

Health and Social Care Committee

Inquiry into the implementation of the National Service Framework for diabetes in Wales and its future direction

DB 6 Public Health Wales and 1000 Lives Plus



Public Health Wales welcome the opportunity to respond to the request of the Health and Social Care Committee, National Assembly for Wales for comments on the implementation of the National Service Framework for diabetes in Wales¹ and its future direction.

Public Health Wales was established as a NHS Trust on 1 October 2009 and provides an expert public health resource as part of the NHS in Wales. Public Health Wales works in partnership with a number of key organisations, which include the Welsh Government, Health Boards, NHS Trusts, Local Authorities, Universities and Third sector bodies.

Diabetes can have a significant impact on the quality of life of an individual, their dependents and family. Long term complications may include cardiovascular disease, neuropathy, retinopathy and nephropathy.

The National Diabetes Inpatient Audit² is commissioned by the Healthcare Quality Improvement Partnership. The report provides evidence against the National Service Framework (NSF) for diabetes (Wales)¹ standard 8, which outlines the requirement for all patients with diabetes admitted to hospital to receive effective care for their diabetes and be involved in decisions on the management of their diabetes. It also provides information for the NSF standards 10, 11 and 12 which aim to minimise the impact of long term complications of diabetes by early detection and effective treatment.

The results, published in 2012, illustrate that there are problems with the implementation of some of the NSF standards for diabetes.

- The audit shows that 37.1% of diabetes consultant's time is spent on the care of people with diabetes with only 13.7% on inpatient care.

- The majority of sites (55.6%) stated that they did not have any specialist dietician time for inpatient care for people with diabetes.
- There is a recommendation for the provision of a multidisciplinary foot care team. Of the 17 sites that provided an answer to the hospital characteristics information regarding the multi-disciplinary team 9 did not have a multi-disciplinary team (52.9%)
- Only 13.3% of patients included in the audit had a documented foot examination at any time during their hospital stay.
- More than a quarter (29.8%) of patients included in the audit experienced at least one medication error while in hospital. 16.6% of patients experienced at least one prescription error and 17.8% of patients experienced a medication management error.
- The most common prescription error was for insulin prescriptions where the insulin was not signed as being given. The most frequent medication management error was failure to adjust medication when the blood glucose was persistently greater than 11mmol/L and lower blood glucose levels would have been beneficial.

The National Diabetes Audit (NDA) 2010-2011, Report 1: Care Processes and Treatment Targets³ includes data from both primary and secondary care. In 2010-2011, 85,176 patients and 49.4 % of GP practices in Wales participated. The report presents key findings on care processes and treatment target achievement rates from 2010-2011 in all age groups.

In Wales the audit reported that 60.0% of people with diabetes had records showing all nine 'core care' checks as advocated by the National Institute for Clinical Excellence (NICE)^{4,5} had been completed although variation was seen between Health Boards and amongst the individual checks performed. NICE specifies treatment targets for HbA1c (glucose control), blood pressure and cholesterol based on the best current evidence. Achieving these treatment targets minimises the risk of future diabetic complications such as blindness, kidney failure, amputation, heart disease and stroke.

- 65.1% of patients had an HbA1c $\leq$ 7.5% (58 mmol/mol).
- 77.7% of patients had had a cholesterol <5 mmol/l.
- 33.9% cent of patients had blood pressure control within NICE recommended targets.

- 18.5% of patients had Hb1Ac, cholesterol and blood pressure within the target ranges above.

The diabetic retinopathy screening service is an important element in managing risk of sight loss. It is important that this service continues to demonstrate performance against the National Screening Committee key performance indicators.

Although a great deal of work is already being undertaken across the population in Wales, many cases of diabetes remain undiagnosed and as demonstrated in the national audit there is still significant room for improvement. The report identifies variation and highlighted four areas that commissioners and all providers of diabetes care should prioritise for improvement; the organisation and recording of annual reviews, the effectiveness of glucose control and cardiovascular risk reduction, services for people with Type 1 diabetes and services for younger people with both Type 1 and Type 2 diabetes.

