# Scottish Diabetes Survey 2023

**Scottish Diabetes Group**

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# Revision Information

| Version Number | Edited By | Effective Date | Details of Changes Made |
|---|---|---|---|
| 0.4 | Michael Bluett | 3 Jul 2024 | Fourth draft |
| 0.5 | Michael Bluett | 11 Jul 2024 | Fifth draft |
| 0.6 | Michael Bluett | 27 Jul 2024 | Sixth draft |
| 0.7 | Michael Bluett | 7 Aug 2024 | Seventh draft |
| 0.8 | Michael Bluett | 9 Aug 2024 | Eighth draft |
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| 0.10 | Michael Bluett | 4 Oct 2024 | Tenth draft |

# Foreword

The 2023 Scottish Diabetes Survey represents developments on the format first used in the 2022 Survey. In section 2 we report on additional Diabetes Improvement Plan commitments (https://www.gov.scot/publications/diabetes-improvement-plan-diabetes-care-scotland-commitments-2021-2026/pages/4/) including recording of receipt of diabetes education and on the adoption of new technologies for type 1 diabetes. We hope to make international comparisons of completion of processes of care and achievement of treatment targets available for the 2024 Survey. We have done our best to address suggestions from users of the Survey from across Scotland. As for last year, we envisage modifications in future years as data become available and continue to welcome suggestions or requests for further changes.

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# Executive Summary

This report is based on a 2023 year-end extract of Scottish Care Information-Diabetes (SCI-Diabetes), the national database that collates data from all primary care practices and secondary care clinics in all 14 Health Boards. Data for this survey include people who were alive, had a current diagnosis of diabetes and were registered with a Scottish General Practitioner at the time of data extraction. We report that:

- There were 353,088 people with a diagnosis of diabetes in SCI-Diabetes at the end of 2023 (Table 2). This represents approximately 6.5% of the population of all ages and compares to a prevalence of 6.2% in 2022. The relatively high number of new cases diagnosed in the last three years may be related to effects of the COVID-19 pandemic.
- Proportions of people with type 1 or type 2 diabetes who had processes of care or risk factors recorded once or more in the 15-month period between October 2022 and December 2023 are summarised in the table below. Time trends in national data are described on page 15 and patterns by Health Boards are described on page 38.

**Table 1 Proportions of people with type 1 or type 2 diabetes in Scotland who had processes of care or risk factors recorded and proportions meeting key treatment targets in the 15 months prior to the end of December 2023**

| Process measured within 15 months/target (eligible age in years, otherwise all-age) | Type 1 diabetes (%) | Type 2 diabetes (%) |
|---|---|---|
| $HbA_{1c}$ recorded | 87.3 | 89.2 |
| Blood pressure recorded (12+) | 79.9 | 83.3 |
| Cholesterol recorded (18+) | 75.0 | 77.3 |
| Serum creatinine recorded (18+) | 79.2 | 86.7 |
| Urinary albumin recorded (12+) | 61.3 | 59.7 |
| Body Mass Index (BMI) recorded | 77.6 | 76.6 |
| Smoking status recorded (12+) | 57.2 | 64.4 |
| Eye screening (12+) | 83.8 | 85.9 |
| Foot screening (18+) | 60.4 | 58.8 |
| For people with risk factor recorded: | | |
| $HbA_{1c}$ <58 mmol/mol | 32.1 | 54.4 |
| Blood pressure ≤140 mmHg (12+) | 72.8 | 73.8 |
| Cholesterol <5mmol/l (18+) | 70.1 | 76.7 |

Note: Urinary albumin recording includes albumin/creatinine ratio (ACR). Total number of people: type 1 n = 36,249, type 2 = 310,541. Numbers excluded in measures for 12+ year olds/missing date of birth: type 1 = 1,282, type 2 = 65; for 18+ year olds/no missing date of birth: type 1 = 3,410, type 2 = 120. Some age restrictions differ from previous years: Serum creatinine and Foot Screening are for those 18+ years old, Blood pressure and Smoking figures are for those 12+ years old and BMI is for all ages.

# Section 1: National Epidemiology and Characteristics of People with Diabetes in Scotland 2023

## Overall Prevalence

The numbers and proportion (prevalence) of people with diabetes in Scotland continue to increase (Figure 1, Figure 2 and Table 2). At the end of 2023 there were 353,088 people with a diagnosis of any type of diabetes in Scotland recorded in SCI-Diabetes, reflecting a crude prevalence of 6.5% of the population of all ages. This includes 36,249 people with type 1 diabetes (10.3% of people with diabetes), 310,541 people with type 2 diabetes (88.0% of people with diabetes) and 6,298 people with other forms of diabetes (1.8% of people with diabetes). Crude prevalence by type of diabetes is 0.67% for type 1 diabetes, 5.7% for type 2 diabetes and 0.12% for other forms of diabetes.

Increasing numbers of people with diabetes over time mainly reflects the balance between numbers of new (incident) cases and numbers of people with diabetes who die. Other contributing factors were described in previous Surveys. The period 2021 to 2023 saw larger annual increases in numbers of people with diabetes than in previous years, which may partly reflect delays to diagnoses that would have been made in 2020 if there had not been a pandemic in addition to other factors suggested under the Incidence (New Cases) section.

**Figure 1 Prevalence of diabetes (all types, all ages) by year, Scotland 2014-2023.**

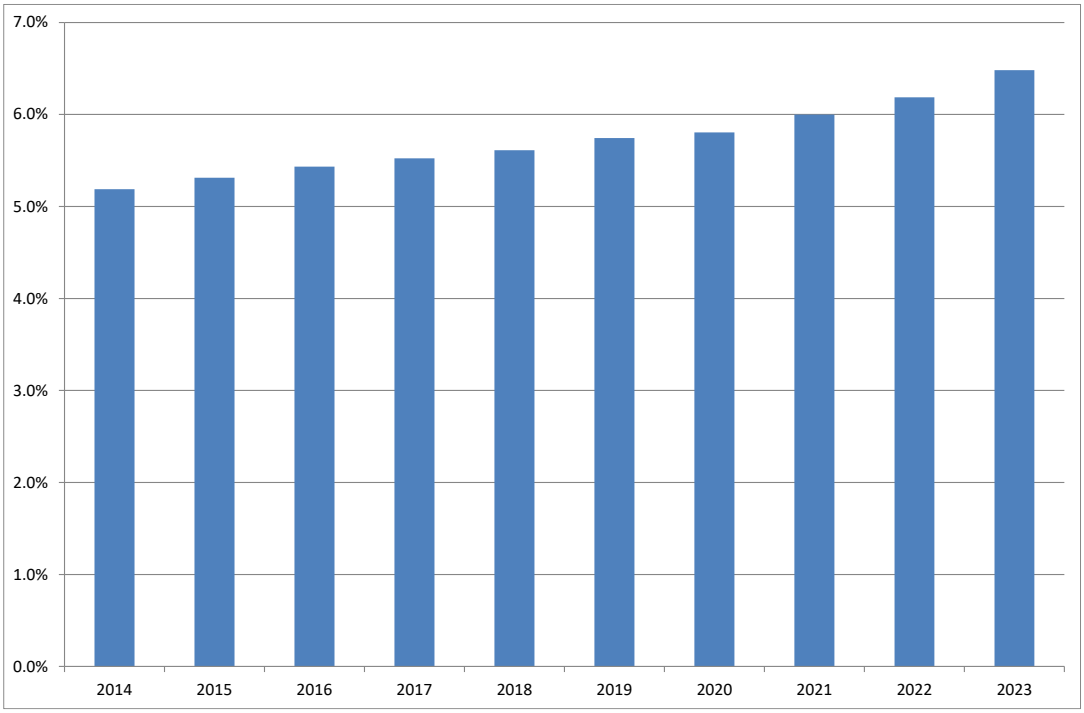


**Figure 2 Number of people recorded with a diagnosis of diabetes (all types, all ages) by year, Scotland 2014-2023.**

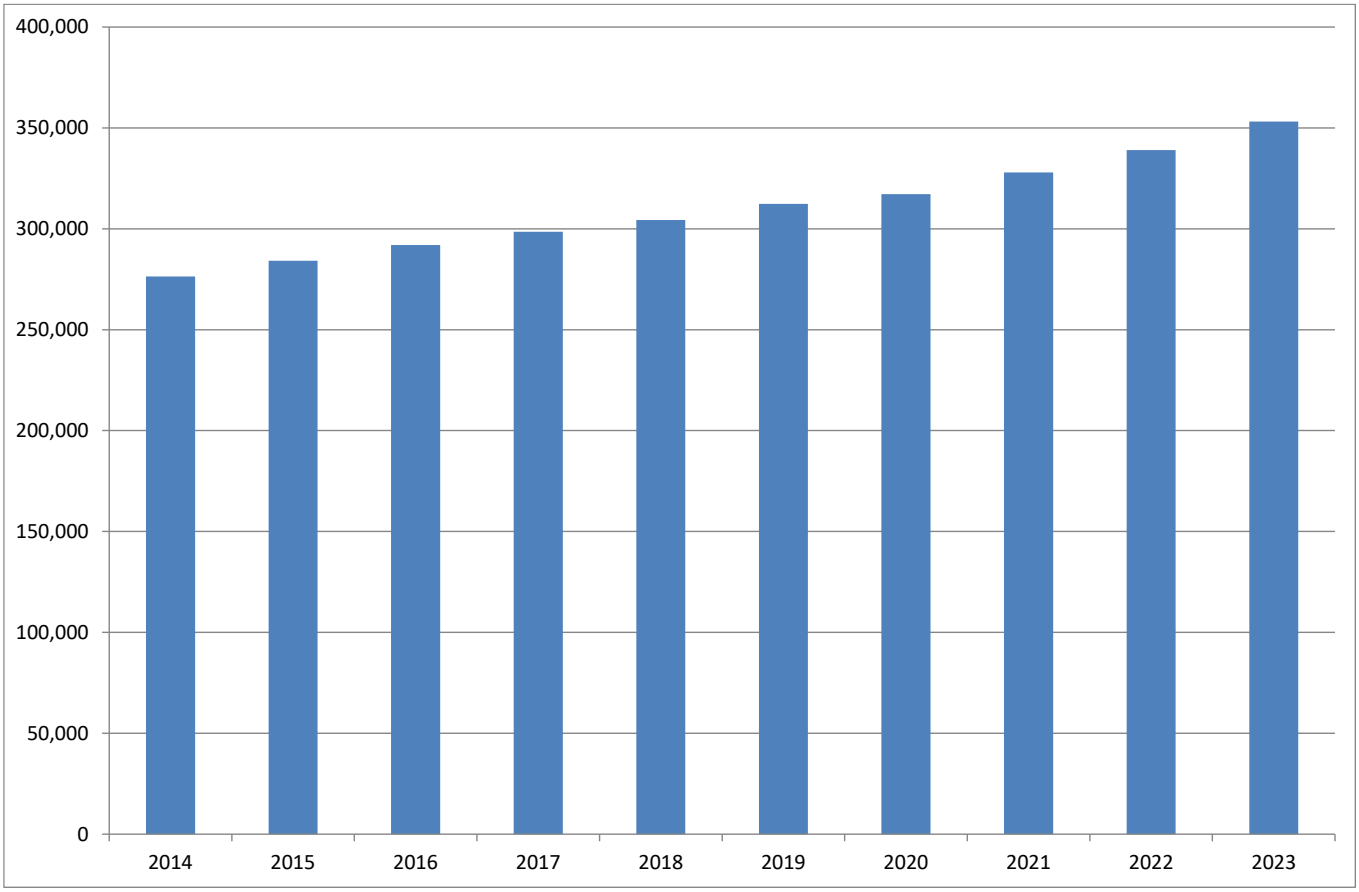



**Table 2 Number of people of all ages with all types of diabetes, crude prevalence and annual changes compared to the previous year in numbers/proportions by year, Scotland 2019-2023.**

| Year | Number of people with diabetes (n) | Crude prevalence (%) | Annual increase (n) | Annual increase (%) | Absolute increase in prevalence (%) |
|---|---|---|---|---|---|
| 2023 | 353,088 | 6.48 | 14,070 | 4.15 | 0.29 |
| 2022 | 339,018 | 6.19 | 11,091 | 3.38 | 0.19 |
| 2021 | 327,927 | 6.00 | 10,799 | 3.41 | 0.19 |
| 2020 | 317,128 | 5.80 | 4,738 | 1.52 | 0.06 |
| 2019 | 312,390 | 5.74 | 8,015 | 2.63 | 0.13 |

Note: See previous Surveys for data for earlier years.

The population figures used are based on the mid-year population estimate published by National Records of Scotland for the previous year as population estimates for the same year only become available after the Survey is produced. For example, the 2023 Survey uses numbers of people with diabetes at the end of 2023 but the mid-year population estimate for Scotland from 2022 of 5,447,700 people.

# Incidence (New Cases)

Crude incidence figures have been calculated separately for type 1 and type 2 diabetes using numbers of people with diabetes diagnosed during 2023 identified from SCI-Diabetes data as the numerator and people that do not have a diagnosis of diabetes as the denominator. Type of diabetes classification may change subsequently.

The higher incidence of type 1 diabetes observed in 2021 that was particularly marked among 5 - 9 year olds does not appear to have persisted. Higher incidence of type 1 diabetes in 2020 and 2021 compared to pre-pandemic years has also been observed in other countries.

Incidence of type 2 diabetes increased during the period 2021 to 2023 compared to previous years. This may partly reflect the reduction in the numbers of new diagnoses in 2020 because of the pandemic and may also reflect increases in weight and body mass index, in addition to the ageing of the population.

**Table 3 Type 1 diabetes: Number of new cases and incidence rate (per 100,000 population per year) by five-year age groups for under 20-year-olds and ten-year age groups for people over 19 years of age, by year, Scotland 2019-2023.**

| Age | 2019 | | 2020 | | 2021 | | 2022 | | 2023 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cases | Rate | Cases | Rate | Cases | Rate | Cases | Rate | Population | Cases | Rate |
| 0-4 | 54 | 20 | 56 | 21 | 58 | 22 | 61 | 24 | 247,585 | 46 | 19 |
| 5-9 | 108 | 36 | 122 | 41 | 173 | 58 | 112 | 38 | 281,237 | 108 | 38 |
| 10-14 | 161 | 56 | 176 | 60 | 196 | 66 | 171 | 56 | 301,765 | 175 | 58 |
| 15-19 | 97 | 34 | 116 | 41 | 117 | 42 | 104 | 37 | 296,432 | 103 | 35 |
| 20-29 | 205 | 28 | 181 | 25 | 201 | 28 | 178 | 26 | 672,446 | 162 | 24 |
| 30-39 | 145 | 21 | 133 | 19 | 152 | 21 | 154 | 21 | 692,929 | 148 | 21 |
| 40-49 | 100 | 15 | 106 | 16 | 98 | 15 | 103 | 16 | 635,446 | 106 | 17 |
| 50-59 | 71 | 10 | 99 | 13 | 121 | 17 | 109 | 15 | 732,530 | 97 | 13 |
| 60-69 | 47 | 8 | 50 | 9 | 68 | 12 | 61 | 11 | 600,575 | 49 | 8 |
| ≥70 | 36 | 6 | 29 | 5 | 29 | 5 | 29 | 5 | 647,862 | 40 | 6 |
| **Total** | **1,024** | **20** | **1,068** | **21** | **1,213** | **24** | **1,082** | **21** | **5,108,682** | **1,034** | **20** |

Note: The Scottish at-risk population figures exclude people with frank diabetes at the end of the previous year and those whose age is unknown (in 2023, n = 82).

**Table 4 Type 2 diabetes: Number of new cases and incidence rate (per 100,000 population per year), by 10-year age group and year, Scotland 2019-2023.**

| Age | 2019 | | 2020 | | 2021 | | 2022 | | 2023 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cases | Rate | Cases | Rate | Cases | Rate | Cases | Rate | Population | Cases | Rate |
| 0-9 | * | 0 | 0 | 0 | * | 0 | * | 1 | 528,822 | 0 | 0 |
| 10-19 | * | 4 | 22 | 4 | * | 5 | * | 4 | 598,197 | 31 | 5 |
| 20-29 | 216 | 30 | 254 | 35 | 293 | 41 | 294 | 42 | 672,446 | 316 | 47 |
| 30-39 | 1,017 | 146 | 977 | 138 | 1,254 | 175 | 1,275 | 175 | 692,929 | 1,549 | 224 |
| 40-49 | 2,378 | 357 | 2,209 | 337 | 3,010 | 464 | 3,070 | 476 | 635,446 | 3,405 | 536 |
| 50-59 | 4,872 | 665 | 4,447 | 606 | 5,976 | 817 | 5,883 | 808 | 732,530 | 6,337 | 865 |
| 60-69 | 4,901 | 879 | 4,264 | 757 | 5,884 | 1,032 | 6,102 | 1,053 | 600,575 | 7,069 | 1,177 |
| ≥70 | 5,123 | 845 | 4,257 | 685 | 5,773 | 916 | 5,897 | 921 | 647,862 | 6,899 | 1,065 |
| **Total** | **18,530** | **361** | **16,430** | **319** | **22,221** | **432** | **22,545** | **438** | **5,108,682** | **25,606** | **501** |

Note: * Indicates a number of cases between 1 and 4 or a number that indirectly reveals such a potentially disclosive number. The Scottish at-risk population numbers exclude people known to have diabetes at the end of the previous year and those whose age is unknown (in 2023, n = 82).

# Key Characteristics of People with Diabetes: Age and Sex Distribution

Larger proportions of people with diagnosed diabetes are male than female; 55.5% (20,112) of those with type 1 diabetes and 56.2% (174,460) of those with type 2 diabetes are male.

Approximately 6% of people with type 1 diabetes are under 15 years of age and 15% are over 64 years of age. Approximately 3% of people with type 2 diabetes are under 40 years of age and 57% are over 64 years of age.

**Table 5 Age-specific numbers of people recorded as having type 1 or type 2 diabetes, proportion of people with that type of diabetes in each age group (%) and age-specific prevalence, by diabetes type, Scotland 2023.**

| Age | Type 1 diabetes | | | Type 2 diabetes | | |
|---|---|---|---|---|---|---|
| | People (n) | % | Age-specific prevalence (%) | People (n) | % | Age-specific prevalence (%) |
| 0-4 | 121 | 0.3 | 0.0 | * | 0.0 | 0.0 |
| 5-9 | 646 | 1.8 | 0.2 | * | 0.0 | 0.0 |
| 10-14 | 1,439 | 4.0 | 0.5 | * | 0.0 | 0.0 |
| 15-19 | 2,006 | 5.5 | 0.7 | 95 | 0.0 | 0.0 |
| 20-24 | 2,278 | 6.3 | 0.7 | 311 | 0.1 | 0.1 |
| 25-29 | 2,812 | 7.8 | 0.8 | 1,024 | 0.3 | 0.3 |
| 30-34 | 2,972 | 8.2 | 0.8 | 2,462 | 0.8 | 0.7 |
| 35-39 | 3,036 | 8.4 | 0.9 | 5,213 | 1.7 | 1.5 |
| 40-44 | 2,923 | 8.1 | 0.9 | 9,289 | 3.0 | 2.8 |
| 45-49 | 2,747 | 7.6 | 0.8 | 13,449 | 4.3 | 4.1 |
| 50-54 | 3,244 | 8.9 | 0.8 | 23,179 | 7.5 | 6.0 |
| 55-59 | 3,437 | 9.5 | 0.8 | 34,853 | 11.2 | 8.5 |
| 60-64 | 3,063 | 8.4 | 0.8 | 43,011 | 13.9 | 11.5 |
| 65-69 | 2,320 | 6.4 | 0.7 | 45,361 | 14.6 | 14.3 |
| 70-74 | 1,461 | 4.0 | 0.5 | 43,533 | 14.0 | 15.4 |
| 75-79 | 1,013 | 2.8 | 0.5 | 40,448 | 13.0 | 18.1 |
| 80-84 | 456 | 1.3 | 0.3 | 26,386 | 8.5 | 18.4 |
| 85-89 | 193 | 0.5 | 0.2 | 15,567 | 5.0 | 18.0 |
| ≥90 | 64 | 0.2 | 0.1 | 6,285 | 2.0 | 14.0 |
| **Scotland** | **36,249** | **100.0** | **0.7** | **310,541** | **100.0** | **5.7** |

Note: * Indicates a figure between 1 and 4 or a figure that indirectly reveals such figures. Figures in age categories do not precisely match the figures across Scotland due to those whose age is unknown (type 1 n = 18, type 2 n = 59).

# Key Characteristics of People with Diabetes: Ethnicity

Ethnicity is not recorded for approximately one fifth of people with a diagnosis of diabetes in Scotland.

**Table 6 Completeness of recording of ethnic group for people with diabetes (type 1 and type 2 combined) by year, Scotland 2019-2023.**

| Year | Ethnic group recorded | |
|---|---|---|
| | People (n) | % |
| 2023 | 272,627 | 78.6 |
| 2022 | 265,548 | 79.7 |
| 2021 | 260,349 | 80.7 |
| 2020 | 255,219 | 81.7 |
| 2019 | 253,375 | 82.3 |

**Table 7 Distribution of ethnic group for type 1 and type 2 diabetes where ethnicity has been recorded, Scotland 2023.**

| Ethnic group | Type 1 diabetes | | Type 2 diabetes | | 2022 Census |
|---|---|---|---|---|---|
| | People (n) | % | People (n) | % | % |
| A – White | 29,693 | 94.4 | 215,840 | 89.5 | 93.0 |
| B - Mixed or multiple ethnic groups | 754 | 2.4 | 6,866 | 2.8 | 1.1 |
| C - Asian, Asian Scottish or Asian British | 530 | 1.7 | 13,535 | 5.6 | 3.9 |
| D - African, Caribbean or Black | 217 | 0.7 | 2,382 | 1.0 | 1.1 |
| E - Other ethnic group | 270 | 0.9 | 2,540 | 1.1 | 0.9 |
| Not recorded | 4,785 | 13.2 | 69,378 | 22.3 | 0.1 |

Note: Ethnic group percentages are percentages of those recorded. Not recorded percentage is a percentage of the whole population of people with diabetes. Ethnicity of the population of Scotland from the 2022 Census is provided for reference (https://www.scotlandscensus.gov.uk/).

# Key Characteristics of People with Diabetes: Proportions of People with Selected Complications

Proportion of people with diabetes who have a record of key complications of diabetes including cardiovascular disease, foot ulceration and amputation have remained approximately stable in recent years as described in the following tables.

## Cardiovascular Disease

**Table 8 Percentage of people with either type 1 or type 2 diabetes who are recorded as having had a previous myocardial infarction (MI) or cardiac revascularisation by type and year, Scotland 2019-2023.**

| Year | Type 1 diabetes | | Type 2 diabetes | |
|---|---|---|---|---|
| | Myocardial infarction (%) | Cardiac revascularisation (%) | Myocardial infarction (%) | Cardiac revascularisation (%) |
| 2023 | 3.5 | 2.7 | 9.4 | 7.3 |
| 2022 | 3.5 | 2.8 | 9.5 | 7.4 |
| 2021 | 3.6 | 2.8 | 9.6 | 7.5 |
| 2020 | 3.6 | 2.8 | 9.6 | 7.6 |
| 2019 | 3.6 | 2.9 | 9.7 | 7.6 |

Note: Myocardial infarction columns show the percentage of people with diabetes who have ever had a record of a heart attack and survived.

## Foot Ulceration

**Table 9 Percentage of people with either type 1 or type 2 diabetes who are recorded as ever having had a foot ulcer by type and year, Scotland 2019-2023.**

| Year | Recorded as ever having had a foot ulcer (%) | |
|---|---|---|
| | Type 1 diabetes | Type 2 diabetes |
| 2023 | 7.9 | 3.8 |
| 2022 | 7.9 | 3.9 |
| 2021 | 8.0 | 4.0 |
| 2020 | 8.3 | 4.1 |
| 2019 | 8.4 | 4.2 |

## Lower Limb Amputation

**Table 10 Number and percentage of people with diabetes (type 1 and type 2 combined) who had a record of ever having had a major lower limb amputation by year, Scotland 2019-2023.**

| Year | Lower limb amputation | |
|---|---|---|
| | People (n) | % |
| 2023 | 1,620 | 0.5 |
| 2022 | 1,549 | 0.5 |
| 2021 | 1,492 | 0.5 |
| 2020 | 1,465 | 0.5 |
| 2019 (a) | 1,555 | 0.5 |

Note: (a) During the validation of the Scottish Diabetes Survey 2019, errors in the amputation data were spotted. Data for 2019 were recalculated and are likely to be a close approximation of the actual number.

## Mortality

The numbers and proportion of people with diabetes who have died each year in Scotland were higher during the period 2020-2022 than in previous years.

