

Scottish Diabetes Survey 2007

Scottish Diabetes Survey Monitoring Group

SCOTTISH DIABETES SURVEY 2007

Executive Summary

- This report presents the results of the 2007 Scottish Diabetes Survey.
- The survey collates data submitted by all 14 NHS Boards. Argyll & Clyde Board was divided between what are now Greater Glasgow & Clyde, and Highland, therefore some historical comparisons are not possible.
- The seventh Scottish Diabetes Survey provides data on the numbers of people with diabetes, the effects on their health, and the progress being made to improve the delivery and outcomes of care for diabetes.

In this Scottish Diabetes Survey 2007 we report that:

- o There are 209,706 people with known diabetes in Scotland recorded on local diabetes registers, which represents 4.1% of the population. In the 2006 diabetes survey, 196,801 people (3.9%) were included.
- o Registered prevalence ranges from 3.7% to 4.6% over NHS Board areas.
- o Half are aged 65 years or older.
- o 85% of all registered patients have type 2 diabetes.
- o 83% are overweight or obese (as defined by a BMI > 25kg/m²).
- o 89% have had an HbA_{1c} test (a measure of control of blood glucose) result recorded in the last 15 months. For 55% of registered patients the most recent HbA_{1c} measurement was ≤ 7.5%.
- o 90% have had their blood pressure recorded within the last 15 months. In 71% of patients, blood pressure is controlled (most recent systolic reading ≤ 140mmHg).
- o Total cholesterol has been recorded in 88% of patients within the last 15 months and is ≤ 5.0 mmol/l in 76.6%.
- o The targets for HbA_{1c}, blood pressure and cholesterol will be reviewed in the light of updated clinical guidelines
- o Nearly 1 in 5 people with diabetes are recorded as current smokers.
- o 84% of people with diabetes had had eye screening in the preceding 15 months. A further 10% had had their eye screened more than 15 months ago. Information on the method of screening is unavailable.
- o 75% have had their feet pulses checked within the last 15 months.
- o Nearly 10% of patients have had and survived a previous myocardial infarction. Almost 6% have undergone cardiac revascularisation.

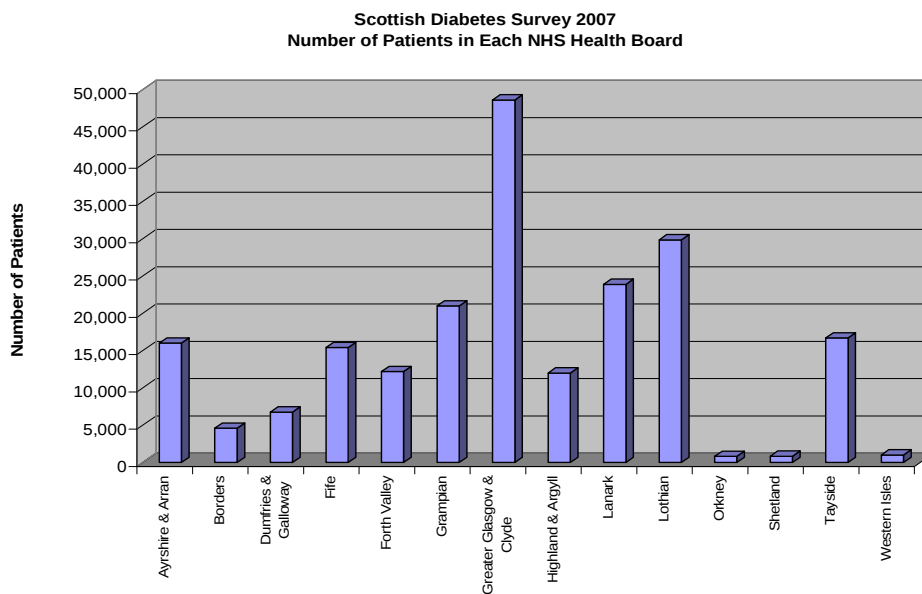
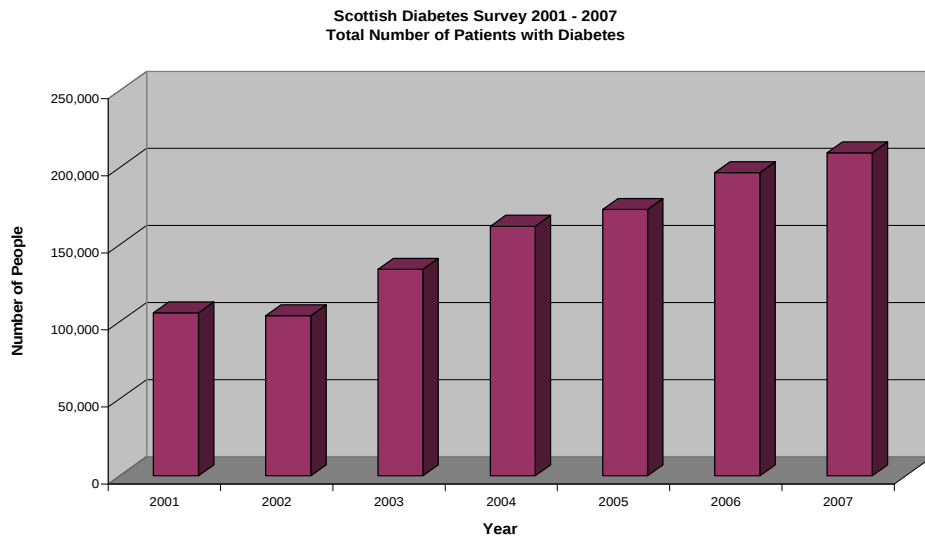
Implications

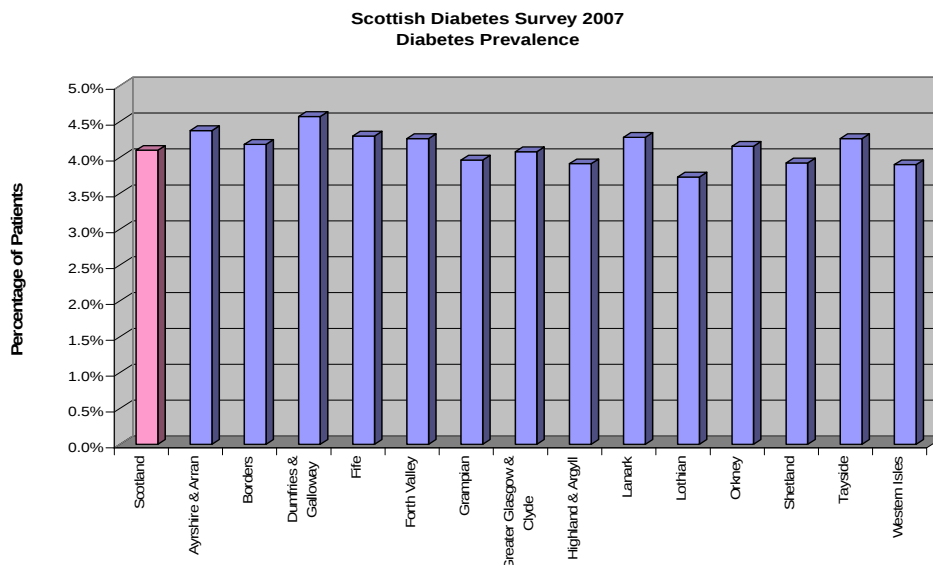
The prevalence of diabetes is still increasing. People with diabetes have higher risks of eye disease, renal failure and cardiovascular disease than non-diabetics. The NHS in Scotland will use the data in this survey for planning future services.

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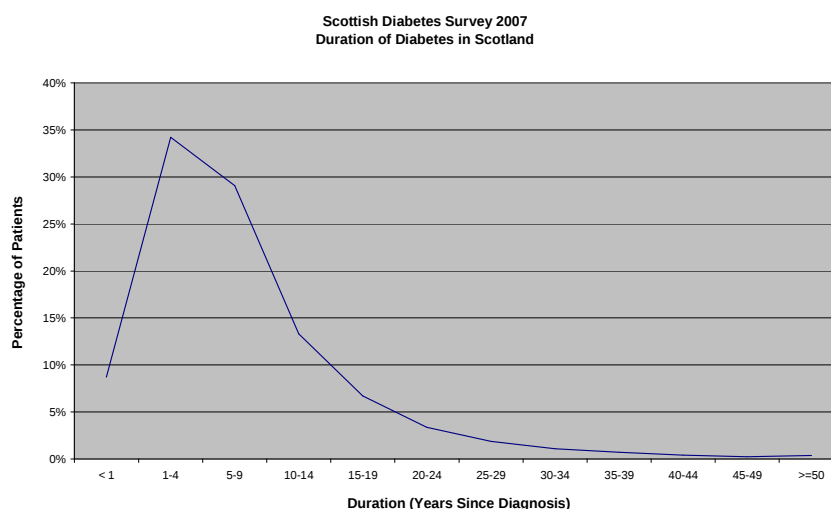
Prevalence

- There are 209,706 people with known diabetes in Scotland recorded on local diabetes registers, which represents 4.1% of the population. In the 2006 Diabetes Survey, 196,801 people (3.9%) were included.



