DIABETES UK

DEALL DIABETES. BRWYDRO DIABETES.
KNOW DIABETES. FIGHT DIABETES.

CYMRU

# The state of the nation 2019

## A review of diabetes services in Wales

# Contents



Published December 2019

# A word from our National Director

**Like many, my relationship with diabetes is personal. When I joined Diabetes UK 11 years ago, my wife had been diagnosed with Type 2 diabetes and our son was almost lost to a late diagnosis of Type 1 diabetes. Like many of us, prior to this I had little understanding of how devastating diabetes can be.**

However, most complications of diabetes can be avoided if people are able to manage their condition well. Helping people to do this, and helping others prevent or delay the onset of Type 2 diabetes, has to be the priority for all, whether we are healthcare professionals, politicians, campaigners or public health professionals.

Since 2011 Wales has had a National Service Framework, an inquiry from the Health, Social Care and Sport Committee and two subsequent Diabetes Delivery Plans (DDPs), all designed to improve services and the overall health of people living with diabetes.

The last 10 years have seen many great improvements to diabetes care in Wales: the formation of the Children & Young People's Welsh Diabetes Network (CYPWDN), the paediatric peer review, securing the availability of Flash glucose monitoring through NHS Wales to name but a few. The inquiry in 2013 felt like a turning point: we had a new DDP which aimed to learn from past failures. We also had a new diabetes clinical lead, a new electronic management system in the pipeline, and the All Wales Diabetes Implementation Group (AWDIG) to ensure successful implementation. These were positive times.

Yet countless issues remain to be challenged. To many health boards in Wales, diabetes is still the preserve of acute care, dealt with by hospitals which are fire-fighting complications. This approach fails to support the 85% of people with diabetes who are treated by their local GP, and does little to prevent complications developing in the first place. In 2019, Wales is now the only UK nation without a Type 2 Diabetes Prevention Plan.

Diabetes accounts for 10% of NHS Wales' budget and the current DDP ends in December 2020. We must now reflect on how far we have come, and the work left to do.

My greatest disappointment has been with the implementation committee and its leadership. The AWDIG has not monitored the progress of health boards. As a result, we have let down the diabetes community in Wales and the hard-working health care professionals that care for them.

**Dai Williams**
National Director Wales

# The state of diabetes services and care in Wales

**The new diabetes prevalence model produced by PHE National Cardiovascular Intelligence Network (NCVIN) estimates the total number of adults with Type 1 and Type 2 diabetes.**

There is a diabetes epidemic in Wales. There are more than 194,000 people over the age of 17 diagnosed with diabetes and, we estimate, a further 61,000 people living with undiagnosed Type 2. This takes the total number of people living with diabetes in Wales now to over 250,000

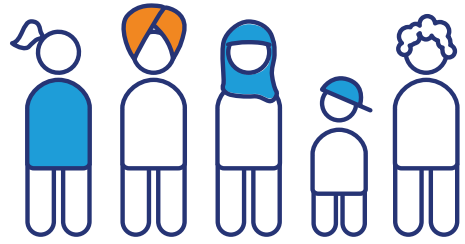
It is not just the raw figures that are concerning. Wales' prevalence as a proportion of its population is 7.4% - the highest in the UK and Western Europe.

This table shows prevalence by nation amongst adult (>17y/o) population[1]

The number of people with diabetes has been steadily increasing and has doubled in the last 20 years. NHS Wales estimates 11% of our adult population will have the condition by 2030[2]. This is mainly a result of the drastic increase in Type 2 diabetes.

**This is unsustainable, both for our health service and wider society.**

| Nation | Diagnosed 2015-16 | Diagnosed 2016-17 | Diagnosed 2017-18 | Population total | Percentage of population |
|---|---|---|---|---|---|
| England | 3,033,529 | 3,116,399 | 3,222,559 | 47,390,573 | 6.8% |
| Northern Ireland | 88,305 | 92,480 | 96,114 | 1,550,225 | 6.2% |
| Scotland | 280,023 | 289,040 | 295,753 | 3,996,662 | 7.1% |
| Wales | 188,644 | 191,590 | 194,693 | 2,617,813 | 7.4% |
| **UK total** | **3,590,501** | **3,689,509** | **3,809,119** | **56,016,455** | **6.8%** |



**Diabetes UK Cymru estimates that 250,000 people are now living with diabetes in Wales**

There is growing variation in prevalence across health boards. The range across Wales is now at 1.9%, with the highest in Aneurin Bevan UHB and the lowest in Cardiff and Vale UHB.

One factor in the increasing prevalence of diabetes, and the variance of prevalence across geographic area, is social inequality:

*…social inequalities in hyperglycaemia exist, additional to well-known demographic… risk factors for diabetes*[3]

There is strong evidence for the socioeconomic patterning of the major known risk factors for Type 2 diabetes in the UK[4]

| Local Health Board name | All ages | Ages 17+ | Register | Prevalence (% 17+ age specific) |
|---|---|---|---|---|
| Abertawe Bro Morgannwg University Health Board | 551,878 | 449,716 | 34,272 | 7.6% |
| Aneurin Bevan University Health Board | 614,185 | 492,860 | 39,670 | 8.0% |
| Betsi Cadwaladr University Health Board | 709,365 | 575,650 | 41,903 | 7.3% |
| Cardiff and Vale University Health Board | 515,581 | 415,153 | 25,492 | 6.1% |
| Cwm Taf University Health Board | 306,997 | 246,130 | 19,536 | 7.9% |
| Hywel Dda University Health Board | 393,877 | 322,775 | 25,074 | 7.8% |
| Powys Teaching Health Board | 139,434 | 115,528 | 8,746 | 7.6% |
| **Wales** | **3,231,317** | **2,617,813** | **194,693** | **7.4%** |

# The true cost of diabetes

**The cost of diabetes is the devastating and expensive complications that can occur. The risk of developing complications is significantly higher if management of the condition has been poor.**

Diabetes can put people at higher risk of a range of complications, including heart disease, stroke, amputation, kidney disease and blindness[5].

When we talk about the cost of diabetes, we also mean its effect on people's quality of life.

The total cost of prescriptions to NHS Wales has almost doubled in the last decade[6]. Almost 1 in 20 prescriptions written by GPs is now for diabetes treatment[7].

Drug costs have not risen significantly during this period[8], which suggests that the increasing number of prescriptions for diabetes is due to increasing numbers of people diagnosed with Type 2 diabetes. Type 2 diabetes affects around 90% of diabetes patients and the number of people with Type 2 diabetes has doubled in the last 20 years[9].



"When I was diagnosed with diabetes, I failed to get the right support to manage my condition, and as a result I buried my head in the sand. In October 2017 I had a pulmonary embolism across both lungs, and after being rushed into hospital, the consultant told my wife that if I didn't respond to treatment within two hours, I wouldn't survive.

I just remember thinking; I'm not ready for this and neither are my family. I almost died from a complication of not managing my diabetes. We have to do more to prevent people from developing these complications. We need to help people understand the risks and the tools to live well with diabetes."

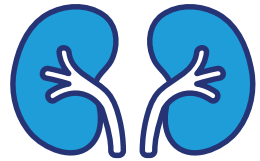
**John Lewindon, Diabetes UK volunteer**

**80%** of NHS spending on diabetes is spent on **managing complications**

lower limb amputations

heart attacks or heart failure

strokes



renal replacement therapy

It is estimated that NHS Wales' expenditure on diabetes equates to approximately 10% of its total spend[10], or approximately £500 million per year[11].

Figures suggest that the rates of diabetes will continue to rise, as will the costs. NHS Wales estimates 11% of our adult population will have the condition by 2030[12].

**This is unsustainable.**

Unless we change the way healthcare is delivered then services will suffer[13]. Increasing prevalence and costs could cripple our health service.

NHS Wales must focus on shifting to preventative, value-based models of healthcare and increase work on preventing Type 2 diabetes.

## Recommendation

**Welsh Government, Public Health Wales and NHS Wales must work together to deliver a Diabetes Prevention Plan in line with developments in England and Scotland. Elements of Type 2 prevention should also be present in the next plan for delivering diabetes service.**

## Heart disease and stroke

Every week diabetes causes 530 heart attacks and 680 strokes in the UK[14]

Compared to people without diabetes, people with Type 2 diabetes are:

- Nearly two and a half times more likely to have a heart attack.
- More than two and a half times more likely to experience heart failure.
- Twice as likely to have a stroke.

One quarter of people who end up in hospital because of a stroke, heart attack or heart failure have diabetes[15]

These complications are devastating. We must do more to reduce the risk for people who live with diabetes. This can only be achieved with preventative measures and better support for people to manage their condition.