Diabetes in Wales is almost twice as high in the most deprived areas compared to the least deprived.⁶ An increased prevalence of diabetes and poorer health outcomes is found in areas of social deprivation. Many areas of Wales therefore face significant challenges in moving forward the diabetes agenda, preventing development of diabetes, identifying and treating people with undiagnosed diabetes and reducing the incidence of complications that arise from poorly controlled diabetes. Amongst other considerations, people living in areas of social deprivation are less likely to eat a healthy, balanced diet.

Obesity is also an important determinant of Type 2 diabetes. Type 2 diabetes is usually associated with people aged over the age of 40, although it is becoming increasingly common in children and young people. A recent Welsh survey⁷ reported that whilst a high proportion of children were reported to have very good or good general health, over a third were estimated to be overweight or obese. Preventing diabetes in younger people would improve health and wellbeing, avoiding the additional complications that diabetes can bring as well as having the potential to reducing the burden on resources.

Future Direction

It is imperative that driving forward the diabetes agenda is integrated into routine working practice. An emphasis on continuous improvement, quality service provision, improved user experience and public health outcomes as seen in the draft Cardiac Delivery Plan that is currently

subject to consultation⁸ would assist and support delivery and action towards achievement of diabetes action planning.

A diabetes delivery plan for Wales will need to incorporate actions to aid detection and prevention whilst providing support to those already living with diabetes through informative, effective and timely care. Access to and sharing of quality information is vital to the successful improvement of services for people with diabetes. Activity must also focus on narrowing the gap between the most and least deprived areas of local populations.

Enabling a healthier environment and supporting the population to make informed healthier choices is vital to move forward diabetes care in Wales. The importance of school and the workplace environment in facilitating healthy behaviour and lifestyle changes is also recognised and supported by Public Health Wales through local and national programmes and health improvement initiatives.

Collaborative partnership working and addressing key priorities as identified in the national audit will provide a firm foundation to build on and are fundamental to taking forward implementation of the diabetes agenda, assisting the prevention of further complications and evidence based utilisation of resources. Public Health Wales already has in place strong local and national teams and partnerships that can support this journey to achieve quality and excellence.

1. National Service Framework for Diabetes (Wales) 2003

2. National Diabetes Inpatient Audit 2011

3. National Diabetes Audit 2010-2011-Report1: Care Processes and Treatment Targets

4. National Institute for Health and Clinical Excellence Clinical Guidance on Diabetes CG15: Type 1 diabetes: Diagnosis and management of type 1 diabetes in children, young people and adults

5. National Institute for Health and Clinical Excellence, CG66 Type 2 diabetes: the management of type 2 diabetes (update)

6. Diabetes in the UK 2010: Key statistics on diabetes 2010

7. Welsh Health Survey 2011: Initial Headline Results May 2012. Welsh Government

8. Together For Health – A Cardiac Delivery Plan A Delivery Plan up to 2016 for NHS Wales and its Partners 2012. Consultation document; Welsh Government

1000 Lives Plus

Situation

This paper provides the response by 1000 Lives Plus to the National Assembly for Wales' Health and Social Care Committee inquiry into the implementation of the national service framework for diabetes in Wales and its future direction.

The response is pertinent to the Committee's consideration of potential future actions that are required to drive this agenda forward.

1000 Lives Plus would be prepared to give oral evidence at the inquiry.

Background

1000 Lives Plus is the national improvement programme, supporting organisations and individuals, to deliver the highest quality and safest healthcare for the people of Wales. The programme is focussed on building capacity in improvement skills and sustaining and spreading improvements. It supports frontline staff across Wales through evidence-based 'programme areas' and provides clinical leadership through its Faculty. It is committed to engaging patients and students in improvement work and promotes an internationally-recognised quality improvement methodology¹. There is significant work underway in primary care, led jointly with the Primary Care Quality and Information Service (PCQIS).

To provide high quality diabetes care, NICE guidance and the National Service Framework standards (NSFs) provide a strong evidence base for the delivery of effective care to people with diabetes. The NSFs provide a strong evidence base for what works.