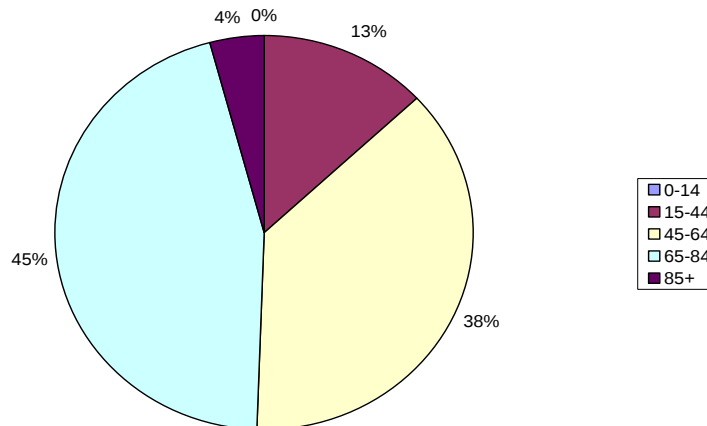


- Registered prevalence ranged from 3.7% to 4.6% over NHS Board areas. The reported prevalence of diabetes reflects the completeness of recording, the real prevalence (which depends on incidence and survival) and the proportion of people with type 2 diabetes who have not been diagnosed. Variation amongst health boards also depends on the age and the ethnic distribution of the population of each board. However the broad similarity of reported prevalences, compared to some previous years, give confidence in the completeness of recording.
- Nearly all diabetes records are now associated with the use of the Community Health Index (CHI) number which enables better linkage with other sources of data, for example blood test results. Less than 0.01% of records are not associated with the CHI number. This reflects a major improvement in the use of the CHI from 66.6% in 2001.
- More men than women have been diagnosed with diabetes; 53.8% compared with 46.1%. This ratio is relatively unchanged from 2001.



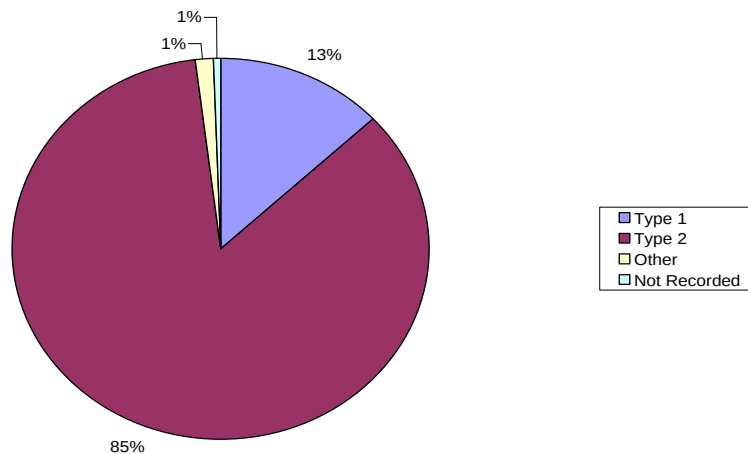
- The date of diagnosis is recorded for 98.6%, of which 8.7% have had diabetes for less than one year and 8.0% have had diabetes for 20 years or more.

Scottish Diabetes Survey 2007
Age of Patients



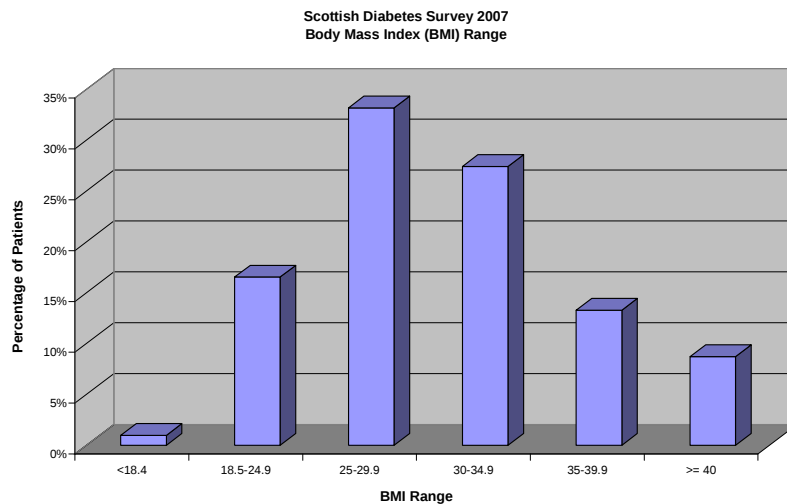
- Diabetes is more common in older people; nearly half (49.5%) of all the people included in the survey are aged 65 years or older. However, the number of people with diabetes under 45 has been rising. This will be partly due to more complete recording and partly due to the rising incidence of type 1 diabetes. It is probably also due to people developing type 2 diabetes earlier in life, which has serious implications for the future incidence of complications such as end-stage renal failure

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Type of Diabetes



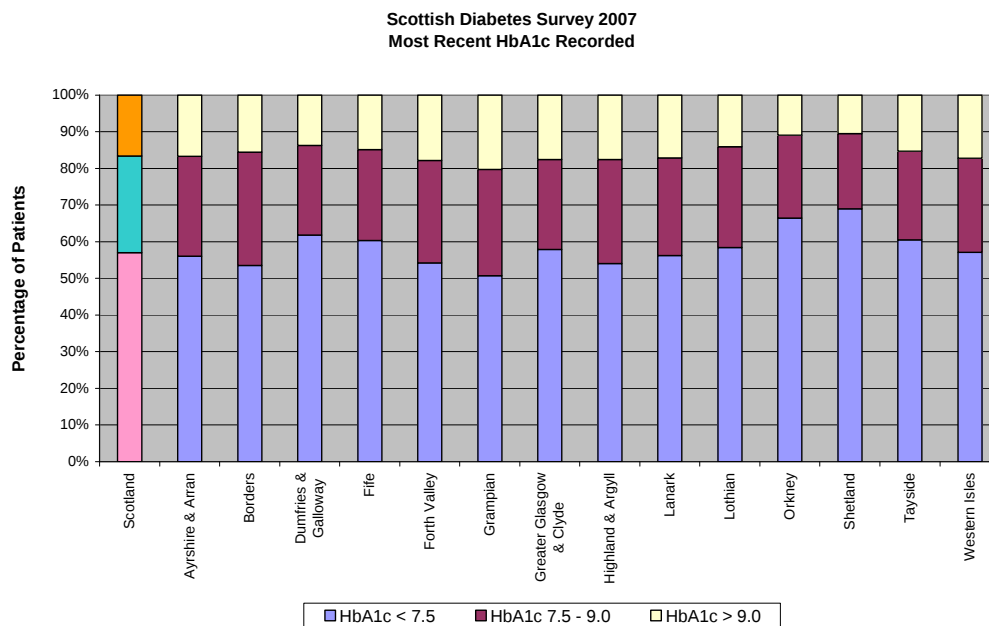
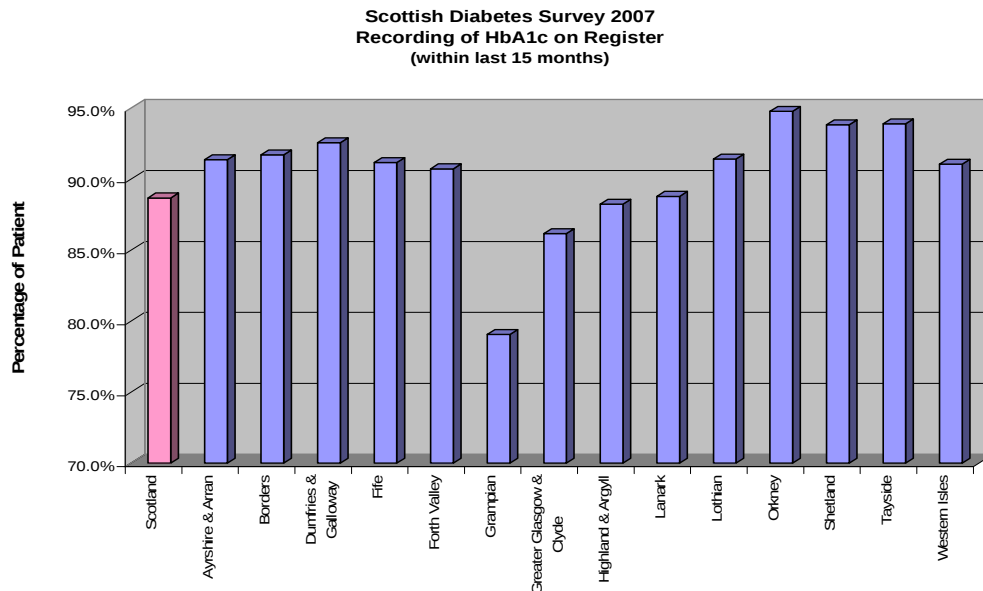
- The majority of all registered patients have type 2 diabetes (85.1%). The proportion of people with diabetes who have type 1 diabetes has fallen from 18.2% in 2002 to 13.0% in 2007, probably largely due to relatively more complete recording of data from people with type 1 diabetes than type 2 diabetes in earlier years. However the absolute number of patients with type 1 diabetes continues to increase (22,597 in 2003; 27,176 in 2007). This reflects the rising incidence of type 1 diabetes in children over the last 30 years.

- Ethnicity data is available for a third of the registered diabetic population. The completeness of this information has fallen from 37% in 2002 to 24.4% in 2006 and now has again increased to 33.3% in 2007. The Diabetes Action Plan (Scottish Executive, 2007) set a target that all areas should have a record of ethnicity for over 80% of registered patients by December 2007. This target has not been met.
- Body Mass Index (BMI) has been calculated within the last 15 months for 177,896 registered patients (85.3%). Prior to and including this period, 200,749 people have had their BMI measured, of whom 82.6% are overweight (BMI 25 – 30kg/m²) or obese (BMI over 30kg/m²).



