tower Hamlets. The NHS Health Checks programme (a vascular risk assessment conducted in primary care in people aged 40-74) diagnosed 50 people with diabetes in 2010/11.

Year on year the diabetes register in Tower Hamlets has increased by just under 6%, meaning that over the last three years there has been an increase of between 611 and 686 cases of diabetes per year, taking into account new diagnoses, deaths and migration. This compares to numbers rising less fast across England as a whole. This means that the prevalence of diabetes in Tower Hamlets is increasing at a faster rate than elsewhere (figure 1).

Figure 1: Rate of increase of diabetes patients in Tower Hamlets, London and England 2008-2010 (QOF)



Diabetes prevalence is set to continue to increase dramatically over the next 20 years, according to the APHO Diabetes Prevalence model.

Table 1: Diabetes Prevalence Projections in Tower Hamlets 2010-2030, APHO Diabetes Prevalence Model, 2010

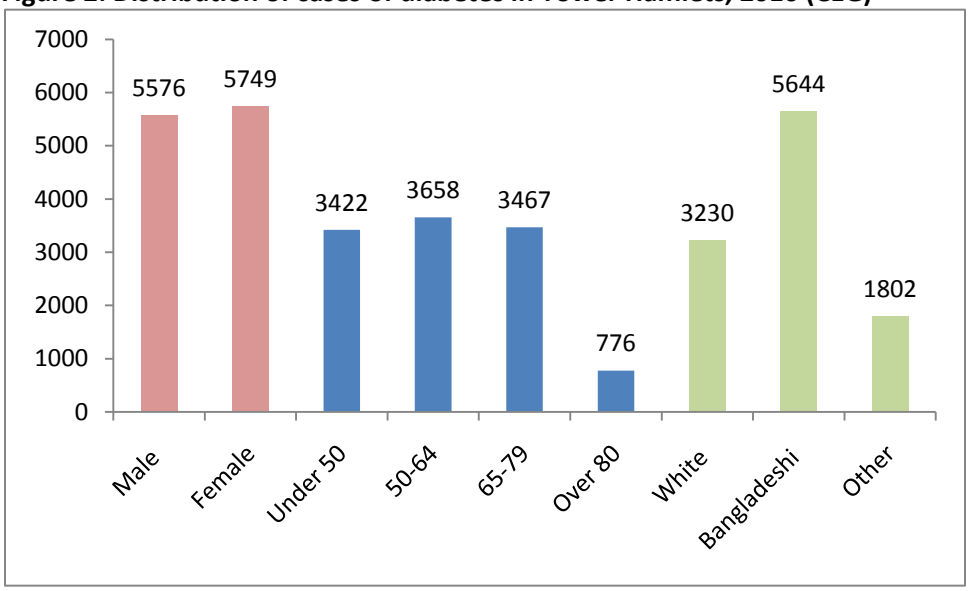
	2010	2015	2020	2025	2030
Number	13,674	14,987	16,871	18,968	21,314
Prevalence	7.8%	8.1%	8.7%	9.3%	10.1%

The numbers of deaths associated with diabetes is not easy to estimate as the primary cause of death is most likely to be circulatory disease. However, age-adjusted deaths directly attributable to diabetes in Tower Hamlets are 8.7 per 100,000, compared to 6.1 in London and 5.9 in England (2007-09, NCHOD).

A snapshot of the diabetes' register in 2010 found the following distribution of cases across three of the

inequalities strands (gender, age and ethnicity)

Figure 2: Distribution of cases of diabetes in Tower Hamlets, 2010 (CEG)



We further know that as of January 2011:

- 55.2% of people with diabetes have controlled blood glucose levels
- 64.8% have controlled blood pressure
- 71.2% have controlled cholesterol
- 15.3% have eye complications
- 28.2% have limb complications
- 20.8% smoke
- 35.7% are obese (BMI>30)

3. What are the effective interventions?

The Diabetes National Service Framework was published in 2001 and set out twelve standards for diabetes care. These are summarised below:

1) Develop and monitor local strategies to support prevention of type 2 diabetes and to address inequalities in risk.

2) Develop strategies to identify the undiagnosed population

3) Engage patients of all ages and their carers in the self-management of their conditions, adoption of healthy lifestyles and developing an agreed and shared care plan in a personalised format.

4) High quality care, including support to optimise the control of their blood glucose, blood pressure and other risk factors for developing the complications of diabetes.