## Footcare

From patient data and evidence from clinical studies, we estimate that the cost of foot ulceration and amputation in people with diabetes in 2014 to 2015 represents approximately 0.8% to 0.9% of the NHS budget alone[16].

Expenditure on diabetic foot care accounts for more than the cost of breast, prostate and lung cancers combined[17].

**The following tables show separate England and Wales data using SINBAD scoring.**

**Major amputations within six months of first expert assessment, England, 2015-18 (rounded1)**

| Patient having | **All ulcers** (22,870 patients) | | **Less severe ulcer** SINBAD 0-2 (12,470 patients) | | **Severe ulcer** SINBAD 3+ (10,400 patients) | |
|---|---|---|---|---|---|---|
| | **Number** | **%** | **Number** | **%** | **Number** | **%** |
| One or more major amputation (above the ankle) | 355 | 1.6 | 85 | 0.7 | 275 | 2.6 |

**Major amputations within six months of first expert assessment, Wales, 2015-18 (rounded1)**

| Patient having | **All ulcers** (1,335 patients) | | **Less severe ulcer** SINBAD 0-2 (740 patients) | | **Severe ulcer** SINBAD 3+ (595 patients) | |
|---|---|---|---|---|---|---|
| | **Number** | **%** | **Number** | **%** | **Number** | **%** |
| One or more major amputation (above the ankle) | 30 | 2.2 | 5 | 0.7 | 25 | 4.2 |

**Notes: 1.** All non-zero counts have been rounded either to five (1-7) or to the nearest five.
All percentages have been calculated using rounded figures. The sum of percentages may not equal 100.

Ulceration equated to 90% of this cost. Analysis suggests this was linked to increased length of stay, which was 8.04% days longer than for diabetes-related admissions without ulceration.

The Site, Ischemia, Neuropathy, Bacterial Infection and Depth (SINBAD score[18]) may prove useful in predicting ulcer outcome and enabling comparison among different centres.

There is a significant difference in major amputation rates between England and Wales for all ulcers and severe ulcers. While total numbers of amputations are low, as a percentage Wales is not as effective as England in preventing amputations.

According to NDA data, between 2013/2014 and 2017/2018, performance on foot surveillance in Wales has fallen from 64.0 to 56.9 for Type 1 diabetes, and 83.2 to 74.8 for Type 2 diabetes.

## Kidney disease (nephropathy)

Kidney disease in diabetes develops slowly over many years. It is most common in people who have had diabetes for over 20 years[19]. About one in three people with diabetes could go on to develop kidney disease[20].

Kidney disease has a huge impact on the lives of people living with diabetes. It causes low self-esteem, reduced quality of life and depression, which is associated with increased risk of mortality[21]. Life on dialysis can affect people's social lives, relationships and ability to work.

Kidney failure, or end-stage renal disease (ESRD), is the most severe stage of kidney disease. Diabetes is the most common cause of kidney failure.

**People with diabetes are five times more likely to need either kidney dialysis or a kidney transplant.**

## Kidney disease in people living with diabetes can be expensive.

Kidney disease in diabetes is expensive. The costs of diabetes-related ESRD is estimated as £1 in every £77 of NHS expenditure, these costs are expected to rise as prevalence of Type 2 diabetes increases [22].

Early detection through microalbuminuria screening and the cost-effective therapies will improve kidney outcomes in people living with diabetes. Raising awareness among people with diabetes and healthcare professionals in primary care is essential.

Urine albumin testing for Type 1 has fallen from 59.2% to 35.1% and for Type 2 82.9% to 56.9% for the period 2013-2014 to 2017-2018 a fall of approximately 25%.

## Eye conditions and diabetic retinopathy

Diabetes is the leading cause of preventable sight loss in the UK[23]. High levels of glucose in the blood damages the blood vessels. And there are lots of blood vessels in your eyes.

Living with diabetes increases the risk of developing glaucoma by one and a half times and makes someone two and a half times more likely to develop cataracts[24]. These conditions can lead to blindness. Losing your sight can affect your career, family life and independence.

Wales has developed a high quality, national diabetes eye screening programme, Diabetes Eye Screening Wales (DESW). The current aim is that people with diabetes should have their eyes screened every 12 months. When problems are identified patients are referred to their nearest ophthalmology department for treatment.

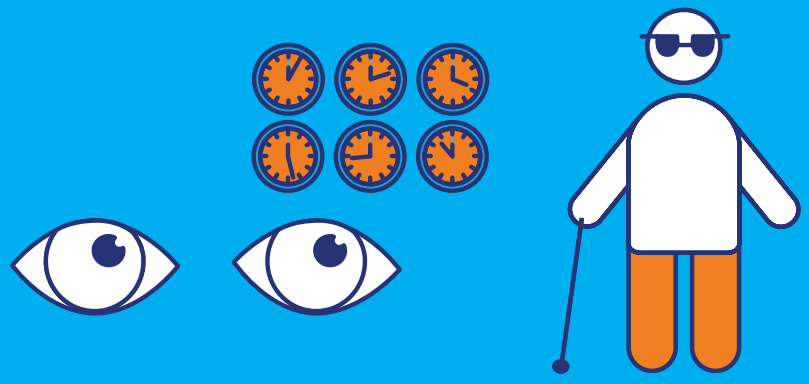
As of June 2019, all health boards are required to publicly report against the new Eye Care Measures for NHS Outpatients in Wales. The measures were designed by NHS consultants and RNIB Cymru, based on priority and urgency of care. All new and follow-up patients are clinically prioritised based on their condition and given a target date for when they should be seen. The aim is to cut waiting times and make sure patients most at risk of sight loss receive the care and treatment they need. Wales is the first UK nation to introduce such measures for eye care patients and this is the first data to be published.

In June 2019, we learnt that nearly 35,000 patients at the highest risk of sight loss were waiting too long for their appointments. Thousands are at real risk of going blind because they aren't getting treatment at the right time. If people are unable to get timely treatment, the benefits from the screening under the DESW are effectively obsolete.

## Mortality

People living with diabetes are at an increased risk of dying early[25]. This is mostly as a result of diabetes-related complications.

Supporting people to stay healthy with diabetes requires ongoing, consistent management. Annual diabetes checks and jointly agreed care plans are vital to this.



Nearly **35,000 patients** at the highest risk of sight loss were waiting too long for their appointments. **Thousands** are at real risk of going blind because they aren't getting treatment at the right time.

# National diabetes audits

**The National Diabetes Audit (NDA) is a major national clinical audit which measures the effectiveness of diabetes healthcare against NICE Clinical Guidelines and NICE Quality Standards in England and Wales. It is delivered by NHS Digital in partnership with Diabetes UK. It collects and analyses data and produces reports for stakeholders to use to drive change and improve the quality of services and health outcomes for people with diabetes. It provides a wealth of information on the quality and variability of services.**

NDA data shows only 24.7% of people with Type 1 diabetes and 45.9% of people with Type 2 diabetes received all eight care processes in 2017-2018[26], demonstrating the scale of work still needing to be undertaken.

**Several audits can give us an insight into diabetes care in Wales:**

**National Diabetes Core Audit (NDA):** An annual audit of primary care and specialist diabetes services covering care processes, treatment targets, complications and mortality. The NDA 2017-18: Care Processes and Treatment Targets Full Report and the Wales Interactive Report can both be found at: *https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-audit/report-1-care-processes-and-treatment-targets-2017-18-full-report*

**National Diabetes Inpatient Audit (NaDIA)**: A snapshot audit of every hospital covering inpatient care of people with diabetes. The NaDIA 2017 report can be found at: *https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-inpatient-audit/national-diabetes-inpatient-audit-nadia-2017*

**National Pregnancy in Diabetes (NPID) Audit**: Examines pre-conception and antenatal care for women with pre-gestational diabetes and outcomes for women and babies. The 2016 NPID report can be found at: *https://digital.nhs.uk/data-and-information/publications/statistical/national-pregnancy-in-diabetes-audit/national-pregnancy-in-diabetes-annual-report-2016*

**National Diabetes Foot care Audit (NDFA):** Collects data about specialist foot care services for people with diabetes. The 2014-17 NDFA report can be found at: *https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-footcare-audit/2014-2018*

**National Diabetes Transition Audit (NDTA):** A joint initiative linking the NDA and National Paediatric Diabetes Audit (NPDA) datasets to measure whether young people experience a smooth transition of care from paediatric to adult diabetes services. The 2011-18 NDTA report can be found at: *https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-audit/transition-report-14-16*

**National Insulin Pump Audit:** Collects data on the number and characteristics of people going on insulin pump, the reasons for doing so and the outcomes achieved since starting. The 2016-17 Insulin Pump report can be found at: *https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-audit/insulin-pump-report-2016-17*

According to NICE, all people with diabetes aged 12 and over should receive all nine recommended care processes and attend a structured education programme shortly after diagnosis.