Glycaemic Control

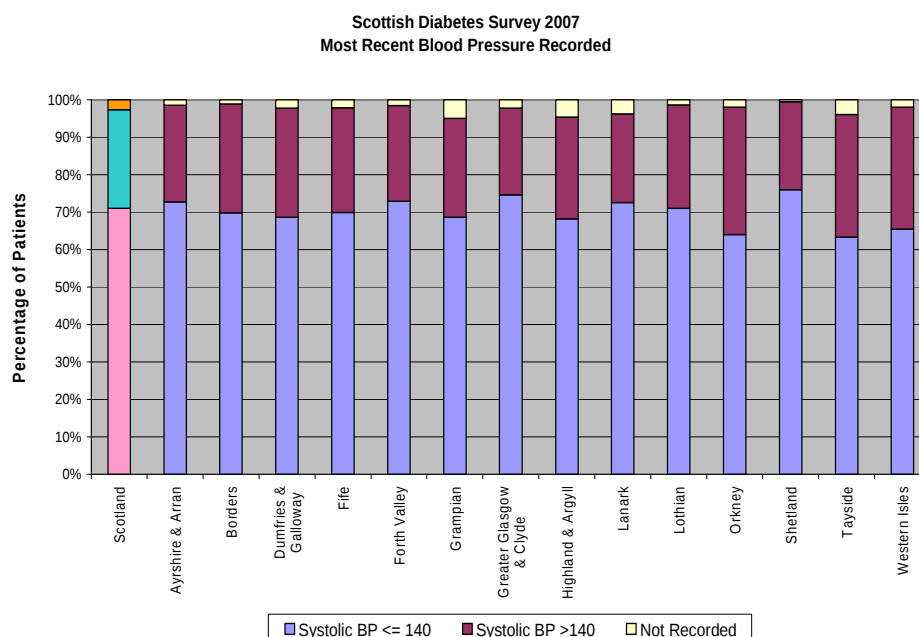
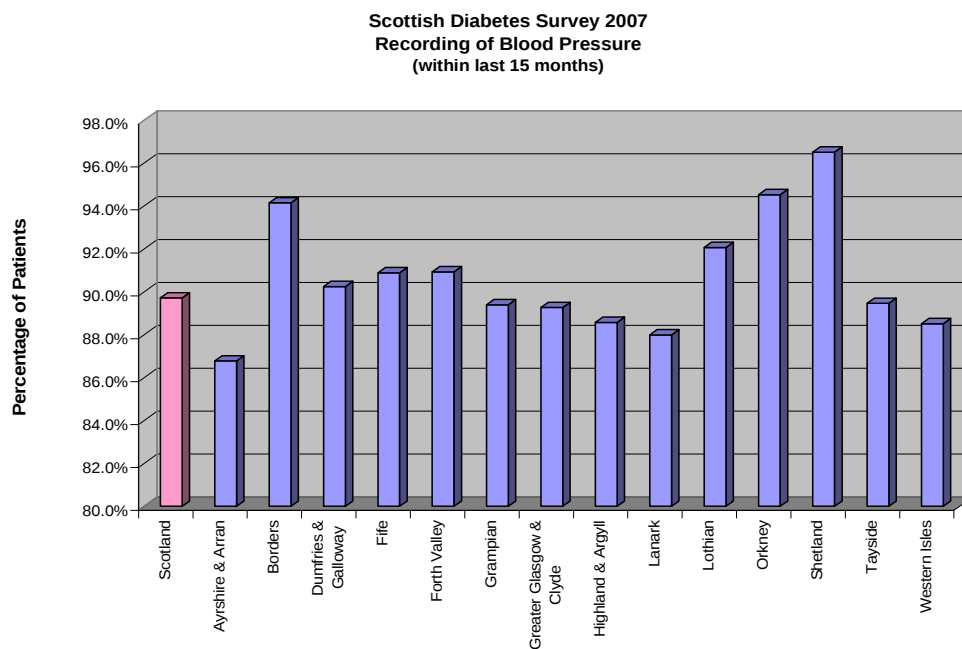
- 88.7% of patients had an HbA1c level recorded in the last 15 months.



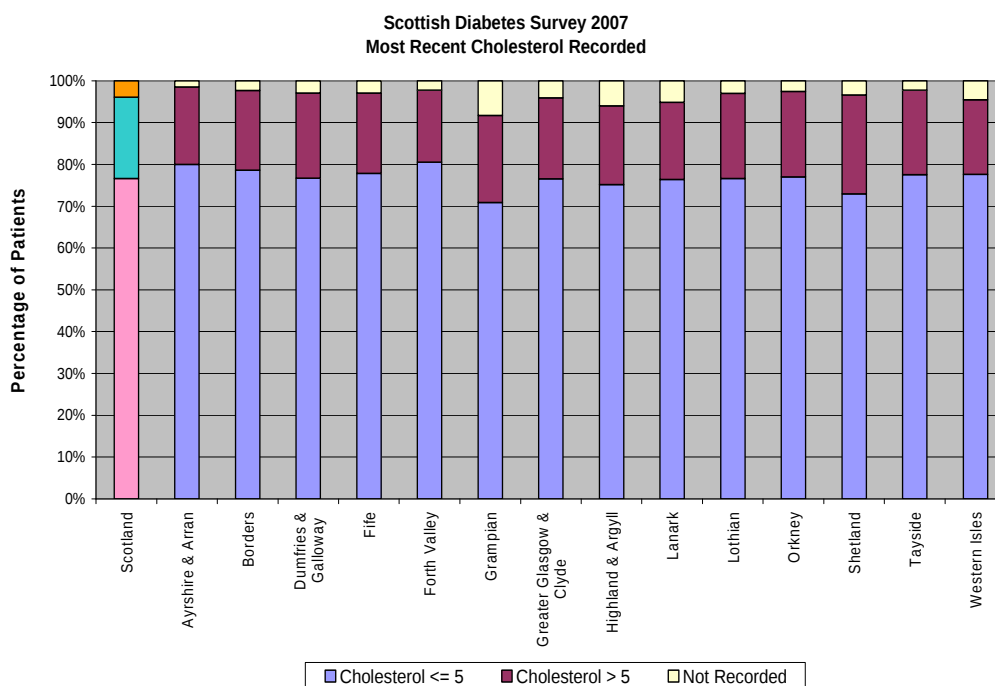
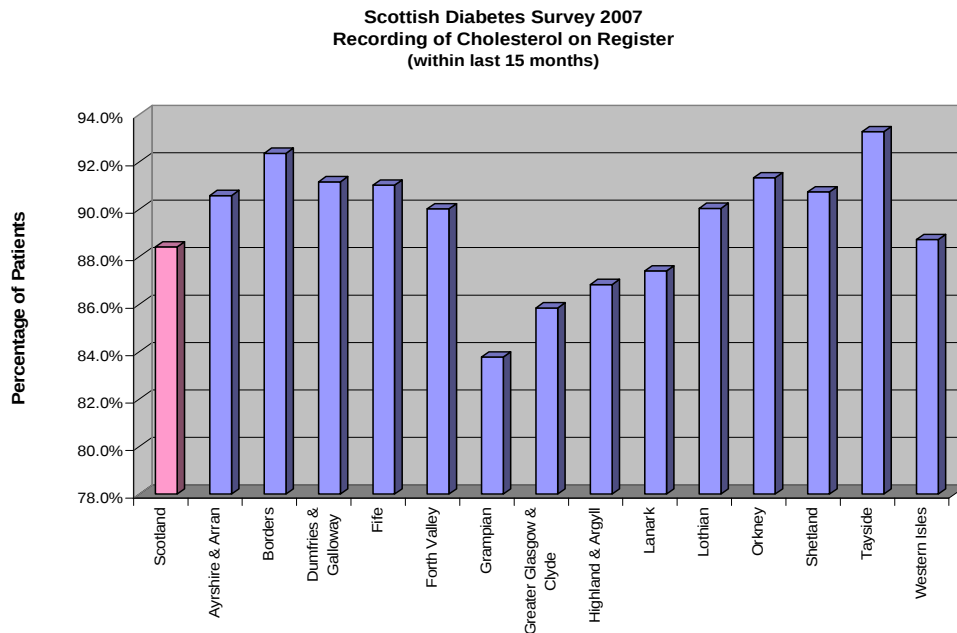
- 54.6% of registered patients had their most recent HbA1c measurement of less than 7.5%, suggesting quite good control of diabetes. While all laboratories in Scotland are using a standardised (DCCT aligned) HbA1c assay, there are some slight differences in actual results between laboratories. This should be considered when comparing results from different laboratories. The most recent NICE guideline (www.nice.org.uk) recommends an HbA1c target of less than 6.5% for most people with type 2 diabetes.

Cardiovascular Risk

- Diabetes is associated with an increased risk of cardiovascular disease and it is therefore important to address cardiovascular risk factors such as blood pressure (BP), cholesterol and smoking.
- 89.7% of diabetic patients have had their BP recorded within the last 15 months. In 71.1% of patients that had their BP recorded, the most recent systolic BP reading was under 140mmHg, suggesting reasonable control of blood pressure.