5) All children and young people with diabetes and their carers will be supported to optimise their physical,

psychological, intellectual, educational and social development.

6) Smooth transition of care for adolescents moving into adult services, made in conjunction with the individual and all partnership care organisations.

7) Develop and monitor agreed protocols for rapid and effective treatment of diabetic emergencies by appropriately trained health care professionals.

8) High quality care for all people with diabetes in hospital, regardless of cause of admission.

9) Develop and monitor policy to support women with pre-existing or gestational diabetes during pregnancy.

10) Regular surveillance for long-term complications

11) Timely, appropriate and effective investigation and treatment of long-term complications of diabetes

12) Multi-agency support of integrated health and social care for all people with diabetes.

NICE guidance is available for the management of type 1 diabetes (CG15), the management of type 2 diabetes (CG66), footcare (CG10, CG119), patient education models (TA60) and prevention (PH35). NICE guidance on the treatment of people with pre-diabetes is due to be published in 2012.

People living with diabetes can also benefit from social care input as part of an integrated approach, with health services and other partners. Social workers may facilitate care coordination and provide linkage to physical or psychological care across a range of health care settings. People may experience anxiety or depression as well as physical limitations, and may therefore be eligible for social care. People may also benefit from preventative services (some of which may be commissioned by social care) to address challenges relating to life disruption, social isolation and sometimes living with uncertainty around prognosis. Social care, working in partnership with health services, may also be appropriate to address any palliative care needs.

4. What are we doing locally to address this issue?

Secondary prevention in people with diabetes is a local priority to ensure that conditions are well-managed, complications are reduced and there is minimal impact on individuals' quality of life.

Prevention statement

The Tower Hamlets population has access to a range of healthy lifestyle services. Please refer specifically to the obesity factsheet, as this is the major risk factor for diabetes. The NHS Health Check programme identifies people at high risk of CVD and directs them to lifestyle services. The programme also facilitates the early diagnosis of diabetes - in the last year alone 50 new cases have been identified. Research is underway locally to determine whether a diabetes risk score could be cost-effectively applied locally for incorporation into the Health Checks programme.

Primary care statement

A diabetes care package has been in operation through general practices since September 2009. This approach supports care planning consultations in which each patient has a session to jointly plan their care for the following year and tailor it to their individual needs and circumstance. As of March 2011, 89.4% of people with diagnosed diabetes had received a care planning session in primary care.

At the end of the financial year 2009/10 83.2% of people with diabetes had their blood pressure controlled below 145/85 and 84.5% had a total cholesterol reading below 5mmol – the third and second highest proportions in London, respectively and eleventh and 32nd highest in England. 45.1% of patients had a HbA1c measure below 7, the third lowest proportion in London and fourth lowest in England.

Secondary care statement

Local clinical audits indicate that at any one time 25% of patients in Barts and the London NHS Trust who are residents of Tower Hamlets have diabetes. In the 2010 National Diabetes Inpatient audit the trust scored below average for a number of patient satisfaction measures including care planning, meal times, confidence in staff and reporting a positive experience. Glucose testing was higher than average and there was further work to be done around ensuring visits by specialist team members and prescription and management errors.

Community services statement

There are a number of services for people with diabetes provided by Community Health Services. The Diabetes Retinal Screening Service screens people on the diabetes register annually for retinopathy, and achieved 75% uptake in January 2011, in line with national standards. The Diabetes Specialist Nurse team provide a range of services including the glycaemic control clinic, education sessions and an insulin pump services. Specialist dietician and podiatrist services are also available.

5. What evidence is there that we are making a difference?

Through the NHS Health Checks 49 people have been diagnosed with diabetes in the last year, or 14% of the estimated undiagnosed population. The prevalence of people with diabetes under the age of 50 is increasing. A cross-sectional study in January 2010, indicated that there were 2993 of this age group, (or 27% of the diabetic population).

Since implementation of the diabetes care package in primary care in September 2009, all three clinical indicators (HbA1c<7.5, blood pressure<140/80, total cholesterol<5mmol) have improved. A composite measure, which requires that HbA1c, blood pressure and cholesterol to all be controlled below proscribed parameters, is incentivised through this locally enhanced service. Between August 2009 and January 2010, this improved from 24% to 28%. The register increased by 681 patients in this time. Levels of smoking and obesity have both remained stable in this time period.

