

Six Years On

Delivering the Diabetes National Service Framework



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Foreword



Diabetes is one of the biggest healthcare challenges facing the NHS. There are now 2.2 million people with diabetes in England, and the number of people developing type 2 diabetes continues to increase. There are a range of factors contributing to the rise in diabetes cases, including the increasing levels of obesity and an ageing population.

In these challenging times, the Diabetes National Service Framework has a pivotal role in preventing type 2 diabetes, as well as driving up the quality of care for people with diabetes. Initiatives such as the NHS Health Check programme and Change4Life are key to reducing the risk of developing diabetes. These initiatives support the vision set out by the Secretary of State for Health to create a preventative, people-centred, productive NHS.

Of course we cannot prevent all cases of diabetes, and it is crucial that people with diabetes have access to high-quality services. I am delighted that this report shows just how much work has been undertaken since we published *Five Years On*. For the first time, we now know how many children and young people have diabetes in England, and the results of the study we undertook to provide this information will be central to understanding the variability in provision of care for this group. Best practice guidance and resources are being developed to support the inpatient care of people with diabetes, which will help to reduce length of stay and improve patient experience.

However, there is still room for improvement. We are continuing our push to increase the spread of structured education to support people in managing their diabetes, and the work on the diabetes 'Year of Care' is at the leading edge of care planning for long-term conditions. More needs to be done to improve outcomes for children and young people with diabetes to ensure that they are fully supported to manage their diabetes on a day-to-day basis. I continue to support the development of a range of specialist roles within nursing, and I recognise the important role that Diabetes Specialist Nurses have in the diabetes multidisciplinary team and in the care of people with diabetes.

In order to deliver the vision set out in the Diabetes National Service Framework, local services will need to look at providing their services in an innovative way, while ensuring that resources are used in the most effective way. This will be a huge undertaking, but one to which the diabetes community is more than capable of responding.

A handwritten signature in black ink, appearing to read 'Ann Keen'. The signature is fluid and cursive, with the first name 'Ann' written in a stylized, looped manner and the last name 'Keen' written in a more straightforward cursive style.

Ann Keen
Parliamentary Under-Secretary of State for Health

Introduction



When I started as National Clinical Director for Diabetes my message was that:

'Every person with diabetes deserves the highest standards of personalised diabetes care no matter where, when or by whom that care is delivered. Healthcare professionals delivering diabetes care should be properly trained in diabetes and should know the boundaries of their knowledge. They should have opportunities to extend these boundaries and keep up to date. People with diabetes and healthcare professionals must have access to specialist advice.'

I have been saying it ever since. The message is still crucial.

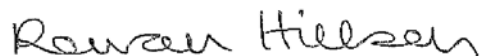
In my roles as National Clinical Director for Diabetes and as a practising diabetologist I am also aware of the enormous challenges that are being faced by colleagues in the NHS. More and more people being diagnosed with diabetes, placing greater pressures on local services. The Government has, in *NHS 2010–2015: from good to great*, recently made it clear that quality and productivity must drive changes to services. All of us commissioning and delivering diabetes care must rise to this challenge, reviewing our services to identify how we can improve quality and efficiency throughout the community. Over the coming months, the Department of Health will be sharing best practice guidance to facilitate these changes, and to ensure that improvements are promulgated throughout the NHS.

I am glad to see the continued emphasis on prevention, as these measures also help to keep people with diabetes well. However, it is important that we continue to enable people with diabetes to become partners in their own care. Structured education and care-planning approaches must be adopted more widely so that everyone with diabetes can benefit. Structured diabetes education not only improves quality of care and patient empowerment but it is also cost efficient for the NHS. It is frustrating that despite specific guidance by the National Institute for Health and Clinical Excellence of its benefits, many people have not yet been offered structured education.

We also need good data to understand the scale of diabetes, how it affects people, what improvements are needed and whether changes have worked. The National Diabetes Information Service (NDIS), including the National Diabetes Audit (NDA), is an excellent resource. The NDA continues to grow both in size and prominence. It is the biggest clinical audit in the world and we have invested significant effort to enhance this further during the last year, in order to deliver even more information about diabetes and the care that we provide. Having access to high-quality data can make a major difference to the way in which local diabetes teams provide their services.

People with diabetes and all those who look after them, including healthcare professionals and managers, should be fully involved in planning diabetes care. We have held three lively stakeholder events with a wide range of participants. The events addressed separate issues: to inform the specification of the next three years of the NDA; to identify the workstreams for the project to improve outcomes in pregnancy in women with existing or newly diagnosed diabetes; and to develop a new diabetes algorithm with NHS Direct.

This year was all about transition. The National Diabetes Support Team (NDST) has been reborn as NHS Diabetes, and following significant development of this implementation team it is now well equipped for its role in the NHS. There is a Regional Programme Manager in each strategic health authority (SHA) region facilitating two-way communication and providing support and encouragement for local trusts. Exciting projects are already in progress and I look forward to the next few years.



Dr Rowan Hillson MBE
National Clinical Director for Diabetes

1 Working with NHS Diabetes

In *Five Years on* we were pleased to announce that following the Office of the Strategic Health Authorities (OSHA) review, that continued funding and support would be given to the NDST. The NDST was then renamed NHS Diabetes and now works beside NHS Kidney Care in a joint organisation called NHS Diabetes and Kidney Care which provides communal support functions and opportunities for joint work on areas such as diabetic kidney disease.

The Department of Health's diabetes policy team and NHS Diabetes worked with the National Clinical Director for Diabetes to develop the overall national work programme for diabetes.