**Table 11 Number and percentage of people with diabetes (type 1 and type 2 combined) who died by year, Scotland 2019-2023.**

| Year | Deaths | |
|---|---|---|
| | People (n) | % |
| 2023 | 13,651 | 3.7 |
| 2022 | 13,641 | 3.9 |
| 2021 | 13,784 | 4.0 |
| 2020 | 13,437 | 4.1 |
| 2019 | 11,946 | 3.7 |

Note: These data were calculated from all people with diabetes who died in the prior year expressed as a percentage of all people with diabetes still alive at the end of the year plus those who died during the year. This does not take account of the fact that the size of the population changes during the year as people develop diabetes or die.

## Diabetic Retinopathy

**Table 12 Percentage of people with either type 1 or type 2 diabetes who are recorded as having diabetic retinopathy, by diabetes type, Scotland 2023.**

| Year | Recorded as having diabetic retinopathy (%) | |
|---|---|---|
| | Type 1 diabetes | Type 2 diabetes |
| 2023 | 52.3 | 21.1 |
| 2022 | 53.0 | 21.9 |
| 2021 | 52.5 | 21.6 |
| 2020 | 52.8 | 21.5 |
| 2019 | 53.7 | 22.0 |

Note: Excludes children under 12 years of age and people whose date of birth have not been recorded (in 2023 type 1 n = 1,282, type 2 n = 65).

# Section 2: Data Relevant to the Diabetes Improvement Plan

This section provides currently available data relevant to the Diabetes Improvement Plan (https://www.gov.scot/publications/diabetes-improvement-plan-diabetes-care-scotland-commitments-2021-2026/pages/4/). We hope to extend the inclusion of other relevant data in subsequent years.

**Commitment 1.1** We will continue to support the implementation of the Framework for the Prevention, Early Detection and Early Intervention of Type 2 Diabetes.

To ensure progress against this commitment we will review the:

- Percentage of adults who are newly diagnosed with type 2 diabetes

**Table 13 Numbers and percentage of people aged 20 years old or older, with type 2 diabetes, whose diabetes was diagnosed in previous year as a percentage of those with a date of diagnosis recorded, by year, Scotland 2019-2023.**

| Year | Type 2 diabetes (20+ years old) | |
|---|---|---|
| | People (n) | % |
| 2023 | 25,575 | 8.2 |
| 2022 | 22,521 | 7.6 |
| 2021 | 22,190 | 7.7 |
| 2020 | 16,408 | 5.9 |
| 2019 | 18,507 | 6.7 |

Note: Data given for 20+ year olds as not available for 18+ year olds. In 2023, there were 1,711 people of all ages with type 2 diabetes whose date of diagnosis was not recorded.

In 2023, the date of diagnosis was recorded for 99.4% of people of all ages with either type 1 or type 2 diabetes.

• Percentage of adults with type 2 who achieve optimal glycaemic ($HbA_{1c}$<58mmol/mol) control at 1 year post diagnosis

**Table 14 Proportions and numbers of people with $HbA_{1c}$<58 mmol/mol one year (+/- 90 days) after diagnosis of type 2 and other (non-type 1) forms of diabetes for people 18+ years of age who have $HbA_{1c}$ data available for that period, by year, Scotland 2019-2023.**

| Year | Achieving measure | | Number of eligible people that have $HbA_{1c}$ recorded |
|---|---|---|---|
| | People (n) | % | |
| 2023 | 10,270 | 73.1 | 14,055 |
| 2022 | 9,631 | 73.5 | 13,109 |
| 2021 | 6,484 | 71.8 | 9,033 |
| 2020 | 5,704 | 67.6 | 8,438 |
| 2019 | 7,645 | 72.0 | 10,621 |

Note: At present it has not been possible to estimate proportions of people with missing $HbA_{1c}$ in this period after diagnosis of diabetes.

**Commitment 1.3** We will ensure care pathways support individuals to have their processes of care completed while considering the principles of realistic medicine.

To ensure progress against this commitment we will review the:

• Percentage of people with diabetes who have all age-appropriate processes of care recorded

**Table 15 Proportions of people that have received age-appropriate measures with type 1 or type 2 diabetes in specific age bands, by type and year, Scotland 2019-2023.**

| Year | Process measured within previous 15 months (%) | | | |
|---|---|---|---|---|
| | Both recommended processes of care for 0-11 year olds | All 6 recommended processes of care for 12-17 year olds | All 9 recommended processes of care for 18+ year olds | |
| | Type 1 diabetes | Type 1 diabetes | Type 1 diabetes | Type 2 diabetes |
| 2023 | 94.9 | 24.0 | 28.9 | 29.7 |
| 2022 | 94.0 | 16.1 | 18.5 | 18.2 |
| 2021 | 88.9 | 12.7 | 13.5 | 12.4 |
| 2020 | 88.6 | 9.4 | 10.2 | 11.3 |
| 2019 | 94.6 | 32.8 | 33.5 | 39.9 |

Note: Age-appropriate measures are described in Table 1. Proportions receiving individual processes of care for all ages by type of diabetes are reported in Table 24 and Table 25 with selected individual processes of care reported by type of diabetes and age group in Table 26 and Table 27.

- Percentage of people with diabetes who have had foot screening

Proportions of people with a record of foot screening in the last 15 months have improved to nearly pre-pandemic levels (2019).

**Table 16 Percentage of adults with type 1 or type 2 diabetes who have a recorded foot risk score in the previous 15 months by diabetes type and year, Scotland 2019-2023.**

| Year | Recorded as having foot risk score (%) | |
|---|---|---|
| | Type 1 diabetes | Type 2 diabetes |
| 2023 | 60.4 | 58.8 |
| 2022 (a) | 39.7 | 42.6 |
| 2021 (a) | 33.4 | 36.7 |
| 2020 (a) | 33.1 | 38.5 |
| 2019 (a) | 56.5 | 64.7 |

Note: a) Data prior to 2023 includes those under 18 years of age. After 2023, data excludes those under 18 years of age and people whose date of birth have not been recorded (in 2023 type 1 = 3,410, type 2 = 120).

- Percentage of people with diabetes who have had screening for microalbuminuria

**Table 17 Percentage of people with type 1 or type 2 diabetes who have a record of measurement of urinary albumin value or albumin/creatinine ratio within the previous 15 months, by diabetes type and year, Scotland 2019-2023.**

| Year | Recorded urinary albumin/ACR measurements (%) | |
|---|---|---|
| | Type 1 diabetes | Type 2 diabetes |
| 2023 | 61.3 | 59.7 |
| 2022 | 56.4 | 56.0 |
| 2021 | 52.4 | 52.8 |
| 2020 | 47.4 | 49.8 |
| 2019 | 63.5 | 65.8 |

Note: Excludes children under 12 years of age and people whose date of birth have not been recorded (in 2023 type 1 n = 1,282, type 2 n = 65).

## Priority 2 - Type 1 Diabetes

### To improve the care and outcomes of all people living with type 1 diabetes

**Commitment 2.1** We will support early optimisation of glycaemic control in new onset type 1 diabetes.

To ensure progress against this commitment we will review the:

- Percentage of people with type 1 diabetes who achieve optimal glycaemic control ($HbA_{1c}$<58mmol/mol in adults) at one year post diagnosis with the aim of 58% of people achieving this.

**Table 18 Proportions and numbers of people with $HbA_{1c}$<58 mmol/mol one year (+/- 90 days) after diagnosis of type 1 diabetes for people of 18+ years of age who have $HbA_{1c}$ data available for that period by year, Scotland 2019-2023.**

| Year | Achieving measure | | Number diagnosed during the year and have $HbA_{1c}$ recorded |
|---|---|---|---|
| | People (n) | % | |
| 2023 | 192 | 50.7 | 379 |
| 2022 | 229 | 53.0 | 432 |
| 2021 | 172 | 53.3 | 323 |
| 2020 | 138 | 44.5 | 310 |
| 2019 | 223 | 53.5 | 417 |

Note: At present it has not been possible to estimate proportions of people with missing $HbA_{1c}$ in this period after diagnosis of diabetes.

**Commitment 2.2** We will support appropriate and timely access to technologies to improve glycaemic control and quality of life for people living with type 1 diabetes.

- Percentage of people with type 1 diabetes who have access to continuous glucose monitoring.

**Table 19 Percentage of people with type 1 diabetes recorded as using continuous glucose measurement devices, by year, Scotland 2021-2023.**

| Survey Year | Date of extract | Recorded as using a continuous glucose monitoring device, type 1 diabetes (%) |
|---|---|---|
| 2023 | May 2024 | 82.5 |
| 2023 | Dec 2023 | 61.9 |
| 2022 | May 2023 | 59.9 |
| 2021 | Feb 2022 | 52.7 |

Note: Data were extracted later than for most other sections of this report. Data have been recorded since 2021.

- Percentage of people with type 1 diabetes who have access to insulin pump therapy

The use of Continuous Subcutaneous Insulin Infusion (CSII or insulin pump therapy) as a method to manage type 1 diabetes has increased in many developed countries during the last 20 years. The Scottish Diabetes Group, supported by the Government, have emphasised the importance of ensuring individuals who fulfil the clinical criteria for CSII therapy have access to this technology. The results in Table 20 describe the proportion of people recorded as receiving treatment with insulin pumps in Scotland and show that the proportions have increased between 2019 and 2023.

**Table 20 Numbers and percentages of people with type 1 diabetes using insulin pumps by age group and year, Scotland 2019-2023.**

| Year | Aged under 18 years | | | Aged 18 years or over | | | All ages | | |
|---|---|---|---|---|---|---|---|---|---|
| | People (n) | On pump | | People (n) | On pump | | People (n) | On pump | |
| | | n | % | | n | % | | n | % |
| 2023 | 3,392 | 1,851 | 54.6 | 32,839 | 5,158 | 15.7 | 36,231 | 7,009 | 19.3 |
| 2022 | 3,375 | 1,560 | 46.2 | 32,219 | 4,613 | 14.3 | 35,594 | 6,173 | 17.3 |
| 2021 | 3,329 | 1,321 | 39.7 | 31,573 | 4,067 | 12.9 | 34,902 | 5,388 | 15.4 |
| 2020 | 3,160 | 1,249 | 39.5 | 30,901 | 3,635 | 11.8 | 34,061 | 4,884 | 14.3 |
| 2019 | 3,070 | 1,193 | 38.9 | 30,357 | 3,421 | 11.3 | 33,427 | 4,614 | 13.8 |

**Commitment 2.5** We will continue to support improvements in care and outcomes for adults living with Type 1 diabetes.

- Percentage of people with type 1 diabetes with optimal glycaemic control

**Table 21 Type 1 diabetes (any duration, all age groups): Percentage of people with a record of $HbA_{1c}$ below 58 mmol/mol by year, Scotland 2019-2023.**

| Year | Recorded as having $HbA_{1c}$ <58 mmol/mol, type 1 diabetes (%) |
|---|---|
| 2023 | 32.1 |
| 2022 | 30.9 |
| 2021 | 30.1 |
| 2020 | 26.1 |
| 2019 | 26.5 |

Note: Lower proportions of people had their $HbA_{1c}$ recorded in 2020-2022 than in previous years. However, it appears that proportions with good glycaemic control (defined as $HbA_{1c}$<58mmol/mol) have increased and proportions of people with poor control (defined as $HbA_{1c}$ ≥58 mmol/mol) have decreased over time.

- Percentage of people with type 1 diabetes with most recent blood pressure in the last 15 months <130 mmHg (systolic) and ≤80 mmHg (diastolic)

**Table 22 Percentage of people with type 1 diabetes and recorded blood pressure in the last 15 months whose most recent blood pressure was <130 mmHg (systolic) and ≤80 mmHg (diastolic), by year, Scotland 2019-2023.**

| Year | Most recent recorded blood pressure <130 mmHg (systolic) and ≤80 mmHg (diastolic), type 1 diabetes (%) |
|---|---|
| 2023 | 39.5 |
| 2022 (a) | 38.3 |
| 2021 (a) | 37.3 |
| 2020 (a) | 38.7 |
| 2019 (a) | 41.4 |

Note: a) Data prior to 2023 includes those under 12 years of age. After 2023, data excludes those under 12 years of age and people whose date of birth have not been recorded (in 2023 type 1 n = 1,282, type 2 n = 65).

**Priority 3 - Person-Centred Care**

**Commitment 3.1** We will ensure timely and appropriate access to structured education and support for people living with diabetes.

- Percentage of people living with diabetes who are recorded as having ever attended structured education

**Table 23 Percentage of people with type 1 or type 2 diabetes who are recorded as having ever attended structured education, by diabetes type and year, Scotland 2019-2023.**

| Year | Recorded as having ever attended structured education (%) | |
|---|---|---|
| | Type 1 diabetes | Type 2 diabetes |
| 2023 | 25.2 | 5.3 |
| 2022 | 24.7 | 4.9 |
| 2021 | 23.9 | 4.7 |
| 2020 | 22.7 | 4.8 |
| 2019 | 21.3 | 4.8 |

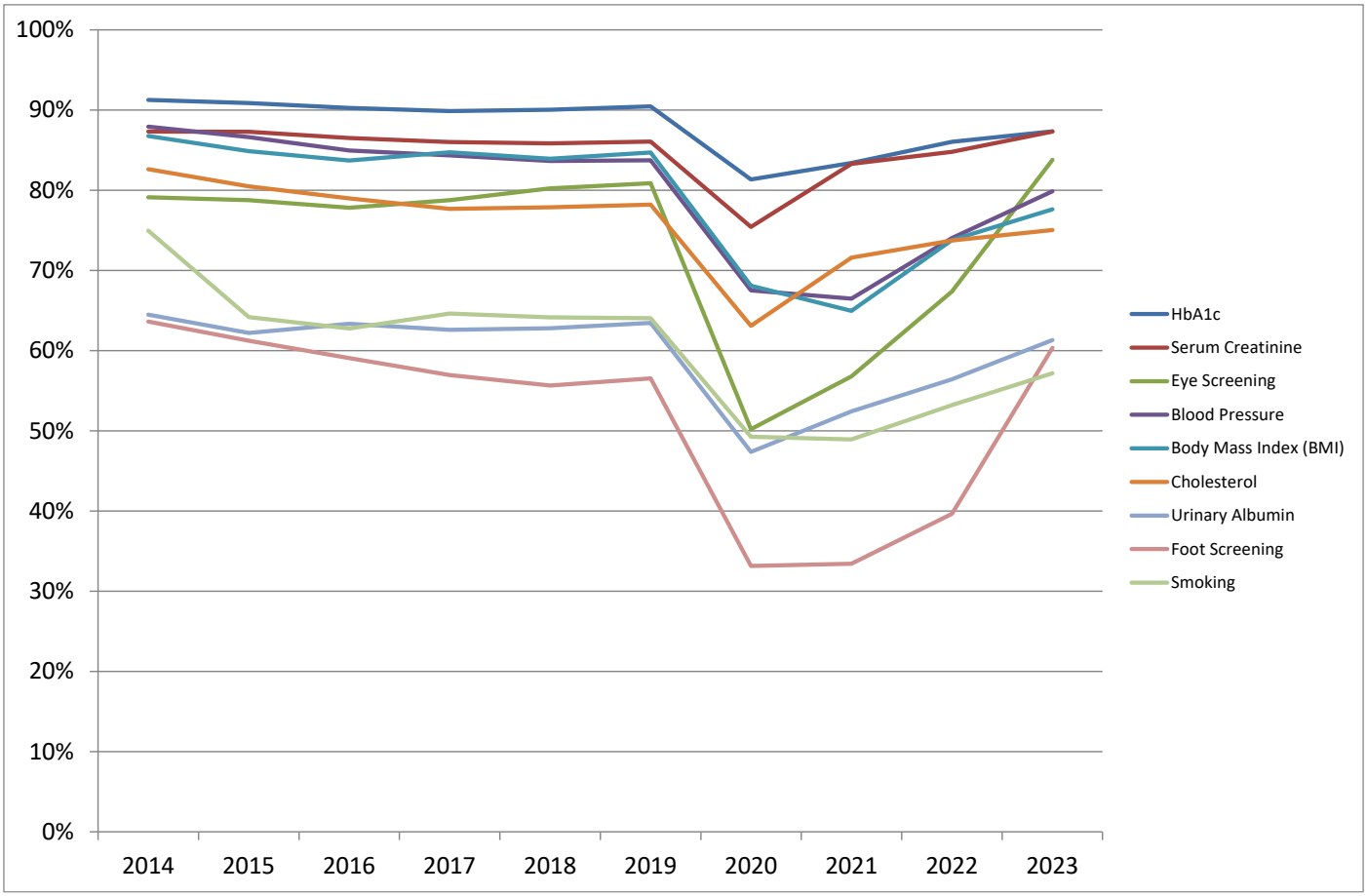
Note: These data are known to be inaccurate and to underestimate the proportions of people that have received structured education. Work is in progress to improve the completeness of recording of receipt of structured education.

# Section 3: National Completion of Processes of Care and Achievement of Treatment Targets by Type of Diabetes

## Processes of Care

Completion of processes of care (recording of measurement of risk factors or of screening for eye or foot disease) fell in 2020, 2021 and 2022. These proportions had still not returned to pre-pandemic levels in 2023 as shown in Figure 3, Figure 4, Table 24 and Table 25.

**Figure 3 Completion of processes of care for people with type 1 diabetes, Scotland 2014-2023.**



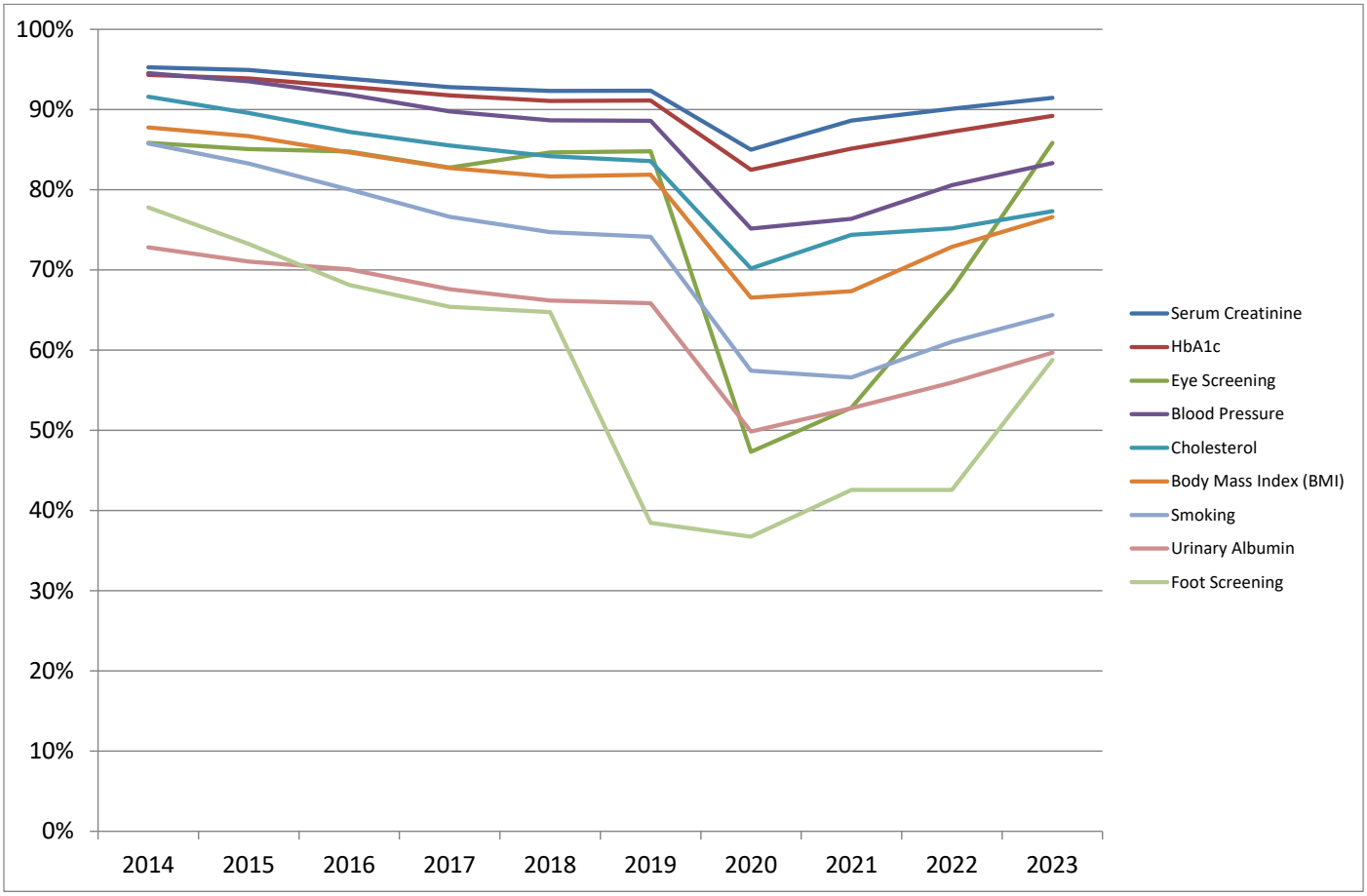

Note: Cholesterol and Serum Creatinine: Excludes people under 18 years of age and people whose date of birth have not been recorded (in 2023 n = 3,410). Blood Pressure, Eye Screening, Smoking and Urinary Microalbumin: Excludes children under 12 years of age and people whose date of birth have not been recorded (in 2023 n = 1,282). In some cases, urinary albumin was estimated from albumin / creatinine ratio (ACR). Prior to 2023 Serum Creatinine excluded people under 12 years of age, and Blood Pressure and Smoking included all ages. Data for Eye Screening prior to 2017 exclude those having ophthalmology care or an appropriate suspension from screening. Data for BMI prior to 2017 excludes people under 18 years of age and people whose date of birth have not been recorded.

**Table 24 Completion of processes of care during the previous 15 months for people with type 1 diabetes by year, Scotland 2014-2023.**

| Year | Processes of Care recorded during the previous 15 months (%) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Blood Pressure | Body Mass Index (BMI) | Cholest-erol | Eye Screening | Foot Screening | $HbA_{1c}$ | Serum Creat-inine | Smoking | Urinary Albumin |
| 2023 | 79.9 | 77.6 | 75.0 | 83.8 | 60.4 | 87.3 | 87.3 | 57.2 | 61.3 |
| 2022 | 74.0 | 73.8 | 73.7 | 67.4 | 39.7 | 86.0 | 84.8 | 53.2 | 56.4 |
| 2021 | 66.5 | 65.0 | 71.6 | 56.8 | 33.4 | 83.4 | 83.3 | 48.9 | 52.4 |
| 2020 | 67.5 | 68.1 | 63.1 | 50.2 | 33.1 | 81.3 | 75.4 | 49.3 | 47.4 |
| 2019 | 83.7 | 84.7 | 78.2 | 80.9 | 56.5 | 90.5 | 86.1 | 64.0 | 63.5 |
| 2018 | 83.6 | 83.9 | 77.9 | 80.2 | 55.7 | 90.0 | 85.8 | 64.1 | 62.8 |
| 2017 | 84.3 | 84.7 | 77.7 | 78.8 | 56.9 | 89.9 | 86.0 | 64.6 | 62.6 |
| 2016 (a) | 84.9 | 83.7 | 79.0 | 77.8 | 59.1 | 90.3 | 86.5 | 62.7 | 63.3 |
| 2015 (a) | 86.6 | 84.9 | 80.5 | 78.8 | 61.2 | 90.9 | 87.3 | 64.2 | 62.2 |
| 2014 (a) | 87.9 | 86.8 | 82.6 | 79.1 | 63.6 | 91.3 | 87.3 | 74.9 | 64.5 |

Note: Cholesterol and Serum Creatinine: Excludes people under 18 years of age and people whose date of birth have not been recorded (in 2023 n = 3,410). Blood Pressure, Eye Screening, Smoking and Urinary Microalbumin: Excludes children under 12 years of age and people whose date of birth have not been recorded (in 2023 n = 1,282). In some cases, urinary albumin was estimated from albumin / creatinine ratio (ACR). Prior to 2023 Serum Creatinine excluded people under 12 years of age, and Blood Pressure and Smoking included all ages. a) Data for Eye Screening prior to 2017 exclude those having ophthalmology care or an appropriate suspension from screening. Data for BMI prior to 2017 excludes people under 18 years of age and people whose date of birth have not been recorded.

**Figure 4 Completion of processes of care for people with type 2 diabetes by year, Scotland 2014-2023.**




Note: Cholesterol and Serum Creatinine: Excludes people under 18 years of age and people whose date of birth have not been recorded (in 2023 n = 120). Blood Pressure, Eye Screening, Smoking and Urinary Microalbumin: Excludes children under 12 years of age and people whose date of birth have not been recorded (in 2023 n = 65). In some cases, urinary albumin was estimated from albumin / creatinine ratio (ACR). Prior to 2023 Serum Creatinine excluded people under 12 years of age, and Blood Pressure and Smoking included all ages. Data for Eye Screening prior to 2017 exclude those having ophthalmology care or an appropriate suspension from screening. Data for BMI prior to 2017 excludes people under 18 years of age and people whose date of birth have not been recorded.