**Responsibility of diabetes care providers (comprising the NDA eight Care Processes)**

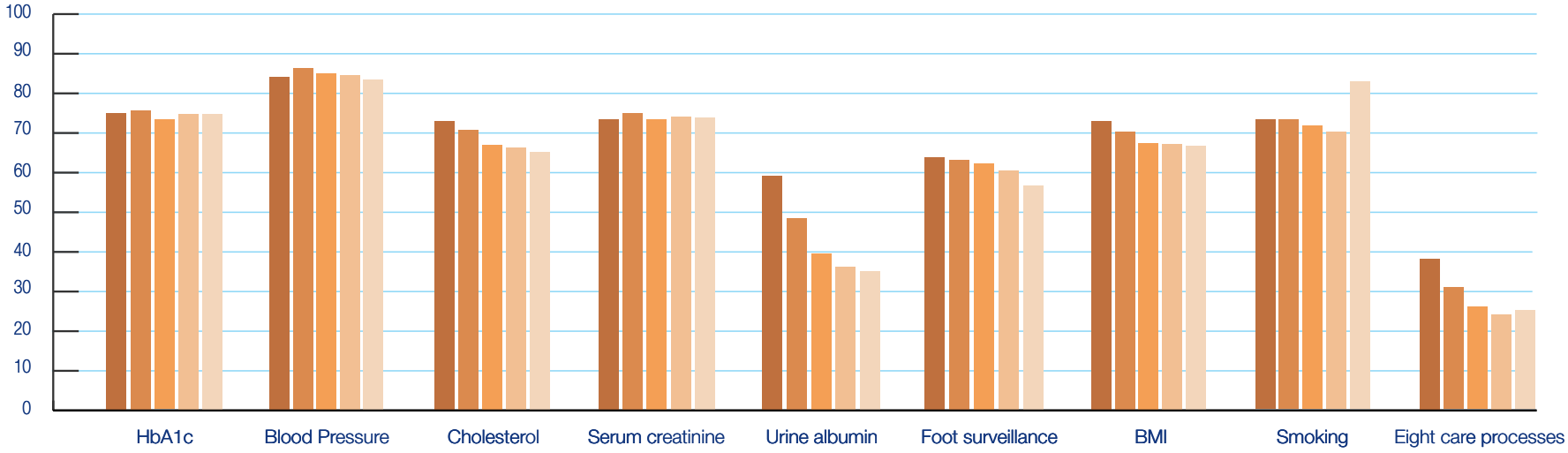
1. **HbA1c**
   (blood test for glucose control)
2. **Blood Pressure**
   (measurement for cardiovascular risk)
3. **Serum Cholesterol**
   (blood test for cardiovascular risk)
4. **Serum Creatinine**
   (blood test for kidney function)
5. **Urine Albumin/Creatinine Ratio**
   (urine test for risk of kidney disease)
6. **Foot Risk Surveillance**
   (examination for foot ulcer risk)
7. **Body Mass Index**
   (measurement for cardiovascular risk)
8. **Smoking History**
   (question for cardiovascular risk)
9. **Digital Retinal Screening**
   (photographic eye test for early detection of eye disease)[27]

## National Diabetes Core Audit (NDA)

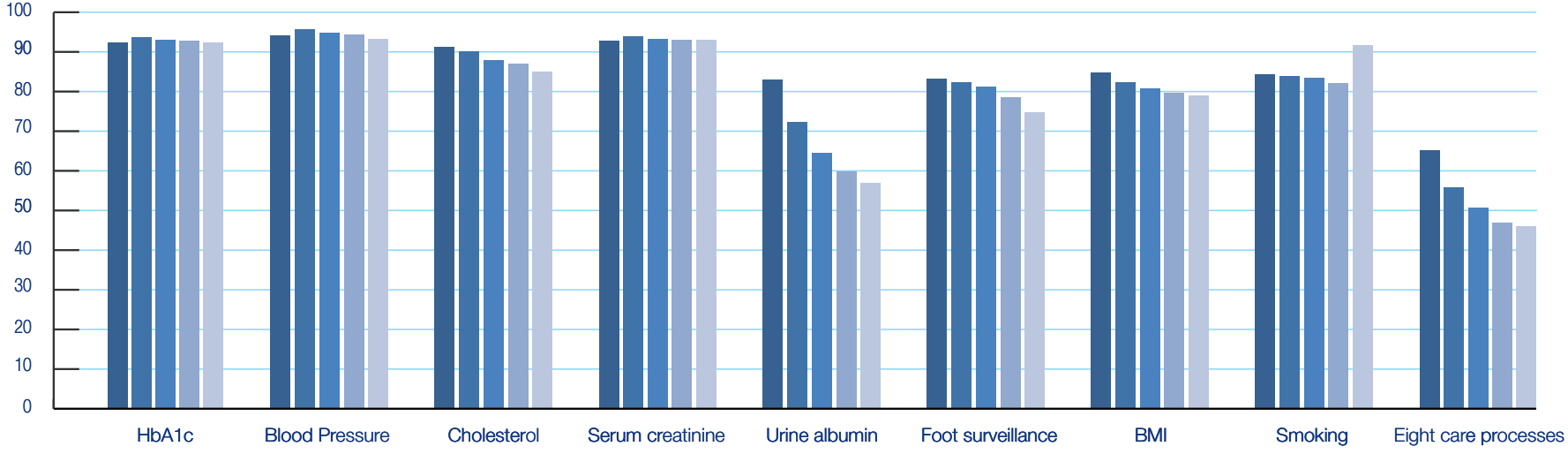
The Core Processes and Treatment Targets Audit is the clearest example of measurable performance in the area where the most significant levels of care are provided. Approximately 85% of all diabetes care is undertaken within primary care by GPs and Practice Nurses.

| | Type 1 | | | | | | Type 2 and other | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | TREND | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | TREND |
| | NSF | | DDP | | | | NSF | | DDP | | | |
| HbA1c | 74.9 | 75.6 | 73.3 | 74.7 | 74.7 | 0.2 | 2.3 | 93.6 | 92.9 | 92.8 | 92.4 | 0.1 |
| Blood Pressure | 84.2 | 86.5 | 85.2 | 84.8 | 83.5 | **-0.7** | 94.2 | 95.7 | 94.9 | 94.4 | 93.3 | **-0.9** |
| Cholesterol | 73 | 70.9 | 67 | 66.3 | 65.2 | **-7.8** | 91.3 | 90.1 | 87.9 | 86.9 | 85.1 | **-6.2** |
| Serum creatinine | 73.4 | 74.9 | 73.5 | 74 | 73.8 | 0.4 | 92.7 | 93.9 | 93.3 | 93.1 | 92.9 | 0.2 |
| Urine albumin | 59.2 | 48.5 | 39.5 | 36.2 | 35.1 | **-24.1** | 82.9 | 72.4 | 64.6 | 59.8 | 56.9 | **-26.0** |
| Foot surveillance | 64 | 63.4 | 62.3 | 60.6 | 56.9 | **-7.1** | 83.2 | 82.4 | 81.2 | 78.6 | 74.8 | **-8.4** |
| BMI | 73 | 70.3 | 67.5 | 67.2 | 66.7 | **-6.3** | 4.8 | 82.3 | 80.7 | 79.7 | 79 | **-5.8** |
| Smoking | 73.2 | 73.3 | 71.7 | 70 | 82.8 | 9.6 | 84.4 | 83.9 | 83.4 | 82.2 | 91.7 | 7.3 |
| **Eight care processes** | **37.7** | **30.5** | **25.7** | **23.8** | **24.7** | **-13.0** | **65.1** | **55.9** | **50.7** | **47** | **45.9** | **-19.2** |

## Chart 1: Percentage of people with diabetes receiving NICE recommended care processes, by care process, Type 1 diabetes, Wales 2012-2018




## Chart 2: Percentage of people with diabetes receiving NICE recommended care processes, by care process, Type 2 diabetes, Wales 2012-2018