Over the last 12 months we have seen NHS Diabetes make huge progress, not only in establishing itself as a new organisation, but also in delivering its ambitious work programme. There are now regional programme managers in each of the 10 SHA areas to support NHS organisations in the design and delivery of high-quality diabetes services across the country. In July 2009, NHS Diabetes launched a new website which provides a comprehensive overview of the organisation and all the work that is being taken forward. The website can be accessed via www.diabetes.nhs.uk

During 2008/09 NHS Diabetes has supported the development of the NDIS, which includes the NDA. In addition, projects to improve pregnancy outcomes in women with existing and newly diagnosed diabetes and inpatient care for people with diabetes have also made significant progress in developing resources to improve the quality of care in these areas.

National Diabetes Information Service

The NDIS is jointly funded by the Department of Health and NHS Diabetes, and is hosted at the NHS Information Centre. It has been established to provide co-ordinated and effective diabetes information to patients, commissioners, providers and regulators. It aims to use all currently available information sources to create reports containing contemporary and comprehensive information, in order to support service planning, delivery, improvement and quality assurance.

The NDIS Partnership Board, under the leadership of the National Clinical Director for Diabetes, sets the direction of the programme. The Partnership Board has representatives from a range of stakeholders, including service users, the Department of Health, NHS Diabetes, the NHS Information Centre, DiabetesE, the English National Screening Programme for Diabetic Retinopathy,

Diabetes UK, Yorkshire and Humber Public Health Observatory (YHPHO), Royal Colleges and professional bodies.

One product of the NDIS was the development of the Prescribing for *Diabetes in England – An Update: 2002-2008*¹ report. This report, produced by two NDIS partners, the YHPHO and the NHS Information Centre (prescribing unit), used the analysis of volume expenditure and trends to show steady increases in the prescriptions of glucose-lowering and glucose-monitoring drugs. Further detailed work is planned by NDIS members, and will include tools such as the diabetes data packs (HNA) and Diabetes Outcomes versus Expenditure (DOVE) and reports of analyses of hospital inpatient data in order to review the effect of having diabetes on length of stay and emergency re-admission rate.

National Diabetes Audit

This Healthcare Quality Improvement Partnership (HQIP) funded service is building to become one of the world's most extensive sources of a nation's diabetes data. Since the NDA was established in 2003, participation has increased from 253,000 to 1,423,600 in England in 2007/08.² There are separate audit collections for adults and children and young people. Adult data is now collected from primary care and GP practices, with all 152 primary care trusts (PCTs) and approximately 75% of all GP practices in England now contributing. Information from Hospital Episode Statistics is included, providing data on some complications of diabetes such as kidney (renal) disease. A tool (PIANO) is available which enables each practice to look at their own data and compare it with aggregated data from elsewhere.

Future audit developments

The contract for the National Clinical Audit Programme to provide the audit has been extended until March 2010, and HQIP has issued an invitation to tender for the NDA.² The specification for this audit has been developed by the Department of Health in collaboration with key stakeholders. The refreshed audit will see a strengthening of the current paediatric audit and new additions to the core audit collection. This will be subject to Review of Central Returns (ROCR) approval.

- 1 NHS Information Centre, Prescribing Support Unit and the Yorkshire and Humber Public Health Observatory, 2009, *Prescribing for Diabetes in England: An Update: 2002–2008*. www.ic.nhs.uk/statistics-and-data-collections/primary-care/prescriptions/prescribing-for-diabetes-in-england:-an-update-2002-2008
- 2 NHS Information Centre, 2008, *National Diabetes Audit Executive Summary: Key findings about the quality of care for people with diabetes in England and Wales – Report for the audit period 2007-2008*. www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/audit-reports/diabetes

Commissioning

One of the most popular items on the NHS Diabetes website was their Diabetes Commissioning Toolkit.³ With the introduction of World Class Commissioning and other initiatives the toolkit needed to be updated to reflect these important changes. NHS Diabetes is working on an extensive commissioning project with wide stakeholder involvement based on the philosophy expressed by the National Clinical Director for Diabetes:

'The person with diabetes is central to his or her care and must be continuously involved in care planning and management decisions. Patients want good care, convenient to home or work, tailored to their needs at the time. They want a clear, well-organised system where everyone looking after them knows what is going on, and what they are doing. If they have a problem they want prompt, expert advice.'

NHS Diabetes is working with Teams without Walls, a collaboration between the Royal College of Physicians, the Royal College of General Practitioners, the Royal College of Paediatrics and Child Health, the Royal College of Nursing, people with diabetes, commissioners and other stakeholders to produce a new 'diabetes without walls' guide for PCTs. This document will underpin the commissioning of fully integrated multidisciplinary diabetes care across primary, community and secondary care. The *Teams without walls* report states the following:⁴

'The aspiration ... is to create an NHS that puts the patient at the centre of everything that we do – involved, empowered and enabled patients achieve the best outcomes for their health. Services will be organised around the patient journeys through the NHS, translating the latest evidence into practice, with patients cared for by competent teams, delivering services close to home where it is safe and sustainable to do so.'

The project is developing modules for each component of diabetes care to support commissioners to commission comprehensive services that reflect the needs of their local health economy.

3 NHS Diabetes, 2006, Diabetes Commissioning Toolkit. www.diabetes.nhs.uk

4 Royal College of Physicians, Royal College of General Practitioners and Royal College of Paediatrics and Child Health Teams without Walls: The value of medical innovation and leadership, 2008. www.rcplondon.ac.uk/professional-Issues/Documents/teams-without-walls.pdf

2 Preventing and identifying diabetes

Standard 1: The NHS will develop, implement and monitor strategies to reduce the risk of developing type 2 diabetes in the population as a whole and to reduce the inequalities in the risk of developing type 2 diabetes.

Standard 2: The NHS will develop, implement and monitor strategies to identify people who do not know they have diabetes.

The NHS continues to make good progress in identifying people with diabetes. Latest figures from the Quality and Outcomes Framework⁵ show that there are approximately 2.2 million people with diabetes recorded on GP practice registers. This means that these people are now able to access the treatment and care that they need in order to manage their diabetes on a day-to-day basis.