**Table 25 Completion of processes of care during the previous 15 months for people with type 2 diabetes by year, Scotland 2014-2023.**

| Year | Processes of Care recorded during the previous 15 months (%) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Blood Pressure | Body Mass Index (BMI) | Cholest-erol | Eye Screening | Foot Screening | $HbA_{1c}$ | Serum Creat-inine | Smoking | Urinary Albumin |
| 2023 | 83.3 | 76.6 | 77.3 | 85.9 | 58.8 | 89.2 | 91.5 | 64.4 | 59.7 |
| 2022 | 80.6 | 72.9 | 75.2 | 67.6 | 42.6 | 87.2 | 90.1 | 61.0 | 56.0 |
| 2021 | 76.4 | 67.4 | 74.4 | 52.8 | 42.6 | 85.1 | 88.6 | 56.6 | 52.8 |
| 2020 | 75.1 | 66.5 | 70.2 | 47.3 | 36.7 | 82.5 | 85.0 | 57.4 | 49.8 |
| 2019 | 88.6 | 81.9 | 83.6 | 84.8 | 38.5 | 91.1 | 92.3 | 74.1 | 65.8 |
| 2018 | 88.6 | 81.7 | 84.2 | 84.7 | 64.7 | 91.1 | 92.3 | 74.7 | 66.2 |
| 2017 | 89.8 | 82.7 | 85.5 | 82.8 | 65.4 | 91.8 | 92.8 | 76.6 | 67.6 |
| 2016 (a) | 91.8 | 84.7 | 87.2 | 84.8 | 68.1 | 92.8 | 93.8 | 80.0 | 70.1 |
| 2015 (a) | 93.5 | 86.7 | 89.6 | 85.1 | 73.2 | 93.9 | 94.9 | 83.3 | 71.0 |
| 2014 (a) | 94.5 | 87.8 | 91.6 | 85.8 | 77.8 | 94.3 | 95.3 | 85.8 | 72.8 |

Note: Cholesterol and Serum Creatinine: Excludes people under 18 years of age and people whose date of birth have not been recorded (n = 120). Blood Pressure, Eye Screening, Smoking and Urinary Microalbumin: Excludes children under 12 years of age and people whose date of birth have not been recorded (n = 65). In some cases, urinary albumin was estimated from albumin / creatinine ratio (ACR). Prior to 2023 Serum Creatinine excluded people under 12 years of age, and Blood Pressure and Smoking included all ages. a) Data for Eye Screening prior to 2017 exclude those having ophthalmology care or an appropriate suspension from screening. Data for BMI prior to 2017 excludes people under 18 years of age and people whose date of birth have not been recorded.

## Processes of Care by Age Group

**Table 26 Percentage of people with type 1 diabetes who had a record of selected diabetes processes of care within the previous 15 months and total eligible population, by age group, Scotland 2023.**

| Age group | Process of care recorded during the previous 15 months (%) | | | | | | Total Eligible (n) |
|---|---|---|---|---|---|---|---|
| | Blood Pressure | BMI / Weight | DRS Eye Screening | $HbA_{1c}$ | Micro-albumin | Smoking | |
| 0-4 | N/A | 90.9 | N/A | 97.5 | N/A | N/A | 121 |
| 5-11 | N/A | 97.4 | N/A | 98.2 | N/A | N/A | 1,143 |
| 12-17 | 82.8 | 95.1 | 85.7 | 96.8 | 55.1 | 42.9 | 2,128 |
| 18+ | 79.7 | 75.8 | 83.7 | 86.4 | 61.7 | 59.1 | 32,839 |

Note: N/A: data not collected for this age group. Excludes people whose date of birth have not been recorded (type 1 n = 18).

**Table 27 Percentage of people with type 2 diabetes who had a record of selected diabetes processes of care within the previous 15 months and total eligible population, by age group, Scotland 2023.**

| Age group | Process of care recorded during the previous 15 months (%) | | | | | | Total Eligible (n) |
|---|---|---|---|---|---|---|---|
| | Blood Pressure | BMI | DRS Eye Screening | $HbA_{1c}$ | Micro-albumin | Smoking | |
| 12-17 | 72.7 | 85.5 | 74.5 | 87.3 | 30.9 | 27.3 | 55 |
| 18+ | 83.3 | 76.6 | 85.9 | 89.2 | 59.7 | 64.7 | 310,421 |

Note: Excludes people under 12 years of age and people whose date of birth have not been recorded (type 2 n = 65).

# Glycaemic Control

The proportion of people with type 1 diabetes with $HbA_{1c}$ <58 mmol/mol was over 32% in 2023 (Table 28) and is the highest it has been in the last 10 years (see green-shaded regions in Figure 5). However approximately 1 in 8 people with type 1 diabetes and almost 1 in 9 people with type 2 diabetes did not have an $HbA_{1c}$ recorded in 2023 (Table 28 and Table 29). These are smaller proportions than for 2022 but completeness of recording has still not recovered to pre-pandemic levels.

**Figure 5 Percentage of people with type 1 diabetes with a record of $HbA_{1c}$ in each $HbA_{1c}$ category by year, Scotland 2014-2023.**

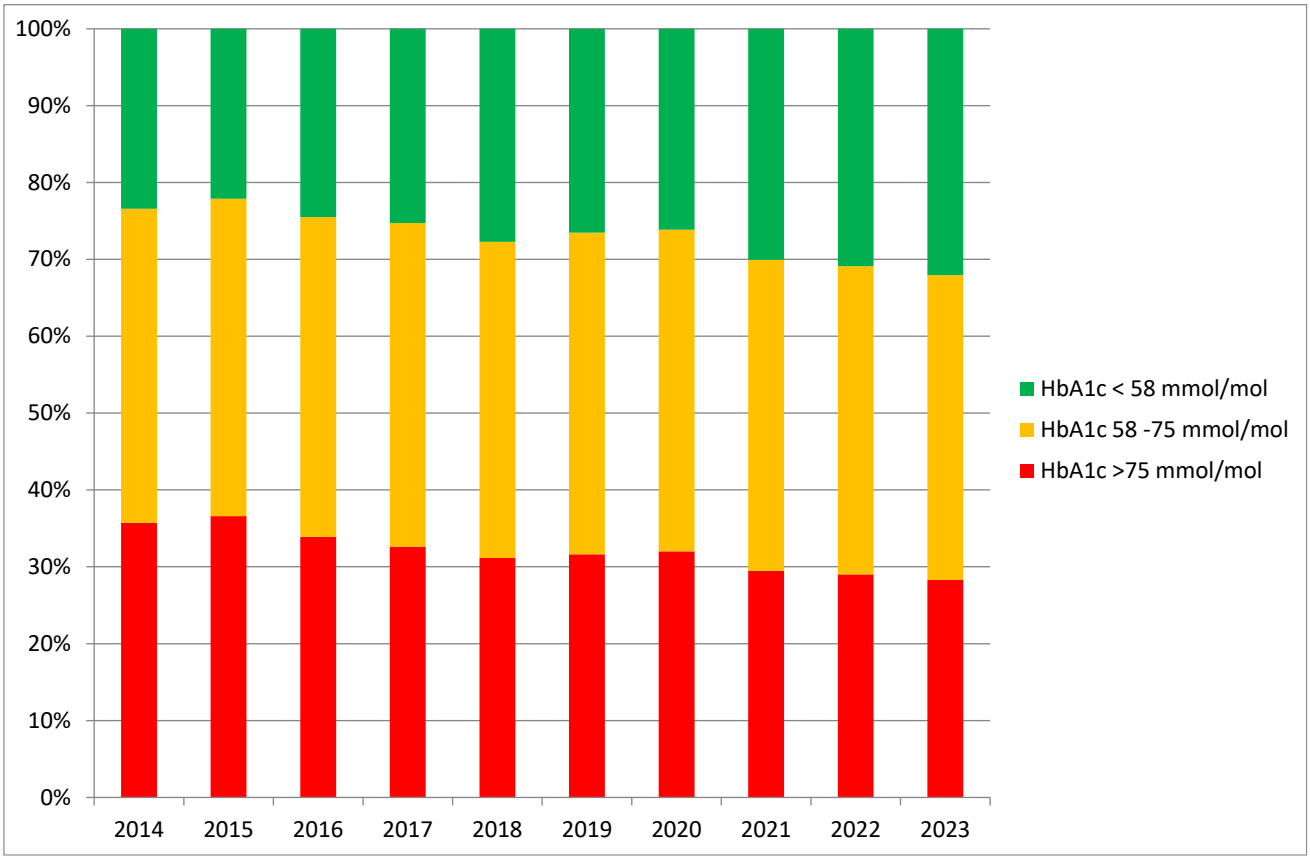


**Table 28 Number and percentage of people with type 1 diabetes with a record of $HbA_{1c}$ in each $HbA_{1c}$ category and percentage with $HbA_{1c}$ not recorded and the number of people with type 1 diabetes by year, Scotland 2019-2023.**

| Year | $HbA_{1c}$ category (mmol/mol) | | | | | | Not recorded (%) | Population (n) |
|---|---|---|---|---|---|---|---|---|
| | <58 | | 58-75 | | >75 | | | |
| | n | % | n | % | n | % | | |
| 2023 | 10,149 | 32.1 | 12,554 | 39.7 | 8,958 | 28.3 | 12.7 | 36,249 |
| 2022 | 9,465 | 30.9 | 12,296 | 40.1 | 8,889 | 29.0 | 14.0 | 35,619 |
| 2021 | 8,756 | 30.1 | 11,789 | 40.5 | 8,588 | 29.5 | 16.6 | 34,928 |
| 2020 | 7,249 | 26.1 | 11,601 | 41.8 | 8,876 | 32.0 | 18.7 | 34,087 |
| 2019 | 8,027 | 26.5 | 12,666 | 41.9 | 9,570 | 31.6 | 9.5 | 33,452 |

Note: Lower proportions of people had their $HbA_{1c}$ recorded in 2020-2023 than in previous years. However, it appears that proportions with good glycaemic control have increased and with poor control have decreased. Data for previous years are available in previous Surveys.

**Figure 6 Percentage of people with type 2 diabetes with a record of $HbA_{1c}$ in each $HbA_{1c}$ category by year, Scotland 2014-2023.**

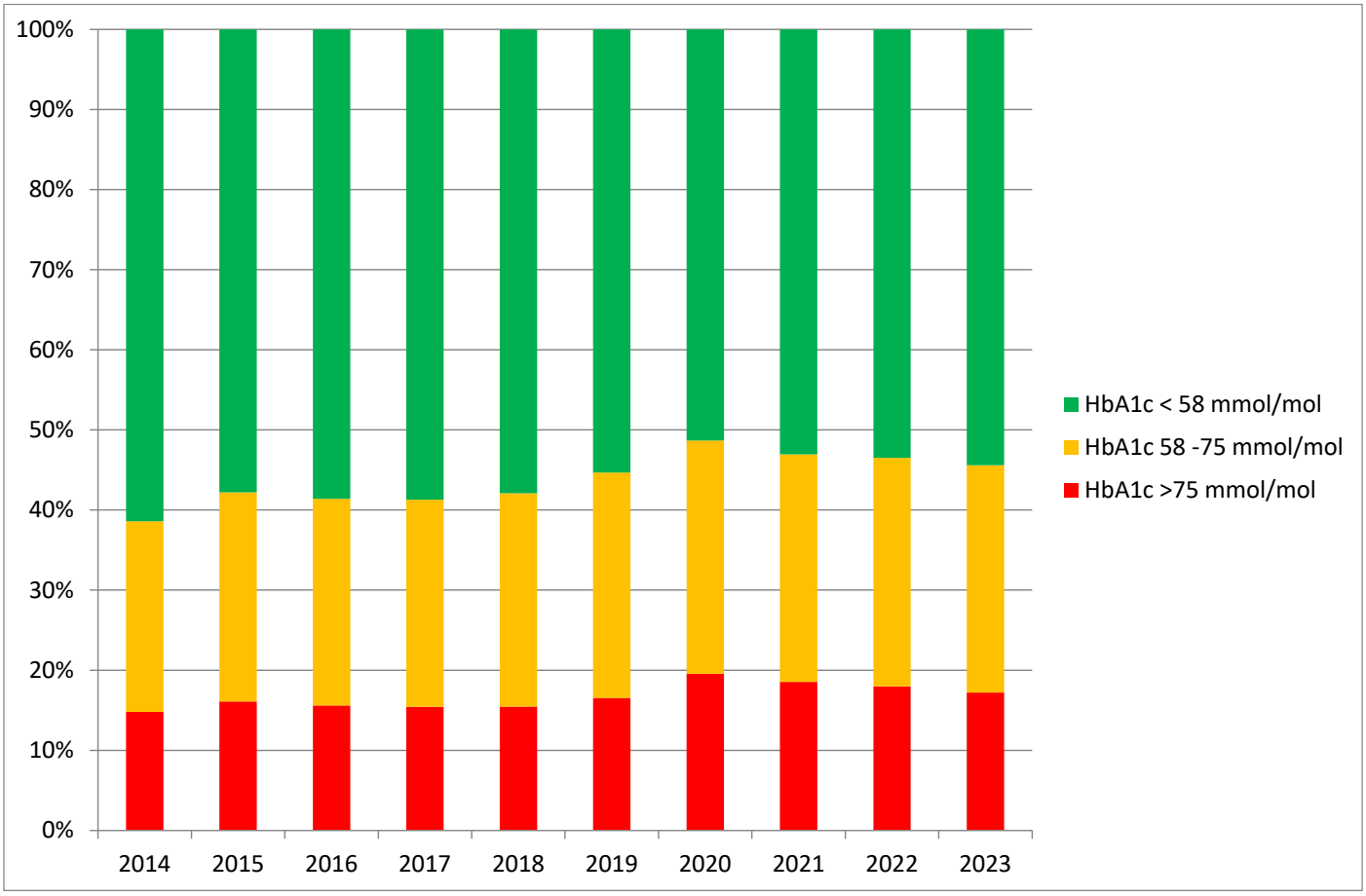


**Table 29 Number and percentage of people with type 2 diabetes with a record of $HbA_{1c}$ in each $HbA_{1c}$ category and percentage with $HbA_{1c}$ not recorded and the number of people with type 2 diabetes by year, Scotland 2019-2023.**

| Year | $HbA_{1c}$ category (mmol/mol) | | | | | | Not recorded (%) | Population (n) |
|---|---|---|---|---|---|---|---|---|
| | <58 | | 58-75 | | >75 | | | |
| | n | % | n | % | n | % | | |
| 2023 | 150,664 | 54.4 | 78,640 | 28.4 | 47,686 | 17.2 | 10.8 | 310,541 |
| 2022 | 138,798 | 53.5 | 74,011 | 28.5 | 46,699 | 18.0 | 12.8 | 297,504 |
| 2021 | 129,852 | 53.0 | 69,545 | 28.4 | 45,417 | 18.6 | 14.9 | 287,606 |
| 2020 | 117,776 | 51.3 | 66,838 | 29.1 | 44,871 | 19.6 | 17.5 | 278,239 |
| 2019 | 138,374 | 55.3 | 70,314 | 28.1 | 41,390 | 16.6 | 8.9 | 274,442 |

Note: Lower proportions of people had their $HbA_{1c}$ recorded in 2020-2023 than in previous years. Data for previous years are available in previous Surveys.

# Blood Pressure

**Table 30 Percentage of people 12 years of age and older with diabetes with systolic blood pressure (SBP) ≤140 mmHg as a percentage of those recorded and percentage not recorded by type of diabetes and year, Scotland 2019-2023.**

| Year | Type 1 diabetes | | | | Type 2 diabetes | | | |
|---|---|---|---|---|---|---|---|---|
| | Systolic BP (mmHg) category (%) | | Not recorded (%) | Population (n) | Systolic BP (mmHg) category (%) | | Not recorded (%) | Population (n) |
| | ≤ 140 | > 140 | | | ≤ 140 | > 140 | | |
| 2023 | 73.2 | 26.8 | 21.7 | 34,967 | 73.8 | 26.2 | 21.9 | 310,476 |
| 2022 (a) | 72.3 | 27.7 | 26.0 | 35,619 | 71.6 | 28.4 | 19.4 | 297,504 |
| 2021 (a) | 73.2 | 26.8 | 33.5 | 34,928 | 70.5 | 29.5 | 23.6 | 287,606 |
| 2020 (a) | 73.8 | 26.2 | 32.5 | 33,087 | 69.9 | 30.1 | 24.9 | 278,239 |
| 2019 (a) | 75.1 | 24.9 | 16.3 | 33,452 | 74.0 | 26.0 | 11.4 | 274,442 |

Note: a) Data for years before 2023 includes data for all ages, but only children of 12 years of age and older were expected to have their blood pressure measured. Data for 2023 excludes people under 12 years of age and people whose date of birth have not been recorded (in 2023 type 1 n = 1,282, type 2 n = 65).

# Total Cholesterol

More than 1 in 5 people with type 1 or type 2 diabetes did not have total cholesterol recorded in 2023 (Table 31). Of the people with cholesterol recorded the proportions meeting the target of ≤5 mmol/l have remained approximately constant over the last five years.

**Table 31 Number and percentage adults with type 1 or type 2 diabetes by type of diabetes, cholesterol category and year (denominator those with recording of cholesterol within the previous 15 months), Scotland 2019-2023.**

| Year | Type 1 diabetes | | | | Type 2 diabetes | | | |
|---|---|---|---|---|---|---|---|---|
| | Cholesterol (mmol/l) category (%) | | Not Recorded (%) | Total Eligible (n) | Cholesterol (mmol/l) category (%) | | Not Recorded (%) | Total Eligible (n) |
| | ≤ 5 | > 5 | | | ≤ 5 | > 5 | | |
| 2023 | 70.1 | 29.9 | 25.0 | 32,839 | 76.7 | 23.3 | 22.7 | 310,421 |
| 2022 | 69.3 | 30.7 | 26.3 | 32,219 | 76.1 | 23.9 | 24.8 | 297,354 |
| 2021 | 70.2 | 29.8 | 28.4 | 31,573 | 77.2 | 22.8 | 25.6 | 287,450 |
| 2020 | 69.3 | 30.7 | 36.9 | 30,901 | 77.2 | 22.8 | 29.8 | 278,097 |
| 2019 | 71.0 | 29.0 | 21.8 | 30,357 | 78.8 | 21.2 | 16.4 | 274,300 |

Note: Excludes people under 18 years of age and people whose date of birth have not been recorded (in 2023 type 1 n = 3,410, type 2 n = 120).

# Kidney Function

## Serum Creatinine

Approximately 1 in 8 people with type 1 diabetes and 1 in 12 people with type 2 diabetes did not have a serum creatinine recorded in 2023 (Table 32). More than 1 in 3 people with either type 1 or type 2 diabetes did not have urinary albumin level recorded (Table 33).

**Table 32 Percentage of people with type 1 and type 2 diabetes who had a record of serum creatinine within the previous 15 months and total eligible population, by diabetes type and year, Scotland 2019-2023.**

| Year | Type 1 diabetes | | Type 2 diabetes | |
|---|---|---|---|---|
| | Recorded within previous 15 months (%) | Total eligible population (n) | Recorded within previous 15 months (%) | Total eligible population (n) |
| 2023 | 87.3 | 32,839 | 91.5 | 310,421 |
| 2022 (a) | 84.8 | 34,311 | 90.1 | 297,403 |
| 2021 (a) | 83.3 | 33,647 | 88.6 | 287,503 |
| 2020 (a) | 75.4 | 32,891 | 85.0 | 278,138 |
| 2019 (a) | 86.1 | 32,226 | 92.3 | 274,340 |

Note: a) Prior to 2023, Serum Creatinine excluded people under 12 years of age. Data from 2023 excludes children under 18 years of age and people whose date of birth have not been recorded (in 2023 type 1 = 3,410, type 2 = 120).

## Urinary Albumin Excretion

**Table 33 Percentage of people with type 1 or type 2 diabetes who had a record of measurement of urinary albumin or albumin / creatinine ratio within the previous 15 months and total eligible population, by diabetes type and year, Scotland 2019-2023.**

| Year | Type 1 diabetes | | Type 2 diabetes | |
|---|---|---|---|---|
| | Recorded within previous 15 months (%) | Total eligible population (n) | Recorded within previous 15 months (%) | Total eligible population (n) |
| 2023 | 61.3 | 34,967 | 59.7 | 310,476 |
| 2022 | 56.4 | 34,311 | 56.0 | 297,403 |
| 2021 | 52.4 | 33,647 | 52.8 | 287,503 |
| 2020 | 47.4 | 32,891 | 49.8 | 278,138 |
| 2019 | 63.5 | 32,226 | 65.8 | 274,340 |

Note: Excludes children under 12 years of age and people whose date of birth have not been recorded (in 2023 type 1 n = 1,282, type 2 n = 65).

# Body Mass Index (BMI)

**Table 34 Percentage (%) of adults with type 1 diabetes and a record of BMI in the previous 15 months in different BMI categories and percentage with BMI not recorded by BMI category and by year, Scotland 2019-2023.**

| Year | BMI category (kg/m2) | | | | | | Not recorded (%) | Total Eligible (n) |
|---|---|---|---|---|---|---|---|---|
| | <25 | | 25-29.99 | | >30 | | | |
| | n | % | n | % | n | % | | |
| 2023 | 8,307 | 33.4 | 8,873 | 35.6 | 7,713 | 31.0 | 24.2 | 32,839 |
| 2022 | 7,664 | 33.2 | 8,278 | 35.9 | 7,147 | 31.0 | 28.3 | 32,219 |
| 2021 | 6,651 | 33.8 | 7,170 | 36.4 | 5,883 | 29.9 | 37.6 | 31,573 |
| 2020 | 7,191 | 35.4 | 7,473 | 36.8 | 5,668 | 27.9 | 34.2 | 30,901 |
| 2019 | 9,011 | 35.5 | 9,327 | 36.8 | 7,016 | 27.7 | 16.5 | 30,357 |

Note: Excludes people under 18 years of age as BMI categories are classified differently for children, and people whose date of birth have not been recorded (in 2023 n = 3,410).

**Table 35 Percentage (%) of adults with type 2 diabetes and a record of BMI in the previous 15 months in different BMI categories and percentage with BMI not recorded by BMI category and by year, Scotland 2019-2023.**

| Year | BMI category (kg/m2) | | | | | | Not recorded (%) | Total Eligible (n) |
|---|---|---|---|---|---|---|---|---|
| | < 25 | | 25-29.99 | | > 30 | | | |
| | n | % | n | % | n | % | | |
| 2023 | 31,746 | 13.4 | 75,026 | 31.6 | 131,019 | 55.1 | 23.4 | 310,421 |
| 2022 | 28,356 | 13.1 | 68,150 | 31.4 | 120,298 | 55.5 | 27.1 | 297,354 |
| 2021 | 24,603 | 12.7 | 60,062 | 31.0 | 109,042 | 56.3 | 32.6 | 287,450 |
| 2020 | 23,432 | 12.7 | 57,753 | 31.2 | 103,959 | 56.2 | 33.4 | 278,097 |
| 2019 | 28,903 | 12.9 | 71,316 | 31.7 | 124,464 | 55.4 | 18.1 | 274,300 |

Note: Excludes people under 18 years of age as BMI categories are classified differently for children, and people whose date of birth have not been recorded (in 2023 n = 120).

# Smoking Status

Smoking status was recorded within the last 15 months for 57.2% of those 12 years old and over with type 1 diabetes and 64.4% for those 12 years old and over with type 2 diabetes, but lower proportions were recorded than in 2019, when approximately 74% of people of all ages with type 2 diabetes had smoking status recorded. Of those 12 years old and over with a record of smoking status, 16.4% of people with type 1 and 14.9% of people with type 2 had a record of being a current smoker. The requirement for recording of smoking status within the last 15 months for lifelong non-smokers is being reviewed for future Surveys.

**Table 36 Percentage of people of 12+ years of age with type 1 or type 2 diabetes who were recorded as current smokers (denominator those with a record of smoking status) in the previous 15 months by diabetes type and year, Scotland 2019-2023.**

| Year | Type 1 diabetes | | | Type 2 diabetes | | |
|---|---|---|---|---|---|---|
| | Current smoker (%) | Not recorded (%) | Population (n) | Current smoker (%) | Not recorded (%) | Population (n) |
| 2023 | 16.4 | 42.8 | 34,967 | 14.9 | 35.6 | 310,476 |
| 2022 (a) | 17.2 | 43.4 | 32,219 | 15.1 | 39.0 | 297,504 |
| 2021 (a) | 17.4 | 47.9 | 31,572 | 15.5 | 43.4 | 287,606 |
| 2020 (a) | 18.4 | 46.7 | 30,901 | 15.8 | 42.6 | 278,239 |
| 2019 (a) | 19.1 | 30.9 | 30,355 | 15.7 | 25.9 | 274,442 |

Note: a) Data displayed for years prior to 2023 for those with type 1 diabetes exclude people under 18 years of age and for those with type 2 diabetes include data for all ages. The data displayed for 2023 excludes people under 12 years of age and people whose date of birth have not been recorded (in 2023 type 1 n = 1,282, type 2 n = 65).