However, the evidence shows that NSFs in general are not effective instruments of change. They set out what should be done but are not suited, of themselves, to deliver those ends. It is therefore not altogether surprising that The National Diabetes Inpatient Audit 2011 identified continued failings in areas which NSFs had previously identified as important:

¹ 1000 Lives Plus. (2011) *The Quality Improvement Guide: A method for improving public services in Wales*.

- staffing and who is looking after the person with diabetes in hospital
- the impact of medication errors
- deficiencies in foot care².

Assessment

The unsuitability of NSFs and many care pathway documents to drive change is underpinned by research led by Trisha Greenhalgh. She researched the determinants of effective changes in healthcare and summarised those characteristics as follows³:

- *It must have clear relative advantage.* The people or teams (users) who are asked to make the change part of their work must be able to see that the new method is likely to be better.
- *It must have compatibility with the user's values and ways of working.* If users find it hard to incorporate the new method, they are unlikely to do so.
- *Complexity must be minimised.*
- *Users will adopt more readily if innovations allow trialability.* Can it be tested on a small scale to allow learning and familiarity before full commitment?
- *There must be observability, that is, it must be seen to deliver benefit.* If benefits are obscure or they take a long time coming, energy will be lost.
- *Reinvention is the propensity for local adaptation.* This is the key to sustainability. A good improvement must be subsumed into the changing system and not preserved like a museum piece.

Most NSF documents fail all six characteristics. But NSFs and their associated audits can supply the evidence base to support a change initiative using improvement methodology such as that of 1000 Lives Plus. This incorporates the Model for Improvement and the use of PDSA cycles to track improvements over time; using process and outcome data for improvement, not judgement accountability or comparison. Process measures enable organisations to control variation and ensure reliability

²Health and Social Care Information Centre. (2012) *National Diabetes Inpatient Audit 2011*.

³ Greenhalgh, T., Robert, G., Bate, P., Kyriakidou, O., Macfarlane, F. & Peacock, R. (2004). How to spread good ideas. *A systematic Review of the literature on diffusion, dissemination and sustainability of innovations in health service delivery and organisation*. NHS Service Delivery Organisation: London.

in their processes. Outcome measures reflect the impact on the patient or system and show the end result of an organisation's improvement work.

This approach has delivered a number of benefits in Wales⁴, including:

- The number of central venous catheter related blood stream infections has fallen to a rate of less than one case per 1000 catheter days in seventeen intensive care units across the country⁵.
- A zero tolerance approach to pressure ulcers and the implementation of the SKIN bundle is continuing to deliver significant results, with many hospital wards across Wales going more than a year without a single incident.
- Acute stroke services across Wales deliver reliable care by measuring adherence to evidence based "bundles" of care. There are now demonstrable improvements in stroke survival which are associated with this approach.

The work programme for 1000 Lives Plus is based on the evidence of need and the potential to deliver change. Its priorities align with the national needs of the Quality Delivery Plan and the local needs of service delivery plans. National collaborative programmes reflect NHS Wales' priorities and connect to Board agendas. Moving forward, 1000 Lives Plus governance and priorities will be led by the NHS and, if CEO's approve, the improvement methodology could be applied to diabetes care.

The inclusion of the diabetes NSF would be complementary to the work and approach taken by PQUIS as part of 1000 Lives Plus. There is also a complementary initiative by therapists in Wales who would like to reduce unnecessary amputations in Wales through a structured approach to peripheral arterial disease and diabetes. This could be usefully incorporated into a future 1000 Lives Plus programme.

Recommendations

The NSFs provide the evidence base for required improvement. Organisations need to improve diabetes care if excess hospital length of stay, long term complications, avoidable patient morbidity and mortality are to be addressed.

⁴ www.1000LivesPlus.wales.nhs.uk

⁵ Welsh Healthcare Associated Infection Programme

1000 Lives Plus could provide a national methodology to implement the evidence-based changes in diabetes care outlined in the NSFs and demonstrate a measurable improvement in the care provided. Working with PCQIS, this approach would require approval by Health Board and Trust CEOs and be prioritised as a programme of work in the next financial year (2013-2014).