## All eight care processes Type 1 - Audit Year per health board

| Audit Year | Organisation | Numerator | Denominator | Percentage | Observed | Expected | Standardised rate | Lower limit | Upper limit | Banding |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017_18 | Wales | 3,755 | 15,195 | 24.7 | 3,755 | 5,479 | - | - | - | - |
| 2017_18 | 7A1 | 735 | 3,605 | 20.4 | 735 | 1,280 | 0.57 | 0.95 | 1.06 | Lower than expected |
| 2017_18 | 7A2 | 580 | 1,945 | 29.8 | 580 | 758 | 0.77 | 0.93 | 1.07 | Lower than expected |
| 2017_18 | 7A3 | 605 | 2,600 | 23.3 | 605 | 918 | 0.66 | 0.94 | 1.07 | Lower than expected |
| 2017_18 | 7A4 | 490 | 2,070 | 23.7 | 490 | 731 | 0.67 | 0.93 | 1.08 | Lower than expected |
| 2017_18 | 7A5 | 360 | 1,495 | 24.1 | 360 | 523 | 0.69 | 0.92 | 1.09 | Lower than expected |
| 2017_18 | 7A6 | 755 | 2,815 | 26.8 | 755 | 1,009 | 0.75 | 0.94 | 1.06 | Lower than expected |
| 2017_18 | 7A7 | 225 | 665 | 33.8 | 225 | 260 | 0.86 | 0.88 | 1.13 | Lower than expected |
| 2016_17 | Wales | 3,465 | 14,540 | 23.8 | 3,465 | 4,151 | - | - | - | - |
| 2016_17 | 7A1 | 765 | 3,595 | 21.3 | 765 | 1,029 | 0.74 | 0.94 | 1.06 | Lower than expected |
| 2016_17 | 7A2 | 515 | 1,860 | 27.7 | 515 | 556 | 0.93 | 0.92 | 1.09 | As expected |
| 2016_17 | 7A3 | 520 | 2,490 | 20.9 | 520 | 666 | 0.78 | 0.93 | 1.08 | Lower than expected |
| 2016_17 | 7A4 | 465 | 1,955 | 23.8 | 465 | 559 | 0.83 | 0.92 | 1.09 | Lower than expected |
| 2016_17 | 7A5 | 300 | 1,355 | 22.1 | 300 | 364 | 0.82 | 0.90 | 1.11 | Lower than expected |
| 2016_17 | 7A6 | 700 | 2,640 | 26.5 | 700 | 778 | 0.90 | 0.93 | 1.07 | Lower than expected |
| 2016_17 | 7A7 | 200 | 645 | 31.0 | 200 | 199 | 1.00 | 0.87 | 1.15 | As expected |

## All eight care processes Type 2 and other - Audit Year per health board

| Audit Year | Organisation | Numerator | Denominator | Percentage | Observed | Expected | Standardised rate | Lower limit | Upper limit | Banding |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017_18 | Wales | 83,625 | 182,325 | 45.9 | 83,625 | 104,417 | - | - | - | - |
| 2017_18 | 7A1 | 13,675 | 39,000 | 35.1 | 13,675 | 21,232 | 0.64 | 0.99 | 1.01 | Lower than expected |
| 2017_18 | 7A2 | 11,925 | 23,610 | 50.5 | 11,925 | 13,795 | 0.86 | 0.98 | 1.02 | Lower than expected |
| 2017_18 | 7A3 | 17,130 | 32,025 | 53.5 | 17,130 | 18,337 | 0.93 | 0.99 | 1.01 | Lower than expected |
| 2017_18 | 7A4 | 10,215 | 23,865 | 42.8 | 10,215 | 13,639 | 0.75 | 0.98 | 1.02 | Lower than expected |
| 2017_18 | 7A5 | 8,440 | 18,475 | 45.7 | 8,440 | 10,823 | 0.78 | 0.98 | 1.02 | Lower than expected |
| 2017_18 | 7A6 | 17,710 | 37,160 | 47.7 | 17,710 | 21,648 | 0.82 | 0.99 | 1.01 | Lower than expected |
| 2016_17 | 7A7 | 4,530 | 8,195 | 55.3 | 4,530 | 4,942 | 0.92 | 0.97 | 1.03 | Lower than expected |
| 2016_17 | Wales | 83,795 | 178,325 | 47.0 | 83,795 | 83,075 | - | - | - | - |
| 2016_17 | 7A1 | 13,995 | 38,095 | 36.7 | 13,995 | 16,306 | 0.86 | 0.98 | 1.02 | Lower than expected |
| 2016_17 | 7A2 | 11,745 | 23,110 | 50.8 | 11,745 | 10,863 | 1.08 | 0.98 | 1.02 | Higher than expected |
| 2016_17 | 7A3 | 17,365 | 31,585 | 55.0 | 17,365 | 14,956 | 1.16 | 0.98 | 1.02 | Higher than expected |
| 2016_17 | 7A4 | 9,775 | 23,070 | 42.4 | 9,775 | 10,419 | 0.94 | 0.98 | 1.02 | Lower than expected |
| 2016_17 | 7A5 | 8,495 | 17,975 | 47.3 | 8,495 | 8,700 | 0.98 | 0.98 | 1.02 | Lower than expected |
| 2016_17 | 7A6 | 17,805 | 36,485 | 48.8 | 17,805 | 17,785 | 1.00 | 0.99 | 1.01 | As expected |
| 2016-17 | 7A7 | 4,610 | 8,010 | 57.6 | 4,610 | 4,046 | 1.14 | 0.97 | 1.03 | Higher than expected |

## Health Boards year on year trend 2016-2017 to 2017-2018

| | | Type 1 | | | Type 2 | | |
|---|---|---|---|---|---|---|---|
| **Local Health Board** | **Codes** | **2016-2017** | **2017-2018** | **Difference** | **2016-2017** | **2017-2018** | **Difference** |
| Betsi Cadwaladr UHB | 7A1 | 21.3 | 20.4 | **-0.7** | 36.7 | 35.1 | **-1.6** |
| Hywel Dda UHB | 7A2 | 27.7 | 29.8 | 2.1 | 50.8 | 50.5 | **-1.1** |
| ABM UHB | 7A3 | 20.9 | 23.3 | 2.4 | 55.0 | 53.5 | **-1.6** |
| Cardiff and vale UHB | 7A4 | 23.8 | 23.7 | **-0.1** | 42.4 | 42.8 | 0.4 |
| Cwm Taff UHB | 7A5 | 22.1 | 24.1 | 2 | 47.3 | 45.7 | **-1.6** |
| ABUHB | 7A6 | 26.5 | 26.8 | 0.3 | 48.8 | 47.7 | **-0.3** |
| Powys Teaching HB | 7A7 | 31.0 | 33.8 | 2.8 | 57.6 | 55.3 | **-2** |
| **Wales** | | **23.8** | **24.7** | **1.9** | **47** | **45.9** | **-1.1** |

| Type 1 | | Type 2 | |
|---|---|---|---|
| Best | 33.8 | Best | 55.3 |
| Worst | 20.4 | Worst | 35.1 |

## England and Wales comparisons of the differences in performance of the care processes for Type 1 and Type 2 diabetes:

| | England | | Wales | |
|---|---|---|---|---|
| | Type 1 | Type 2 | Type 1 | Type 2 |
| Completion of all 8 care processes * | 42.9% | 58.8% | 24.7% | 45.9% |
| Achievement of all 3 treatment targets * | 18.6% | 40.1% | 15.3% | 35.1% |

28

## The National Diabetes Inpatient Audit for Wales

*In a report authored by Jon Matthias (Network Coordinator of the Children and Young People Wales Diabetes Network) and Dr Julia Platts (National Clinical Lead for Diabetes) which was circulated to the AWDIG on 11 July 2019, Julia outlined the disparities between England and Wales, and also made a number of recommendations:*

The National Diabetes Inpatient Audit Data 2018 was published on 9 May 2019. The National Diabetes Inpatient Audit measures the quality of diabetes care provided to people with diabetes when they are admitted to hospital whatever the cause and aims to support quality improvement. The audit collects data from both England and Wales.

The gap in service provision between England and Wales is widening in terms of staffing levels, screening for foot problems and reviewing harms and causation in mortality and morbidity meetings.

There has been a significant increase in staff in England as 90% of organisations that received transformation funding have used this to recruit new staff, for example Diabetes Inpatient Specialist Nurse (DISN) have increased in England by 19%.

**The following table lists some of the disparities between England and Wales:**

| | England | Wales |
|---|---|---|
| Hospitals with no DISN | 22% | 44% |
| Hospitals with no MDFT (multidisciplinary foot team) | 15.4% | 37.5% |
| Hours of DISN time per patient | 0.75 | 0.4 |
| Hours of Specialist Diabetes Dietitian per patient | 0.32 | 0.06 |
| Hours of podiatrist per patient | 0.24 | 0.14 |
| Hospitals with 7-day DISN service | 13.6% | 0% |
| Regular training of ward staff | 89.3% | 87.5% |
| Hospitals with a foot risk tool | 74.6% | 50% |
| Mortality and morbidity meetings discussing diabetes | 91.9% | 62.5% |
| Electronic prescribing | 36.7% | 12.5% |

## What conclusions can we draw from the audit data?

The latest NDA Core process completion data from 2017-2018 shows that since the recommendations from the Health and Social Care Committee Inquiry were made and adopted in June 2013, improvement to completion rates has not been consistent. There has been a fall in completion rates for Type 2 diabetes of 19.2% and for Type 1 diabetes of 13.0%. It evidently remains a challenge to find the tools by which we can consistently improve these figures.