# Foot Risk Score

**Table 37 Type 1 diabetes: Percentage of adults with active foot disease, high, moderate or low foot risk score recorded in the previous 15 months by year, Scotland 2019-2023.**

| Year | Recorded as having active foot disease (%) | Recorded as having high foot risk score (%) | Recorded as having moderate foot risk score (%) | Recorded as having low foot risk score (%) | Foot risk score not recorded (%) |
|---|---|---|---|---|---|
| 2023 | 2.4 | 5.8 | 5.9 | 85.9 | 39.6 |
| 2022 (a) | 3.4 | 8.1 | 7.9 | 80.6 | 60.3 |
| 2021 (a) | 3.6 | 9.5 | 7.6 | 79.2 | 66.6 |
| 2020 (a) | 3.8 | 9.6 | 8.0 | 78.5 | 66.9 |
| 2019 (a) | 2.7 | 7.8 | 7.7 | 81.8 | 43.5 |

Note: Active foot disease and risk score percentages are percentages of those recorded. After 2023, data excludes those under 18 years of age and people whose date of birth have not been recorded (in 2023 type 1 = 3,410). a) Data prior to 2023 includes those under 18 years of age, but as only adults were expected to have their feet screened the proportions will underestimate the proportions of adults of who had their feet screened.

**Table 38 Type 2 diabetes: Percentage of adults with active foot disease, high, moderate or low foot risk score recorded in the previous 15 months by year, Scotland 2019-2023.**

| Year | Recorded as having active foot disease (%) | Recorded as having high foot risk score (%) | Recorded as having moderate foot risk score (%) | Recorded as having low foot risk score (%) | Foot risk score not recorded (%) |
|---|---|---|---|---|---|
| 2023 | 1.5 | 3.9 | 9.3 | 85.2 | 41.2 |
| 2022 (a) | 2.0 | 5.4 | 12.3 | 80.3 | 57.4 |
| 2021 (a) | 2.4 | 6.0 | 12.2 | 79.4 | 63.3 |
| 2020 (a) | 2.2 | 6.3 | 12.8 | 78.6 | 61.5 |
| 2019 (a) | 1.4 | 6.0 | 13.1 | 79.4 | 35.3 |

Note: Active foot disease and risk score percentages are percentages of those recorded. After 2023, data excludes those under 18 years of age and people whose date of birth have not been recorded (in 2023 type 2 = 120). a) Data prior to 2023 includes those under 18 years of age, but as only adults were expected to have their feet screened the proportions will underestimate the proportions of adults of who had their feet screened.

# Diabetic Retinal Screening

Table 39 shows the proportion of people who were either screened, were getting eye-care via specialist services, or were deliberately (for clinical or social reasons) suspended from screening as a proportion of the total number of people who had a record of date of birth and were over 12 years of age. Almost 1 in 6 with type 1 diabetes or type 2 diabetes did not have a record of eye screening, similar to the approximately 20% or 1 in 5 in 2019.

Further information is available from the Scottish Diabetic Eye Screening collaborative https://www.ndrs.scot.nhs.uk/ (latest annual report 2018/9 and performance report Q4 2019 at time of writing).

**Table 39 Percentage of people with type 1 or type 2 diabetes who were recorded as having had diabetic eye-screening, ophthalmology care or an appropriate suspension from screening (depending on methodology at the time of the report) by diabetes type and year, Scotland 2019-2023.**

| Year | Recorded within previous 15 months (%) | |
|---|---|---|
| | Type 1 diabetes | Type 2 diabetes |
| 2023 | 83.8 | 85.9 |
| 2022 | 67.4 | 67.6 |
| 2021 | 56.8 | 52.8 |
| 2020 | 50.2 | 47.3 |
| 2019 | 80.9 | 84.8 |

Note: Excludes children under 12 years and people whose date of birth have not been recorded (in 2023 type 1 n = 1,282, type 2 n = 65).

# Section 4: National Paediatric Section

Data on incidence and prevalence of diabetes in children in Scotland are described in the Overall Prevalence and Incidence (New Cases) sections. This section describes the completion of age-appropriate standard processes of care and recording of use of technology specifically in the paediatric population with type 1 diabetes. Numbers of children with type 2 diabetes in Scotland are increasing (16 children under 15 years of age received a diagnosis of type 2 diabetes in Scotland in 2023) and further data for this group may be presented in subsequent Surveys. Please note that different age categories are used for different parts of this section (e.g. data was not recorded for those aged 16 and 17 years old for some measures).

## Completion of Processes of Care and Proportions in $HbA_{1c}$ Categories for Children with Diabetes

**Table 40 Summary of age-appropriate care processes for children**

| Age (years) | Care processes applicable |
|---|---|
| 0-11 | $HbA_{1c}$ and BMI |
| 12+ | $HbA_{1c}$, BMI, BP, smoking status, eye screening*, urinary albumin** |
| All ages | Thyroid function, coeliac disease screening |

Note: * Retinopathy screening = Latest DRS Screening Status is "Attended - Successfully Screened" or "Attended - Unsuccessfully Screened". If the patient has been suspended from eye screening this is counted as having received this "process of care". **Urinary Albumin test = any of the following: albumin / creatinine ratio (ACR), microalbumin concentration, protein / creatinine ratio (PCR) or total urinary protein, timed overnight albumin excretion rate, or 24hr albumin excretion rate.

**Table 41 Number and percentage of people under 18 years of age with type 1 diabetes receiving all applicable processes of care, by age group and year, Scotland 2019-2023.**

| Year | Aged 0-11 years | | | Aged 12-17 years | | |
|---|---|---|---|---|---|---|
| | Achieving measure | | All aged (n) | Achieving measure | | All aged (n) |
| | n | % | | n | % | |
| 2023 | 1,239 | 94.9 | 1,305 | 538 | 24.0 | 2,244 |
| 2022 | 1,242 | 94.0 | 1,321 | 354 | 16.1 | 2,197 |
| 2021 | 1,150 | 88.9 | 1,294 | 277 | 12.7 | 2,176 |
| 2020 | 1,066 | 88.6 | 1,203 | 195 | 9.4 | 2,073 |
| 2019 | 1,166 | 94.6 | 1,233 | 641 | 32.8 | 1,952 |

**Table 42 Number and percentage of people under 18 years of age with type 1 diabetes with a recorded $HbA_{1c}$ within the previous 15 months, by age group and year, Scotland 2019-2023.**

| Year | Aged 0-11 years | | | Aged 12-17 years | | |
|---|---|---|---|---|---|---|
| | Achieving measure | | All aged (n) | Achieving measure | | All aged (n) |
| | n | % | | n | % | |
| 2023 | 1,264 | 96.9 | 1,305 | 2,159 | 96.2 | 2,244 |
| 2022 | 1,266 | 95.8 | 1,321 | 2,110 | 96.0 | 2,197 |
| 2021 | 1,235 | 95.4 | 1,294 | 2,075 | 95.4 | 2,176 |
| 2020 | 1,146 | 95.3 | 1,203 | 1,989 | 95.9 | 2,073 |
| 2019 | 1,190 | 96.5 | 1,233 | 1,909 | 97.8 | 1,952 |

**Table 43 Number and percentage of people under 18 years of age with type 1 diabetes and a recorded $HbA_{1c}$ within the first year after diagnosis where $HbA_{1c}$<58 mmol/mol, by age group and year, Scotland 2019-2023.**

| Year | Aged 0-11 years | | | Aged 12-17 years | | |
|---|---|---|---|---|---|---|
| | $HbA_{1c}$<58 mmol/mol | | Recorded $HbA_{1c}$ (n) | $HbA_{1c}$<58 mmol/mol | | Recorded $HbA_{1c}$ (n) |
| | n | % | | n | % | |
| 2023 | 90 | 46.9 | 192 | 80 | 54.4 | 147 |
| 2022 | 107 | 42.6 | 251 | 102 | 53.1 | 192 |
| 2021 | 68 | 40.2 | 169 | 82 | 45.8 | 179 |
| 2020 | 57 | 38.5 | 148 | 57 | 45.6 | 125 |
| 2019 | 90 | 45.5 | 198 | 91 | 50.3 | 181 |

**Table 44 Number and percentage of people under 18 years of age with type 1 diabetes and a recorded $HbA_{1c}$ within the previous 15 months where $HbA_{1c}$<58 mmol/mol, by age group and year, Scotland 2019-2023.**

| Year | Aged 0-11 years | | | Aged 12-17 years | | |
|---|---|---|---|---|---|---|
| | $HbA_{1c}$<58 mmol/mol | | Recorded $HbA_{1c}$ (n) | $HbA_{1c}$<58 mmol/mol | | Recorded $HbA_{1c}$ (n) |
| | n | % | | n | % | |
| 2023 | 559 | 44.2 | 1,264 | 807 | 37.4 | 2,159 |
| 2022 | 492 | 38.9 | 1,266 | 682 | 32.3 | 2,110 |
| 2021 | 485 | 39.3 | 1,235 | 714 | 34.4 | 2,075 |
| 2020 | 410 | 35.8 | 1,146 | 601 | 30.2 | 1,989 |
| 2019 | 453 | 38.1 | 1,190 | 599 | 31.4 | 1,909 |

**Table 45 Number and percentage of people under 18 years of age with type 1 diabetes and a recorded $HbA_{1c}$ within the previous 15 months where $HbA_{1c}$>75 mmol/mol, by age group and year, Scotland 2019-2023.**

| Year | Aged 0-11 years | | | Aged 12-17 years | | |
|---|---|---|---|---|---|---|
| | $HbA_{1c}$>75 mmol/mol | | Recorded $HbA_{1c}$ (n) | $HbA_{1c}$>75 mmol/mol | | Recorded $HbA_{1c}$ (n) |
| | n | % | | n | % | |
| 2023 | 153 | 12.1 | 1,264 | 506 | 23.4 | 2,159 |
| 2022 | 142 | 11.2 | 1,266 | 541 | 25.6 | 2,110 |
| 2021 | 155 | 12.6 | 1,235 | 526 | 25.3 | 2,075 |
| 2020 | 158 | 13.8 | 1,146 | 533 | 26.8 | 1,989 |
| 2019 | 116 | 9.7 | 1,190 | 480 | 25.1 | 1,909 |

**Table 46 Number and percentage of children between 12 and 15 years of age with type 1 diabetes eligible for diabetic eye screening (DES) who were screened within the last 15 months by year, Scotland 2019-2023.**

| Year | Screened | | Aged 12-15 years |
|---|---|---|---|
| | n | % | |
| 2023 | 1,143 | 84.4 | 1,355 |
| 2022 | 1,119 | 83.3 | 1,343 |
| 2021 | 947 | 71.1 | 1,332 |
| 2020 | 764 | 56.9 | 1,343 |
| 2019 | 1,114 | 92.6 | 1,203 |

Note: Only eligible children, from their 12th birthday until the day before their 16th birthday, are included in these figures. Data were not extracted from SCI-Diabetes for those aged 16 and 17 years old for this measure but we hope to include them next year.

**Table 47 Number and percentage of children between 12 and 15 years of age with type 1 diabetes with a recorded blood pressure within the previous 15 months by year, Scotland 2019-2023.**

| Year | Recorded | | Aged 12-15 years |
|---|---|---|---|
| | n | % | |
| 2023 | 1,562 | 86.8 | 1,800 |
| 2022 | 1,390 | 80.3 | 1,732 |
| 2021 | 1,408 | 81.1 | 1,737 |
| 2020 (a) | 1,131 | 46.7 | 2,423 |
| 2019 (a) | 1,307 | 56.8 | 2,302 |

Note: Only children of 12 years of age and older are expected to have their blood pressure measured. a) Data from earlier Surveys (2019 and 2020) are included but are not comparable, as the data covered children from their 5th birthday until the day before their 16th birthday for these years. Data were not extracted from SCI-Diabetes for those aged 16 and 17 years old for this measure but we hope to include them next year.

**Table 48 Number and percentage of children between 12 and 15 years of age with type 1 diabetes with a recorded albumin / creatinine ratio (ACR) within the previous 15 months by year, Scotland 2019-2023.**

| Year | Recorded | | Aged 12-15 years |
|---|---|---|---|
| | n | % | |
| 2023 | 736 | 50.2 | 1,467 |
| 2022 | 623 | 44.1 | 1,413 |
| 2021 | 632 | 45.0 | 1,403 |
| 2020 (a) | 718 | 29.8 | 2,413 |
| 2019 (a) | 841 | 36.8 | 2,283 |

Note: Only children of 12 years of age and older are expected to have their ACR measured. a) Data from earlier Surveys (2019 and 2020) are included but are not comparable as the data covered children from their 5th birthday until the day before their 16th birthday for these years. Data were not extracted from SCI-Diabetes for those aged 16 and 17 years old for this measure but we hope to include them next year.

**Table 49 Number and percentage of people under 16 years of age with type 1 diabetes recorded as having had thyroid screening (TSH) within the previous 15 months by year, Scotland 2019-2023.**

| Year | Screened | | Aged under 16 years |
|---|---|---|---|
| | n | % | |
| 2023 | 1,982 | 75.7 | 2,618 |
| 2022 | 1,843 | 70.2 | 2,625 |
| 2021 | 1,831 | 70.8 | 2,587 |
| 2020 | 1,674 | 65.9 | 2,541 |
| 2019 | 1,616 | 67.3 | 2,401 |

**Table 50 Number and percentage of people under 16 years of age with type 1 diabetes recorded as having had coeliac screening (TTG) within the previous 15 months by year, Scotland 2019-2023.**

| Year | Screened | | Aged under 16 years |
|---|---|---|---|
| | n | % | |
| 2023 | 660 | 25.2 | 2,618 |
| 2022 | 535 | 20.4 | 2,625 |
| 2021 | 689 | 26.6 | 2,587 |
| 2020 | 617 | 24.3 | 2,541 |
| 2019 | 565 | 23.5 | 2,401 |

Data on the use of insulin pumps by people under 18 years of age with type 1 diabetes is recorded in Table 20.

# Section 5: Regional Epidemiology and Key Characteristics of People with Diabetes

## Prevalence Regional Detail

Age-adjusted prevalence is based on direct age/sex standardisation using the Scottish population as the reference population. Population figures are based on mid-year population estimates published by National Records of Scotland from the previous year so that, for example, the 2023 survey uses diabetes data from 2023 but mid-year population estimates from 2022. Table 51, Figure 7 and Figure 8 show crude and age-adjusted figures for the prevalence of diabetes of all types.

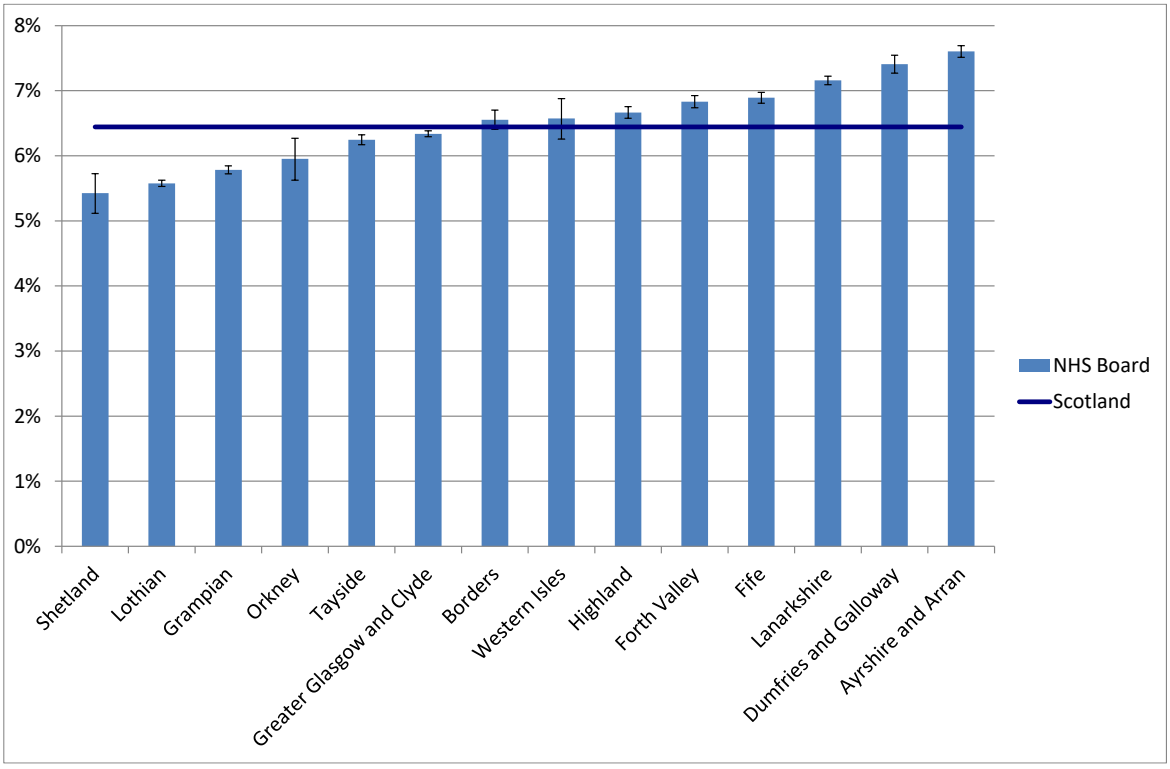
The age-adjusted figures take account of the fact that the average age of the resident population differs between boards and that older populations have higher diabetes prevalence.

Adjusting for age results in decreases in prevalence for Boards with older than average populations and increases in prevalence for Boards with younger than average populations compared to crude prevalence.

**Table 51 Crude and age-adjusted prevalence of diabetes (all types), by NHS board, ranked by age-adjusted prevalence, Scotland 2023.**

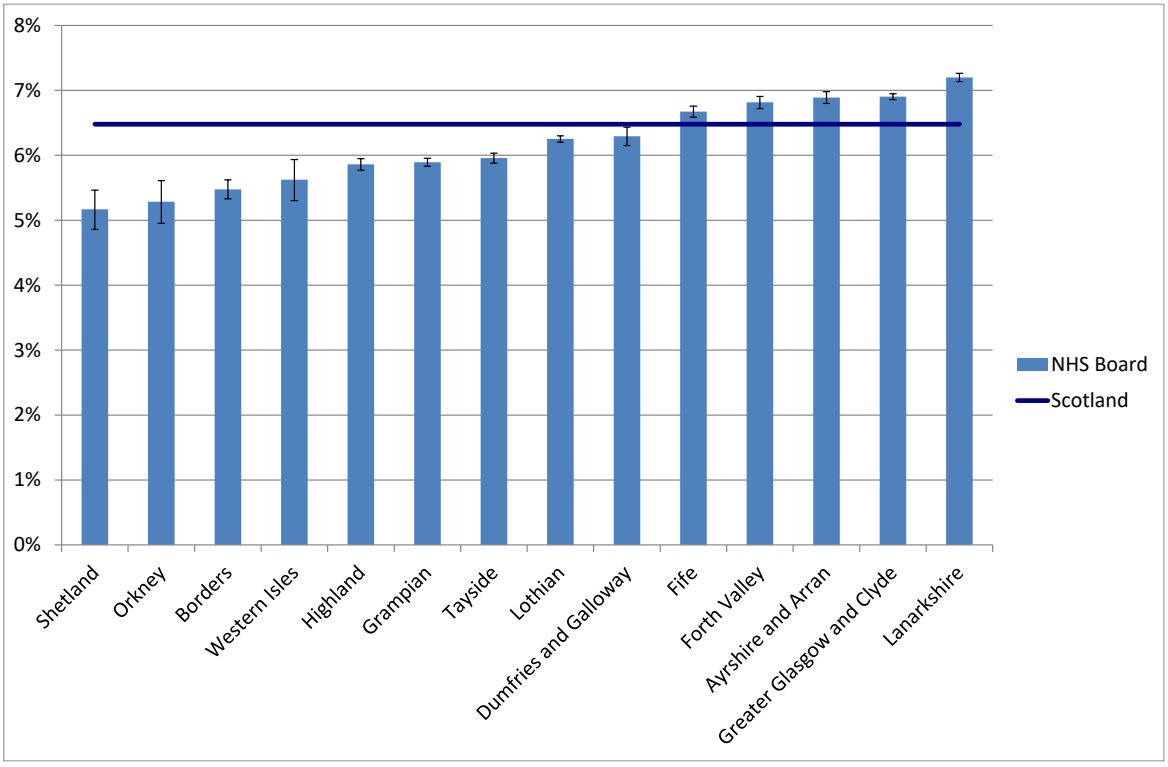
| NHS board | Population (n) | Number on the diabetes register at the end of the year (n) | Crude prevalence (%) | Age-adjusted prevalence (%) |
|---|---|---|---|---|
| Shetland | 23,020 | 1,245 | 5.4 | 5.2 |
| Orkney | 22,020 | 1,342 | 6.1 | 5.3 |
| Borders | 116,820 | 7,605 | 6.5 | 5.5 |
| Western Isles | 26,120 | 1,751 | 6.7 | 5.6 |
| Highland | 323,630 | 21,617 | 6.7 | 5.9 |
| Grampian | 582,220 | 33,919 | 5.8 | 5.9 |
| Tayside | 414,130 | 26,093 | 6.3 | 6.0 |
| Lothian | 906,190 | 51,102 | 5.6 | 6.3 |
| Dumfries and Galloway | 145,770 | 11,024 | 7.6 | 6.3 |
| Fife | 371,340 | 25,829 | 7.0 | 6.7 |
| Forth Valley | 302,730 | 20,888 | 6.9 | 6.8 |
| Ayrshire and Arran | 365,440 | 28,032 | 7.7 | 6.9 |
| Greater Glasgow and Clyde | 1,179,910 | 75,108 | 6.4 | 6.9 |
| Lanarkshire | 668,360 | 47,533 | 7.1 | 7.2 |
| **Scotland** | **5,447,700** | **353,088** | **6.5** | **6.5** |

**Figure 7 Crude diabetes prevalence (all types) by NHS board, ranked by prevalence, Scotland 2023.**



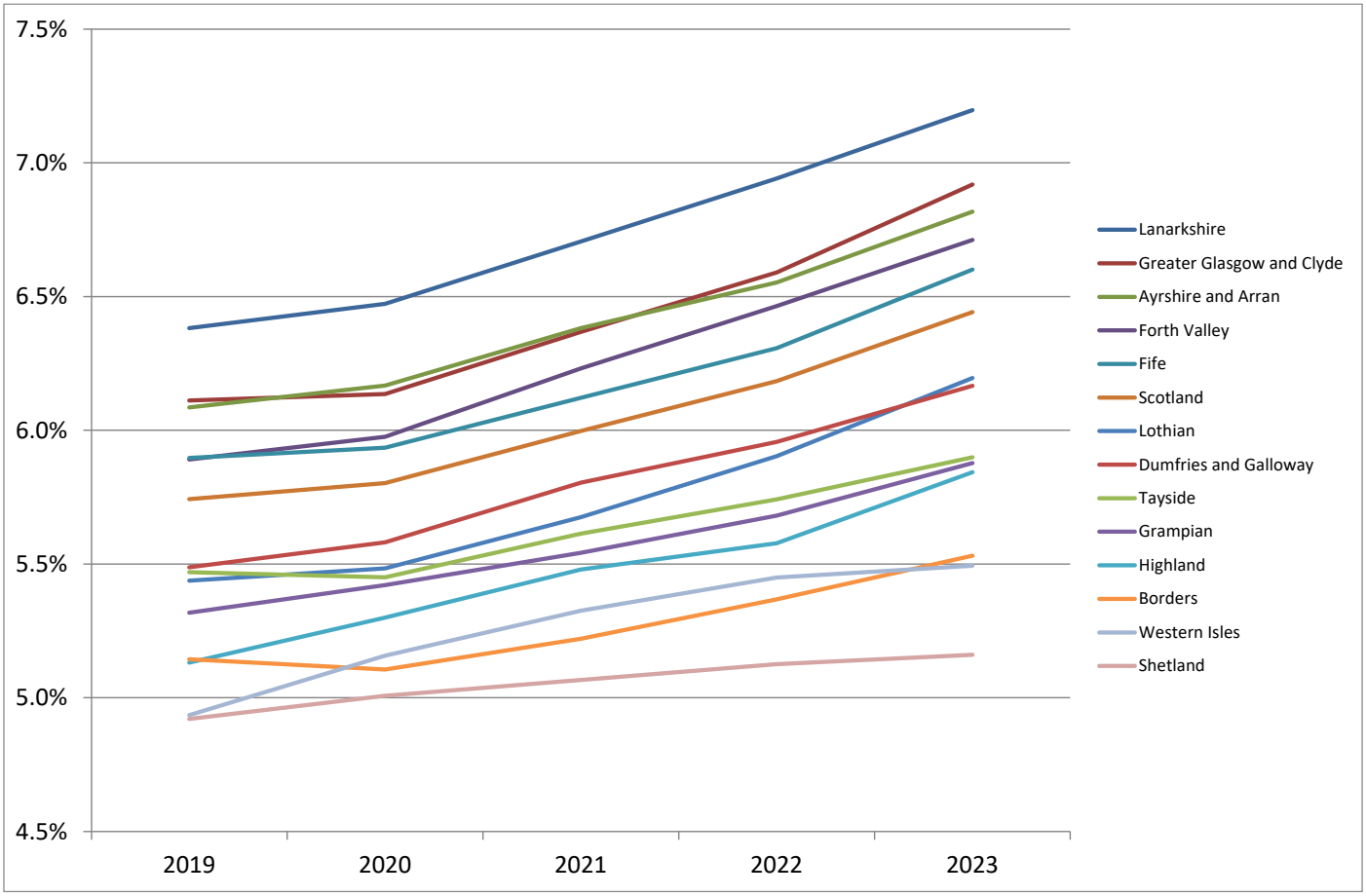

Note: Vertical capped lines show 95% confidence intervals.