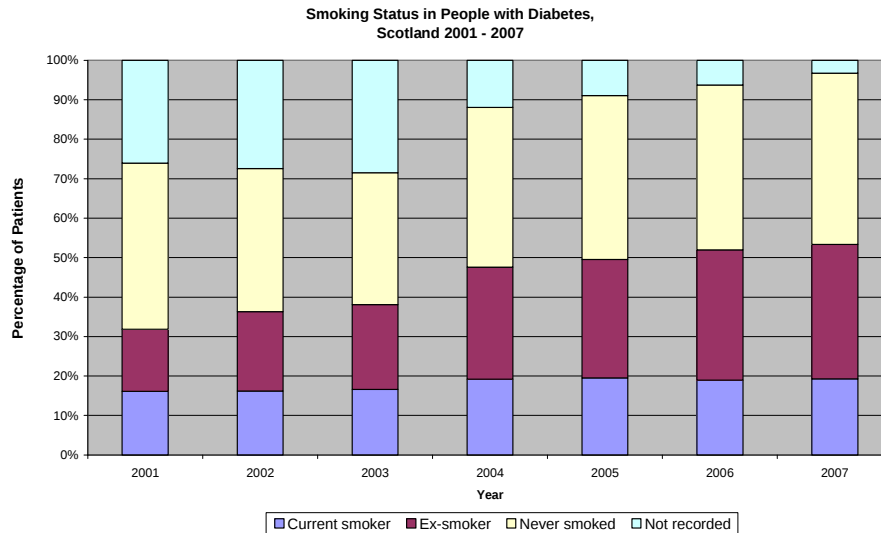


- Total cholesterol has been recorded in 88.4% of patients within the last 15 months. Cholesterol was found to be less than or equal to the target of 5.0mmol/l in 76.6% of patients.

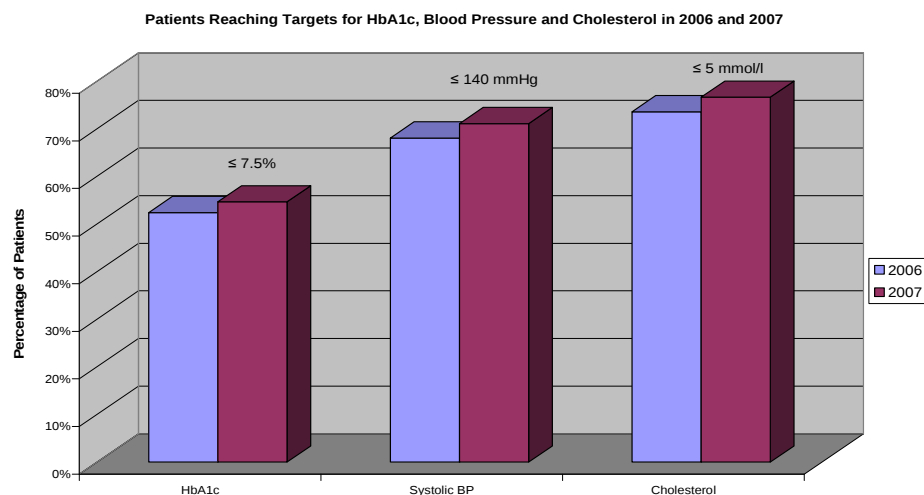


The targets for HbA1c, blood pressure and cholesterol will be reviewed in the light of updated NICE and SIGN guidelines.

- The smoking status has been ascertained in 96.7% of the diabetic population compared to 73.9% in 2001.



- It is disappointing to see that nearly 1 in 5 people with diabetes are recorded as being current smokers, even though this is a lower proportion than among the general population. There was a slight increase of 0.3% in the proportion of people with diabetes that smoke, which is not likely to be a significant difference. The smoking ban came into force in March 2006 and it was hoped that this would help people with diabetes to give up smoking. However, this does not seem to have been the case.



- The number and proportion of patients reaching current target levels for control of their blood glucose, blood pressure and cholesterol is increasing.

Complications

The main complications of diabetes include myocardial infarction (MI), cerebrovascular disease, peripheral vascular disease, renal failure, retinopathy, neuropathies and poorer outcomes in pregnancy. This survey does not include pregnancy outcomes.

In this section, the data presented includes both screening performance and recording of prevalent complications.

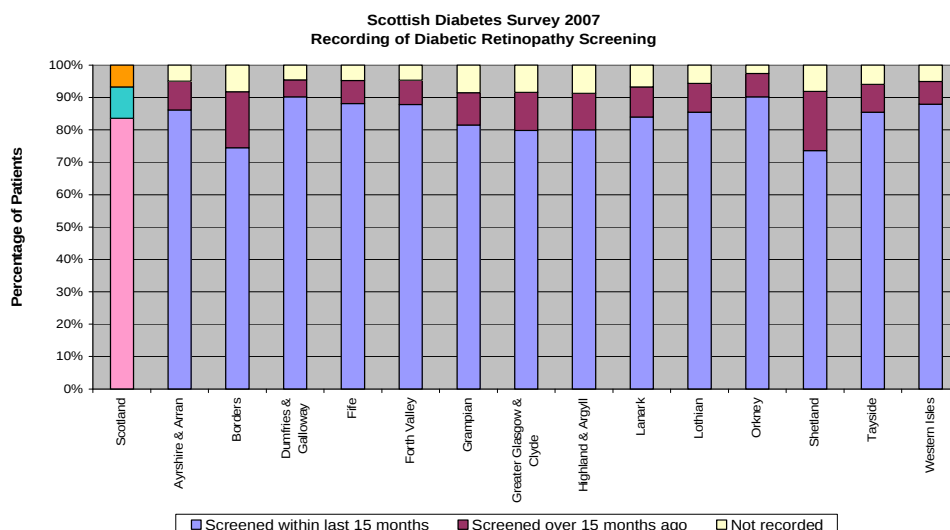
- Nearly 20,000 registered patients (9.5%) have a record of a previous MI. Others will have had an MI but not survived. Ongoing validation of this data is needed. Just over 12,000 people included in the survey (5.9%) have undergone cardiac revascularisation. The increase in numbers from previous years could be contributed to improvements in recording, increased use of procedures and better survival following an MI in recent years.
- 10,783 people (5.1%) with diabetes are recorded as having had a cerebrovascular accident (stroke), an increase in numbers but a similar percentage to that in previous surveys.

Kidney Disease

- Serum creatinine with the last 15 months is known for 88.6% patients. This is a small rise from last year (86.1%).
- 79.9% of patients had urinary microalbuminuria assessed within the last 15 months. (77% in 2006)

Diabetic Eye Disease

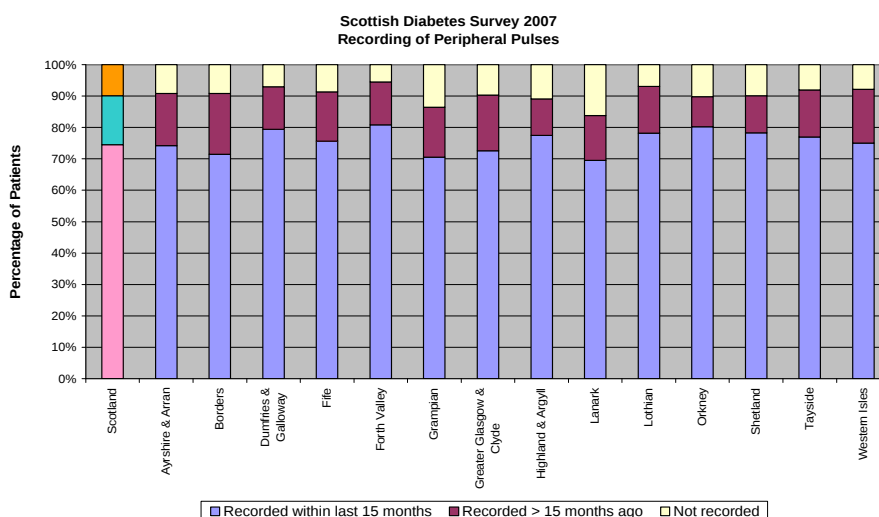
- Recording of retinal screening has increased to 93.3% in 2007.
- 83.6% of patients had a record of eye screening in the previous 15 months. A further 9.7% had their eye screened more than 15 months ago. Information on the method of screening is unavailable.
- It is uncertain if patients who attend eye clinics are being included in the screening data. This infers that the number of people getting their eyes screened might actually be higher than the numbers recorded. More exploratory work on data accuracy needs to be carried out.



- Nearly 3 in 10 people with data available have some retinopathy present in one or both of their eyes. However, for nearly 20% of patients in 2007, the register did not include a record of retinopathy status.
- 1,604 people with diabetes (0.8%) were recorded as blind in 2007. This is a slight increase from last year (1,217 people). It must be noted though that not all of these patients lost their sight through diabetic complications.

Foot Complications

- 90.1% of patients have had their peripheral pulses recorded. 74.5% have had their feet checked (peripheral pulses recorded) in the previous 15 months.
- 9,896 (4.7%) have had a foot ulcer. This is a slight decrease from 2006; 9,824 (5.0%). However the foot ulcer data are not considered reliable at present.
- 950 (0.5%) have had an amputation. (This may under-estimate the number of amputations, because people with serious peripheral vascular disease have high cardiovascular mortality, and may not survive long after the amputation.)



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Note on methodology and data quality

The data for this survey has been generated from the SCI-DC registers of each health board. Currently it is difficult to assess the accuracy of the data in each area as there is some variability in the data validation in each NHS health board.