Effective diabetes management should start with the individual knowing and understanding the results of their annual health checks. These checks provide important information about whether adjustments to your diabetes management and potentially lifestyle are required. A doctor or nurse should support and work with the patient, and agree an individual care plan. Care plans should consider the results of checks and individual circumstances.

### Recommendation

**All hospitals should encourage and enable all staff training in diabetes including the Cambridge Diabetes Education Programme, which is accessible to Wales' hospitals for free.**

### Recommendation

**Clinicians should recommend the Diabetes UK 15 Healthcare Essentials checklist to all people living with diabetes. This gives details of the 9.**

### Recommendation

**All hospitals should have a Diabetes Inpatient Specialist Nurse, a multidisciplinary foot team and an inpatient foot screening tool to detect potential harm.**

# Obesity

**The most commonly used and universally accepted method of identifying whether someone is overweight or obese is by measuring their Body Mass Index (BMI). A BMI of:**

- Between 25 and 30 suggests a person is overweight.
- Between 30 and 40 suggests the person is obese.
- Above 40 suggests that a person is morbidly obese.

Wales is now the most overweight and obese country in the UK and in Western Europe[29]. According to the National Survey for Wales 2017-18, 60% of adults in Wales are now overweight or obese, and 24% are obese.

People who are obese are at greater risk of Type 2 diabetes[30]. Being overweight or obese is also linked to dangerous co-morbidities such as, cardiovascular conditions, kidney disease, cancer, liver disease and stroke[31].

**It is clear that to tackle the rise in Type 2 diabetes, we must tackle the rise in obesity.**

Obesity can also affect your quality of life and lead to psychological problems such as depression and low self-esteem[32]. It is estimated that in total, illnesses associated with obesity cost NHS Wales over £73m a year[33].

Unfortunately we are also seeing rising obesity among children and young people. 26.4% of children in Wales are now overweight or obese. In England and Scotland the figure is 22.4%, meaning Wales' children are the most overweight in the UK. This is a startling problem and one the goes beyond the issue of health but to one of community and society. According to the Child Measurement Programme, children from disadvantaged backgrounds are significantly more likely to be overweight by the age of four:

*"There is a 6% gap between obesity levels in the most and least deprived areas of Wales, with obesity prevalence of 14.2% in the most deprived areas, and 8.2% in the least deprived areas"* [34].

Merthyr Tydfil is Wales' most deprived local authority. The rate of obesity in four to five year olds is 15.6%. In the Vale of Glamorgan, Wales' least deprived local authority, it is just 7.1%.

**This should be of huge concern to Welsh Government, as these children are statistically more likely to grow up to be overweight or obese.**

## The scale of the obesity crisis in Wales

- **1 in 8 children** aged 4 to 5 are **obese**, over 4,000 children
- **600,000 adults** aged 16+ are **obese** around 1 in 4
- **1 in 3 adults** aged 45 to 64 years are **obese**
- **10,000 more adults** become **obese** each year
- Around **60,000 adults** aged 16+ are severely **obese**

## Recommendation

**The Child Measurement Programme should be extended beyond the 4 to 5 year old age range, to better analyse the demographics of overweight and obesity in children and young people in Wales at intervals throughout school age.**

## What can we do about it?

In January 2019 Welsh Government outlined plans for a new strategy to tackle obesity: ***Healthy Weight: Healthy Wales.*** This proposed several measures recommended and endorsed by Diabetes UK Cymru including clearer food labelling, restrictions on promotion and advertising of high in fat, sugar and salt (HFSS) foods and a review of the obesity pathway.

***Healthy Weight: Healthy Wales*** offers the opportunity to be world leaders in dealing with the obesity epidemic. We need to be bold, trial new measures and invest financially to reduce rates of obesity. We know that reducing obesity will mean a healthier, happier and more sustainable future for our nation. We warmly welcome commitment from Welsh Government that elements of this strategy will be a tier one target for all health boards in Wales and a priority for Welsh Government.

## Food labelling

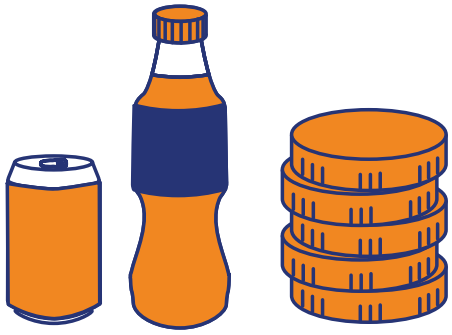
Nutritional information is often confusing, inconsistent, or absent in out-of-home settings. Diabetes UK found that 9 in 10 people in the UK say clearer food labelling would help them make healthier food choices.

In our response to ***Healthy Weight: Healthy Wales***, Diabetes UK Cymru asked Welsh Government to look at measures to improve information provided about the food purchased or eaten outside of the home.

## A new obesity pathway

Nine years on from the establishment of the All-Wales Obesity Pathway, it has still not been fully implemented by health boards. It is also concerning that some health boards have struggled to implement many aspects of the obesity pathway. In many cases these are also the health boards with some of the highest rates of obesity in Wales, as well as the highest rates of socio-economic deprivation. As a result NHS Wales is failing to get to grips with the problem.

There is a lack of access to level three specialist MDT weight management services, and a lack of awareness of services available to individuals. Without adequate level three services to refer people onwards, it can be challenging for level four services to see those who may benefit from bariatric surgery. This means some level four services are under-utilised.



## The sugary drinks industry levy

Since April 2018, the sugary drinks industry levy (SDIL) has achieved an 11% reduction in sugar content of soft drinks. Some organisations are exploring the possibility of widening the SDIL to other industries, and the use of financial penalties for non-compliance amongst industries that do not meet the reduction targets through reformulation.

Diabetes UK Cymru would like to see Welsh Government explore the feasibility of widening the SDIL to other industries in Wales. The UK and Scottish Governments have ring-fenced funding raised by the SDIL to tackle childhood obesity; it was disappointing that Wales has not done the same.

### Recommendation

**Welsh Government must look seriously at measures to make food labelling clearer and restrict promotions and advertising on HFSS foods.**

### Recommendation

**Welsh Government should seriously explore the possibility of widening the SDIL to other HFSS industries selling food and drink in Wales. Welsh Government must also follow the example set by Scottish and UK Governments and ring-fence funding raised by the SDIL to fund measures to tackle childhood obesity.**

### Recommendation

**Welsh Government and Public Health Wales must ensure that any strategy to reduce levels of obesity in both children and adults in Wales has the appropriate structures to enable successful implementation and funding in order to be effective.**

# Preventing Type 2 diabetes

**NHS Wales and Public Health Wales need to recognise the unique need for a Type 2 Diabetes Prevention Programme to address Wales' greatest health crisis.**

Thanks to better diagnosis and treatment, NHS Wales is caring for more people living with diabetes than ever before. However, the latest prevalence figures highlight the urgent need to prevent Type 2 diabetes from developing in the first place.

In 2018, both England and Scotland introduced Diabetes Prevention Plans (DPPs). England's DPP is a joint commitment from NHS England, Public Health England and Diabetes UK; an example of successful co-production in healthcare policy. It identifies those at high risk and refers them onto a behaviour-change programme. NHS England states that; *"there is strong international evidence which demonstrates how behavioural interventions, which support people to maintain a healthy weight and be more active, can significantly reduce the risk of developing the condition" .*

The Scottish Government's, ***A Healthier Future: type 2 Diabetes prevention, early detection and intervention framework*** diabetes plan has been developed to provide guidance to partners on the implementation of a weight-management pathway for those at risk of or diagnosed with Type 2 diabetes.

More than **half of all cases** of Type 2 diabetes could be prevented or delayed.

It is difficult to understand the absence of an equivalent national prevention programme for Wales. Treating people with Type 2 diabetes one person at a time ignores the underlying societal conditions of poverty, income inequality, socioeconomics, stress and loneliness: all factors which put people at a higher risk of developing Type 2 diabetes. We need to think about stopping it before it starts.

## Wales has the highest prevalence of both obesity and Type 2 diabetes.

The inaction from Welsh Government is disappointing, and the cost burden to NHS Wales obvious.