We are also making progress in identifying earlier those with undiagnosed diabetes, and this has been aided by the focus on prevention. Initiatives such as the NHS Health Check programme and Change4Life have helped to raise the awareness of diabetes and of the seriousness of the condition.

Prevention

Preventing diabetes is enshrined in the Diabetes National Service Framework. Much of our work is focusing on prevention, and initiatives such as the NHS Health Check programme⁶ and Change4Life are key to reducing the number of people at risk of developing diabetes.

In June 2009, Building Britain's Future⁷ set out the Government's commitments to Parliament for the future, including commitments to modernise public services. This included continued focus on prevention of illness rather than cure, and the pledge to provide free NHS Health Checks for people aged 40–74.

5 NHS Information Centre, Quality and Outcomes Framework, www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/diabetes

6 Department of Health, 2008, *Putting prevention first – vascular checks: risk assessment and management – 'Next Steps' Guidance for Primary Care Trusts*. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_090277

7 HM Government, 2009, Building Britain's Future. www.hmg.gov.uk/buildingbritainsfuture.aspx

NHS Health Check programme

Since the announcement of the NHS Health Check programme in April 2008, a great deal of progress has been made. The NHS Health Check programme is a universal and systematic programme for everyone between the ages of 40 and 74 that will assess people's risk of heart disease, stroke, kidney disease and type 2 diabetes, and will support people to reduce or manage that risk through individually tailored advice. The NHS Health Check is a five-year rolling programme, and there are approximately 15 million people in England aged between 40 and 74 who are eligible.

The check itself involves a standard assessment based on straightforward questions and measurements. These seek basic information such as height, weight, current medication, age, family history, smoking and blood pressure, and include a simple blood test for cholesterol and (in some cases) glucose levels.

The science on how best to test for high risk of diabetes or undiagnosed diabetes is complex and developing. Advice from the UK National Screening Committee – which advises the Government on disease screening programmes – is that testing the entire population for diabetes is not clinically or cost effective. Best practice is to use a filter to determine those at risk and who should be tested.

To provide additional assistance to PCTs in their implementation of the programme, we published *'Next Steps' Guidance for Primary Care Trusts* in November 2008⁸ and *Vascular Risk Assessment and Management Best Practice Guidance* in April 2009, and a national learning network meets regularly to allow PCTs to exchange information on test practices and developments in the programme.

The Department of Health's *Vascular Risk Assessment and Management Best Practice Guidance*⁹ describes two main approaches, using body mass index (adjusted for ethnicity) and blood pressure, to identify people at high risk. Using these factors as a filter, appropriately qualified staff can identify who in the population may be at high risk and should go on to receive a blood glucose test. The blood glucose test will establish how best they can be managed. The Best Practice Guidance provides more detail about the tests involved, including thresholds, and additional testing and treatment pathways.

PCTs began phased implementation of the NHS Health Check programme in April 2009, and have been provided with additional funding for 2009/10 and 2010/11. To provide additional assistance to PCTs in their implementation of the programme, we published *'Next Steps Guidance for Primary Care Trusts'*

8 Department of Health, 2008, *Putting prevention first – Vascular Checks: risk assessment and management – 'Next Steps' Guidance for Primary Care Trusts*. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_090277

9 Department of Health, 2009, *NHS Health Check: Vascular Risk Assessment and Management Best Practice Guidance*. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_097489

in November 2008 and 'Best Practice Guidance for the Assessment and Management of Vascular risk assessment' in April 2009, and a national learning network meets regularly to allow PCTs to exchange information on test practices and developments in the programme.

Obesity

Helping a person to lose weight can significantly reduce their risk of developing type 2 diabetes. *Healthy Weight, Healthy Lives: A cross-government strategy for England*¹⁰ (January 2008) and *One Year On*¹¹ (April 2009) set out the Government's strategy to reduce obesity and help people to maintain a healthy weight. Our strategy focuses on helping people to make healthier choices; creating an environment that promotes a healthy weight; ensuring that effective services are available for those at risk; and strengthening the delivery system.

We are making good progress in tackling childhood obesity. The latest data from the Health Survey for England 2008¹² shows that the rise in childhood obesity has levelled off. However, obesity levels are too high and we will be broadening our focus to teenagers and adults during 2010.

As part of our strategy we launched the Change4Life campaign in January 2009, to help families 'eat well, move more and live longer'. We are also working with the Food Standards Agency to develop the Healthy Food Code to offer consumers healthier choices, and are developing partnerships with major retailers and manufactures to promote key messages on healthy eating and physical activity.

10 HM Government, 2008, *Healthy weight, healthy lives: A cross-government strategy for England*. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_082378

11 HM Government, 2009, *Healthy Weight, Healthy Lives: One Year On*. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_097523

12 NHS Information Centre, *Health Survey for England – 2008: Physical Activity and Fitness*. www.ic.nhs.uk/Pubs/hse08physicalactivity

Preventing Diabetes – Imperial College Fitness programme

A group of medical students formed the Imperial Fitness society at Imperial College London after learning about the rising incidence of diabetes across the country. To address this issue the committee decided that the most benefit would be derived by speaking to children of primary school age, and encouraging them to eat healthily and take appropriate levels of physical activity.

The IC fitness programme aims to promote the health and fitness of children and young people to help reduce the risk of them developing diseases such as obesity and type 2 diabetes in the future. During the summer 2009, the team of medical students visited seven schools in the borough of Kensington and Hammersmith.

Each class consisted of approximately 25-30 students, who were then divided into groups of 5 or 6. Individual stations were created each with a fun sporting activity (e.g. penalty shoot out, skipping, and making healthy fruit smoothies) and each group visited each station for 10 minutes. When the children had visited all the stations, the team gave a brief talk on a healthy lifestyle. This emphasised the importance of healthy eating and physical activity to try and avoid obesity in and reduce their risk of developing type 2 diabetes in the future.