**Figure 8 Age-adjusted diabetes prevalence (all types) by NHS board, ranked by prevalence, Scotland 2023.**




Note: Vertical capped lines show 95% confidence intervals.

**Figure 9 Age-adjusted diabetes prevalence (all types) by NHS board and year, Scotland 2019-2023.**




Note: Vertical axis (Age-adjusted diabetes prevalence) starts at 4.5%. Data for years prior to 2023 are available in previous Scottish Diabetes Surveys.

# Incidence (New Cases)

Crude incidence figures have been calculated retrospectively using numbers of people with diabetes of duration of less than one year identified from SCI-Diabetes data as the numerator and people that do not have a diagnosis of diabetes as the denominator. Numerator data may be affected by factors such as post-survey patient migration and subsequent validation of diabetes classification.

**Table 52 Type 1 diabetes: Number of new cases and crude incidence rate for all ages (new cases per 100,000 population per year) by NHS board (excluding island boards due to small numbers), ranked by descending rate in the latest year, Scotland 2020-2023.**

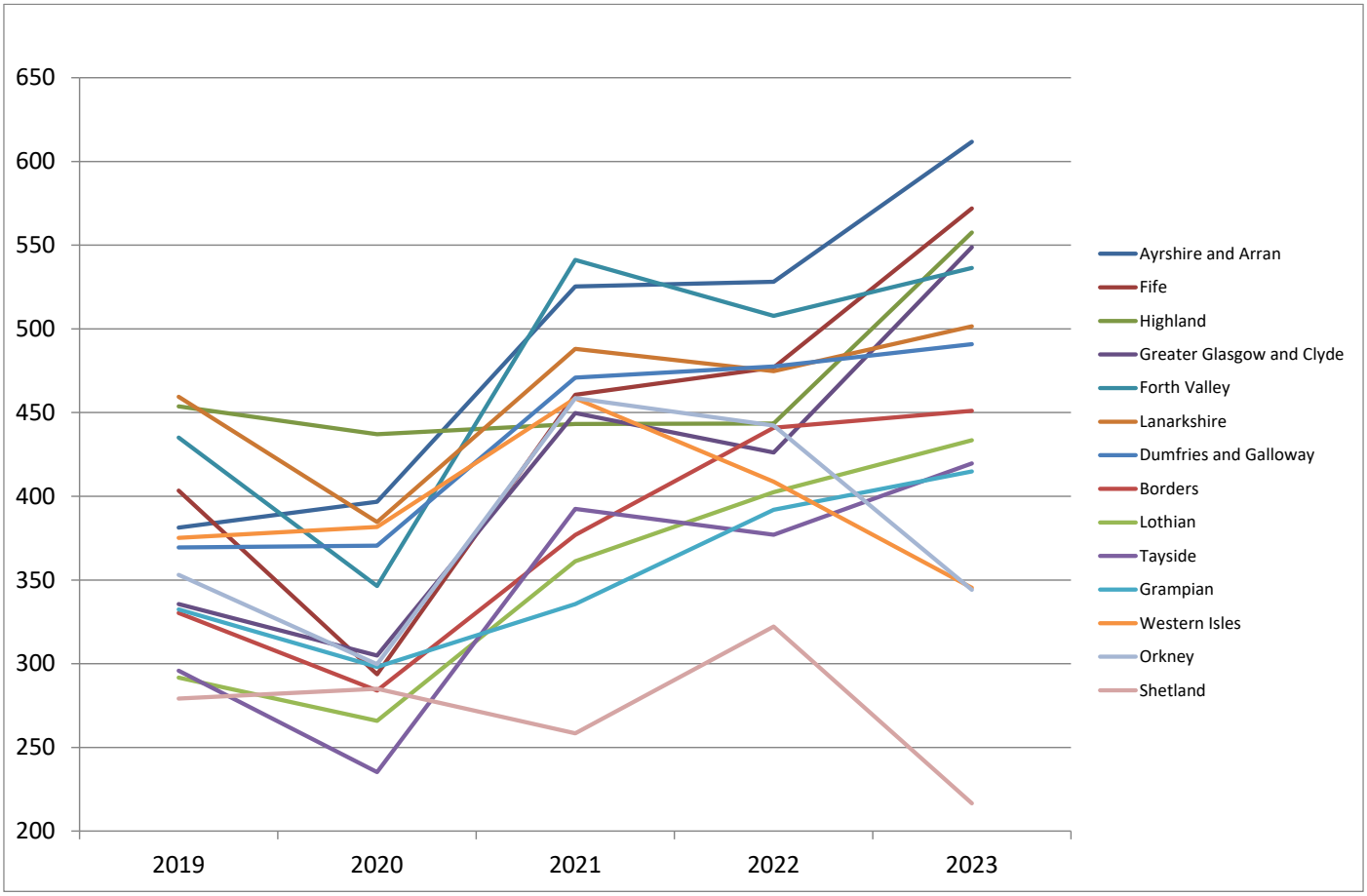
| NHS board | 2020 | | 2021 | | 2022 | | 2023 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Cases | Rate | Cases | Rate | Cases | Rate | Mid 2022 Population without diabetes | Cases | Rate |
| Dumfries and Galloway | 39 | 28 | 50 | 36 | 38 | 27 | 135,115 | 43 | 32 |
| Forth Valley | 61 | 21 | 89 | 31 | 56 | 20 | 282,604 | 79 | 28 |
| Highland | 47 | 16 | 93 | 31 | 64 | 21 | 303,005 | 71 | 23 |
| Fife | 74 | 21 | 78 | 22 | 90 | 26 | 346,655 | 73 | 21 |
| Greater Glasgow and Clyde | 249 | 22 | 257 | 23 | 251 | 22 | 1,108,354 | 223 | 20 |
| Grampian | 103 | 19 | 121 | 22 | 116 | 21 | 549,433 | 110 | 20 |
| Lothian | 172 | 20 | 180 | 21 | 168 | 19 | 857,511 | 168 | 20 |
| Tayside | 79 | 20 | 84 | 21 | 71 | 18 | 388,723 | 71 | 18 |
| Ayrshire and Arran | 64 | 19 | 73 | 21 | 62 | 18 | 338,518 | 59 | 17 |
| Lanarkshire | 131 | 21 | 145 | 23 | 127 | 20 | 622,469 | 103 | 17 |
| Borders | 26 | 24 | 23 | 21 | 23 | 21 | 109,434 | 18 | 16 |
| **Scotland** | **1,068** | **21** | **1,213** | **24** | **1,082** | **21** | **5,108,682** | **1,034** | **20** |

Note: Island boards (i.e. Orkney, Shetland and Western Isles) have been excluded due to their small numbers of cases.

**Table 53 Type 2 diabetes: Number of new cases and crude incidence rate for all ages (new cases per 100,000 population per year) by NHS board, ranked by descending rate in the latest year, Scotland 2020-2023.**

| NHS board | 2020 | | 2021 | | 2022 | | 2023 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Cases | Rate | Cases | Rate | Cases | Rate | Mid 2022 Population without diabetes | Cases | Rate |
| Ayrshire and Arran | 1,366 | 397 | 1,800 | 525 | 1,809 | 528 | 338,518 | 2,091 | 618 |
| Fife | 1,030 | 294 | 1,617 | 461 | 1,673 | 477 | 346,655 | 2,002 | 578 |
| Highland | 1,324 | 437 | 1,336 | 443 | 1,349 | 443 | 303,005 | 1,693 | 559 |
| Greater Glasgow and Clyde | 3,405 | 305 | 5,030 | 450 | 4,755 | 426 | 1,108,354 | 6,110 | 551 |
| Forth Valley | 999 | 346 | 1,555 | 541 | 1,454 | 508 | 282,604 | 1,532 | 542 |
| Dumfries and Galloway | 515 | 370 | 651 | 471 | 661 | 478 | 135,115 | 678 | 502 |
| Lanarkshire | 2,385 | 385 | 3,022 | 488 | 2,942 | 475 | 622,469 | 3,100 | 498 |
| Borders | 308 | 284 | 408 | 377 | 480 | 441 | 109,434 | 490 | 448 |
| Lothian | 2,296 | 266 | 3,134 | 361 | 3,501 | 403 | 857,511 | 3,761 | 439 |
| Tayside | 925 | 235 | 1,540 | 392 | 1,481 | 377 | 388,723 | 1,646 | 423 |
| Grampian | 1,656 | 298 | 1,861 | 336 | 2,174 | 392 | 549,433 | 2,297 | 418 |
| Orkney | 63 | 300 | 97 | 459 | 94 | 442 | 20,692 | 73 | 353 |
| Western Isles | 96 | 382 | 114 | 459 | 102 | 409 | 24,386 | 86 | 353 |
| Shetland | 62 | 285 | 56 | 258 | 70 | 322 | 21,783 | 47 | 216 |
| **Scotland** | **16,430** | **319** | **22,221** | **432** | **22,545** | **438** | **5,108,682** | **25,606** | **501** |

**Figure 10 Type 2 diabetes: Crude incidence rate for all ages (cases per 100,000 population per year) by NHS board, Scotland 2019-2023.**

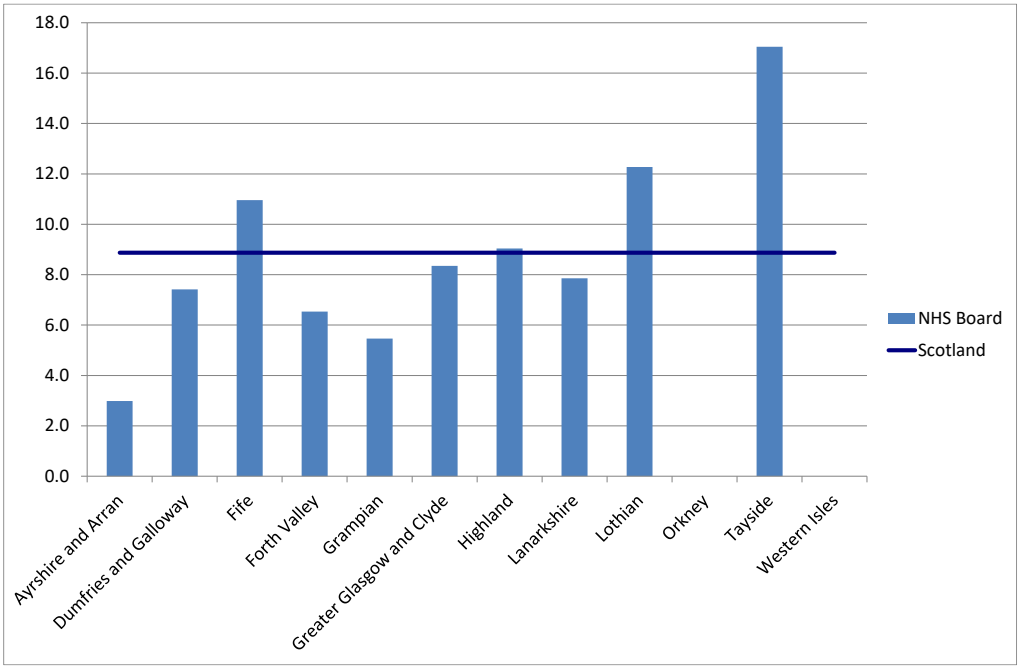



Note: Vertical axis (Crude incidence rate) starts at 200 per 100,000 population. Data for 2019 are available in the Scottish Diabetes Survey 2019.

# Monogenic Diabetes

Differences in prevalence of monogenic diabetes by NHS board suggest differences in testing for this form of diabetes.

**Figure 11 Prevalence of detected monogenic diabetes per 100,000 people, by NHS board, Scotland 2023.**




Note: Bars for boards with hidden data due to small numbers (1-5) are not shown.

**Table 54 Numbers of people with monogenic diabetes that has been detected and prevalence per 100,000 people, by NHS board, Scotland 2023.**

| NHS board | Monogenic diabetes (n) | Prevalence |
|---|---|---|
| Ayrshire and Arran | 11 | 3.0 |
| Borders | * | * |
| Dumfries and Galloway | 11 | 7.4 |
| Fife | 41 | 11.0 |
| Forth Valley | 20 | 6.5 |
| Grampian | 32 | 5.5 |
| Greater Glasgow and Clyde | 99 | 8.4 |
| Highland | 29 | 9.0 |
| Lanarkshire | 52 | 7.9 |
| Lothian | 112 | 12.3 |
| Orkney | 0 | 0.0 |
| Shetland | * | * |
| Tayside | 71 | 17.0 |
| Western Isles | 0 | 0.0 |
| **Scotland** | **485** | **8.9** |

Note: * Indicates a figure between 1 and 4 or a figure that indirectly reveals such figures.

# Mortality

**Table 55 The number and crude percentage of the population with a diagnosis of diabetes (all types) who have died within the last year, by NHS board, ranked by mortality, Scotland 2023.**

| NHS board | Deaths | |
|---|---|---|
| | People (n) | % of population |
| Lothian | 1,843 | 3.5 |
| Shetland | 45 | 3.5 |
| Greater Glasgow and Clyde | 2,737 | 3.5 |
| Lanarkshire | 1,787 | 3.6 |
| Highland | 827 | 3.7 |
| Fife | 1,019 | 3.8 |
| Grampian | 1,346 | 3.8 |
| Dumfries and Galloway | 447 | 3.9 |
| Forth Valley | 857 | 3.9 |
| Tayside | 1,089 | 4.0 |
| Borders | 320 | 4.0 |
| Ayrshire and Arran | 1,195 | 4.1 |
| Western Isles | 78 | 4.3 |
| Orkney | 61 | 4.3 |
| **Scotland** | **13,651** | **3.7** |

Note: These data were calculated from all people with diabetes who died in the prior year expressed as a percentage of all people with diabetes still alive at the end of the year plus those who died during the year. This does not take account of the fact that the size of the population changes during the year as people develop diabetes or die. Also, note that comparisons between NHS boards do not account for important differences in age structure which result in higher mortality in boards with older populations.

# Section 6: Additional Statistics Related to Technology Use for Type 1 Diabetes

## Device Use

One of the commitments in the Diabetes Improvement Plan (https://www.gov.scot/publications/diabetes-improvement-plan-diabetes-care-scotland-commitments-2021-2026/pages/4/) is:

Commitment 2.2 We will support appropriate and timely access to technologies to improve glycaemic control and quality of life for people living with type 1 diabetes.

Progress against this commitment was to be measured by the percentage of people with type 1 diabetes:

- Who have access to continuous glucose monitoring
- Who have access to insulin pump therapy
- Who have access to hybrid closed loop
- In Scottish Index of Multiple Deprivation (SIMD) 1 areas in comparison to SIMD 5 areas that have access to diabetes technologies

Note: SIMD is a relative measure of deprivation. For more details see https://www.gov.scot/collections/scottish-index-of-multiple-deprivation-2020/. SIMD 1 refers to the most deprived fifth of the Scottish population and SIMD 5 refers to the least deprived fifth of the Scottish population.

Regional device-use data were extracted on the 5th April 2024 with national data for both December 2023 and April 2024 reported in Table 19. An additional measure of progress against this commitment is to use data from other countries to benchmark against – the collation of comparable data is in progress, and we hope it will be available for the 2024 Survey.

## Regional Device Use

**Table 56 Numbers and percentages of people of any age with type 1 diabetes using different device types, by NHS board, Scotland 2023.**

| NHS Board | MDI with CBGM (%) | CGM (%) | Pump (%) | | Pop. (n) |
|---|---|---|---|---|---|
| | | | Pump only | Loop-compatible | |
| Ayrshire & Arran | 23.8 | 75.7 | 17.6 | 13.5 | 2,595 |
| Borders | 14.6 | 84.9 | 19.6 | 4.6 | 801 |
| Dumfries & Galloway | 10.9 | 88.5 | 26.8 | 13.4 | 1,129 |
| Fife | 18.4 | 80.8 | 24.5 | 15.8 | 2,508 |
| Forth Valley | 12.8 | 86.9 | 24.6 | 18.0 | 2,225 |
| Grampian | 22.5 | 77.2 | 18.8 | 9.4 | 3,975 |
| Greater Glasgow and Clyde | 16.7 | 82.7 | 17.1 | 9.3 | 7,257 |
| Highland | 20.4 | 78.9 | 14.7 | 7.7 | 2,407 |
| Lanarkshire | 16.7 | 82.9 | 17.4 | 10.1 | 4,852 |
| Lothian | 12.6 | 86.2 | 25.0 | 10.1 | 5,605 |
| Orkney | 10.9 | 89.1 | 18.6 | 8.3 | 156 |
| Shetland | 4.4 | 95.6 | 17.0 | 10.1 | 159 |
| Tayside | 14.4 | 85.0 | 19.1 | 7.9 | 2,466 |
| Western Isles | 13.9 | 84.0 | 16.0 | 4.2 | 238 |
| **Scotland** | **16.9** | **82.5** | **19.9** | **10.6** | **36,373** |

Note: MDI with CBGM indicates multiple daily insulin injections with capillary blood glucose monitoring. CGM indicates a continuous glucose measurement device. Loop-compatible indicates the use of both a monitor and a pump suitable for use in a closed loop pump system. The categories overlap, which is why the total exceeds 100%. These data are still being validated.

**Table 57 Numbers and percentages of people under 18 years old with type 1 diabetes using different device types, by NHS board, Scotland 2023.**

| NHS Board | MDI with CBGM (%) | CGM (%) | Pump (%) | | Pop. (n) |
|---|---|---|---|---|---|
| | | | Pump only | Loop-compatible | |
| Ayrshire & Arran | 3.7 | 95.0 | 53.3 | 48.8 | 242 |
| Borders | * | * | * | * | 68 |
| Dumfries & Galloway | 7.6 | 91.5 | 50.0 | 7.6 | 118 |
| Fife | 5.9 | 93.2 | 78.8 | 64.4 | 236 |
| Forth Valley | 5.5 | 94.1 | 77.6 | 51.5 | 237 |
| Grampian | 7.7 | 92.3 | 56.9 | 49.5 | 390 |
| Greater Glasgow and Clyde | 5.3 | 94.1 | 42.7 | 28.7 | 698 |
| Highland | 11.4 | 86.7 | 45.5 | 38.9 | 211 |
| Lanarkshire | 7.6 | 91.2 | 52.4 | 45.6 | 489 |
| Lothian | 4.4 | 91.8 | 67.9 | 49.9 | 473 |
| Orkney | * | * | * | * | 9 |
| Shetland | * | * | * | * | 13 |
| Tayside | 11.0 | 89.0 | 56.0 | 54.6 | 218 |
| Western Isles | * | * | * | * | 28 |
| **Scotland** | **6.5** | **92.3** | **56.3** | **43.5** | **3,430** |

Note: * Indicates a figure between 1 and 4 or a figure that indirectly reveals such figures. MDI with CBGM indicates multiple daily insulin injections with capillary blood glucose monitoring. CGM indicates a continuous glucose measurement device. Loop-compatible indicates the use of both a monitor and a pump suitable for use in a closed loop pump system. The categories overlap, which is why the total exceeds 100%. These data are still being validated.

**Table 58 Numbers and percentages of adults with type 1 diabetes using different device types, by NHS board, Scotland 2023.**

| NHS Board | MDI with CBGM (%) | CGM (%) | Pump (%) | | Pop. (n) |
|---|---|---|---|---|---|
| | | | Pump only | Loop-compatible | |
| Ayrshire & Arran | 25.9 | 73.7 | 13.9 | 9.9 | 2,353 |
| Borders | * | * | * | * | 733 |
| Dumfries & Galloway | 11.3 | 88.1 | 24.1 | 14.0 | 1,011 |
| Fife | 19.7 | 79.5 | 18.9 | 10.7 | 2,272 |
| Forth Valley | 13.7 | 86.0 | 18.3 | 14.0 | 1,988 |
| Grampian | 24.1 | 75.5 | 14.7 | 5.0 | 3,585 |
| Greater Glasgow and Clyde | 17.9 | 81.5 | 14.4 | 7.2 | 6,559 |
| Highland | 21.3 | 78.2 | 11.7 | 4.7 | 2,196 |
| Lanarkshire | 17.7 | 82.0 | 13.5 | 6.1 | 4,363 |
| Lothian | 13.4 | 85.7 | 21.1 | 6.5 | 5,132 |
| Orkney | * | * | * | * | 147 |
| Shetland | * | * | * | * | 146 |
| Tayside | 14.8 | 84.6 | 15.5 | 3.4 | 2,248 |
| Western Isles | * | * | * | * | 210 |
| **Scotland** | **17.9** | **81.5** | **16.1** | **7.2** | **32,943** |

Note: * Indicates a figure between 1 and 4 or a figure that indirectly reveals such figures. MDI with CBGM indicates multiple daily insulin injections with capillary blood glucose monitoring. CGM indicates a continuous glucose measurement device. Loop-compatible indicates the use of both a monitor and a pump suitable for use in a closed loop pump system. The categories overlap, which is why the total exceeds 100%. These data are still being validated.

## National Device Use by Scottish Index of Multiple Deprivation

**Table 59 Numbers and percentages of people of all ages with type 1 diabetes using different device types, by Scottish Index of Multiple Deprivation (SIMD), Scotland 2023.**

| SIMD | MDI with CBGM (%) | CGM (%) | Pump (%) | | Population (n) |
|---|---|---|---|---|---|
| | | | Pump only | Loop-compatible | |
| 1 | 21.0 | 78.6 | 13.7 | 7.8 | 7,152 |
| 2 | 18.5 | 81.0 | 17.6 | 9.7 | 7,250 |
| 3 | 16.6 | 82.7 | 19.2 | 10.2 | 7,179 |
| 4 | 15.2 | 84.2 | 21.9 | 11.0 | 7,438 |
| 5 | 13.2 | 85.9 | 26.9 | 14.3 | 6,635 |
| NR | 11.4 | 87.8 | 25.9 | 14.0 | 719 |
| **Scotland** | **16.9** | **82.5** | **19.9** | **10.6** | **36,373** |

Note: SIMD 1 refers to the most deprived fifth of the Scottish population and SIMD 5 refers to the least deprived fifth of the Scottish population. NR indicates data from postcodes that do not have a matching SIMD value. MDI with CBGM indicates multiple daily insulin injections with capillary blood glucose monitoring. CGM indicates a continuous glucose measurement device. Loop-compatible indicates the use of both a monitor and a pump suitable for use in a closed loop pump system. The categories overlap, which is why the total exceeds 100%. These data are still being validated.

## Glucose Control with Device Use

**Table 60 Percentages of adults with type 1 diabetes and a recorded $HbA_{1c}$ where $HbA_{1c}$<58 mmol/mol, by device use, Scotland 2023.**

| Device | $HbA_{1c}$ < 58 mmol/mol (%) | $HbA_{1c}$ recorded (n) |
|---|---|---|
| MDI with CBGM | 26.3 | 5,708 |
| CGM | 31.6 | 26,779 |
| Pump | 48.9 | 5,299 |
| Loop-compatible | 54.8 | 2,364 |
| **Scotland** | **30.8** | **32,672** |

Note: MDI with CBGM indicates multiple daily insulin injections with capillary blood glucose monitoring. CGM indicates a continuous glucose measurement device. Loop-compatible indicates the use of both a monitor and a pump suitable for use in a closed loop pump system. The categories overlap, which is why the total exceeds 100%. These data are still being validated. At present it has not been possible to estimate proportions of people with missing $HbA_{1c}$ by device use.