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Table 1: Diabetes Register: Percentage of Total Population

NHS Board	Population 2006	Diabetes Register	Crude Prevalence %
Ayrshire & Arran	366,450	16,017	4.4%
Borders	110,247	4,610	4.2%
Dumfries & Galloway	148,030	6,764	4.6%
Fife	358,858	15,414	4.3%
Forth Valley	286,053	12,194	4.3%
Grampian	529,889	20,992	4.0%
Greater Glasgow & Clyde	1,191,584	48,602	4.1%
Highland (including Argyll)	306,701	11,995	3.9%
Lanarkshire	558,139	23,877	4.3%
Lothian	801,310	29,841	3.7%
Orkney	19,770	821	4.2%
Shetland	21,880	858	3.9%
Tayside	391,639	16,694	4.3%
Western Isles	26,350	1,027	3.9%
Scotland	5,116,900	209,706	4.1%

Table 2a: Number of Patients Included in Scottish Diabetes Survey 2001 - 2007

Survey	Area Diabetes Register	Crude Prevalence	Change from Previous Year	
2007	209,706	4.1%	12,905	6.6%
2006	196,801	3.9%	24,014	13.9%
2005	172,787	3.4%	10,841	6.7%
2004	161,946	3.2%	27,982	20.9%
2003	133,964	2.6%	30,129	29.0%
2002	103,835	2.0%	-1,942	-1.8%
2001	105,777	2.1%	---	---

Table 2b: Number of Patients Included in Scottish Diabetes Survey 2001 - 2007

NHS Board	2001	2002	2003	2004	2005	2006	2007
Ayrshire & Arran	8,279	9,026	9,664	10,641	13,717	14,988	16,017
Borders	2,686	2,929	2,986	3,662	4,046	4,435	4,610
Dumfries & Galloway	4,726	5,150	5,552	5,662	5,796	6,457	6,764
Fife	8,408	9,920	9,670	12,682	13,855	14,572	15,414
Forth Valley	7,051	6,845	8,206	8,230	10,819	11,686	12,194
Grampian	10,164	5,726	9,978	16,855	16,079	18,204	20,992
Greater Glasgow & Clyde							48,602
Highland							11,995
Lanarkshire	13,708	16,358	15,976	18,252	20,380	22,374	23,877
Lothian	10,832	18,917	21,547	24,215	25,956	28,109	29,841
Orkney	377	377	377	677	745	813	821
Shetland	394	608	345	470	752	831	858
Tayside	10,197	11,277	12,165	13,786	14,639	15,664	16,694
Western Isles	745	833	833	833	926	1,007	1,027
Scotland	105,777	103,835	133,964	161,946	172,787	196,801	209,706

Prior to 2007, Argyll & Clyde, Greater Glasgow and Highland were 3 separate health boards and the diabetes register was recorded for these from 2001. Argyll & Clyde have recently been disaggregated and been merged with the latter two health boards to form Greater Glasgow & Clyde and Highland. Thus, since the formation of these new NHS health boards, Greater Glasgow & Clyde and Highland do not have the diabetes register figures preceding 2007.

Table 3a and 3b showed the recording of the CHI number. As the recording of the CHI number has been consistently high from 2004 onwards (99.0% and above), the table showing the recording trend over the years has been removed.

Table 4a: Recording of Type of Diabetes

NHS Board	Type 1	Type 2	Other	Not Recorded	Total
Ayrshire & Arran	2,235	13,590	87	105	16,017
Borders	578	3,972	46	14	4,610
Dumfries & Galloway	913	5,745	78	28	6,764
Fife	1,860	13,291	220	43	15,414
Forth Valley	1,519	10,512	123	40	12,194
Grampian	2,929	16,873	820	370	20,992
Greater Glasgow & Clyde	5,875	41,928	495	304	48,602
Highland	1,631	10,212	102	50	11,995
Lanarkshire	3,403	20,287	149	38	23,877
Lothian	3,990	25,176	565	110	29,841
Orkney	115	703	3	0	821
Shetland	107	740	10	1	858
Tayside	1,854	14,484	279	77	16,694
Western Isles	167	846	11	3	1,027
Scotland	27,176	178,359	2,988	1,183	209,706

Table 4b: Recording of Type of Diabetes: Scottish Diabetes Survey 2001 – 2007

Year		Type 1	Type 2	Other	Not Recorded	Total
2007	Number	27,176	178,359	2,988	1,183	209,706
	Percentage	13.0%	85.1%	1.4%	0.6%	
2006	Number	26,294	166,926	2,246	1,335	196,801
	Percentage	13.4%	84.8%	1.1%	0.7%	
2005	Number	23176	137653	2009	5903	168741
	Percentage	13.7%	81.6%	1.2%	3.5%	
2004	Number	22,834	116,184	1,073	5,819	145,910
	Percentage	15.6%	79.6%	0.7%	4.0%	
2003	Number	22597	99481	838	11048	133964
	Percentage	16.9%	74.3%	0.6%	8.2%	
2002	Number	18,907	76,916	823	7,128	103,774
	Percentage	18.2%	74.1%	0.8%	6.9%	
2001	Number	16,922	64,752	10,578	13,525	105,777
	Percentage	16.0%	61.2%	10.0%	12.8%	

Table 5b: Age of People on Diabetes Register: Scottish Diabetes Survey 2003 – 2007

Year		0-14	15-44	45-64	65-84	85+	Total	Excluded
2007	Number	1888	27,119	78,615	94,792	8,992	209,626	80
	Percentage	0.9%	12.9%	37.5%	45.2%	4.3%		
2006	Number	1,889	24,249	73,401	88,878	8,288	196,705	96
	Percentage	1.0%	12.3%	37.3%	45.2%	4.2%		
2005	Number	1657	21492	62069	76655	6636	168509	232
	Percentage	1.0%	12.8%	36.8%	45.5%	3.9%		
2004	Number	1,363	19,229	52,448	67,133	5,693	145,866	44
	Percentage	0.9%	13.2%	36.0%	46.0%	3.9%		
2003	Number	1340	16933	44357	59109	5634	127373	6591
	Percentage	1.1%	13.3%	34.8%	46.4%	4.4%		

This table excludes patients where age is not known.

Table 5c: Numbers of young people with type 1 Diabetes

NHS Board	0-4	5-9	10-14	15-19	Total
Ayrshire & Arran	<10	43	104	140	294
Borders	<10	15	31	27	74
Dumfries & Galloway	<10	14	32	42	92
Fife	10	40	96	110	256
Forth Valley	<10	35	43	110	193
Grampian	<10	55	119	199	382
Greater Glasgow and Clyde	17	115	267	353	752
Highland and Argyll	<10	34	81	104	226
Lanarkshire	17	62	171	199	449
Lothian	17	48	171	262	498
Orkney	<10	<10	<10	<10	14
Shetland	0	<10	<10	<10	17
Tayside	7	25	88	134	254
Western Isles	0	<10	11	15	30
Scotland	102	493	1,231	1,705	3,531

Table 6 previously reported cases of type 2 diabetes under the age of 35. However, data validation is required because of the likelihood of some miscoding and comments are being sought from MCNs. It is known that there are confirmed cases of type 2 in younger people, including a few in children, but some of the non type 1 diabetes in younger people is due to uncommon genetic conditions.

Table 7: Children with Diabetes Under 12 Years

NHS Board	Children under 12 years
Ayrshire & Arran	90
Borders	28
Dumfries & Galloway	31
Fife	84
Forth Valley	54
Grampian	115
Greater Glasgow & Clyde	226
Highland	66
Lanarkshire	145
Lothian	127
Orkney	<10
Shetland	<10
Tayside	74
Western Isles	<10
Scotland	1,054

Table 8a showed the number of people whose date of diagnosis had not been recorded. The percentage recorded is now very good and so this table has been removed.

Table 8b: Recording of Date of Diagnosis: Scottish Diabetes Survey 2002 – 2007

Year	Recorded	Not Recorded
2007	98.6%	1.4%
2006	97.6%	2.4%
2005	92.6%	7.4%
2004	84.2%	15.8%
2003	81.5%	18.5%
2002	76.9%	23.1%

Table 9a showed the numbers of people by duration with diabetes in each health board.

Table 9b: Duration of Diabetes (Years since Diagnosis): Scotland

Duration (Years)	Number of Patients	
< 1	18,017	8.7%
1-4	70,728	34.2%
5-9	60,112	29.1%
10-14	27,491	13.3%
15-19	13,849	6.7%
20-24	6,928	3.4%
25-29	3,862	1.9%
30-34	2,244	1.1%
35-39	1,446	0.7%
40-44	822	0.4%
45-49	459	0.2%
>=50	776	0.4%
Total	206,734	

Excludes patients where date of diagnosis not known (n = 2,972)

Tables 10a and 10b showed the sex of people in the diabetes register. As would be expected, more men than women have diabetes and this is shown throughout all NHS boards; a trend shown consistently since 2001. Therefore these tables have been excluded.

Table 11a: Recording of Ethnic Group

NHS Board	Ethnic Group Identified		Not Known		Total
Ayrshire & Arran	1,746	10.9%	14,271	89.1%	16,017
Borders	214	4.6%	4,396	95.4%	4,610
Dumfries & Galloway	4,457	65.9%	2,307	34.1%	6,764
Fife	891	5.8%	14,523	94.2%	15,414
Forth Valley	8,602	70.5%	3,592	29.5%	12,194
Grampian	2,785	13.3%	18,207	86.7%	20,992
Greater Glasgow & Clyde	22,531	46.4%	26,071	53.6%	48,602
Highland	1,709	14.2%	10,286	85.8%	11,995
Lanarkshire	4,069	17.0%	19,808	83.0%	23,877
Lothian	15,657	52.5%	14,184	47.5%	29,841
Orkney	271	33.0%	550	67.0%	821
Shetland	30	3.5%	828	96.5%	858
Tayside	6,890	41.3%	9,804	58.7%	16,694
Western Isles	23	2.2%	1,004	97.8%	1,027
Scotland	69,875	33.3%	139,831	66.7%	209,706

Table 11b: Recording of Ethnic Group: Scottish Diabetes Survey 2001 – 2007

Year	Ethnic Group Identified	Percentage Identified
2007	69,875	33.3%
2006	48,035	24.4%
2005	42,164	25.0%
2004	44,695	30.6%
2003	49,614	37.0%
2002	32,036	30.9%

Table 12a: Body Mass Index (BMI)

NHS Board	Calculated		Not Calculated		Total
Ayrshire & Arran	13,176	82.7%	2,751	17.3%	15,927
Borders	4,150	90.6%	432	9.4%	4,582
Dumfries & Galloway	5,794	86.1%	939	13.9%	6,733
Fife	13,494	88.0%	1,836	12.0%	15,330
Forth Valley	10,710	88.2%	1,430	11.8%	12,140
Grampian	16,872	80.8%	4,005	19.2%	20,877
Greater Glasgow & Clyde	41,131	85.0%	7,245	15.0%	48,376
Highland	9,549	80.0%	2,380	20.0%	11,929
Lanarkshire	20,140	84.9%	3,592	15.1%	23,732
Lothian	26,313	88.6%	3,401	11.4%	29,714
Orkney	659	80.5%	160	19.5%	819
Shetland	696	81.6%	157	18.4%	853
Tayside	14,363	86.4%	2,257	13.6%	16,620
Western Isles	849	83.2%	171	16.8%	1,020
Scotland	177,896	85.3%	30,756	14.7%	208,652

The “calculated” column contains patients that have had their weight measured within the last 15 months. The “Not Calculated” column contains patients whose weight has not been recorded within the previous 15 months.