Many of the teachers reported that their pupils have an increased awareness of the importance of eating a healthy balanced diet.

For further information about the project, please contact Prashant Patel at: prashant.patel05@imperial.ac.uk

Good Diabetes Care for All

In July 2008, Dr Rowan Hillson, the National Clinical Director for Diabetes, established this working group to specifically address health inequalities in diabetes. The group focuses on what needs to be done to enable the NHS and local care services to tackle health inequalities relating to the care of all people with diabetes. The group membership includes representation from people with type 1 and type 2 diabetes, black and minority ethnic populations, clinicians, older adults and those with specific expertise in the health inequalities field. The aim is to ensure co-ordination between the Department, NHS Diabetes and key stakeholders when addressing inequalities in diabetes.

NHS Diabetes also works closely with the Health Inequalities National Support Team in areas where diabetes is identified as a contributing factor to poorer health outcomes for specific populations. This includes workshops and other support for PCTs.

To complement the work of the 'Good Diabetes Care for All' working group, NHS Diabetes has several pieces of work focusing on the care of older people with diabetes. Diabetes is often an age-related disease which affects as many as one in four older people in residential and nursing care¹³. If untreated, diabetes in older people can be characterised by widespread vascular disease and loss of physical abilities, with both of these problems made worse by ageing itself. Cognitive dysfunction, depressive illness and falls are also important complications. The aim of the NHS Diabetes project is to develop tools and best practice guidance for providers of health and social care so that they can better support people with diabetes.

Diabetes UK have been working on guidance for the care of older people in residential accommodation and NHS Diabetes is working with them to extend this work. This includes the development of a module of the Diabetes Commissioning Toolkit about diabetes in older people and work on improving the recognition and care of dementia in people with diabetes.

13 Sinclair AJ, Gadsby R, Penfold S, Croxson SC, Bayer AJ. Prevalence of diabetes in care home residents. *Diabetes Care* 2001; 24:1066-8

3 Partnership in decision-making

Standard 3: All children, young people and adults with diabetes will receive a service which encourages partnership in decision-making, supports them in managing their diabetes and helps them to adopt and maintain a healthy lifestyle. This will be reflected in an agreed and shared care plan in an appropriate format and language. Where appropriate, parents and carers should be fully engaged in this process.

Structured patient education plays an important role in enabling people with diabetes to manage their diabetes on a day-to-day basis. The spread of the Diabetes Education and Self-Management for Ongoing and Newly Diagnosed (DESMOND), Dose Adjustment For Normal Eating (DAFNE) and X-PERT courses is encouraging. The first recommendation in NICE CG87¹⁴ is that every person with diabetes should be offered structured education.

Dose Adjustment For Normal Eating (DAFNE) – for those with type 1 diabetes

- 73 centres up and running in the UK and Ireland (54 in England).
- 2,084 DAFNE courses have now been delivered, with a total of over 15,031 DAFNE graduates.

Diabetes Education and Self-Management for Ongoing and Newly Diagnosed (DESMOND) – for those with type 2 diabetes

- 110 primary care organisations and diabetes services are currently offering the DESMOND programme across the UK and Ireland.
- Since 2005, 860 educators have been trained to deliver DESMOND programmes, and are supported by a training team of 25 experienced trainers and assessors.
- Development work on the model for ongoing education and care is well advanced, and a prevention scheme for those at risk of diabetes is being provided in three 'early adopter' sites.

14 NICE, 2009, *Type 2 diabetes: newer agents for blood glucose control in type 2 diabetes* (CG87). <http://guidance.nice.org.uk/CG87/Guidance>

However, more needs to be done to ensure that people with diabetes are able to access support at various points during their lifetime, and not just at the point of diagnosis. We are working with NHS Diabetes to examine the issues surrounding the variability in the provision of diabetes education programmes, and will be exploring ways in which these can be tackled. It is likely that the outcomes of these discussions will be available in the first half of 2010.

Care planning

The important role that care planning has in the management of long-term conditions was highlighted in Lord Darzi's NHS Next Stage Review, *High Quality Care for All*,¹⁵ which set out the commitment that by the end of 2010, everyone with a long-term condition should be offered a personalised care plan.

Information from national surveys, such as the GP Patient Survey, suggest that 60% of people with a long-term condition in England have reported that they have an agreed care plan. This is good progress, but we know that there is more to do to ensure that the principles of care planning are embedded within the NHS. The Department of Health has worked extensively with stakeholders to increase implementation of care planning, and will be offering a programme of tailored support to PCTs during 2010.

Year of Care

The Year of Care programme continues to make significant inroads into understanding what is needed to transform the annual review process – which can sometimes be little more than a 'tick-box' exercise – into a genuine discussion between the person with diabetes and the healthcare professional. It is about marrying up the healthcare professional's clinical expertise with the person's individual 'story', and jointly agreeing goals and an action plan to help achieve this.

The Year of Care programme is led by Diabetes UK and NHS Diabetes, in partnership with the Health Foundation and the Department of Health. The three Year of Care pilot sites have already learned a huge amount about what is required to deliver personalised services for people with long-term conditions, and are committed to sharing these messages throughout the NHS. A key component of care planning has been shown to be robust, quality assured training delivered to healthcare professionals who lead care planning consultations. NHS Diabetes has subsequently commissioned a national training programme – born from the Year of Care's experiences and expertise – to help spread this learning throughout the NHS.

For more information on the Year of Care programme, go to:

www.diabetes.nhs.uk/our_work_areas/year_of_care/ or contact yearofcare@diabetes.org.uk.