A successful diabetes prevention programme for Wales could:

- improve patient outcomes.
- reduce costs associated with Type 2 diabetes
- reduce the clinical burden on GPs

### Recommendation

**Welsh Government, Public Health Wales and NHS Wales must work together to deliver a Diabetes Prevention Plan. Elements of Type 2 prevention should also be present in the next plan for delivering diabetes service.**

# Information technology, digital and innovation

**One recommendation from the 2013 Health and Social Care Committee inquiry into the National Service Framework stated that an "integrated diabetes patient management system should be a priority for the Welsh Government". This was a stated aim within the accompanying DDP of 2013 and, the refreshed DDP in 2016:**

> *"We have an important project to integrate electronic information across specialist, primary, community, and emergency care for better patient management"* [36]
>
> **(Diabetes Delivery Plan for Wales 2016 to 2020)**

It is clearly important to have the technology in place to facilitate improvements in care across all sectors of our health system. NHS Wales Informatics Service (NWIS), which is developing and delivering the new patient management system, must have the resources and funding it requires. We must also start investing more resources in developing new technologies to improve patient experience. Patient engagement can be revolutionised with intelligent, strategic innovations[37]. But only with real investment can we expect to see real results.

## Welsh Information Solution for Diabetes Management (WISDM)

WISDM aims to deliver an ICT solution for the management of diabetes patients across Wales. This will provide a clinical, multidisciplinary record, outpatient workflow and share and integrate information across primary, secondary and community healthcare settings. A key element will be providing information for clinical audits which will help meet Welsh diabetes strategies and plan an effective service. This will improve patient outcomes, reduce inefficient working and support safe, clinical decision-making.

Despite the current and proposed level of investment in the project being approximately £1,000,000, it appears WISDM development will only achieve phase one of the project by March 2020, when Welsh Government funding could end. Funding to complete all phases of the WISDM project must be agreed in order to make better use of clinical information across all healthcare settings, meet the intended aims and improve patient outcomes.

## Enhancing services

Introduced in November 2017, the Direct Enhanced Service (DES) and National Enhanced Service (NES) aimed to enable the delivery of a more comprehensive, structured care package to patients in primary care. It aims to improve access to diabetes care closer to home and reduce the number of routine patients seen and reviewed within secondary care.

Successful outcomes include:

- Improved preventive or prudent care and self-management of Type 2 diabetes, which will ultimately reduce diabetic complications.
- Reduced rate of patients with Type 2 diabetes needing to see a secondary care consultant as an outpatient for the initiation and management GLP1s and insulin.

This provides a significant opportunity for transformation of services that could directly support achieving a "Super Six" secondary care model, releasing capacity from secondary care to meet the demands of those most in need of specialist services.

## Direct Enhanced Service (DES)

Implementation of the DES, also known as the "gateway module", is mandatory for health boards. However not all GP practices are utilising it.

At a recent DPDG, it was noted that 80% of GP practices had signed up to the DES. Yet it is not possible to state how many patients are receiving the enhanced service because it is neither monitored nor evaluated.

The DES includes a suite of resources: a booklet explaining Type 2 diabetes to newly-diagnosed patients, video prescriptions, short films explaining aspects of diabetes management, and signposts to structured diabetes education. The information prescriptions provide personalised care plans for blood glucose, lipids, hypertension, advice on lifestyle and other aspects of diabetes care, signposting online support. They are available in many GP practices embedded in Vision/Microtest.

It is hard to establish the success of the DES as the agreement between the Welsh Government and the General Medical Council is one of "high trust and low touch"[38].

## The National Enhanced Service (NES)

The NES is a series of four, optional modules, built around the initiation and maintenance of GLP1s and insulin. It can only be adopted if the "gateway module" (the DES) is in operation. NES uptake has been slow and is patchy across the seven health boards. In some cases, where health boards have refused to fund the NES, people living with Type 2 diabetes have been referred back from primary to secondary care services for insulin management.

Neither the DES nor the NES have been effectively communicated across all seven health boards, and understanding was patchy at DPDGs. In one health board, we were told that they intended to discuss the introduction of enhanced services the following week, 18 months after their launch.

## Co-produced management plan (individualised care plan)

The DES, DDPs (from 2013 and 2016 to 2020) and National Service Framework (2003 to 2013) all stated that all patients should have an agreed plan to support self-management of their diabetes following their annual review. This should be based on explanation of the results of their annual review, and help address their specific diabetes issues. It should include short- and long-term personalised goals and signpost appropriate resources to support these.

The plan can be printed and given to each patient as a record of the consultation and to support their diabetes management.

## Structured diabetes education.

Education is key to successful diabetes management. It was at the heart of the National Service Framework and is key to the current DDP. Yet health boards have failed to adequately fund the dieticians, DSNs and practice nurses needed to resource a comprehensive service. They have also failed to communicate the dangers of diabetes mismanagement and promote the benefits of education in helping people understand and manage their condition. The Health and Social Services inquiry recognised this in its report in 2013:

> *"Recommendation 9: Welsh Government should urgently address the variance in the provision of structured education for people with diabetes. The forthcoming delivery plan should require all health boards to provide NICE-compliant structured education programmes and ensure equality of access to appropriate, timely education for all patients across Wales."*

## The below tables show the uptake of structured diabetes education, offered within 12 months of diagnosis, is unacceptably low.

### SDE Type 2 diabetes

#### Structured Education - Newly diagnosed people with T2 who were offered and who attended Structured Education

| Calendar Year | Organisation | Lookup | Newly diagnosed | Offered within 12 months of diagnosis | Offered within 12 months of diagnosis (%) | Attended within 12 months of diagnosis | Attended within 12 months of diagnosis (%) |
|---|---|---|---|---|---|---|---|
| 2016 | Wales | 2016Wales | 480 | 145 | 30.2 | 5 | 1.0 |
| 2015 | Wales | 2015Wales | 465 | 155 | 33.3 | 5 | 1.1 |
| 2016 | 7A1 | 20167A1 | 110 | 35 | 31.8 | 5 | 4.5 |
| 2016 | 7A2 | 20167A2 | 60 | 20 | 33.3 | 0 | 0.0 |
| 2016 | 7A3 | 20167A3 | 90 | 20 | 22.2 | 0 | 0.0 |
| 2016 | 7A4 | 20167A4 | 75 | 30 | 40.0 | 5 | 6.7 |
| 2016 | 7A5 | 20167A5 | 50 | 10 | 20.0 | 0 | 0.0 |
| 2016 | 7A6 | 20167A6 | 85 | 30 | 35.3 | 5 | 5.9 |
| 2016 | 7A7 | 20167A7 | 10 | 5 | 50.0 | 0 | 0.0 |
| 2015 | 7A1 | 20157A1 | 105 | 40 | 38.1 | 5 | 4.8 |
| 2015 | 7A2 | 20157A2 | 55 | 20 | 36.4 | 5 | 9.1 |
| 2015 | 7A3 | 20157A3 | 70 | 20 | 28.6 | 5 | 7.1 |
| 2015 | 7A4 | 20157A4 | 70 | 25 | 35.7 | 0 | 0.0 |
| 2015 | 7A5 | 20157A5 | 50 | 15 | 30.0 | 5 | 10.0 |
| 2015 | 7A6 | 20157A6 | 95 | 35 | 36.8 | 5 | 5.3 |
| 2015 | 7A7 | 20157A7 | 20 | 5 | 25.0 | 0 | 0.0 |

Recorded offers of structured education have remained around the same levels for the last two to three years. Offered dates can change between audit periods, suggesting that structured education is being re-offered if declined initially.

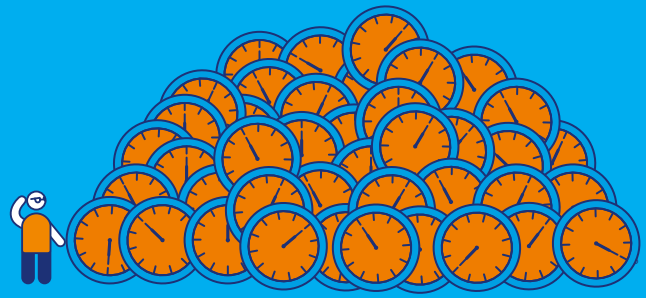
Poor recording means the apparently low rates of attendance at structured education programmes are an underestimation.

**Diabetes is a lifelong condition. Effective management is required all day, every day.**

**People with diabetes rarely spend more than two to three hours per year with a healthcare professional. For the remaining 8,757 hours per year they must manage their diabetes themselves. It is essential that people living with diabetes have the understanding, knowledge and skills to do this.**

People with diabetes spend around **three hours** with a healthcare professional every year.

For the remaining **8,757 hours** they must manage their diabetes **themselves**



# Primary care

**Improvements in primary care are key to tackling the Type 2 diabetes crisis in Wales. GPs and their teams look after 85% of people with Type 2 diabetes. Most are in the early or mid-stages of their journey with the condition. It is essential that GPs and primary care staff are appropriately supported if we are to enable people to self-manage their diabetes well, preventing the complications that can be associated with the condition.**

Primary Care provides people with care near to their homes. This is the essence of prudent, preventive care and what the enhanced services set out to facilitate. Delivering local diabetes services, without adding to the pressures of secondary, hospital-based diabetes teams, frees these teams up to deal with more complex cases. It is also more cost effective for NHS Wales.