Table 12b: Recording of Body Mass Index (BMI): Scottish Diabetes Survey 2001 – 2007

Year	Calculated	Not Calculated
2007	85.3%	14.7%
2006	84.8%	15.2%
2005	69.1%	30.9%
2004	66.1%	33.9%
2003	58.9%	39.9%
2002	52.3%	47.7%
2001	39.8%	60.2%

Table 12c: Body Mass Index (BMI) Range

NHS Board	<18.4	18.5 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	=>40	Not Known	Total
Ayrshire & Arran	144	2,522	5,259	4,307	2,006	1,388	301	15,927
Borders	36	713	1,520	1,248	579	387	99	4,582
Dumfries & Galloway	64	1,005	2,190	1,782	918	578	196	6,733
Fife	132	2,235	4,881	4,125	2,145	1,461	351	15,330
Forth Valley	96	1,801	3,776	3,326	1,678	1,194	269	12,140
Grampian	169	3,302	6,537	5,276	2,363	1,497	1,733	20,877
Greater Glasgow & Clyde	567	8,223	15,859	12,458	5,917	3,799	1,553	48,376
Highland	71	1,814	3,716	3,095	1,450	916	867	11,929
Lanarkshire	216	3,612	7,336	6,274	3,168	1,976	1,150	23,732
Lothian	275	4,934	9,314	7,886	3,921	2,754	630	29,714
Orkney	2	113	244	244	117	66	33	819
Shetland	4	124	256	224	124	83	38	853
Tayside	150	2,618	5,326	4,485	2,121	1,276	644	16,620
Western Isles	6	156	339	280	122	78	39	1,020
Scotland	1,932	33,172	66,553	55,010	26,629	17,453	7,903	208,652

The total number of patients in this table is greater than those “Calculated” in table 12a since table 12c contains all the patients that have ever had their BMI calculated. That is to say, patients in table 12c include those that had their weight measured more than 15 months ago.

Table 12d: Body Mass Index (BMI) range

BMI	Range	Number	Percentage
Underweight	<18.4	1,932	1.0%
Healthy weight	18.5-24.9	33,172	16.5%
Overweight	25-29.9	66,553	33.2%
Obese	30-34.9	55,010	27.4%
Very obese	35-39.9	26,629	13.3%
Morbidly obese	=>40	17,453	8.7%
Total		200,749	

Tables 12a, b, c and d exclude children less than 12 years of age (n = 1,054) and where the BMI is not known (n = 7,903)

Table 13a: HbA1c Recorded on Register

NHS Board	Recorded within last 15 months		Recorded >15 months ago		Not Recorded		Total
Ayrshire & Arran	14,634	91.4%	1,127	7.0%	256	1.6%	16,017
Borders	4,227	91.7%	222	4.8%	161	3.5%	4,610
Dumfries & Galloway	6,260	92.5%	287	4.2%	217	3.2%	6,764
Fife	14,050	91.2%	863	5.6%	501	3.3%	15,414
Forth Valley	11,062	90.7%	824	6.8%	308	2.5%	12,194
Grampian	16,595	79.1%	2,319	11.0%	2,078	9.9%	20,992
Greater Glasgow & Clyde	41,869	86.1%	4,750	9.8%	1,983	4.1%	48,602
Highland	10,583	88.2%	708	5.9%	704	5.9%	11,995
Lanarkshire	21,197	88.8%	1,554	6.5%	1,126	4.7%	23,877
Lothian	27,276	91.4%	1,632	5.5%	933	3.1%	29,841
Orkney	778	94.8%	21	2.6%	22	2.7%	821
Shetland	805	93.8%	34	4.0%	19	2.2%	858
Tayside	15,674	93.9%	632	3.8%	388	2.3%	16,694
Western Isles	935	91.0%	60	5.8%	32	3.1%	1,027
Scotland	185,945	88.7%	15,033	7.2%	8,728	4.2%	209,706

Table 13b: Recording of HbA1c: Scottish Diabetes Survey 2001 – 2007

Year	Recorded within last 15 months	Recorded >15 months ago	Not Recorded
2007	88.7%	7.2%	4.2%
2006	87.0%	6.4%	6.5%
2005	84.0%	7.2%	8.8%
2004	73.6%	16.3%	10.0%
2003	48.8%	27.7%	23.5%
2002	70.8%	10.3%	18.9%
2001	72.7%	not requested	27.3%

Table 13c: Most Recent HbA1c Recorded

NHS Board	HbA1c < 7.5%		HbA1c 7.5% - 9.0%		HbA1c > 9.0%		Not Recorded	Total
Ayrshire & Arran	8,836	55.2%	4,291	26.8%	2,634	16.4%	256	16,017
Borders	2,382	51.7%	1,376	29.8%	691	15.0%	161	4,610
Dumfries & Galloway	4,045	59.8%	1,606	23.7%	896	13.2%	217	6,764
Fife	8,994	58.3%	3,703	24.0%	2,216	14.4%	501	15,414
Forth Valley	6,447	52.9%	3,318	27.2%	2,121	17.4%	308	12,194
Grampian	9,595	45.7%	5,481	26.1%	3,838	18.3%	2,078	20,992
Greater Glasgow & Clyde	26,991	55.5%	11,443	23.5%	8,185	16.8%	1,983	48,602
Highland	6,098	50.8%	3,206	26.7%	1,987	16.6%	704	11,995
Lanarkshire	12,787	53.6%	6,059	25.4%	3,905	16.4%	1,126	23,877
Lothian	16,879	56.6%	7,945	26.6%	4,084	13.7%	933	29,841
Orkney	531	64.7%	181	22.0%	87	10.6%	22	821
Shetland	579	67.5%	172	20.0%	88	10.3%	19	858
Tayside	9,862	59.1%	3,950	23.7%	2,494	14.9%	388	16,694
Western Isles	568	55.3%	256	24.9%	171	16.7%	32	1,027
Scotland	114,594	54.6%	52,987	25.3%	33,397	15.9%	8,728	209,706

Table 13d: Most Recent HbA1c Recorded: Scottish Diabetes Survey 2004 – 2007

Year		HbA1c <7.5%	HbA1c 7.5% - 9.0%	HbA1c >9.0%	Not Recorded	Total
2007	Number	114,594	52,987	33,397	8,728	209,706
	Percentage	54.6%	25.3%	15.9%	4.2%	
2006	Number	103,066	49,711	31,145	12,879	196,801
	Percentage	52.4%	25.3%	15.8%	6.5%	
2005	Number	79,865	45,273	27,869	15,734	168,741
	Percentage	47.3%	26.8%	16.5%	9.3%	
2004	Number	58,377	35,796	22,199	19,182	135,554
	Percentage	43.1%	26.4%	16.4%	14.2%	

Table 14a showed the number of people who had their blood pressure recorded in the last 15 months, more than 15 months or not at all for all NHS health boards. These data are displayed as graphs and have therefore been excluded

Table 14b: Blood Pressure Recorded: Scottish Diabetes Survey 2002 – 2007

Year	Measured within last 15 months		Measured >15 months ago		Not Recorded		Total
2007	188,149	89.7%	16,027	7.6%	5,540	2.6%	209,716
2006	174,940	88.9%	13,483	6.9%	8,378	4.3%	196,801
2005	145,613	84.3%	14,258	8.3%	12,828	7.4%	172,699
2004	107,464	77.7%	19,492	14.1%	11,277	8.2%	138,233
2003	63,823	47.6%	42,339	31.6%	17,618	13.2%	123,780
2002	69,359	66.9%	10,398	10.0%	24,017	23.2%	103,774

Table 14c showed the number of people whose blood pressure was less than 140 mmHg systolic, was more than 140 mmHg systolic and those that did not have their blood pressure measured at all for all NHS health boards. Again these data have been shown as graphs and the tables are excluded/

Table 14d: Most Recent Blood Pressure Recorded: Scottish Diabetes Survey 2002 – 2007

Year	Systolic BP ≤ 140 mmHg		Systolic BP >140 mmHg		Not Recorded		Total
2007	149,038	71.1%	55,128	26.3%	5,540	2.6%	209,706
2006	133,898	68.0%	54,526	27.7%	8,377	4.3%	196,801
2005	107,398	63.7%	47,871	28.4%	13,384	7.9%	168,653
2004	76,729	57.0%	45,738	34.0%	12,104	9.0%	134,571

Table 15a showed the number of people who had their cholesterol recorded within the last 15 months, more than 15 months and those that had not had their cholesterol recorded at all for all NHS health boards.