15 Professor the Lord Darzi of Denham KBE, 2008, *High Quality Care for All: NHS Next Stage Review final report*. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_085825

Emotional and psychological support

For people with diabetes, the likelihood of developing depression or another psychological condition is significantly higher than those without. This can have a direct impact on a person's ability to effectively self-manage, in particular to maintain good glycaemic control.

The NHS Diabetes and Diabetes UK Emotional and Psychological Support Working Group are developing guidance that will be exploring ways in which emotional and psychological support can be integrated into diabetes services. The guidance is due to be published in the spring.

4 Clinical care of adults with diabetes

Standard 4: All adults with diabetes will receive high-quality care throughout their lifetime, including support to optimise the control of their blood glucose, blood pressure and other risk factors for developing the complications of diabetes.

Ensuring that people with diabetes receive the key tests and measurements (for example, blood pressure and cholesterol) to prevent or delay the complications of the condition is a key component of good diabetes care. These are vital tools to enable people with diabetes to effectively self-manage on a day-to-day basis.

On 1 June 2009, the way in which HbA1c results are reported changed, and NHS Diabetes, working with Diabetes UK and the Association for Clinical Biochemistry,¹⁶ co-ordinated an awareness-raising campaign.

Following discussions with the diabetes community, the International Federation of Clinical Chemistry (IFCC) decided to introduce a new reference measurement for HbA1c. This change in reporting will make it much easier for laboratories to compare HbA1c results; it will also be helpful for international research trials.

HbA1c is now reported in millimoles per mol (mmol/mol) instead of percentage (%).

What is HbA1c?

HbA1c, or haemoglobin A1c, is created when glucose in the blood sticks to haemoglobin in red blood cells, making glycosylated haemoglobin. The HbA1c test is used to measure blood glucose levels over 8–12 weeks, the length of time that red blood cells usually live for.

Current HbA1c (%)	New HbA1c (mmol/mol)
6.0	42
6.5	48
7.0	53
7.5	59

16 NHS Diabetes working with Diabetes UK and the Association for Clinical Biochemistry, 2009, *A change in reporting your HbA1c results. Information for People with Diabetes*. www.diabetes.nhs.uk/press_and_media/hba1c_leaflets

It will of course take time for everyone to become familiar with the new units, and so until 31 May 2011 all HbA1c results across the UK will be given in both the current HbA1c % and in HbA1c units mmol/mol. From the 1 June 2011, HbA1c results will only be given in mmol/mol.

Safe use of insulin

In April 2009, the National Clinical Director for Diabetes convened a meeting with key stakeholders to discuss the safe use of insulin, and to identify ways to reduce the number of insulin-related errors in hospitals and inpatient facilities.

The National Patient Safety Agency (NPSA) recorded over 13,000 incident reports relating to insulin between November 2003 and March 2009. Incident reports relating to insulin use were most frequently reported in the following categories:

- dose (strength/frequency)
- omitted medicine
- wrong medication
- wrong quantity
- wrong labelling.

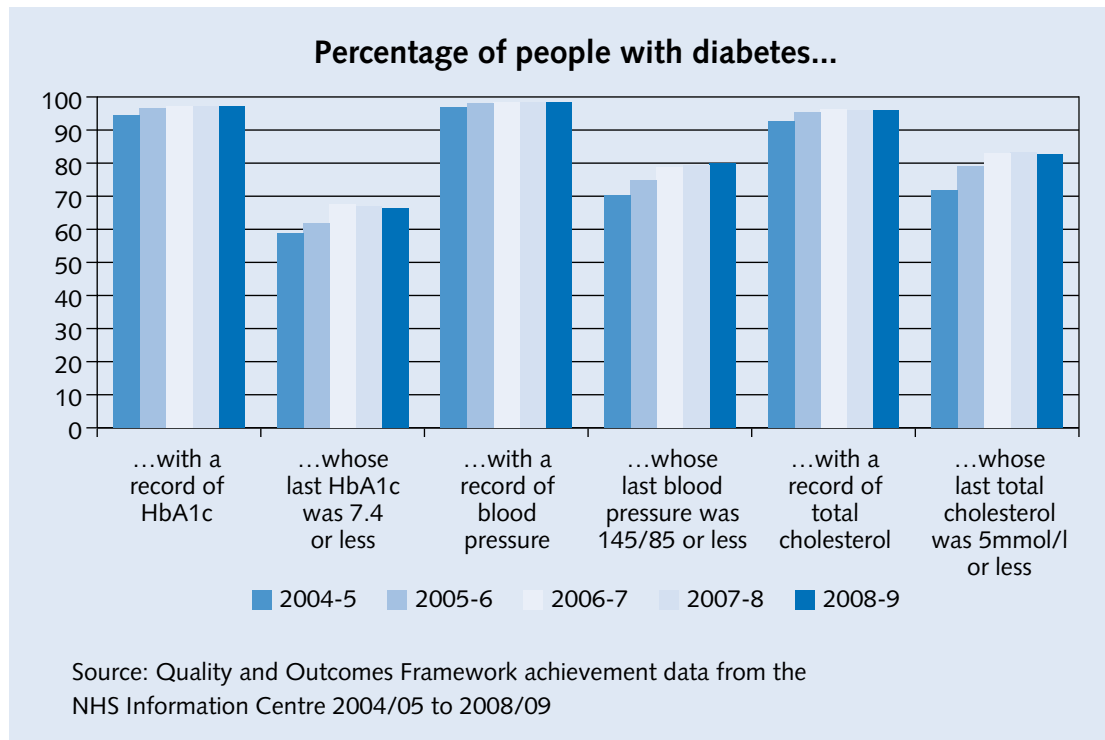
These incidents are often caused by:

- confusion over the use of 'u' and 'iu' for units
- confusion over 100 units/ml and the need to use an insulin syringe
- monitoring and dose adjustment
- misuse of insulin pens.