# My Diabetes My Way

"My Diabetes My Way" (www.mydiabetesmyway.scot.nhs.uk) is the NHS Scotland interactive diabetes website that helps to support people who have diabetes and their carers.

**Table 61 Numbers of people with type 1 and type 2 diabetes registered to access and actively accessing their clinical information using the "My Diabetes My Way" website by year, Scotland 2019-2023.**

| Year | Registered Users | | | | Active Users | |
|---|---|---|---|---|---|---|
| | Type 1 diabetes (n) | Type 2 diabetes (n) | Total people (n) | Yearly change (%) | People (n) | Yearly change (%) |
| 2023 | 16,509 | 52,473 | 68,982 | 9.2 | 37,037 | 11.0 |
| 2022 | 15,989 | 47,165 | 63,154 | 9.6 | 33,373 | 8.0 |
| 2021 | 15,196 | 42,433 | 57,629 | 10.4 | 30,909 | 8.8 |
| 2020 | 14,345 | 37,866 | 52,211 | 10.3 | 28,422 | 12.9 |
| 2019 | 13,327 | 34,016 | 47,343 | 17.9 | 25,425 | 21.1 |

At the end of 2023, 37,037 people had accessed their results using "My Diabetes My Way" (Table 61). During the final 3 months of 2023, a total of 11,468 people (31% of all active users) had logged in. Healthcare providers across NHS Scotland are encouraged to raise awareness of My Diabetes My Way services amongst their patient cohorts.

My Diabetes My Way is currently offering to complete a mail-out on behalf of GP Practices to make unregistered people aware of the service. This mail-out will be completed at no cost to the practice on verification of a patient list, provided by SCI-Diabetes.

Further information and awareness materials may be requested by emailing the My Diabetes My Way project team on mydiabetes.myway@nhs.scot.

## My Diabetes My Way Regional Detail

The table below shows the number of people who had registered to access their own clinical information using the website by the end of year. Records access is a key objective of the Scottish Diabetes Improvement Plan.

**Table 62 Number and percentage of people with type 1 and type 2 diabetes registered to access their clinical information using the "My Diabetes My Way" website by NHS board, ranked by decreasing total percentage of registered users, Scotland 2023.**

| NHS board | Type 1 diabetes | | | Type 2 diabetes | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | n | % | Pop. | n | % | Pop. | n | % | Pop. |
| Grampian | 2,150 | 54.4 | 3,951 | 6,604 | 22.3 | 29,603 | 8,754 | 26.1 | 33,554 |
| Greater Glasgow and Clyde | 3,569 | 49.2 | 7,254 | 14,133 | 21.2 | 66,647 | 17,702 | 24.0 | 73,901 |
| Orkney | 100 | 65.4 | 153 | 213 | 18.1 | 1,175 | 313 | 23.6 | 1,328 |
| Borders | 419 | 51.9 | 808 | 1,334 | 20.0 | 6,660 | 1,753 | 23.5 | 7,468 |
| Shetland | 72 | 46.2 | 156 | 206 | 19.2 | 1,075 | 278 | 22.6 | 1,231 |
| Tayside | 1,021 | 41.6 | 2,457 | 4,680 | 20.3 | 23,075 | 5,701 | 22.3 | 25,532 |
| Western Isles | 67 | 28.6 | 234 | 293 | 19.5 | 1,503 | 360 | 20.7 | 1,737 |
| Lothian | 2,850 | 51.0 | 5,593 | 7,008 | 16.0 | 43,865 | 9,858 | 19.9 | 49,458 |
| Forth Valley | 1,429 | 64.7 | 2,209 | 2,354 | 12.8 | 18,408 | 3,783 | 18.3 | 20,617 |
| Fife | 850 | 34.0 | 2,499 | 3,834 | 16.6 | 23,031 | 4,684 | 18.3 | 25,530 |
| Lanarkshire | 2,252 | 46.4 | 4,852 | 6,031 | 14.5 | 41,736 | 8,283 | 17.8 | 46,588 |
| Ayrshire and Arran | 912 | 35.5 | 2,569 | 3,236 | 12.8 | 25,293 | 4,148 | 14.9 | 27,862 |
| Dumfries and Galloway | 406 | 36.0 | 1,128 | 1,096 | 11.3 | 9,692 | 1,502 | 13.9 | 10,820 |
| Highland | 714 | 29.9 | 2,386 | 1,689 | 9.0 | 18,778 | 2,403 | 11.4 | 21,164 |
| **Scotland** | **16,509** | **45.5** | **36,249** | **52,473** | **16.9** | **310,541** | **68,982** | **19.9** | **346,790** |

Note: The above figures show the number of people who had registered to access their diabetes data at the end of the year. Registration may be initiated by the patient via the My Diabetes My Way website, or by a clinician using SCI-Diabetes. Following registration, a patient must provide their consent to proceed and verify their email address. At this stage, a username and password are emailed to the patient.

# NHS Research Scotland (NRS) Diabetes Research Register

The NRS Diabetes Research Register allows patient with diabetes living in Scotland to give their permission to be matched to and contacted about taking part in diabetes-related research.

**Table 63 Numbers of people with type 1 and type 2 diabetes who had joined the NRS Diabetes Register by NHS board, Scotland 2023.**

| NHS board | People on the NRS Diabetes Register (n) | | | Percentage of people with type 1 or type 2 diabetes on the NRS Diabetes Register (%) | People with type 1 or type 2 diabetes (n) |
|---|---|---|---|---|---|
| | Type 1 diabetes | Type 2 diabetes | Total | | |
| Ayrshire and Arran | 38 | 92 | 130 | 0.5 | 28,032 |
| Borders | 17 | 28 | 45 | 0.6 | 7,605 |
| Dumfries and Galloway | 110 | 383 | 493 | 4.5 | 11,024 |
| Fife | 410 | 2,436 | 2,846 | 11.0 | 25,829 |
| Forth Valley | 94 | 169 | 263 | 1.3 | 20,888 |
| Grampian | 258 | 3,339 | 3,597 | 10.6 | 33,919 |
| Greater Glasgow and Clyde | 779 | 2,701 | 3,480 | 4.6 | 75,108 |
| Highland | 450 | 586 | 1,036 | 4.8 | 21,617 |
| Lanarkshire | 254 | 557 | 811 | 1.7 | 47,533 |
| Lothian | 942 | 1,382 | 2,324 | 4.5 | 51,102 |
| Orkney | * | * | * | * | 1,342 |
| Shetland | * | * | * | * | 1,245 |
| Tayside | 583 | 4,287 | 4,870 | 18.7 | 26,093 |
| Western Isles | * | * | 16 | 0.9 | 1,751 |
| **Scotland** | **3,949** | **15,973** | **19,922** | **5.6** | **353,088** |

Note: * Indicates a figure between 1 and 4 or a figure that indirectly reveals such figures.

Individuals can sign up to the NRS Diabetes Register directly at:
https://www.nhsresearchscotland.org.uk/research-areas/diabetes/get-involved

NRS Diabetes offer a mail-out on behalf of GP Practices to give patients the opportunity to join the register. Signing up is a simple process which can be completed by email or by posting back a registration leaflet to NRS Diabetes for free. Mail-outs will be completed by NRS Diabetes at no cost or extra work to the practice. The only step required is for the practice to verify an externally produced list to remove any unsuitable patients.

To receive further information, registration leaflets or awareness materials or, if you are a researcher interested in using the register, please contact NRS Diabetes at administrator-sdrn@dundee.ac.uk.

# Acknowledgements

The data for this survey were provided by the Diabetes Managed Clinical Networks in each health board and extracted and collated by Andrew Taylor from the SCI-Diabetes Team. Michael Bluett produced the tables and graphs and edited the report. Chairs of sub-groups of the Scottish Diabetes Group and members of the previous Scottish Diabetes Data Group were asked to comment on Survey content. We are grateful for the suggestions received have attempted to include them all, either in this Survey or in plans for subsequent Surveys.

# List of Tables

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# Appendix 1: SCI-Diabetes Data Sources

SCI-Diabetes is NHS Scotland's diabetes patient management system. It is used in all fourteen health boards and holds data on all people with diabetes living in Scotland. Its purpose is to ensure that people receive the best possible care for their diabetes by providing authorised members of the healthcare team with the information they require to effectively manage their patients.

## Security and Confidentiality

SCI-Diabetes is available to members of the NHS Scotland healthcare team within the confines of the NHS intranet. SCI-Diabetes can only be accessed via a secure connection and data are never shared with any unauthorised third parties. Most NHS Boards have Diabetes Managed Clinical Networks that have the responsibility for managing access to SCI-Diabetes. In other NHS Boards this access is managed by eHealth colleagues.

## Data Sources

SCI-Diabetes is used directly by many professionals, but it also receives data from a variety of data sources to maintain its shared electronic record for diabetes. A breakdown of the main sources in April 2024 is as follows:

- Community Health Index (master patient index)
- All ~900 general practices across Scotland (EMIS, Vision)
- Direct data entry on SCI-Diabetes across Primary and Secondary Care including 60 Main Domains of Care.
- 13 of 14 NHS boards linking to local laboratory data (SCI Store – see below)
- National Diabetic Eye Screening (DES – OptoMize) System
- Inpatient Management: 10 NHS boards linking to local patient administration system for admission, discharge and transfer data (TrakCare)
- Connected Ward Meters: 3 NHS boards linking ward-based blood glucose measurements. Priority implementation area for national diabetes inpatient management programme
- Scottish Ambulance Service: 6 NHS boards linking ambulance service data for ambulance callouts for hypoglycaemic events.
- Winscribe: 4 NHS Boards linking with Winscribe for digital dictation and letter generation.

Registration onto the system can be initiated via the primary and secondary care feeds, registration onto the DES system or web patient administration forms. As part of the DES registration process, primary care users are expected to review their SCI-Diabetes lists periodically to ensure that all people eligible for screening are held.

The current SCI-Store (laboratory data) and Inpatient Management Implementation matrices are shown below:

**Table 64 Progress towards links from SCI Store to SCI-Diabetes, Scotland, April 2024.**

| NHS board | Implementation Requested | Status | Comments |
|---|---|---|---|
| Ayrshire and Arran | Yes | Live | |
| Borders | Yes | Live | |
| Dumfries and Galloway | Yes | Live | |
| Fife | Yes | Live | |
| Fife/Tayside | Yes | Live | |
| Forth Valley | Yes | Live | |
| Grampian | Yes | Live | |
| Greater Glasgow and Clyde | Yes | Live | |
| Highland | Yes | Not scheduled | Argyll & Bute data obtained from GG&C SCI-Store. |
| Lanarkshire | Yes | Live | |
| Lothian | Yes | Live | |
| Orkney | Yes | Live | |
| Shetland | Yes | Live | |
| Tayside | Yes | Live | |
| Western Isles | Yes | Live | |

**Table 65 Progress towards links from Patient Administration Systems to SCI-Diabetes, Scotland, April 2024.**

| NHS board | Implementation Requested | Status | Comments |
|---|---|---|---|
| Ayrshire and Arran | Yes | Live | TrakCare |
| Borders | Yes | Live | TrakCare |
| Dumfries and Galloway | Yes | Not scheduled | TOPAS |
| Fife | Yes | Live | TrakCare |
| Forth Valley | No | Live | TrakCare |
| Grampian | Yes | Live | TrakCare |
| Greater Glasgow and Clyde | Yes | Live | TrakCare |
| Highland | Yes | Live | TrakCare |
| Lanarkshire | Yes | Live | TrakCare |
| Lothian | Yes | Live | TrakCare |
| Orkney | No | Not scheduled | |
| Shetland | No | Not scheduled | |
| Tayside | Yes | Live | TrakCare |
| Western Isles | No | Not scheduled | Cortix |

SCI-Diabetes is supporting a national Healthcare Improvement Programme focusing on inpatient diabetes. To provide accurate reporting it is essential that SCI-Diabetes receives data from all hospital patient administration systems and, where relevant, connected ward-based

blood glucose meters from systems supplied by Roche and Abbott. At present, NHS Tayside and NHS Lothian and NHS Borders provide full support for diabetes inpatient management.

In addition to incoming feeds, SCI-Diabetes data are also transferred to external systems:

- National Diabetic Eye Screening: to maintain the call-recall system.
- My Diabetes My Way: people accessing their own information.
- SCI-Diabetes Audit Server: for regional and national reporting.
- Back-population of over 95% of GP systems: in support of a single-point of data entry.

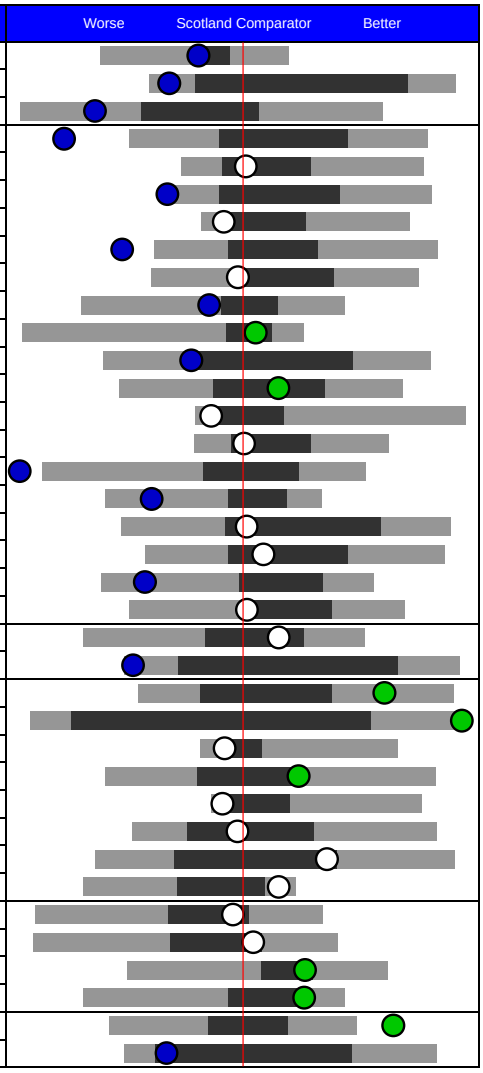
More information about the Scottish Care Information – Diabetes Collaboration (SCI-DC) programme and SCI-Diabetes is available at http://www.sci-diabetes.scot.nhs.uk/

# Appendix 2: Spine Charts Displaying Health Board Performance

A change was made in this year's survey for spine indicators in the Blood Pressure, HbA1c and Cholesterol Targets categories. In previous years the percentage was calculated as the proportion of all people with a given type of diabetes (including those Not Recorded), whereas this year the percentage is the proportion of those measured (excluding those Not Recorded). Age restrictions in this section match those used in the Processes of Care section. Small numbers or data that reveals small numbers have been replaced with *.

**Diabetes Health Board Spine Chart (Ayrshire and Arran) 2023**

| Category | Indicator | Number | Measure | National average |
|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 2,569 | 0.7 | 0.7 |
| | Age standardised prevalence of type 2 diabetes (sr2) | 25,293 | 6.1 | 5.7 |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 11 | 3.0 | 8.9 |
| Quality of Recording | T1: % Have recorded BMI | 1,679 | 65.4 | 77.6 |
| | T2: % Have recorded BMI | 19,423 | 76.8 | 76.6 |
| | T1: % Have recorded HbA1c | 2,145 | 83.5 | 87.3 |
| | T2: % Have recorded HbA1c | 22,367 | 88.4 | 89.2 |
| | T1: % Have recorded BP (12+ year olds) | 1,764 | 71.1 | 79.9 |
| | T2: % Have recorded BP (12+ year olds) | * | 83.0 | 83.3 |
| | T1: % Have recorded cholesterol (18+ year olds) | 1,641 | 70.6 | 75.0 |
| | T2: % Have recorded cholesterol (18+ year olds) | * | 79.4 | 77.3 |
| | T1: % Have recorded smoking status (12+ year olds) | 1,253 | 50.5 | 57.2 |
| | T2: % Have recorded smoking status (12+ year olds) | * | 66.2 | 64.4 |
| | T1: % Have recorded creatinine (18+ year olds) | 1,996 | 85.8 | 87.3 |
| | T2: % Have recorded creatinine (18+ year olds) | * | 91.5 | 91.5 |
| | T1: % Have recorded microalbumin (12+ year olds) | 820 | 33.1 | 61.3 |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 42.8 | 59.7 |
| | T1: % Have recorded eye screening (12+ year olds) | 2,084 | 84.0 | 83.8 |
| | T2: % Have recorded eye screening (12+ year olds) | * | 86.7 | 85.9 |
| | T1: % Have recorded foot risk (18+ year olds) | 1,017 | 43.7 | 60.4 |
| | T2: % Have recorded foot risk (18+ year olds) | * | 59.2 | 58.8 |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 215 | 8.7 | 9.4 |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 10.2 | 9.6 |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 1,451 | 82.3 | 72.8 |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 78.3 | 73.8 |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 652 | 30.4 | 32.1 |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 12,562 | 56.2 | 54.4 |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 641 | 29.9 | 28.3 |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 3,881 | 17.4 | 17.2 |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 1,184 | 72.2 | 70.1 |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | * | 77.7 | 76.7 |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 1,310 | 52.8 | 52.3 |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 20.6 | 21.1 |
| | T1: % Previous foot ulcer | 161 | 6.3 | 7.9 |
| | T2: % Previous foot ulcer | 717 | 2.8 | 3.8 |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 141 | 90.4 | 61.9 |
| | T1: % Have access to an insulin pump | 434 | 16.9 | 19.3 |




Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
* indicates a figure between 1 and 4 or a figure that indirectly reveals such figures

Spine chart key:

Statistically significantly 'worse' than National average
Statistically not significantly different from National average
Statistically significantly 'better' than National average

## Diabetes Health Board Spine Chart (Borders) 2023

| Category | Indicator | Number | Measure | National average | Worse Scotland Comparator Better |
|---|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 808 | 0.7 | 0.7 | |
| | Age standardised prevalence of type 2 diabetes (sr2) | 6,660 | 4.7 | 5.7 | |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | * | * | 8.9 | |
| Quality of Recording | T1: % Have recorded BMI | 610 | 75.5 | 77.6 | |
| | T2: % Have recorded BMI | 5,278 | 79.2 | 76.6 | |
| | T1: % Have recorded HbA1c | 696 | 86.1 | 87.3 | |
| | T2: % Have recorded HbA1c | 5,924 | 88.9 | 89.2 | |
| | T1: % Have recorded BP (12+ year olds) | 642 | 82.3 | 79.9 | |
| | T2: % Have recorded BP (12+ year olds) | * | 86.3 | 83.3 | |
| | T1: % Have recorded cholesterol (18+ year olds) | 568 | 76.9 | 75.0 | |
| | T2: % Have recorded cholesterol (18+ year olds) | * | 82.0 | 77.3 | |
| | T1: % Have recorded smoking status (12+ year olds) | 451 | 57.8 | 57.2 | |
| | T2: % Have recorded smoking status (12+ year olds) | * | 65.5 | 64.4 | |
| | T1: % Have recorded creatinine (18+ year olds) | 660 | 89.3 | 87.3 | |
| | T2: % Have recorded creatinine (18+ year olds) | * | 92.9 | 91.5 | |
| | T1: % Have recorded microalbumin (12+ year olds) | 292 | 37.4 | 61.3 | |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 18.5 | 59.7 | |
| | T1: % Have recorded eye screening (12+ year olds) | 604 | 77.4 | 83.8 | |
| | T2: % Have recorded eye screening (12+ year olds) | * | 83.9 | 85.9 | |
| | T1: % Have recorded foot risk (18+ year olds) | 520 | 70.4 | 60.4 | |
| | T2: % Have recorded foot risk (18+ year olds) | * | 67.7 | 58.8 | |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 73 | 9.4 | 9.4 | |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 8.5 | 9.6 | |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 425 | 66.2 | 72.8 | |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 77.1 | 73.8 | |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 222 | 31.9 | 32.1 | |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 3,315 | 56.0 | 54.4 | |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 166 | 23.9 | 28.3 | |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 930 | 15.7 | 17.2 | |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 394 | 69.4 | 70.1 | |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | * | 77.1 | 76.7 | |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 389 | 49.9 | 52.3 | |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 18.9 | 21.1 | |
| | T1: % Previous foot ulcer | 47 | 5.8 | 7.9 | |
| | T2: % Previous foot ulcer | 141 | 2.1 | 3.8 | |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 1,922 | 78.2 | 61.9 | |
| | T1: % Have access to an insulin pump | 154 | 19.1 | 19.3 | |

Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
* indicates a figure between 1 and 4 or a figure that indirectly reveals such figures

Spine chart key:

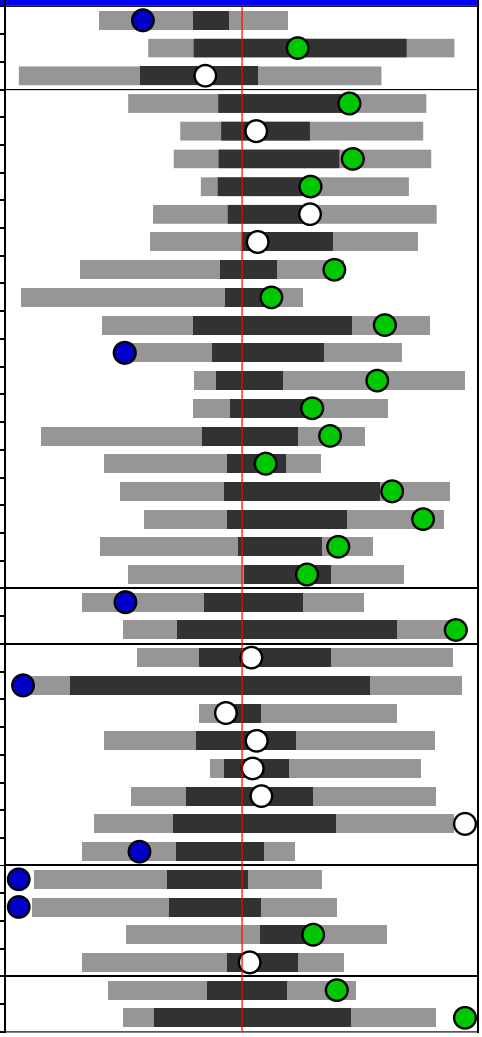
- Statistically significantly 'worse' than National average
- Statistically not significantly different from National average
- Statistically significantly 'better' than National average

'Worse' Area ← Scotland Average → 'Better 'Area'

5th percentile 25th percentile 75th percentile 95th percentile

## Diabetes Health Board Spine Chart (Dumfries and Galloway) 2023

| Category | Indicator | Number | Measure | National average |
|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 1,128 | 0.8 | 0.7 |
| | Age standardised prevalence of type 2 diabetes (sr2) | 9,692 | 5.4 | 5.7 |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 11 | 7.4 | 8.9 |
| Quality of Recording | T1: % Have recorded BMI | 959 | 85.0 | 77.6 |
| | T2: % Have recorded BMI | 7,517 | 77.6 | 76.6 |
| | T1: % Have recorded HbA1c | 1,049 | 93.0 | 87.3 |
| | T2: % Have recorded HbA1c | 8,911 | 91.9 | 89.2 |
| | T1: % Have recorded BP (12+ year olds) | 916 | 84.8 | 79.9 |
| | T2: % Have recorded BP (12+ year olds) | * | 84.1 | 83.3 |
| | T1: % Have recorded cholesterol (18+ year olds) | 881 | 87.3 | 75.0 |
| | T2: % Have recorded cholesterol (18+ year olds) | * | 82.1 | 77.3 |
| | T1: % Have recorded smoking status (12+ year olds) | 817 | 75.6 | 57.2 |
| | T2: % Have recorded smoking status (12+ year olds) | * | 58.5 | 64.4 |
| | T1: % Have recorded creatinine (18+ year olds) | 946 | 93.8 | 87.3 |
| | T2: % Have recorded creatinine (18+ year olds) | * | 93.5 | 91.5 |
| | T1: % Have recorded microalbumin (12+ year olds) | 783 | 72.5 | 61.3 |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 64.1 | 59.7 |
| | T1: % Have recorded eye screening (12+ year olds) | 989 | 91.6 | 83.8 |
| | T2: % Have recorded eye screening (12+ year olds) | * | 93.1 | 85.9 |
| | T1: % Have recorded foot risk (18+ year olds) | 774 | 76.7 | 60.4 |
| | T2: % Have recorded foot risk (18+ year olds) | * | 65.6 | 58.8 |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 126 | 11.7 | 9.4 |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 8.4 | 9.6 |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 673 | 73.5 | 72.8 |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 69.2 | 73.8 |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 321 | 30.6 | 32.1 |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 4,889 | 54.9 | 54.4 |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 288 | 27.5 | 28.3 |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 1,490 | 16.7 | 17.2 |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 665 | 75.5 | 70.1 |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | * | 73.9 | 76.7 |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 676 | 62.6 | 52.3 |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 30.3 | 21.1 |
| | T1: % Previous foot ulcer | 68 | 6.0 | 7.9 |
| | T2: % Previous foot ulcer | 359 | 3.7 | 3.8 |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 901 | 79.9 | 61.9 |
| | T1: % Have access to an insulin pump | 299 | 26.5 | 19.3 |