Table 15b: Most Recent Recording of Cholesterol: Scottish Diabetes Survey 2002 – 2007

Year	Recorded within last 15 months		Recorded >15 months ago		Not Recorded		Total
2007	184,486	88.4%	15,937	7.6%	8,229	3.9%	208,652
2006	167,339	85.5%	15,302	7.8%	13,076	6.7%	195,717
2005	136,174	79.2%	18,937	11.0%	16,788	9.8%	171,899
2004	102,986	69.0%	20,909	14.0%	25,458	17.0%	149,353
2003	53,870	40.2%	35,362	26.4%	44,657	33.3%	133,889
2002	62,229	60.5%	12,221	11.9%	28,387	27.6%	102,837

Table 15c: Most Recent Cholesterol Recorded on Register

NHS Board	Cholesterol ≤ 5		Cholesterol > 5		Not Recorded		Total
Ayrshire & Arran	12,743	80.0%	2,949	18.5%	235	1.5%	15,927
Borders	3,602	78.6%	874	19.1%	106	2.3%	4,582
Dumfries & Galloway	5,166	76.7%	1,372	20.4%	195	2.9%	6,733
Fife	11,933	77.8%	2,952	19.3%	445	2.9%	15,330
Forth Valley	9,774	80.5%	2,097	17.3%	269	2.2%	12,140
Grampian	14,798	70.9%	4,353	20.9%	1,726	8.3%	20,877
Greater Glasgow & Clyde	37,046	76.6%	9,343	19.3%	1,987	4.1%	48,376
Highland	8,970	75.2%	2,244	18.8%	715	6.0%	11,929
Lanarkshire	18,125	76.4%	4,376	18.4%	1,231	5.2%	23,732
Lothian	22,757	76.6%	6,076	20.4%	881	3.0%	29,714
Orkney	631	77.0%	167	20.4%	21	2.6%	819
Shetland	622	72.9%	202	23.7%	29	3.4%	853
Tayside	12,884	77.5%	3,365	20.2%	371	2.2%	16,620
Western Isles	792	77.6%	182	17.8%	46	4.5%	1,020
Scotland	159,843	76.6%	40,552	19.4%	8,257	4.0%	208,652

Table 15d: Most Recent Cholesterol: Scottish Diabetes Survey 2004 – 2007

Year	Cholesterol ≤ 5	Cholesterol > 5	Not Recorded	Total
2007	159,843	40,552	8,257	208,652
	76.6%	19.4%	4.0%	
2006	143,999	38,614	13,104	195,717
	73.6%	19.7%	6.7%	
2005	113,542	37,631	16,680	167,853
	67.6%	22.4%	9.9%	
2004	78,688	39,051	27,952	145,691
	54.0%	26.8%	19.2%	

Tables 15b, c and d excludes children under 12 years of age

Table 16a showed the number of people who had their serum creatinine recorded within the last 15 months, more than 15 months and not at all for all NHS health boards.

Table 16b: Recording of Serum Creatinine: Scottish Diabetes Survey 2002 – 2007

Year	Recorded within last 15 months		Recorded >15 months ago		Not Recorded		Total
2007	184,849	88.6%	15,945	7.6%	7,858	3.8%	208,652
2006	168,461	86.1%	14,712	7.5%	12,544	6.4%	195,717
2005	141,529	82.3%	14,856	8.6%	15,514	9.0%	171,899
2004	103,303	69.2%	21,189	14.2%	24,861	16.6%	149,353
2003	56,932	42.5%	38,634	28.9%	38,323	28.6%	133,889
2002	59,709	63.5%	11,807	10.6%	25,730	26.0%	97,246

Table excludes children under 12 years

Table 17a: Recording of Urinary Microalbumin assessment

NHS Board	Recorded within last 15 months		Recorded > 15 months ago		Not Recorded		Total
Ayrshire & Arran	13,228	83.1%	1,989	12.5%	710	4.5%	15,927
Borders	3,307	72.2%	626	13.7%	649	14.2%	4,582
Dumfries & Galloway	5,617	83.4%	774	11.5%	342	5.1%	6,733
Fife	12,358	80.6%	1,880	12.3%	1,092	7.1%	15,330
Forth Valley	10,056	82.8%	1,489	12.3%	595	4.9%	12,140
Grampian	16,044	76.9%	2,466	11.8%	2,367	11.3%	20,877
Greater Glasgow & Clyde	37,389	77.3%	7,060	14.6%	3,927	8.1%	48,376
Highland	9,622	80.7%	1,234	10.3%	1,073	9.0%	11,929
Lanarkshire	19,321	81.4%	2,618	11.0%	1,793	7.6%	23,732
Lothian	24,362	82.0%	3,510	11.8%	1,842	6.2%	29,714
Orkney	589	71.9%	107	13.1%	123	15.0%	819
Shetland	701	82.2%	107	12.5%	45	5.3%	853
Tayside	13,375	80.5%	2,175	13.1%	1,070	6.4%	16,620
Western Isles	777	76.2%	153	15.0%	90	8.8%	1,020
Scotland	166,746	79.9%	26,188	12.6%	15,718	7.5%	208,652

Table 17a excludes children under 12 years

Table 17b: Recording of Urinary Microalbumin assessment: Scottish Diabetes Survey 2002 – 2007

Year	Recorded within last 15 months		Recorded >15 months ago		Not Recorded		Total
2007	166,746	79.9%	26,188	12.6%	15,718	7.5%	208,652
2006	150,932	77.1%	23,142	11.8%	21,643	11.1%	195,717
2005	116,719	69.5%	20,950	12.5%	30,184	18.0%	167,853
2004	61,463	42.2%	17,679	12.1%	66,549	45.7%	145,691
2003	32,873	24.6%	15,784	11.8%	85,232	63.7%	133,889
2002	25,378	24.8%	11,216	11.0%	65,814	64.3%	102,408

Table excludes children under 12 years

Table 18a: Recording of Smoking Status

NHS Board	Current Smoker		Ex-Smoker		Never Smoked		Not recorded		Total
Ayrshire & Arran	3,069	19.2%	5,271	32.9%	7,149	44.6%	528	3.3%	16,017
Borders	725	15.7%	1,673	36.3%	2,157	46.8%	55	1.2%	4,610
Dumfries & Galloway	1,176	17.4%	2,636	39.0%	2,830	41.8%	122	1.8%	6,764
Fife	2,955	19.2%	5,308	34.4%	6,877	44.6%	274	1.8%	15,414
Forth Valley	2,322	19.0%	4,387	36.0%	5,374	44.1%	111	0.9%	12,194
Grampian	3,227	15.4%	7,172	34.2%	9,018	43.0%	1,575	7.5%	20,992
Greater Glasgow & Clyde	10,116	20.8%	14,404	29.6%	22,650	46.6%	1,432	2.9%	48,602
Highland	1,938	16.2%	4,182	34.9%	5,028	41.9%	847	7.1%	11,995
Lanarkshire	4,708	19.7%	7,696	32.2%	10,572	44.3%	901	3.8%	23,877
Lothian	6,839	22.9%	11,772	39.4%	10,890	36.5%	340	1.1%	29,841
Orkney	94	11.4%	237	28.9%	388	47.3%	102	12.4%	821
Shetland	126	14.7%	361	42.1%	334	38.9%	37	4.3%	858
Tayside	2,962	17.7%	5,838	35.0%	7,325	43.9%	569	3.4%	16,694
Western Isles	178	17.3%	408	39.7%	428	41.7%	13	1.3%	1,027
Scotland	40,435	19.3%	71,345	34.0%	91,020	43.4%	6,906	3.3%	209,706

Table 18b: Recording of Smoking Status: Scottish Diabetes Survey 2001 – 2007

Year	Current Smoker	Ex-Smoker	Never Smoked	Not Recorded
2007	19.3%	34.0%	43.4%	3.3%
2006	19.0%	33.0%	41.8%	6.3%
2005	19.5%	30.0%	41.6%	8.9%
2004	19.2%	28.4%	40.5%	11.9%
2003	16.6%	21.6%	33.4%	28.5%
2002	16.2%	20.1%	36.3%	27.4%
2001	16.1%	15.7%	42.1%	26.1%

Table 19a: Recording of Diabetic Retinopathy Screening

NHS Board	Screened within last 15 months		Screened over 15 months ago		Not Known		Total
Ayrshire & Arran	13,721	86.1%	1,421	8.9%	785	4.9%	15,927
Borders	3,415	74.5%	792	17.3%	375	8.2%	4,582
Dumfries & Galloway	6,071	90.2%	358	5.3%	304	4.5%	6,733
Fife	13,518	88.2%	1,083	7.1%	729	4.8%	15,330
Forth Valley	10,662	87.8%	909	7.5%	569	4.7%	12,140
Grampian	17,008	81.5%	2,084	10.0%	1,785	8.6%	20,877
Greater Glasgow & Clyde	38,644	79.9%	5,646	11.7%	4,086	8.4%	48,376
Highland	9,545	80.0%	1,348	11.3%	1,036	8.7%	11,929
Lanarkshire	19,923	83.9%	2,219	9.4%	1,590	6.7%	23,732
Lothian	25,404	85.5%	2,622	8.8%	1,688	5.7%	29,714
Orkney	739	90.2%	59	7.2%	21	2.6%	819
Shetland	628	73.6%	156	18.3%	69	8.1%	853
Tayside	14,205	85.5%	1,438	8.7%	977	5.9%	16,620
Western Isles	897	87.9%	71	7.0%	52	5.1%	1,020
Scotland	174,380	83.6%	20,206	9.7%	14,066	6.7%	208,652

Table excludes children under 12 years

Table 19b: Recording of Diabetic Retinopathy Screening: Scottish Diabetes Survey 2001 – 2007