We are working with NHS Diabetes and the NPSA to develop a range of toolkits and best practice guidance to help improve the safe use of insulin.

Management of diabetes in primary care

We continue to see increases in the number of people with diabetes being identified and recorded on GP practice registers. Data from the Quality and Outcomes Framework (QOF) shows that we continue to make slight increases in the number of people achieving the lowest targets for blood pressure and cholesterol. It also shows there has been a small reduction in the number achieving the lowest target for HbA1c.

Figure 1: Trends in delivering key tests and measurements

It is good news that we are continuing to see improvements in some areas, but we cannot be complacent and there is more to do to ensure that improvements continue across all key tests and measurements.

Treatment of type 2 diabetes

NICE has updated their guidance on the management of type 2 diabetes (CG87).¹⁷ Alongside their strong recommendation on structured education, they also advocate starting medication with long-established drugs – metformin or sulfonylureas – in most cases before moving to newer drugs. We welcome this clear guidance, and would urge PCTs and clinicians to use it.

Insulin pumps

Updated NICE guidance¹⁸ (TA151) now says that:

“Continuous subcutaneous insulin infusion or ‘insulin pump’ therapy is recommended as a possible treatment for adults and children 12 years and over with type 1 diabetes mellitus if:

- Attempts to reach target haemoglobin A1c (HbA1c) levels with multiple daily injections result in the person having ‘disabling hypoglycaemia’, or

17 NICE, 2009, *Type 2 diabetes: newer agents for blood glucose control in type 2 diabetes*. <http://guidance.nice.org.uk/CG87/Guidance>

18 NICE, 2009, *Commissioning an insulin pump therapy service*. www.nice.org.uk/usingguidance/commissioningguides/insulinpumps/commissioning.jsp

- HbA1c levels have remained high (8.5% or above) with multiple daily injections (including using long-acting insulin analogues if appropriate) despite the person and/or their carer carefully trying to manage their diabetes.”

We would expect to see these recommendations applied to those patients to whom the criteria are clinically appropriate. The full guidance can be found on the NICE website at www.nice.org.uk

In February 2009, NICE produced a Commissioning Guide to support commissioning insulin pump services to tackle the regional variations in the provision of pumps. To further support the NICE guidance, the NHS Centre for Evidence-based Purchasing provided a Buyers' guide on Insulin Pumps (CEP08004).

The NHS Technology Adoption Centre has selected insulin pumps as part of its work programme, and is looking at ways to drive the uptake of this technology in the NHS. It is working with the NHS to consider ways in which a sustainable insulin pump therapy service can be established.

Whilst these initiatives are useful in developing a greater understanding of the barriers to the adoption of insulin pumps, we recognise there is more work to do to encourage an increase in uptake of insulin pump therapy.

5 Clinical care of children and young people with diabetes

Standard 5: All children and young people with diabetes will receive consistently high-quality care and they, with their families and others involved in their day-to-day care, will be supported to optimise the control of their blood glucose and their physical, psychological, intellectual, educational and social development.

Standard 6: All young people with diabetes will experience a smooth transition of care from paediatric diabetes services, whether hospital or community-based, either directly or via a young people's clinic. The transition will be organised in partnership with each individual and at an age appropriate to and agreed with them.

In March 2009, the Royal College of Paediatrics and Child Health (RCPCH) published *Growing up with Diabetes: children and young people with diabetes in England*¹⁹ – a research report on children and young people under the age of 18 in England who have diabetes. The project was a collaboration between the RCPCH, the British Society for Paediatric Endocrinology and Diabetes, the Association of Children's Diabetes Clinicians, NHS Diabetes and the National Diabetes Information Service – supported by the National Clinical Directors for Diabetes and for Children, Young People and Maternity Services at the Department of Health.

The project provided an important step towards providing the data to inform the commissioning of resources for diabetes care and drive service improvements. As well as establishing the total number of children and young people with diabetes, the project will inform the development of the next stage of the paediatric National Diabetes Audit (NDA) and discussions on the potential for a national register of childhood diabetes.

For the first time we know that there are 22,947 children and young people with diabetes in England. Of this number, 21,136 children and young people with diabetes gave the classification of their diabetes. The survey identified 20,488 classified as having type 1 diabetes, 328 as having type 2 diabetes and 320 as having other types of diabetes.

19 RCPCH, 2009, *Growing Up With Diabetes: children and young people with diabetes in England*. www.rcpch.ac.uk/Research/Research-Activity/Current-Projects/National-Diabetes-Survey

These data will enable local services to be appropriately commissioned and tailored to meet local needs.

Audit

The findings of the 2007/08 NDA for paediatrics²⁰ showed that only 17.73% of children and young people with diabetes, with an HbA1c measurement recorded, achieved the NICE recommended target of <7.5%. This is a small increase on the previous audit year (17.67%). Furthermore, nearly 30% of children and young people with diabetes have an HbA1c measurement of >9.5%.

These results prompted the National Clinical Directors for Diabetes and for Children, Young People and Maternity Services to issue a call for action to galvanise services to improve these results. Maintaining good glycaemic control is a fundamental part of diabetes care, and vital to preventing or delaying the complications of the conditions. NICE has issued guidance that clearly set out the standards expected in the care of children and young people with diabetes. All those involved in the care of this vulnerable group should urgently review how best to deliver these standards.

Insulin pumps

The updated NICE guidance²¹ now recommends insulin pump therapy as a treatment option for children under 12 years of age with type 1 diabetes, provided that:

- multiple daily injection (MDI) therapy is considered to be impractical or inappropriate, and
- children on insulin pumps would be expected to undergo a trial of MDI therapy between the ages of 12 and 18.

We welcome the recommendations made in the updated guidelines and would expect to see these recommendations applied to those patients to whom the criteria are clinically appropriate.