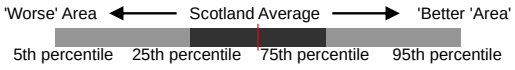



Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
* indicates a figure between 1 and 4 or a figure that indirectly reveals such figures

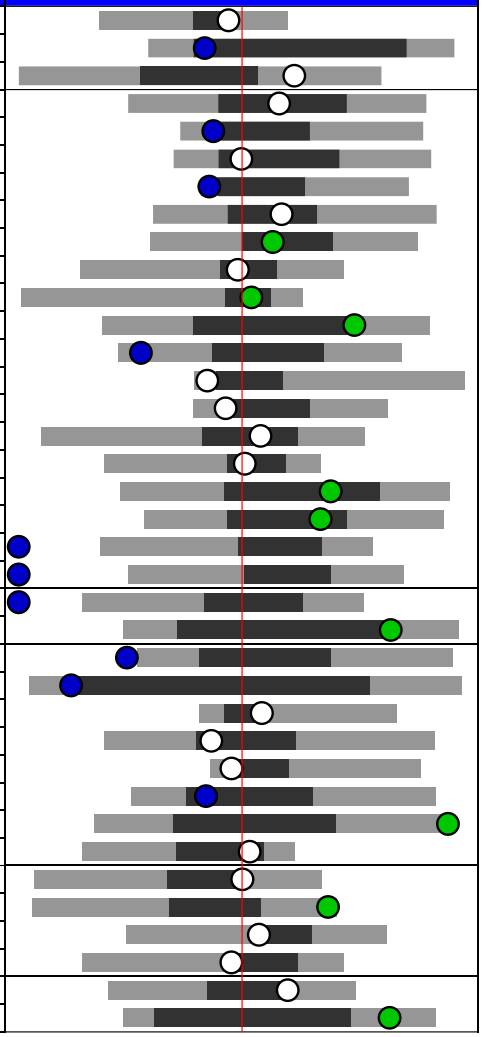
Spine chart key:

- Statistically significantly 'worse' than National average
- Statistically not significantly different from National average
- Statistically significantly 'better' than National average



## Diabetes Health Board Spine Chart (Fife) 2023

| Category | Indicator | Number | Measure | National average |
|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 2,499 | 0.7 | 0.7 |
| | Age standardised prevalence of type 2 diabetes (sr2) | 23,031 | 5.9 | 5.7 |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 41 | 11.0 | 8.9 |
| Quality of Recording | T1: % Have recorded BMI | 2,004 | 80.2 | 77.6 |
| | T2: % Have recorded BMI | 17,197 | 74.7 | 76.6 |
| | T1: % Have recorded HbA1c | 2,182 | 87.3 | 87.3 |
| | T2: % Have recorded HbA1c | 20,242 | 87.9 | 89.2 |
| | T1: % Have recorded BP (12+ year olds) | 1,996 | 82.8 | 79.9 |
| | T2: % Have recorded BP (12+ year olds) | * | 84.9 | 83.3 |
| | T1: % Have recorded cholesterol (18+ year olds) | 1,685 | 74.5 | 75.0 |
| | T2: % Have recorded cholesterol (18+ year olds) | 18,156 | 78.9 | 77.3 |
| | T1: % Have recorded smoking status (12+ year olds) | 1,730 | 71.7 | 57.2 |
| | T2: % Have recorded smoking status (12+ year olds) | * | 59.3 | 64.4 |
| | T1: % Have recorded creatinine (18+ year olds) | 1,938 | 85.7 | 87.3 |
| | T2: % Have recorded creatinine (18+ year olds) | 20,947 | 91.0 | 91.5 |
| | T1: % Have recorded microalbumin (12+ year olds) | 1,536 | 63.7 | 61.3 |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 60.2 | 59.7 |
| | T1: % Have recorded eye screening (12+ year olds) | 2,132 | 88.4 | 83.8 |
| | T2: % Have recorded eye screening (12+ year olds) | * | 89.0 | 85.9 |
| | T1: % Have recorded foot risk (18+ year olds) | 509 | 22.5 | 60.4 |
| | T2: % Have recorded foot risk (18+ year olds) | 8,154 | 35.4 | 58.8 |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 332 | 13.8 | 9.4 |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 8.8 | 9.6 |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 1,301 | 65.2 | 72.8 |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 70.2 | 73.8 |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 739 | 33.9 | 32.1 |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 10,814 | 53.4 | 54.4 |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 635 | 29.1 | 28.3 |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 3,670 | 18.1 | 17.2 |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 1,265 | 75.1 | 70.1 |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 13,962 | 76.9 | 76.7 |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 1,262 | 52.3 | 52.3 |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 17.5 | 21.1 |
| | T1: % Previous foot ulcer | 186 | 7.4 | 7.9 |
| | T2: % Previous foot ulcer | 922 | 4.0 | 3.8 |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 108 | 70.6 | 61.9 |
| | T1: % Have access to an insulin pump | 602 | 24.1 | 19.3 |

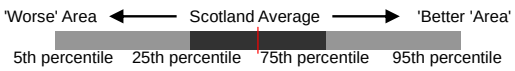



Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
* indicates a figure between 1 and 4 or a figure that indirectly reveals such figures

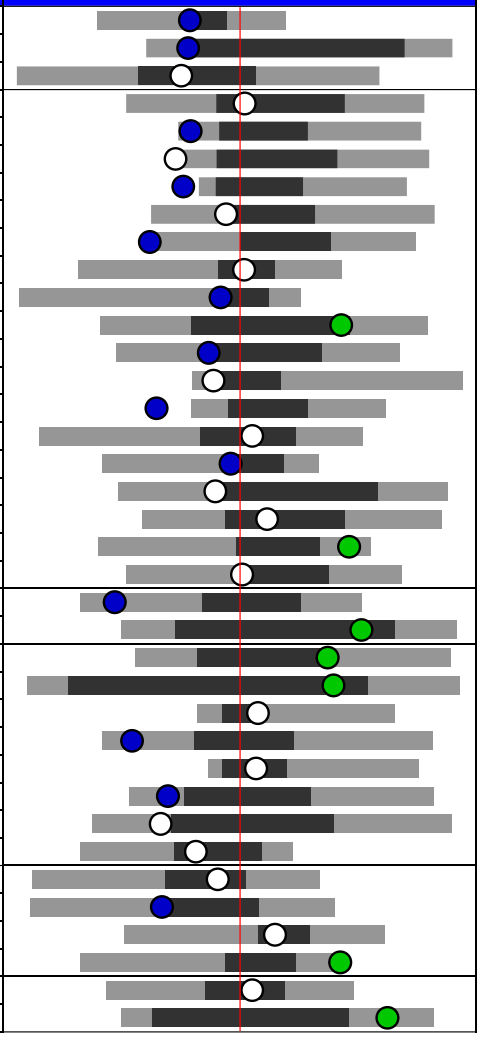
Spine chart key:

Statistically significantly 'worse' than National average
Statistically not significantly different from National average
Statistically significantly 'better' than National average



## Diabetes Health Board Spine Chart (Forth Valley) 2023

| Category | Indicator | Number | Measure | National average |
|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 2,209 | 0.7 | 0.7 |
| | Age standardised prevalence of type 2 diabetes (sr2) | 18,408 | 6.0 | 5.7 |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 20 | 6.5 | 8.9 |
| Quality of Recording | T1: % Have recorded BMI | 1,722 | 78.0 | 77.6 |
| | T2: % Have recorded BMI | 13,488 | 73.3 | 76.6 |
| | T1: % Have recorded HbA1c | 1,857 | 84.1 | 87.3 |
| | T2: % Have recorded HbA1c | 16,002 | 86.9 | 89.2 |
| | T1: % Have recorded BP (12+ year olds) | 1,679 | 78.9 | 79.9 |
| | T2: % Have recorded BP (12+ year olds) | * | 78.6 | 83.3 |
| | T1: % Have recorded cholesterol (18+ year olds) | 1,486 | 75.6 | 75.0 |
| | T2: % Have recorded cholesterol (18+ year olds) | * | 74.2 | 77.3 |
| | T1: % Have recorded smoking status (12+ year olds) | 1,496 | 70.3 | 57.2 |
| | T2: % Have recorded smoking status (12+ year olds) | * | 62.8 | 64.4 |
| | T1: % Have recorded creatinine (18+ year olds) | 1,692 | 86.1 | 87.3 |
| | T2: % Have recorded creatinine (18+ year olds) | * | 89.0 | 91.5 |
| | T1: % Have recorded microalbumin (12+ year olds) | 1,339 | 62.9 | 61.3 |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 58.0 | 59.7 |
| | T1: % Have recorded eye screening (12+ year olds) | 1,757 | 82.5 | 83.8 |
| | T2: % Have recorded eye screening (12+ year olds) | * | 86.9 | 85.9 |
| | T1: % Have recorded foot risk (18+ year olds) | 1,551 | 78.9 | 60.4 |
| | T2: % Have recorded foot risk (18+ year olds) | * | 59.0 | 58.8 |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 252 | 11.8 | 9.4 |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 8.9 | 9.6 |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 1,321 | 78.7 | 72.8 |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 75.7 | 73.8 |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 626 | 33.7 | 32.1 |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 8,155 | 51.0 | 54.4 |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 502 | 27.0 | 28.3 |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 3,048 | 19.0 | 17.2 |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 1,014 | 68.2 | 70.1 |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | * | 75.5 | 76.7 |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 1,136 | 53.4 | 52.3 |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 24.3 | 21.1 |
| | T1: % Previous foot ulcer | 154 | 7.0 | 7.9 |
| | T2: % Previous foot ulcer | 405 | 2.2 | 3.8 |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 2,538 | 64.2 | 61.9 |
| | T1: % Have access to an insulin pump | 532 | 24.1 | 19.3 |

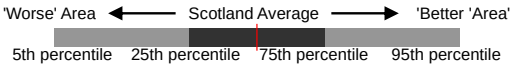



Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
* indicates a figure between 1 and 4 or a figure that indirectly reveals such figures

Spine chart key:

- Statistically significantly 'worse' than National average
- Statistically not significantly different from National average
- Statistically significantly 'better' than National average



## Diabetes Health Board Spine Chart (Grampian) 2023

| Category | Indicator | Number | Measure | National average | Worse Scotland Comparator Better |
|---|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 3,951 | 0.7 | 0.7 | |
| | Age standardised prevalence of type 2 diabetes (sr2) | 29,603 | 5.1 | 5.7 | |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 32 | 5.5 | 8.9 | |
| Quality of Recording | T1: % Have recorded BMI | 3,332 | 84.3 | 77.6 | |
| | T2: % Have recorded BMI | 24,173 | 81.7 | 76.6 | |
| | T1: % Have recorded HbA1c | 3,565 | 90.2 | 87.3 | |
| | T2: % Have recorded HbA1c | 26,959 | 91.1 | 89.2 | |
| | T1: % Have recorded BP (12+ year olds) | 3,262 | 85.5 | 79.9 | |
| | T2: % Have recorded BP (12+ year olds) | * | 88.1 | 83.3 | |
| | T1: % Have recorded cholesterol (18+ year olds) | 2,730 | 76.5 | 75.0 | |
| | T2: % Have recorded cholesterol (18+ year olds) | * | 84.1 | 77.3 | |
| | T1: % Have recorded smoking status (12+ year olds) | 1,957 | 51.3 | 57.2 | |
| | T2: % Have recorded smoking status (12+ year olds) | * | 64.5 | 64.4 | |
| | T1: % Have recorded creatinine (18+ year olds) | 3,184 | 89.2 | 87.3 | |
| | T2: % Have recorded creatinine (18+ year olds) | * | 93.2 | 91.5 | |
| | T1: % Have recorded microalbumin (12+ year olds) | 2,539 | 66.6 | 61.3 | |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 67.5 | 59.7 | |
| | T1: % Have recorded eye screening (12+ year olds) | 3,265 | 85.6 | 83.8 | |
| | T2: % Have recorded eye screening (12+ year olds) | * | 88.4 | 85.9 | |
| | T1: % Have recorded foot risk (18+ year olds) | 2,140 | 60.0 | 60.4 | |
| | T2: % Have recorded foot risk (18+ year olds) | * | 64.4 | 58.8 | |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 291 | 7.6 | 9.4 | |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 8.7 | 9.6 | |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 2,297 | 70.4 | 72.8 | |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 70.2 | 73.8 | |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 1,094 | 30.7 | 32.1 | |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 13,791 | 51.2 | 54.4 | |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 1,094 | 30.7 | 28.3 | |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 5,288 | 19.6 | 17.2 | |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 1,866 | 68.4 | 70.1 | |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | * | 74.7 | 76.7 | |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 1,983 | 52.0 | 52.3 | |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 20.4 | 21.1 | |
| | T1: % Previous foot ulcer | 256 | 6.5 | 7.9 | |
| | T2: % Previous foot ulcer | 950 | 3.2 | 3.8 | |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 4,698 | 64.8 | 61.9 | |
| | T1: % Have access to an insulin pump | 710 | 18.0 | 19.3 | |

Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
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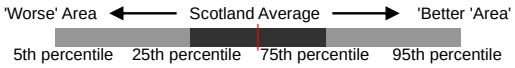
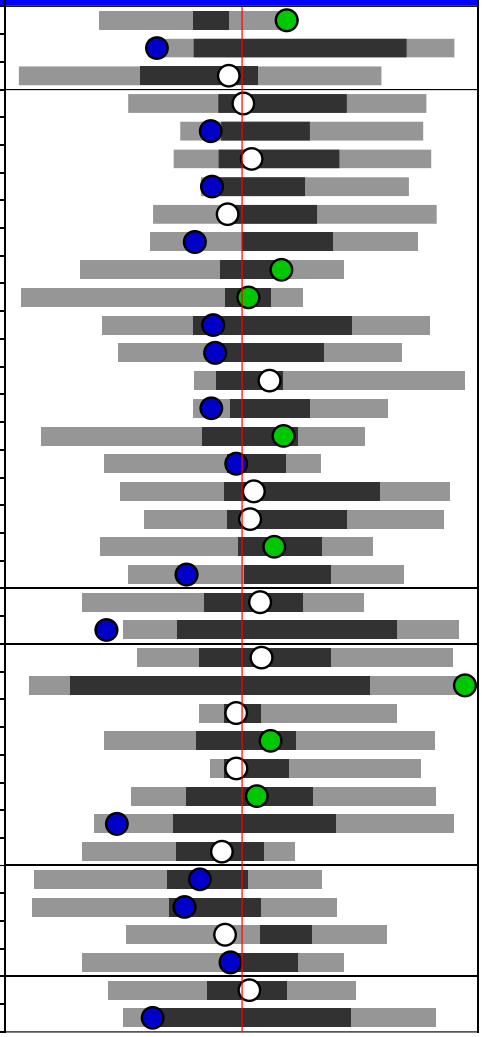
Spine chart key:

- Statistically significantly 'worse' than National average
- Statistically not significantly different from National average
- Statistically significantly 'better' than National average



## Diabetes Health Board Spine Chart (Greater Glasgow and Clyde) 2023

| Category | Indicator | Number | Measure | National average |
|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 7,254 | 0.6 | 0.7 |
| | Age standardised prevalence of type 2 diabetes (sr2) | 66,647 | 6.2 | 5.7 |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 99 | 8.4 | 8.9 |
| Quality of Recording | T1: % Have recorded BMI | 5,639 | 77.7 | 77.6 |
| | T2: % Have recorded BMI | 49,652 | 74.5 | 76.6 |
| | T1: % Have recorded HbA1c | 6,372 | 87.8 | 87.3 |
| | T2: % Have recorded HbA1c | 58,652 | 88.0 | 89.2 |
| | T1: % Have recorded BP (12+ year olds) | 5,503 | 78.8 | 79.9 |
| | T2: % Have recorded BP (12+ year olds) | 53,879 | 80.9 | 83.3 |
| | T1: % Have recorded cholesterol (18+ year olds) | 5,271 | 80.3 | 75.0 |
| | T2: % Have recorded cholesterol (18+ year olds) | 52,211 | 78.4 | 77.3 |
| | T1: % Have recorded smoking status (12+ year olds) | 3,731 | 53.5 | 57.2 |
| | T2: % Have recorded smoking status (12+ year olds) | 41,997 | 63.0 | 64.4 |
| | T1: % Have recorded creatinine (18+ year olds) | 5,820 | 88.6 | 87.3 |
| | T2: % Have recorded creatinine (18+ year olds) | 60,331 | 90.6 | 91.5 |
| | T1: % Have recorded microalbumin (12+ year olds) | 4,649 | 66.6 | 61.3 |
| | T2: % Have recorded microalbumin (12+ year olds) | 39,060 | 58.6 | 59.7 |
| | T1: % Have recorded eye screening (12+ year olds) | 5,892 | 84.4 | 83.8 |
| | T2: % Have recorded eye screening (12+ year olds) | 57,427 | 86.2 | 85.9 |
| | T1: % Have recorded foot risk (18+ year olds) | 4,324 | 65.9 | 60.4 |
| | T2: % Have recorded foot risk (18+ year olds) | 35,296 | 53.0 | 58.8 |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 629 | 9.0 | 9.4 |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | 6,896 | 10.3 | 9.6 |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 4,080 | 74.1 | 72.8 |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 42,219 | 78.4 | 73.8 |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 2,010 | 31.5 | 32.1 |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 32,439 | 55.3 | 54.4 |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 1,830 | 28.7 | 28.3 |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 9,875 | 16.8 | 17.2 |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 3,539 | 67.1 | 70.1 |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 39,753 | 76.1 | 76.7 |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 3,788 | 54.3 | 52.3 |
| | T2 % Diabetic retinopathy (12+ year olds) | 15,622 | 23.4 | 21.1 |
| | T1: % Previous foot ulcer | 604 | 8.3 | 7.9 |
| | T2: % Previous foot ulcer | 2,675 | 4.0 | 3.8 |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 3,072 | 63.3 | 61.9 |
| | T1: % Have access to an insulin pump | 1,195 | 16.5 | 19.3 |




Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
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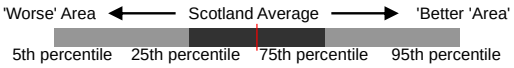
Spine chart key:

- Statistically significantly 'worse' than National average
- Statistically not significantly different from National average
- Statistically significantly 'better' than National average



## Diabetes Health Board Spine Chart (Highland) 2023

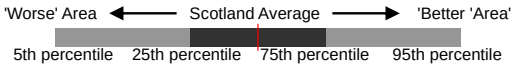
| Category | Indicator | Number | Measure | National average | Worse Scotland Comparator Better |
|---|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 2,386 | 0.7 | 0.7 | |
| | Age standardised prevalence of type 2 diabetes (sr2) | 18,778 | 5.0 | 5.7 | |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 29 | 9.0 | 8.9 | |
| Quality of Recording | T1: % Have recorded BMI | 1,850 | 77.5 | 77.6 | |
| | T2: % Have recorded BMI | 15,280 | 81.4 | 76.6 | |
| | T1: % Have recorded HbA1c | 2,098 | 87.9 | 87.3 | |
| | T2: % Have recorded HbA1c | 17,067 | 90.9 | 89.2 | |
| | T1: % Have recorded BP (12+ year olds) | 1,938 | 83.6 | 79.9 | |
| | T2: % Have recorded BP (12+ year olds) | * | 87.8 | 83.3 | |
| | T1: % Have recorded cholesterol (18+ year olds) | 1,589 | 72.9 | 75.0 | |
| | T2: % Have recorded cholesterol (18+ year olds) | * | 76.0 | 77.3 | |
| | T1: % Have recorded smoking status (12+ year olds) | 1,533 | 66.2 | 57.2 | |
| | T2: % Have recorded smoking status (12+ year olds) | * | 69.6 | 64.4 | |
| | T1: % Have recorded creatinine (18+ year olds) | 1,887 | 86.6 | 87.3 | |
| | T2: % Have recorded creatinine (18+ year olds) | * | 91.6 | 91.5 | |
| | T1: % Have recorded microalbumin (12+ year olds) | 1,288 | 55.6 | 61.3 | |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 62.2 | 59.7 | |
| | T1: % Have recorded eye screening (12+ year olds) | 1,953 | 84.3 | 83.8 | |
| | T2: % Have recorded eye screening (12+ year olds) | * | 84.9 | 85.9 | |
| | T1: % Have recorded foot risk (18+ year olds) | 1,624 | 74.5 | 60.4 | |
| | T2: % Have recorded foot risk (18+ year olds) | * | 72.0 | 58.8 | |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 235 | 10.1 | 9.4 | |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 9.0 | 9.6 | |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 1,526 | 78.7 | 72.8 | |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 69.7 | 73.8 | |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 656 | 31.3 | 32.1 | |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 9,380 | 55.0 | 54.4 | |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 561 | 26.7 | 28.3 | |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 2,615 | 15.3 | 17.2 | |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 1,100 | 69.2 | 70.1 | |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | * | 75.7 | 76.7 | |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 1,198 | 51.7 | 52.3 | |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 20.2 | 21.1 | |
| | T1: % Previous foot ulcer | 157 | 6.6 | 7.9 | |
| | T2: % Previous foot ulcer | 719 | 3.8 | 3.8 | |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 1,691 | 65.8 | 61.9 | |
| | T1: % Have access to an insulin pump | 340 | 14.3 | 19.3 | |

Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
* indicates a figure between 1 and 4 or a figure that indirectly reveals such figures

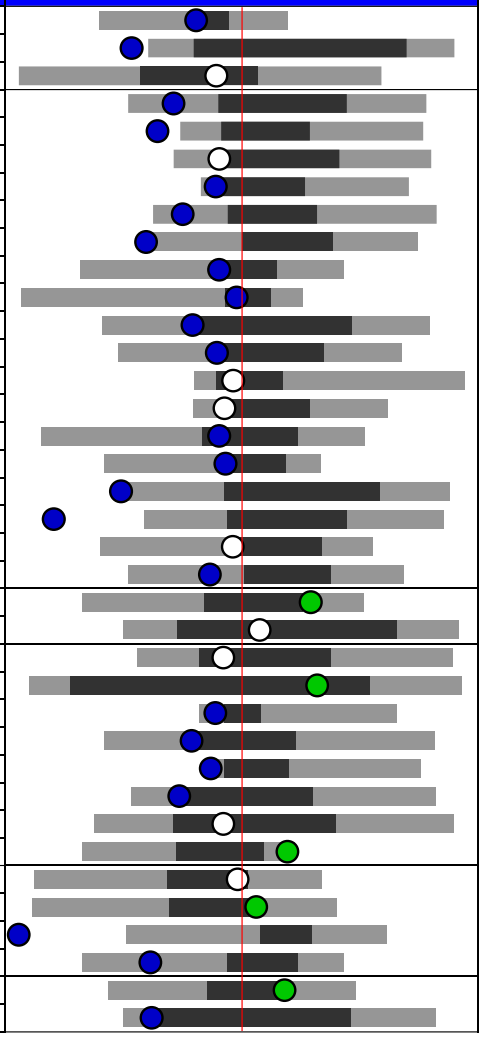
Spine chart key:

- Statistically significantly 'worse' than National average
- Statistically not significantly different from National average
- Statistically significantly 'better' than National average