Based on 2008/09 data, Tower Hamlets was average for emergency admissions for diabetes, an improvement from the previous two years when it scored in the top 20% nationally, and average in all three years for elective admissions. Yorkshire and Humber Public Health Observatory produced a tool comparing outcomes and expenditure for diabetes. It found that total expenditure on diabetes care was above average, but not significantly so, whilst outcomes were good for cholesterol and blood pressure control but among the lowest in the country for HbA1c control.

Diabetes Retinal Screening uptake has been improving over the last twelve months and is now above 75%, the national target. The local HAMLET programme was shown to improve blood glucose control in those who completed the course – to which fewer males and older people were referred. The glycaemic control clinic has undergone a restructure in 2010/11, for which an evaluation is planned in the coming financial year.

6. What is the perspective of the public on services?

THINk's 2009 consultation into Long Term Conditions found that some of the prominent views around diabetes care were around lack of education to avoid hypoglycaemic attacks, fear of diabetic retinopathy, turning blind, and a perceived lack of support following any problems being detected as well as considering condition-specific advocates for the Bangladeshi population to be advantageous.

A qualitative evaluation of the diabetes education programme contained findings that could be applied to more generic diabetes services:

- Repeated phoning, in a friendly and polite manner, to attend services was thought to be productive and encouraged people to attend and ensured maintenance
- Services provided locally also encouraged uptake
- People who attend courses generally consider themselves to be in good health
- HAMLET, followed by Key Short Messages, were the most memorable courses – other education materials such as DVDs were not recalled by the majority of people to whom they were provided
- The social aspect of attending classes was highlighted, particularly for those newly diagnosed
- It was considered helpful to have someone with experience of diabetes facilitating classes

7. What more do we need to know?

- There is research underway locally to determine the prevalence of pre-diabetes in Tower Hamlets. In preparation for the NICE guidelines for managing risk of diabetes being published in 2012, it will be important to consider how this could be implemented locally.
- It would be important to link primary care and secondary care outcomes to determine whether care planning is successfully reducing emergency admissions. An evaluation of the glycaemic control clinic should be prioritised.
- Follow-up and locally assessment of the national inpatient audit will need to be prioritised. Diabetes is no longer a specific CQUIN under the new quality arrangements so specific audits of the care of people with diabetes will need to be conducted to assess improvements.

8. What are the priorities for improvement over the next 5 years?

Key areas for improvement include the management of prediabetes, improving healthy lifestyles among those with diabetes and the care of people in hospital with diabetes. Services also need to be mindful of the predicted increase in diabetes prevalence over the next few years and the impact this is likely to have on local resources.

- The identification and management of people at risk of diabetes should be investigated for local implementation to combat the increasing prevalence within Tower Hamlets.
- A multi-level strategy is required to target the stabilised prevalence of smoking and obesity in the diabetes population. Reducing levels of these behaviours would reduce diabetes complications, even within one-five year timescales.
- The diabetes care package in primary care requires ongoing monitoring of its implementation to feedback to GP networks on progress and provide areas of key learning.
- The Care Planning Approach needs to consider diabetes and mental health as common comorbidities. The mental health Whole Systems Review should incorporate diabetes.
- Improving the quality of care for people with diabetes in secondary care should be prioritized. This would need to address the findings of the National Diabetes Inpatient Audit.
- Improve local understanding of type 1 diabetes in Tower Hamlets.

9. Key Contacts & Links to Further Information

- General JSNA queries email: JSNA@towerhamlets.gov.uk
- Abigail Knight, Senior Public Health Strategist, NHS Tower Hamlets: Abigail.knight@thpct.nhs.uk
- The Vascular Care Quality Group has oversight of the diabetes programme in Tower Hamlets. This is chaired by the Co-Director of Public Health.
- If you would like to know more about diabetes you can visit the following websites:
  Diabetes UK: www.diabetes.org.uk
  NHS Diabetes: www.diabetes.nhs.uk

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Date signed off by Senior JSNA Leads:	*Date factsheet signed off by senior JSNA leads from Public Health and LBTH*	**Signed off by (Public Health Lead):**	*e.g. Director or Associate Director*	**Date signed off by Strategic Group:**	*Date factsheet signed off by Strategic Group*	**Sign off by Strategic Group:**	*Name the relevant Strategic Group*
		Signed off by (LBTH Lead):	*e.g. Director of Adults/CFS*				