20 The NHS Information Centre, 2008, *National Diabetes Audit Executive Summary: Key findings about the quality of care for children and young people with diabetes in England and Wales – Report for the audit period 2007-2008*. www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/audit-reports/diabetes

21 NICE, 2008, *Continuous subcutaneous insulin infusion for the treatment of diabetes mellitus – Review of technology appraisal guidance 57*. www.nice.org.uk/nicemedia/pdf/TA151Guidance.pdf

Development of regional paediatric networks

To help address the regional variation in provision of care for children and young people with diabetes, NHS Diabetes has developed regional paediatric networks in each SHA area. The aim of the paediatric networks is to promote and co-ordinate best practice and service improvements.

It is anticipated that children and young people's diabetes services will be commissioned through regional Managed Clinical Care Networks. They will be commissioned to provide the care to specific service specifications in order to ensure that outcomes are improved.

Schools

The new Child Health Strategy,²² published in February 2009, announced a review of Managing Medicines in Schools. The aim of the review is to develop guidance relating to children with complex health needs as well as clear statements of expectations of different partners, including schools and PCTs. This guidance will be developed in consultation with expert organisations such as Diabetes UK.

The guidance is likely to be launched in the spring of 2010 and will be supported by an ongoing awareness-raising campaign, which will include a poster specifically for schools about diabetes.

22 Department of Health and Department for Children, Schools, and Families, 2009, *Healthy lives, brighter futures – The strategy for children and young people's health*. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_094400

Getting Sorted

In Yorkshire, a series of 'Getting Sorted' workshops are being held to offer advice and support to young people, aged 12–17 and living with diabetes or asthma, through a series of talking groups in secondary schools.

The groups were set up to give young people an opportunity to share their stories about what it is like to live with their condition. They focus on the impact that the condition has on a young person's life, and help young people to develop strategies and approaches to living with their condition. The project is based on three key principles:

- **Self-efficacy:** that young people should be encouraged to take responsibility for their lives and their conditions.
- **Empowerment:** that young people should be facilitated in developing knowledge, skills, understanding and motivation that will allow them to take responsibility for themselves.
- **Engagement:** that young people are engaged in managing their condition in a proactive way.

The workshops are delivered by young people with diabetes or asthma who have been trained in facilitation. Evidence suggests that this approach encourages participants to be more responsive to a facilitator with similar personal experiences.

Amy Towler, Getting Sorted facilitator, said: "We find that these sessions provide the first opportunity for young people with diabetes to speak to other young people with diabetes in a social environment. This brings them out of their shell and enables them to share their experiences."

For further information, please email Liz Webster, the Principal Researcher and Director of the Getting Sorted programme, based at the Carnegie Faculty of Sport and Education, Leeds Metropolitan University at: e.webster@leedsmet.ac.uk

6 Diabetic emergencies and inpatient care

Standard 7: The NHS will develop, implement and monitor agreed protocols for rapid and effective treatment of diabetic emergencies by appropriately trained healthcare professionals. Protocols will include the management of acute complications and procedures to minimise the risk of recurrence.

Standard 8: All children, young people and adults with diabetes admitted to hospital, for whatever reason, will receive effective care of their diabetes. Whenever possible, they will continue to be involved in decisions concerning the management of their diabetes.

Since the publication of the 2008 report *Improving emergency and inpatient care for people with diabetes*²³, NHS Diabetes has taken forward a range of initiatives to try to improve support for inpatient care and diabetic emergencies.

We know that more can be done to improve the quality of care that people with diabetes receive while in hospital, as well as improving the patient experience. It is important that all healthcare professionals have appropriate specialist training when caring for people with diabetes. To encourage this, the NHS Diabetes Inpatient project is developing, in conjunction with Warwick University, a web-based Inpatient Staff Training Package. The course has been designed to be either completed by individual students, or delivered in a group setting.

Plans were put in place to undertake the first ever inpatient diabetes audit. Led by NHS Diabetes, this work aimed to obtain an accurate record of the number of inpatients with diabetes. The study scheduled for September 2009 aims to answer the following key questions.

- Identify the number of inpatients with diabetes, particularly where diabetes is not the primary cause of admission.
- Identify the number of care errors and examine levels of patient satisfaction.

The results will be published in 2010.

23 National Diabetes Support Team, *Improving emergency and inpatient care for people with diabetes*. www.diabetes.nhs.uk/document.php?0=324

The innovative approach of the audit has attracted international attention, and all four UK countries have been included as pilots in the first audit to identify areas of additional learning.

It is hoped that the findings of the audit will raise awareness of the need for improved glucose management of inpatients with diabetes, and lead to reduced length of stay.

Diabetic emergencies

The number of emergency admissions relating to diabetic ketoacidosis and hypoglycaemia has been increasing. The reasons for this are not clear; it could be due to the increasing number of people with diabetes, or poorer levels of care.

NHS Diabetes is supporting the Joint British Diabetes Society in the development of a range of inpatient diabetes management best practice guidelines for ketoacidosis, hypoglycaemia and perioperative care.

7 Diabetes and pregnancy

Standard 9: The NHS will develop, implement and monitor policies that seek to empower and support women with pre-existing diabetes and those who develop diabetes during pregnancy to optimise the outcomes of their pregnancy.

In August 2008, the NHS Diabetes and Pregnancy Project Delivery Team was established to lead a programme of work looking at ways in which to improve outcomes for women with diabetes during pregnancy, including those who develop gestational diabetes. This group has representation from key stakeholders from the diabetes and obstetric communities.