Primary care is also where the majority of annual diabetes reviews should be carried out. We can now review the efficacy of the essential annual diabetes tests as 100% of GPs now feed into the NDA. This is a great achievement and allows GPs to understand what is working well and where support is needed.

## Primary Care Diabetes Society

The Primary Care Diabetes Society (PCDS), was established by GPs with an interest in diabetes, to support practices to provide more effective care to the people living with diabetes that they see.

### Diabetes management in primary care
### Dr David Millar-Jones; Chair of the PCDS (2012- 2018)

*"In 2018, the Primary Care Diabetes Society, (PCDS) surveyed 1031 healthcare professionals in primary care to ascertain the quality of diabetes care across the UK. The report presented the findings of the survey. The survey was completed anonymously and we appreciate the honesty of the responses. We are acutely aware that these are challenging times to be a clinician, with severe funding constraints and a very challenging political landscape: our goal is not to call our hard-working clinicians into question, but to use these results to guide improvements that will help each of us do our jobs better and help raise the standard of care available to people with diabetes."*

### Dr Pam Brown
### General Practitioner - Swansea

*"Wales is fortunate to have experienced primary care and community teams who are passionate about delivering quality diabetes care. However, primary care struggles with recruitment, retention and early retirement, making succession planning difficult and resulting in workload pressures and serious time constraints in delivering diabetes care.*

*Escalating prevalence of diabetes and increasing complexity of cases is causing gaps to develop between what is achievable and what we aspire to deliver. No sickness or holiday contingency cover is possible in most areas. Availability of resources, both people and funding, are not evenly distributed across Wales.*

*Individual Health Boards control which enhanced services to fund, with several funding only the basic gateway module and not incentivising initiation or follow up of GLP-1 analogues or insulin. Some practices continue to deliver these services without funding, which is increasingly hard to justify given that: workload is high, these have historically been secondary care services, and colleagues in other parts of Wales receive funding for the same work.*

*This has resulted in unequal care, patient inconvenience and the stretching of secondary care beyond capacity, making joint clinics and telephone advice less accessible in many areas. More equitable enhanced service funding may be agreed soon.*

*Healthcare professional education on newer drugs is available but workload and capacity make it difficult for people to attend. It is hoped that PCDS's online journal and education, such as the Six Steps to Insulin Safety and Welsh Government-funded modules, will help provide accessible education.*

*Despite these and other challenges, primary and community teams across Wales must be congratulated for remaining enthusiastic and continuing to deliver quality diabetes care – care which no survey can fully capture.*

*With additional resources we look forward to doing even better in the future."*

# The Diabetes Delivery Plan 2016 to 2020

**The current DDP and its predecessor were published in the wake of the Health and Social Care Committee's Inquiry into the National Service Framework for diabetes in 2013. The inquiry made 13 recommendations for the DDP and its implementation. These were warmly welcomed by Diabetes UK Cymru at the time, and included:**

- Improved engagement from health board senior managers to assist what are extremely capable healthcare professionals.
- Thorough monitoring progress of implementation in order to support areas that were struggling and identify areas that were exceeding, and share good practice.
- Adopting a prudent approach which can help prevent costly complications.
- Ensuring people living with diabetes were at the heart of the way we deliver services, and that individuals had the support they needed to manage their condition.
- Introducing Think Glucose to all health boards across Wales.
- All GPs participate in the National Diabetes Audit.
- All diabetes patients should be offered all nine key annual health checks and that health board's performance in meeting this requirement should be monitored.
- The introduction of an integrated patient management system as a priority for Welsh Government, and a clear timetable in the DDP.
- Welsh Government and health boards expand on conducting risk assessments for Type 2 diabetes.
- Welsh Government should undertake an audit of the number of diabetes specialist nurses.

The inquiry also stated that *"Welsh Government should ensure implementation of the National Service Framework through strengthened oversight and monitoring arrangements as a priority in the forthcoming delivery plan."* [39]

The DDP which was subsequently developed has been ambitious and forward-thinking. It included a clear vision *"for a fully integrated primary and specialist service, designed around the needs and ability of the patient to manage their condition"*. It also set out clear objectives: "*The aim of this plan is to reduce the rise in rates of Type 2 diabetes and continue to improve key outcomes and complication rates for all people with diabetes."* [40]

## Transparency

The All Wales Diabetes Implementation Group, (AWDIG) was set up to ensure the DDP was successfully implemented across Wales. In 2016, a document setting out an updated terms of reference was agreed by AWDIG members, including Diabetes UK Cymru. This stated:

> *"The All-Wales Diabetes Implementation Group will provide All-Wales leadership and support the delivery of the [Diabetes Delivery] plan by health boards. Annual progress monitoring will provide transparency and form the basis of an annual statement of assurance to demonstrate progress in delivery."* [41]

This paragraph of the terms of reference has not been fully adhered to. Monitoring of health board performance and delivery against the DDP has been particularly poor. In the last three years, the AWDIG has not received regular annual progress reports from health boards, resulting in a lack of accountability and transparency of health boards' progress.

**In fact, only one health board has submitted a full report on progress as mandated by the AWDIG in the entire lifetime of the plan: Aneurin Bevan University Health Board in June 2017.**

However, annual reports were submitted for the delivery of paediatric diabetes services against the DDP. These were by the CYPWDN with the All-Wales Diabetes Group. They successfully illustrated the progress of various clinics and identified where additional support was required. As a result, there have been a number of effective improvements in paediatric care in Wales.

## Leadership and delivery

The DDP set in place a strong commitment to implementation by establishing the AWDIG. According to its terms of reference, the AWDIG aimed to provide leadership and oversight of the delivery of the new plan[42].

It is clear that the individual or body responsible for implementing the DDP requires authority. They must be able to monitor implementation, oversee the allocation and governance around national funding and report back on progress to Welsh Government. These obligations were included in the AWDIG's terms of reference but have not been fully adhered to:

The All-Wales Diabetes Implementation Group will *"support and monitor health board delivery locally, in addition to developing national solutions to common service issues… as well as collaborating and engaging with each health board in this process"*

**Terms of reference AWDIG 2016**

*"Each health board's Diabetes Planning and Delivery Group (DPDG) has been required to provide an annual progress report... The Welsh Government will continue to provide each health board with annual baseline data in the form of a scorecard. The AWDIG will undertake a "peer review" of health boards annual progress reports."*

Without robust and comprehensive monitoring, auditing and reporting of health boards' performance against the DDP, we cannot be assured that the health service and its partners are delivering the best standard of care for everyone with diabetes.

**Recommendation**

**Future documents which lay out the model for the delivery of diabetes services in Wales include a high level of ambition and clear purpose to reduce the rising rates of diabetes and improve key outcomes for all people living with diabetes.**

# Conclusion

**If the National Service Framework for Diabetes or the Diabetes Delivery Plan (DDP) had been fully implemented it would have made a significant impact on people living with diabetes in Wales and on their care. However, despite the DDP being developed with the recommendations from the Health and Social Care Committee Inquiry, lessons have not been learned. The responsibility for this institutional inertia has to lie at feet of health board senior managers and Welsh Government.**

There have been successes, such as the appointment of a National Clinical Lead; the outcomes have been positive. Overall the quality of care that many people receive in Wales is very high, undoubtedly due to our hard-working NHS Wales staff.

However, attempts to move towards a new model of delivering care have failed. The drivers we are using to implement changes to our health system are not working and health boards are not engaging as hoped. Meanwhile, we still have not tackled the problem of rising numbers of people developing Type 2 diabetes and the costly complications that too often occur.

Focussing on acute services during a challenging period of reduced health budgets has led to short-term thinking. Although the cost of diabetes makes up over 10% of NHS budgets, there appears to be little understanding that early intervention would deliver savings.

An example of this is inpatient care, as highlighted by the Health and Social Care Committee Inquiry. In Wales, around 20% of inpatients have diabetes. Their stay is usually three to four days longer than patients without the condition. Their diabetes control often worsens during their stay. All health boards should introduce Think Glucose to reduce stay length, release beds and improve patient outcomes. The clinical lead paid for Think Glucose for every health board, yet there was little support from managers in implementation, leaving healthcare professionals to struggle unaided.

Communication within health boards also proved challenging. The clinical lead championed and introduced Pocket Medic's innovative video prescriptions which were incorporated into the Diabetes Enhanced Service (DES). These were an excellent, cost-effective resource helping people living with diabetes to understand and manage various aspects of their condition. However, communicating these films to healthcare professionals and measuring their uptake was only marginally successful. The same problem occurred with communicating the DES and its associated resources to healthcare professionals. In some cases DPDGs had to recommend the optional units several times. Had senior managers fully engaged with the process, this would have been considerably easier.