## Diabetes Health Board Spine Chart (Lanarkshire) 2023

| Category | Indicator | Number | Measure | National average |
|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 4,852 | 0.7 | 0.7 |
| | Age standardised prevalence of type 2 diabetes (sr2) | 41,736 | 6.3 | 5.7 |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 52 | 7.9 | 8.9 |
| Quality of Recording | T1: % Have recorded BMI | 3,539 | 72.9 | 77.6 |
| | T2: % Have recorded BMI | 29,599 | 70.9 | 76.6 |
| | T1: % Have recorded HbA1c | 4,182 | 86.2 | 87.3 |
| | T2: % Have recorded HbA1c | 36,791 | 88.2 | 89.2 |
| | T1: % Have recorded BP (12+ year olds) | 3,517 | 75.6 | 79.9 |
| | T2: % Have recorded BP (12+ year olds) | * | 78.3 | 83.3 |
| | T1: % Have recorded cholesterol (18+ year olds) | 3,141 | 72.0 | 75.0 |
| | T2: % Have recorded cholesterol (18+ year olds) | 31,893 | 76.5 | 77.3 |
| | T1: % Have recorded smoking status (12+ year olds) | 2,364 | 50.8 | 57.2 |
| | T2: % Have recorded smoking status (12+ year olds) | * | 63.1 | 64.4 |
| | T1: % Have recorded creatinine (18+ year olds) | 3,790 | 86.9 | 87.3 |
| | T2: % Have recorded creatinine (18+ year olds) | 37,929 | 91.0 | 91.5 |
| | T1: % Have recorded microalbumin (12+ year olds) | 2,720 | 58.4 | 61.3 |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 56.6 | 59.7 |
| | T1: % Have recorded eye screening (12+ year olds) | 3,609 | 77.5 | 83.8 |
| | T2: % Have recorded eye screening (12+ year olds) | * | 78.4 | 85.9 |
| | T1: % Have recorded foot risk (18+ year olds) | 2,564 | 58.8 | 60.4 |
| | T2: % Have recorded foot risk (18+ year olds) | 23,119 | 55.4 | 58.8 |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 373 | 8.0 | 9.4 |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 9.5 | 9.6 |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 2,518 | 71.6 | 72.8 |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 75.3 | 73.8 |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 1,239 | 29.6 | 32.1 |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 19,423 | 52.8 | 54.4 |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 1,285 | 30.7 | 28.3 |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 6,921 | 18.8 | 17.2 |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 2,189 | 69.7 | 70.1 |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 24,856 | 77.9 | 76.7 |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 2,445 | 52.5 | 52.3 |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 20.5 | 21.1 |
| | T1: % Previous foot ulcer | 665 | 13.7 | 7.9 |
| | T2: % Previous foot ulcer | 2,219 | 5.3 | 3.8 |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 1,546 | 70.0 | 61.9 |
| | T1: % Have access to an insulin pump | 796 | 16.4 | 19.3 |

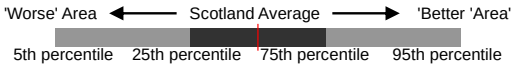



Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
* indicates a figure between 1 and 4 or a figure that indirectly reveals such figures

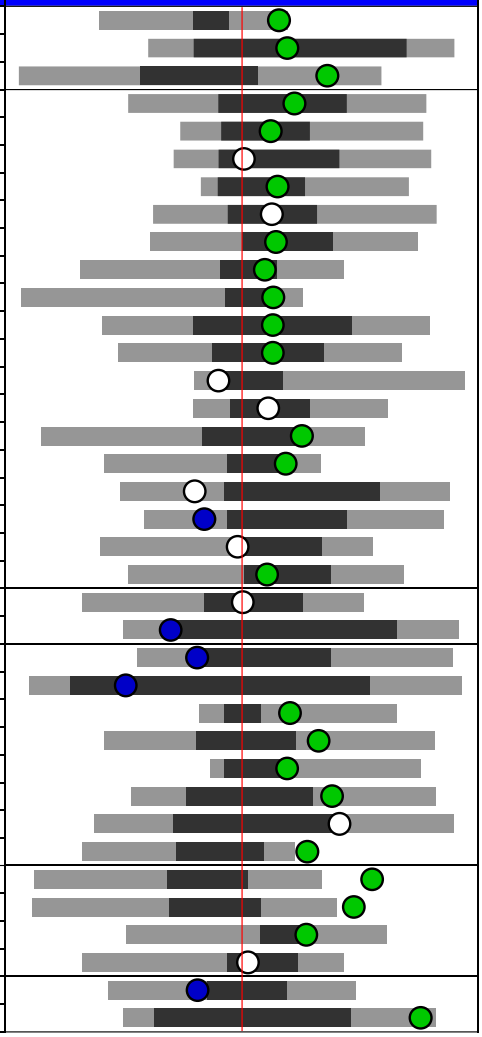
Spine chart key:

Statistically significantly 'worse' than National average
Statistically not significantly different from National average
Statistically significantly 'better' than National average



## Diabetes Health Board Spine Chart (Lothian) 2023

| Category | Indicator | Number | Measure | National average |
|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 5,593 | 0.6 | 0.7 |
| | Age standardised prevalence of type 2 diabetes (sr2) | 43,865 | 5.4 | 5.7 |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 112 | 12.3 | 8.9 |
| Quality of Recording | T1: % Have recorded BMI | 4,544 | 81.2 | 77.6 |
| | T2: % Have recorded BMI | 34,447 | 78.5 | 76.6 |
| | T1: % Have recorded HbA1c | 4,891 | 87.4 | 87.3 |
| | T2: % Have recorded HbA1c | 39,752 | 90.6 | 89.2 |
| | T1: % Have recorded BP (12+ year olds) | 4,446 | 82.0 | 79.9 |
| | T2: % Have recorded BP (12+ year olds) | * | 85.1 | 83.3 |
| | T1: % Have recorded cholesterol (18+ year olds) | 4,004 | 78.1 | 75.0 |
| | T2: % Have recorded cholesterol (18+ year olds) | 36,121 | 82.4 | 77.3 |
| | T1: % Have recorded smoking status (12+ year olds) | 3,315 | 61.2 | 57.2 |
| | T2: % Have recorded smoking status (12+ year olds) | * | 65.9 | 64.4 |
| | T1: % Have recorded creatinine (18+ year olds) | 4,421 | 86.2 | 87.3 |
| | T2: % Have recorded creatinine (18+ year olds) | 40,443 | 92.2 | 91.5 |
| | T1: % Have recorded microalbumin (12+ year olds) | 3,735 | 68.9 | 61.3 |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 67.8 | 59.7 |
| | T1: % Have recorded eye screening (12+ year olds) | 4,409 | 81.4 | 83.8 |
| | T2: % Have recorded eye screening (12+ year olds) | * | 84.4 | 85.9 |
| | T1: % Have recorded foot risk (18+ year olds) | 3,058 | 59.6 | 60.4 |
| | T2: % Have recorded foot risk (18+ year olds) | 26,933 | 61.4 | 58.8 |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 507 | 9.4 | 9.4 |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 10.0 | 9.6 |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 3,106 | 69.9 | 72.8 |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 71.4 | 73.8 |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 1,782 | 36.4 | 32.1 |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 22,591 | 56.8 | 54.4 |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 1,211 | 24.8 | 28.3 |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 5,931 | 14.9 | 17.2 |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 2,902 | 72.5 | 70.1 |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 28,348 | 78.5 | 76.7 |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 2,512 | 46.4 | 52.3 |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 16.4 | 21.1 |
| | T1: % Previous foot ulcer | 347 | 6.2 | 7.9 |
| | T2: % Previous foot ulcer | 1,637 | 3.7 | 3.8 |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 1,277 | 53.5 | 61.9 |
| | T1: % Have access to an insulin pump | 1,403 | 25.1 | 19.3 |

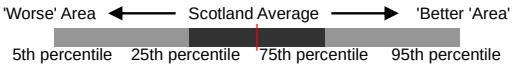



Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
* indicates a figure between 1 and 4 or a figure that indirectly reveals such figures

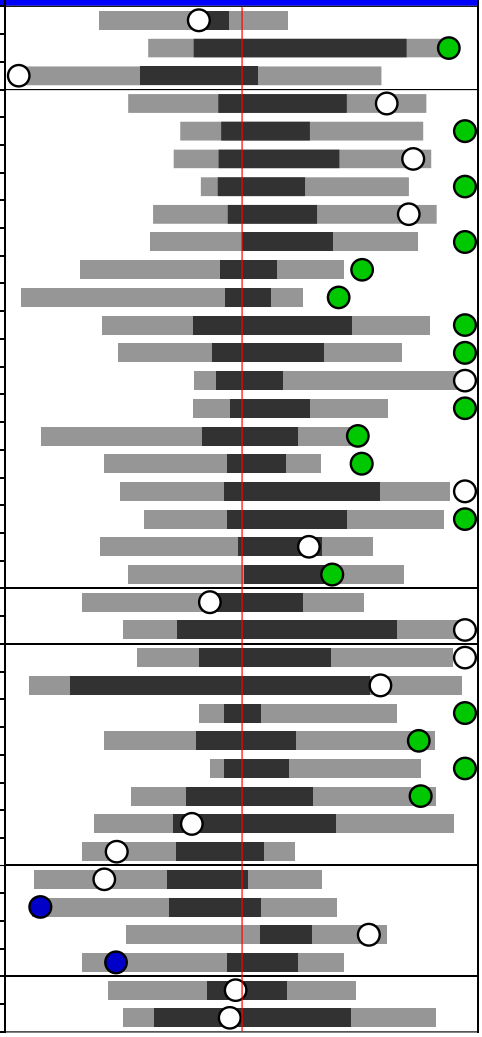
Spine chart key:

Statistically significantly 'worse' than National average
Statistically not significantly different from National average
Statistically significantly 'better' than National average



## Diabetes Health Board Spine Chart (Orkney) 2023

| Category | Indicator | Number | Measure | National average |
|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 153 | 0.7 | 0.7 |
| | Age standardised prevalence of type 2 diabetes (sr2) | 1,175 | 4.5 | 5.7 |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 0 | 0.0 | 8.9 |
| Quality of Recording | T1: % Have recorded BMI | 134 | 87.6 | 77.6 |
| | T2: % Have recorded BMI | 1,076 | 91.6 | 76.6 |
| | T1: % Have recorded HbA1c | 147 | 96.1 | 87.3 |
| | T2: % Have recorded HbA1c | 1,153 | 98.1 | 89.2 |
| | T1: % Have recorded BP (12+ year olds) | * | 92.0 | 79.9 |
| | T2: % Have recorded BP (12+ year olds) | * | 95.0 | 83.3 |
| | T1: % Have recorded cholesterol (18+ year olds) | 132 | 91.0 | 75.0 |
| | T2: % Have recorded cholesterol (18+ year olds) | * | 92.9 | 77.3 |
| | T1: % Have recorded smoking status (12+ year olds) | * | 86.0 | 57.2 |
| | T2: % Have recorded smoking status (12+ year olds) | * | 75.6 | 64.4 |
| | T1: % Have recorded creatinine (18+ year olds) | 142 | 97.9 | 87.3 |
| | T2: % Have recorded creatinine (18+ year olds) | * | 98.0 | 91.5 |
| | T1: % Have recorded microalbumin (12+ year olds) | * | 76.0 | 61.3 |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 81.8 | 59.7 |
| | T1: % Have recorded eye screening (12+ year olds) | * | 95.3 | 83.8 |
| | T2: % Have recorded eye screening (12+ year olds) | * | 94.7 | 85.9 |
| | T1: % Have recorded foot risk (18+ year olds) | 104 | 71.7 | 60.4 |
| | T2: % Have recorded foot risk (18+ year olds) | * | 68.3 | 58.8 |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | * | 10.0 | 9.4 |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 8.3 | 9.6 |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 87.7 | 72.8 |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 76.6 | 73.8 |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 77 | 52.4 | 32.1 |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 692 | 60.0 | 54.4 |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 16 | 10.9 | 28.3 |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 146 | 12.7 | 17.2 |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 91 | 68.9 | 70.1 |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | * | 73.3 | 76.7 |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | * | 58.7 | 52.3 |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 29.4 | 21.1 |
| | T1: % Previous foot ulcer | 7 | 4.6 | 7.9 |
| | T2: % Previous foot ulcer | 69 | 5.9 | 3.8 |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 1,517 | 60.7 | 61.9 |
| | T1: % Have access to an insulin pump | 29 | 19.0 | 19.3 |




Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
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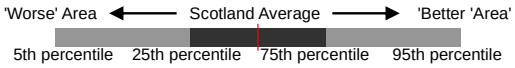
Spine chart key:

Statistically significantly 'worse' than National average
Statistically not significantly different from National average
Statistically significantly 'better' than National average



## Diabetes Health Board Spine Chart (Shetland) 2023

| Category | Indicator | Number | Measure | National average | Worse Scotland Comparator Better |
|---|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 156 | 0.7 | 0.7 | |
| | Age standardised prevalence of type 2 diabetes (sr2) | 1,075 | 4.4 | 5.7 | |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | * | * | 8.9 | |
| Quality of Recording | T1: % Have recorded BMI | 145 | 92.9 | 77.6 | |
| | T2: % Have recorded BMI | 938 | 87.3 | 76.6 | |
| | T1: % Have recorded HbA1c | 154 | 98.7 | 87.3 | |
| | T2: % Have recorded HbA1c | 997 | 92.7 | 89.2 | |
| | T1: % Have recorded BP (12+ year olds) | * | 96.1 | 79.9 | |
| | T2: % Have recorded BP (12+ year olds) | * | 91.2 | 83.3 | |
| | T1: % Have recorded cholesterol (18+ year olds) | 121 | 84.6 | 75.0 | |
| | T2: % Have recorded cholesterol (18+ year olds) | * | 42.0 | 77.3 | |
| | T1: % Have recorded smoking status (12+ year olds) | * | 79.1 | 57.2 | |
| | T2: % Have recorded smoking status (12+ year olds) | * | 70.7 | 64.4 | |
| | T1: % Have recorded creatinine (18+ year olds) | 140 | 97.9 | 87.3 | |
| | T2: % Have recorded creatinine (18+ year olds) | * | 94.5 | 91.5 | |
| | T1: % Have recorded microalbumin (12+ year olds) | * | 78.4 | 61.3 | |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 70.1 | 59.7 | |
| | T1: % Have recorded eye screening (12+ year olds) | * | 94.1 | 83.8 | |
| | T2: % Have recorded eye screening (12+ year olds) | * | 87.2 | 85.9 | |
| | T1: % Have recorded foot risk (18+ year olds) | 128 | 89.5 | 60.4 | |
| | T2: % Have recorded foot risk (18+ year olds) | * | 78.6 | 58.8 | |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | * | 7.8 | 9.4 | |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 8.8 | 9.6 | |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 86.4 | 72.8 | |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 72.9 | 73.8 | |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 66 | 42.9 | 32.1 | |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 613 | 61.5 | 54.4 | |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 25 | 16.2 | 28.3 | |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 115 | 11.5 | 17.2 | |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 89 | 73.6 | 70.1 | |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | * | 76.3 | 76.7 | |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | * | 56.2 | 52.3 | |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 22.0 | 21.1 | |
| | T1: % Previous foot ulcer | 5 | 3.2 | 7.9 | |
| | T2: % Previous foot ulcer | 27 | 2.5 | 3.8 | |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 370 | 45.8 | 61.9 | |
| | T1: % Have access to an insulin pump | 26 | 16.7 | 19.3 | |

Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
* indicates a figure between 1 and 4 or a figure that indirectly reveals such figures

Spine chart key:

- Statistically significantly 'worse' than National average
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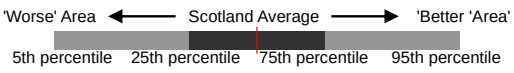
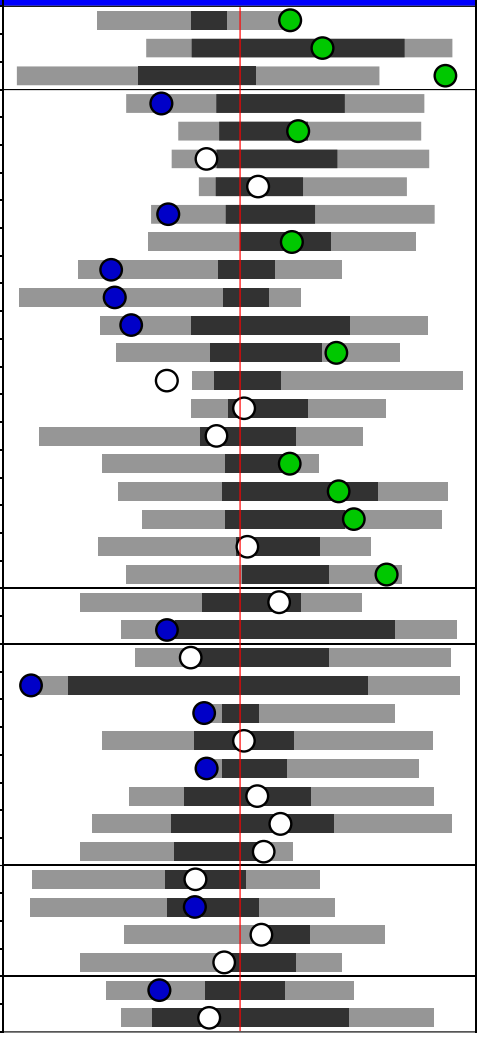


## Diabetes Health Board Spine Chart (Tayside) 2023

| Category | Indicator | Number | Measure | National average |
|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 2,457 | 0.6 | 0.7 |
| | Age standardised prevalence of type 2 diabetes (sr2) | 23,075 | 5.2 | 5.7 |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 71 | 17.0 | 8.9 |
| Quality of Recording | T1: % Have recorded BMI | 1,775 | 72.2 | 77.6 |
| | T2: % Have recorded BMI | 18,577 | 80.5 | 76.6 |
| | T1: % Have recorded HbA1c | 2,104 | 85.6 | 87.3 |
| | T2: % Have recorded HbA1c | 20,750 | 89.9 | 89.2 |
| | T1: % Have recorded BP (12+ year olds) | 1,771 | 74.7 | 79.9 |
| | T2: % Have recorded BP (12+ year olds) | * | 86.0 | 83.3 |
| | T1: % Have recorded cholesterol (18+ year olds) | 1,298 | 57.9 | 75.0 |
| | T2: % Have recorded cholesterol (18+ year olds) | * | 57.2 | 77.3 |
| | T1: % Have recorded smoking status (12+ year olds) | 1,023 | 43.1 | 57.2 |
| | T2: % Have recorded smoking status (12+ year olds) | * | 69.2 | 64.4 |
| | T1: % Have recorded creatinine (18+ year olds) | 1,879 | 83.8 | 87.3 |
| | T2: % Have recorded creatinine (18+ year olds) | * | 91.6 | 91.5 |
| | T1: % Have recorded microalbumin (12+ year olds) | 1,384 | 58.3 | 61.3 |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 68.9 | 59.7 |
| | T1: % Have recorded eye screening (12+ year olds) | 2,109 | 88.9 | 83.8 |
| | T2: % Have recorded eye screening (12+ year olds) | * | 90.4 | 85.9 |
| | T1: % Have recorded foot risk (18+ year olds) | 1,381 | 61.6 | 60.4 |
| | T2: % Have recorded foot risk (18+ year olds) | * | 74.1 | 58.8 |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 204 | 8.6 | 9.4 |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 10.0 | 9.6 |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 1,232 | 69.6 | 72.8 |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 69.4 | 73.8 |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 606 | 28.8 | 32.1 |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 11,313 | 54.5 | 54.4 |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 650 | 30.9 | 28.3 |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 3,480 | 16.8 | 17.2 |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 923 | 71.1 | 70.1 |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | * | 77.3 | 76.7 |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 1,290 | 54.4 | 52.3 |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 22.9 | 21.1 |
| | T1: % Previous foot ulcer | 180 | 7.3 | 7.9 |
| | T2: % Previous foot ulcer | 943 | 4.1 | 3.8 |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 2,610 | 46.7 | 61.9 |
| | T1: % Have access to an insulin pump | 451 | 18.4 | 19.3 |




Spine chart key:

sr2=age-sex standardised rate per 100 population
T1=People with type 1 diabetes
T2=People with type 2 diabetes
E.g. "T1: % Have recorded BP" means "Of people with type 1 diabetes: The percentage that have recorded BP"
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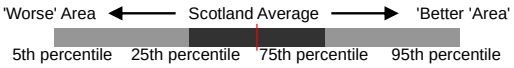
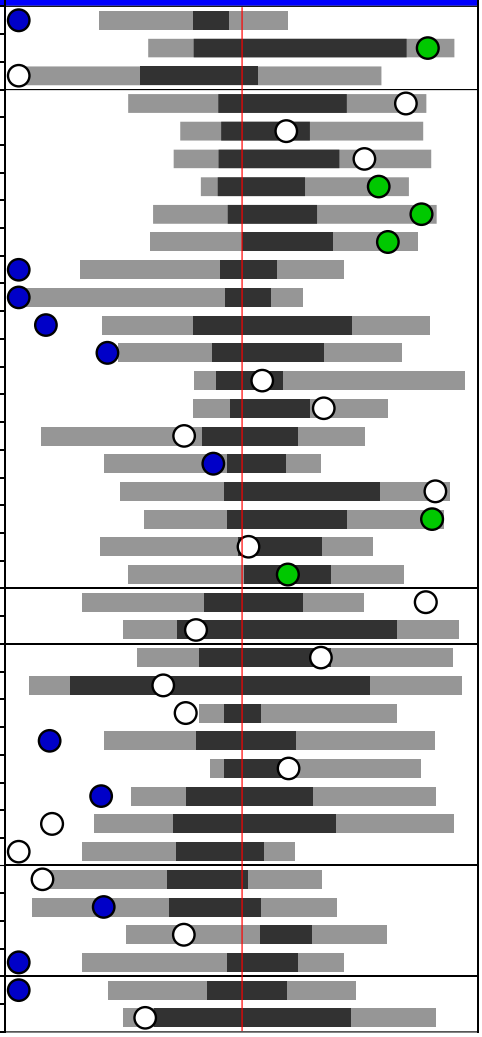
Spine chart key:

- Statistically significantly 'worse' than National average
- Statistically not significantly different from National average
- Statistically significantly 'better' than National average



## Diabetes Health Board Spine Chart (Western Isles) 2023

| Category | Indicator | Number | Measure | National average |
|---|---|---|---|---|
| Prevalence | Age standardised prevalence of type 1 diabetes (sr2) | 234 | 1.0 | 0.7 |
| | Age standardised prevalence of type 2 diabetes (sr2) | 1,503 | 4.6 | 5.7 |
| | Crude prevalence (detection) of monogenic diabetes (per 1,000 people) | 0 | 0.0 | 8.9 |
| Quality of Recording | T1: % Have recorded BMI | 208 | 88.9 | 77.6 |
| | T2: % Have recorded BMI | 1,196 | 79.6 | 76.6 |
| | T1: % Have recorded HbA1c | 219 | 93.6 | 87.3 |
| | T2: % Have recorded HbA1c | 1,423 | 94.7 | 89.2 |
| | T1: % Have recorded BP (12+ year olds) | 210 | 92.9 | 79.9 |
| | T2: % Have recorded BP (12+ year olds) | * | 91.0 | 83.3 |
| | T1: % Have recorded cholesterol (18+ year olds) | 93 | 45.4 | 75.0 |
| | T2: % Have recorded cholesterol (18+ year olds) | * | 41.4 | 77.3 |
| | T1: % Have recorded smoking status (12+ year olds) | 72 | 31.9 | 57.2 |
| | T2: % Have recorded smoking status (12+ year olds) | * | 57.6 | 64.4 |
| | T1: % Have recorded creatinine (18+ year olds) | 181 | 88.3 | 87.3 |
| | T2: % Have recorded creatinine (18+ year olds) | * | 93.9 | 91.5 |
| | T1: % Have recorded microalbumin (12+ year olds) | 122 | 54.0 | 61.3 |
| | T2: % Have recorded microalbumin (12+ year olds) | * | 54.4 | 59.7 |
| | T1: % Have recorded eye screening (12+ year olds) | 212 | 93.8 | 83.8 |
| | T2: % Have recorded eye screening (12+ year olds) | * | 93.4 | 85.9 |
| | T1: % Have recorded foot risk (18+ year olds) | 126 | 61.5 | 60.4 |
| | T2: % Have recorded foot risk (18+ year olds) | * | 63.6 | 58.8 |
| Smoking Prevalence | T1 & recorded smoking status: % Are current smokers (12+ year olds) | 13 | 5.8 | 9.4 |
| | T2 & recorded smoking status: % Are current smokers (12+ year olds) | * | 9.8 | 9.6 |
| Blood Pressure, HbA1c and Cholesterol Targets | T1 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | 164 | 78.1 | 72.8 |
| | T2 & recorded SBP: % Latest reading <=140mmHg (12+ year olds) | * | 72.1 | 73.8 |
| | T1 & recorded HbA1c: % Latest reading <58mmol/mol | 59 | 26.9 | 32.1 |
| | T2 & recorded HbA1c: % Latest reading <58mmol/mol | 687 | 48.3 | 54.4 |
| | T1 & recorded HbA1c: % Latest reading >75mmol/mol | 54 | 24.7 | 28.3 |
| | T2 & recorded HbA1c: % Latest reading >75mmol/mol | 296 | 20.8 | 17.2 |
| | T1 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | 61 | 65.6 | 70.1 |
| | T2 & recorded cholesterol: % Latest reading <=5mmol (18+ year olds) | * | 70.6 | 76.7 |
| Diabetic Complications | T1 % Diabetic retinopathy (12+ year olds) | 139 | 61.5 | 52.3 |
| | T2 % Diabetic retinopathy (12+ year olds) | * | 26.8 | 21.1 |
| | T1: % Previous foot ulcer | 22 | 9.4 | 7.9 |
| | T2: % Previous foot ulcer | 112 | 7.5 | 3.8 |
| Access to Technology | T1: % Have access to flash or continuous glucose monitoring | 46 | 19.7 | 61.9 |
| | T1: % Have access to an insulin pump | 38 | 16.2 | 19.3 |

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