At the end of 2008, a successful stakeholder event was held with over 100 delegates, including healthcare professionals and people with diabetes. The ideas generated at the event helped to identify the Task and Finish groups set up by the project. The following five areas are being taken forward:

- Development of a pregnancy dataset to support the National Diabetes Audit. This will help to identify the scale of the problem and support service improvement. This will be subject to ROCR approval.
- Support for the widespread use and acceptance of a template reflecting NICE guidance for hand-held notes for women with diabetes during pregnancy. This will ensure that both diabetologists and obstetricians have all the information relevant to the woman's pregnancy.
- Development of a pre-pregnancy care and commissioning pathway for the delivery of pre-conception care to women with type 1 and type 2 diabetes. This will support the NHS Diabetes commissioning guide for pregnancy.²⁴
- The Diabetes and Pregnancy Supporting Midwives group is working with the Royal College of Midwives to scope out the core competences required to develop a validated academic module with a collaborative higher education module.
- Diabetes Concept (a community pharmacy project) is piloting a care pathway that focuses on community pharmacists delivering pre-conception advice to all women aged between 16 and 45 years with pre-existing diabetes (as identified by dispensed medication) who are planning to start a family.

24 NHS Diabetes, 2009, *Commissioning for Pregnancy and Diabetes*. www.diabetes.nhs.uk/documentphp?0=540

At an event at the Royal College of Obstetricians and Gynaecologists in June 2009, the five Task and Finish groups gave updates on their individual projects to other interested groups. The event demonstrated the progress being made in all five work areas, which are on track to be completed by December 2010. If you are interested in finding out more, please contact Heather Stephens, the NHS Diabetes and Pregnancy Project Manager at: heather@innove.info

8 Detection and management of long-term complications

Standard 10: All young people and adults with diabetes will receive regular surveillance for the long-term complications of diabetes.

Standard 11: The NHS will develop, implement and monitor agreed protocols and systems of care to ensure that all people who develop long-term complications of diabetes receive timely, appropriate and effective investigation and treatment to reduce their risk of disability and premature death.

Standard 12: All people with diabetes requiring multi-agency support will receive integrated health and social care.

Although we are making good progress in identifying those at risk of developing type 2 diabetes, we are aware that some people with diabetes are still not receiving all nine of the NICE care processes. It is therefore vital that people with diabetes have access to all the key tests and measurements to prevent or delay the onset of long-term complications of the condition.

Diabetes and foot care

Diabetic foot complications can have devastating consequences for people with diabetes. If not identified and treated effectively, diabetic foot problems can result in amputation. Best practice guidance was developed by an expert group for Diabetes UK. Called *Putting feet first*,²⁵ the guidance was launched in June 2009 with NHS Diabetes. This guidance is aimed at commissioners to enable them to commission services in the management of diabetic foot care problems. NHS Diabetes is currently piloting the *Putting feet first* guidance with the aim of using the outcomes to encourage other NHS trusts to adopt this approach.

The expert foot care group is also working with Map of Medicine (a group producing guidance for primary care) to produce an algorithm for the prevention of diabetic foot problems.

25 Diabetes UK and NHS Diabetes, 2009, *Putting feet first: Commissioning specialist services for the management and prevention of diabetic foot disease in hospitals*. www.diabetes.org.uk/Professionals/Publications-reports-and-resources/Reports-statistics-and-case-studies/Reports/Putting-feet-first/

This addresses a key area of poor clinical outcome that in many cases results in amputations, extended lengths of stay and very poor patient experience. Effective management of diabetic foot care problems can help to reduce expenditure on foot care and amputations.

Diabetic retinopathy screening

The operating framework for the NHS in England 2010/11²⁶ contains an existing commitment: "100% of people with diabetes to be offered screening for the early detection (and treatment if needed) of diabetic retinopathy." The programme is expected to halve the rate of blindness in working adults. England, alongside the other UK countries, leads the world and this is the first time a population-based screening programme has been introduced on such a large scale.

The number of people with diabetes who are offered screening for diabetic retinopathy continues to rise and by September 2009, over 2 million people with diabetes (96.1%) had been offered it. The number of people with diabetes receiving screening is also increasing. This, in the context of an ever-increasing number of people with newly-diagnosed diabetes, represents an ongoing achievement for the NHS.

The Department of Health and the English National Screening Programme for Diabetic Retinopathy are working closely with SHAs and PCTs to continue to improve the quality of screening programmes. A schedule of external quality assurance programmes began in 2008. Almost two-thirds of programmes have been visited by peer review teams. A number of major problems have been identified and many visits have resulted in action plans being developed to achieve the major turnaround of failing or poorly performing services, improved commissioning and governance arrangements, and much more joined-up approaches by providers.

	Number of people with diabetes	Number of people with diabetes offered screening	Number of people with diabetes receiving screening
March 2008	2,087,027	1,769,038	1,318,528
March 2009	2,212,591	2,009,474	1,539,384
September 2009	2,259,853	2,042,944	1,587,458

26 Department of Health, 2009, *The operating framework for the NHS in England 2010/11*. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_110107

9 Further resources

This report gives an overview of the progress that has been made since the publication of *Five Years On: Delivering the Diabetes National Service Framework*. It makes reference to the achievements that have happened during the period August 2008 to August 2009. The report refers to tools and guidance that are available to support the NHS in delivering specific areas of the National Service Framework. These can be found on the websites of NHS Diabetes:

www.diabetes.nhs.uk

or the Department of Health:

www.dh.gov.uk/en/Healthcare/NationalServiceFrameworks/Diabetes

The Yorkshire and Humber Public Health Observatory (YHPHO) also provides a range of tools and datasets relating to diabetes:

www.yhpho.york.ac.uk/diabetesdd/introddd.asp

For people with diabetes, Diabetes UK's website remains a comprehensive source of information. It can be accessed at:

www.diabetes.org.uk

The NHS Choices website has been developed to support the public in accessing information about health-related matters, including information on healthy living and on specific conditions and diseases. The interactive NHS guide on diabetes can be found at:

www.nhs.uk/Pathways/diabetes



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