There are also clear communication problems between Welsh Government and health boards. Welsh Government refused to audit the numbers of DSNs, who are essential to the delivery of the DDP, passing this back to health boards. There is also little communication between health boards, preventing them from learning from each other.

Wales is now the only part of the UK without a Type 2 diabetes prevention plan The Health and Social Care Inquiry recommended that Welsh Government and health boards expand the role of pharmacies in conducting diabetes risk assessments. This would build on Diabetes UK Cymru's annual risk awareness week and was to be led by a Public Health Wales (PHW) Consultant. This did not happen. There has been a reluctance at PHW to discuss condition-specific campaigns or interventions.

The establishment of the Children and Young People's Wales Diabetes Network (CYPWDN) has been a great success. The network brought together all 14 children's diabetes units and linked them to those already established in England. An early peer review of services identified areas that needed support, and most health boards responded with the resources needed. The CYPWDN also developed SEREN, a set of educational tools for children and parents, and publishes a clear annual progress report for all units.

The AWDIG failed to address health boards' progress reporting against the DDP. This was regularly brought up at meetings but the chair's response was that this was not AWDIG's role, despite the emphasis on this from the Health and Social Care Inquiry and in its own terms of reference. Welsh Government should take some responsibility for this.

Health boards are reluctant to fully engage in the many audits around diabetes. While they take part and feed in data, DPDGs rarely act on the results or move forward in the audit cycle. All GPs now take part in the National Diabetes Audit (NDA), which is impressive, however primary care attendance at DPDGs is inconsistent. While there have been considerable improvements in communication between primary and secondary care, in most health boards, work still needs to done. The failure to deliver the second stage of WISDM, the integrated IT system, has not helped this.

Establishing the All Wales Patient Reference Group last year was a massive step forward in patient involvement. Patients are the focus of diabetes services in Wales and it is crucial that their voice is heard. Again this would have been greatly improved if WISDM had not been delayed; one part was to give patients access, as is the case in Scotland's My Diabetes, My Way.

We have moved forward since the launch of the DDP, especially given the recent period of austerity. This is due to the hard work and dedication of Wales' clinical leadership and healthcare professionals. There has been a lack of understanding of the plan and the lessons learned from earlier strategies, leading to a lack of engagement with it. Responsibility for this has to lie with the AWDIG and Welsh Government.

Diabetes care in Wales is in a better place than it was in 2013. However, it is imperative that we build on this success and learn from mistakes if we are to stem Wales' ongoing rise of Type 2 diabetes, and improve outcomes for everyone with diabetes in Wales.

## Endnotes


[1] Stats Wales, Welsh Government. Patients on Quality and Outcomes Framework (QOF) disease registers by local health board. Accessed 01/08/2019 at: https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract/patientsonqualityandoutcomesframework-by-localhealthboard-diseaseregister

[2] NHS Wales, Preventing Diabetes. Accessed online at: http://www.wales.nhs.uk/preventingdiabetes

[3] Moody A, Cowley G, Ng Fat L, et al. Social inequalities in prevalence of diagnosed and undiagnosed diabetes and impaired glucose regulation in participants in the Health Surveys for England series. BMJ, available online: https://bmjopen.bmj.com/content/6/2/e010155

[4] Unwin N. Institute of Health and Society, Newcastle University. Socio economic position, the risk of pre and type 2 diabetes, and implications for prevention. Accessible here: https://www.nice.org.uk/guidance/ph35/evidence/ep-3-socioeconomic-status-and-risk-factors-for-type-2-diabetes-pdf-433771165

[5] https://www.who.int/news-room/fact-sheets/detail/diabetes

[6] https://digital.nhs.uk/news-and-events/news-archive/2017-news-archive/increase-in-prescriptions-for-diabetes-exceeds-rise-in-overall-prescribing

[7] https://www.bbc.co.uk/news/health-46139595

[8] https://www.bbc.co.uk/news/health-46139595

[9] https://www.bbc.co.uk/news/health-46139595

[10] https://www.diabetes.co.uk/cost-of-diabetes.html

[11] https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1464-5491.2012.03698.x

[12] NHS Wales, Preventing Diabetes. Accessed online at: http://www.wales.nhs.uk/preventingdiabetes

[13] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/751538/State_of_Care_17-18_web.pdf

[14] National Diabetes Audit 2015–16 Report 2A: Complications and Mortality – NDA complication prevalence extrapolated for QOF 2015-16 population due to low participation in audit.

[15] Diabetes UK (2018) Making Hospitals Safe for People with Diabetes https://www.diabetes. org.uk/resources-s3/2018-10/Making%20Hospitals%20safe%20for%20people%20with%20diabetes_FINAL.pdf

[16] https://diabetestimes.co.uk/cost-of-diabetic-footcare-higher-than-several-cancers-says-study/

[17] https://diabetestimes.co.uk/cost-of-diabetic-footcare-higher-than-several-cancers-says-study/

[18] "Use of the SINBAD Classification System and Score", Diabetes Care, available at https://care.diabetesjournals.org/content/diacare/31/5/964.full.pdf

[19] https://www.kidney.org/news/newsroom/factsheets/Diabetes-And-CKD

[20] https://www.kidney.org/atoz/content/diabetes

[21] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3559486/

[22] https://www.england.nhs.uk/improvement-hub/wp-content/uploads/sites/44/2017/11/Chronic-Kidney-Disease-in-England-The-Human-and-Financial-Cost.pdf

[23] https://www.england.nhs.uk/diabetes/diabetes-prevention/

[24] https://www.diabetes.org.uk/resources-s3/2019-02/1362B_Facts%20and%20stats%20Update%20Jan%202019_LOW%20RES_EXTERNAL.pdf

[25] https://www.bjfm.co.uk/development-of-type-2-diabetes-before-the-age-of-40-linked-to-higher-risk-of-early-death

[26] https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-audit/report-1-care-processes-and-treatment-targets-2017-18-full-report

[27] Responsibility of NHS Diabetes Eye Screening (NHS England, Public Health England) - the screening registers are drawn from practice registers but the outcomes are recorded in screening management systems that presently cannot export data to the NDA.

[28] Taken from 2017-18 NDA: Care Processes and Treatment Targets full report

[29] Monteiro, C. A., Moubarac, J. C., Levy, R. B., Canella, D. S., da Costa Louzada, M. L., & Cannon, G. (2018). Household availability of ultra-processed foods and obesity in nineteen European countries. Public health nutrition, 21(1), 18-26.

[30] Public Health England, Adult Obesity and Type 2 Diabetes, July 2014, Accessible at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/338934/Adult_obesity_and_type_2_diabetes_.pdf

[31] Why is obesity a problem in Wales, Public Health Wales, 2019. Accessible online at: http://www.wales.nhs.uk/sitesplus/888/page/97832

[32] Obesity, NHS UK, (accessed September 2019), available online at: https://www.nhs.uk/conditions/obesity/

[33] Phillips CJ et al. Assessing the costs to the NHS associated with alcohol and obesity in Wales. Social research. Number 20. Cardiff University. Available at: https://gov.wales/statistics-and-research/assessing-costs-nhsassociated-alcohol-obesity/?lang=en

[34] Public Health Wales, The Child Measurement Programme 2017/18, available online at: http://www.wales.nhs.uk/sitesplus/888/page/67795

[35] NHS England, NHS Diabetes Prevention Plan (NHS DPP), (2018), available online at: https://www.england.nhs.uk/diabetes/diabetes-prevention/

[36] NHS Wales, Public Health Wales, Welsh Government, Diabetes Delivery Plan for Wales 2016-2020, (2016), https://www.wwic.wales/uploads/files/documents/Professionals/161212diabetes-delivery-planen.pdf

[37] Liddell, Adshead and Burgess, Technology in the NHS, Transforming the patient's experience of care. The Kings Fund, (2008), available at: https://www.kingsfund.org.uk/sites/default/files/Technology-in-the-NHS-Transforming-patients-experience-of-care-Liddell-Adshead-and-Burgess-Kings-Fund-October-2008_0.pdf

[38] http://www.wales.nhs.uk/sites3/Documents/480/20171025%20-%20Diabetes%20Specification%20Schedule%201.pdf

[39] Recommendation 1, Inquiry into the National Service Framework - Health, Social Care and Sport Committee, National Assembly for Wales (2013)

[40] NHS Wales, Welsh Government. Diabetes Delivery Plan for Wales 2016-2020. WG30528 https://gweddill.gov.wales/docs/dhss/publications/161212diabetes-delivery-planen.pdf