Year	Recorded within last 15 months	Recorded > 15 months ago	Not Recorded
2007	83.6%	9.7%	6.7%
2006	70.8%	18.1%	11.1%
2005	67.7%	16.3%	15.9%
2004	60.4%	19.7%	19.9%
2003	40.4%	29.4%	30.2%
2002	60.3%	14.0%	25.7%
2001	42.2%	12.4%	45.4%

Table 20a: Diabetic Retinopathy – Left or Right Eye

NHS Board	Present		Absent		Not Known		Total
Ayrshire & Arran	4,996	31.4%	7,108	44.6%	3,823	24.0%	15,927
Borders	892	19.5%	1,698	37.1%	1,992	43.5%	4,582
Dumfries & Galloway	3,400	50.5%	2,520	37.4%	813	12.1%	6,733
Fife	5,113	33.4%	8,679	56.6%	1,538	10.0%	15,330
Forth Valley	3,936	32.4%	6,324	52.1%	1,880	15.5%	12,140
Grampian	5,953	28.5%	10,180	48.8%	4,744	22.7%	20,877
Greater Glasgow & Clyde	11,800	24.4%	28,778	59.5%	7,798	16.1%	48,376
Highland	3,559	29.8%	5,781	48.5%	2,589	21.7%	11,929
Lanarkshire	6,438	27.1%	13,427	56.6%	3,867	16.3%	23,732
Lothian	7,836	26.4%	15,366	51.7%	6,512	21.9%	29,714
Orkney	268	32.7%	469	57.3%	82	10.0%	819
Shetland	56	6.6%	22	2.6%	775	90.9%	853
Tayside	5,309	31.9%	9,919	59.7%	1,392	8.4%	16,620
Western Isles	292	28.6%	612	60.0%	116	11.4%	1,020
Scotland	59,848	28.7%	110,883	53.1%	37,921	18.2%	208,652

Table excludes children under 12 years

Table 20b: Diabetic Retinopathy – Left or Right Eye: Scottish Diabetes Survey 2003 – 2007

Year	Present	Absent	Not known
2007	28.7%	53.1%	18.2%
2006	19.5%	44.8%	35.7%
2005	13.2%	47.8%	39.0%
2004	14.5%	53.8%	31.7%
2003	14.3%	50.9%	34.6%

Table 21: Recording of Blindness on Diabetes Register

NHS Board	Blind - diabetic cause		Blind - non-diabetic cause		Blind - not specified		Total		Total on Register
Ayrshire & Arran	7	0.0%	5	0.0%	106	0.7%	118	0.7%	16,017
Borders	0	0.0%	0	0.0%	19	0.4%	19	0.4%	4,610
Dumfries & Galloway	2	0.0%	4	0.1%	27	0.4%	33	0.5%	6,764
Fife	21	0.1%	5	0.0%	77	0.5%	103	0.7%	15,414
Forth Valley	11	0.1%	17	0.1%	51	0.4%	79	0.6%	12,194
Grampian	2	0.0%	2	0.0%	125	0.6%	129	0.6%	20,992
Greater Glasgow & Clyde	23	0.0%	37	0.1%	292	0.6%	352	0.7%	48,602
Highland	6	0.1%	5	0.0%	97	0.8%	108	0.9%	11,995
Lanarkshire	21	0.1%	21	0.1%	183	0.8%	225	0.9%	23,877
Lothian	20	0.1%	40	0.1%	189	0.6%	249	0.8%	29,841
Orkney	0	0.0%	0	0.0%	5	0.6%	5	0.6%	821
Shetland	0	0.0%	1	0.1%	3	0.3%	4	0.5%	858
Tayside	19	0.1%	14	0.1%	145	0.9%	178	1.1%	16,694
Western Isles	1	0.1%	0	0.0%	1	0.1%	2	0.2%	1,027
Scotland	133	0.1%	151	0.1%	1,320	0.6%	1,604	0.8%	209,706

Table 22a: Recording of Myocardial Infarct

NHS Board	Recorded as having had an MI		Total on Register
Ayrshire & Arran	1,533	9.6%	16,017
Borders	425	9.2%	4,610
Dumfries & Galloway	569	8.4%	6,764
Fife	1,450	9.4%	15,414
Forth Valley	1,253	10.3%	12,194
Grampian	1,828	8.7%	20,992
Greater Glasgow & Clyde	4,656	9.6%	48,602
Highland	1,070	8.9%	11,995
Lanarkshire	2,340	9.8%	23,877
Lothian	2,775	9.3%	29,841
Orkney	67	8.2%	821
Shetland	48	5.6%	858
Tayside	1,847	11.1%	16,694
Western Isles	95	9.3%	1,027
Scotland	19,956	9.5%	209,706

Table 22b: Recording of Myocardial Infarct: Scottish Diabetes Survey 2001 – 2007

Year	Myocardial Infarct	
2007	19,956	9.5%
2006	18,475	9.4%
2005	14,460	8.6%
2004	10,576	7.3%
2003	10,271	7.7%
2002	8,374	8.1%
2001	7,092	6.7%

Note that this table show the percentage which has had a heart attack and survived. Increases over time could be due to both the incidence of heart attacks and the proportion who survive.

Table 23a showed the number and percentage of people that had cardiac revascularisation. For all NHS health boards the figures were low, ranging between 4.9% and 6.6%.

Table 23b: Recording of Cardiac Revascularisation: Scottish Diabetes Survey 2001 – 2007

Year	Cardiac Revascularisation	
2007	12,294	5.9%
2006	10,762	5.5%
2005	8,191	4.9%
2004	5,675	3.9%
2003	3,811	2.8%
2002	3,848	3.7%
2001	2,244	2.1%

Table 24a showed the number of people that had a stroke. For all NHS health boards the figures were low and ranged between 3.3% and 5.8%.

Table 24b: Recording of Stroke: Scottish Diabetes Survey 2001 – 2007

Year	Stroke	
2007	10,783	5.1%
2006	10,133	5.1%
2005	8,707	5.2%
2004	9,241	6.3%
2003	5,961	4.5%
2002	5,063	4.9%
2001	3,559	3.4%

Table 25a: Recording of Peripheral Pulses

NHS Board	Recorded within last 15 months		Recorded > 15 months ago		Not Recorded		Total on Register
Ayrshire & Arran	11,880	74.2%	2,673	16.7%	1,464	9.1%	16,017
Borders	3,294	71.5%	895	19.4%	421	9.1%	4,610
Dumfries & Galloway	5,374	79.5%	916	13.5%	474	7.0%	6,764
Fife	11,661	75.7%	2,419	15.7%	1,334	8.7%	15,414
Forth Valley	9,854	80.8%	1,672	13.7%	668	5.5%	12,194
Grampian	14,812	70.6%	3,340	15.9%	2,840	13.5%	20,992
Greater Glasgow & Clyde	35,278	72.6%	8,609	17.7%	4,715	9.7%	48,602
Highland	9,293	77.5%	1,394	11.6%	1,308	10.9%	11,995
Lanarkshire	16,591	69.5%	3,425	14.3%	3,861	16.2%	23,877
Lothian	23,334	78.2%	4,453	14.9%	2,054	6.9%	29,841
Orkney	659	80.3%	78	9.5%	84	10.2%	821
Shetland	672	78.3%	101	11.8%	85	9.9%	858
Tayside	12,852	77.0%	2,493	14.9%	1,349	8.1%	16,694
Western Isles	771	75.1%	175	17.0%	81	7.9%	1,027
Scotland	156,325	74.5%	32,643	15.6%	20,738	9.9%	209,706

Table 25b: Recording of Peripheral Pulses: Scottish Diabetes Survey 2004 – 2007

Year	Recorded within last 15 months		Recorded >15 months ago		Not Recorded		Total
2007	156,325	74.5%	32,643	15.6%	20,738	9.9%	209,706
2006	145,339	73.9%	27,282	13.9%	24,180	12.3%	196,801
2005	115,520	66.9%	22,740	13.2%	34,439	19.9%	172,699
2004	82,401	55.2%	25,166	16.9%	41,786	28.0%	149,353

Table 26a: Recording of Foot Ulceration

NHS Board	Foot Ulcer		Total on Register
Ayrshire & Arran	311	1.9%	16,017
Borders	105	2.3%	4,610
Dumfries & Galloway	94	1.4%	6,764
Fife	681	4.4%	15,414
Forth Valley	683	5.6%	12,194
Grampian	423	2.0%	20,992
Greater Glasgow & Clyde	1,612	3.3%	48,602
Highland	181	1.5%	11,995
Lanarkshire	2,198	9.2%	23,877
Lothian	2,773	9.3%	29,841
Orkney	27	3.3%	821
Shetland	6	0.7%	858
Tayside	759	4.5%	16,694
Western Isles	43	4.2%	1,027
Scotland	9,896	4.7%	209,706

Table 26b: Recording of Foot Ulceration: Scottish Diabetes Survey 2001 – 2007

Year of Survey	Number of Foot Ulcers	
2007	9,896	4.7%
2006	9,824	5.0%
2005 (a)	5,800	3.9%
2004	3,281	2.2%
2003	2,029	1.5%
2002	1,465	1.4%
2001	1,008	1.0%

(a) Excludes Borders and Lanarkshire

We have some concerns regarding the quality of this data. Lothian and Lanarkshire have much higher numbers than other areas, but this is likely to be due to ulcers being less well reported in other areas.

Table 27a showed the number and percentage of people with lower limb amputations. For all NHS health boards, the figures were very low ranging between 0.2% and 1.2%.

Table 27a: Recording of Lower Limb Amputation: Scottish Diabetes Survey 2001 – 2007

Year of Survey	Lower Limb Amputation	
2007	950	0.5%
2006	868	0.4%
2005 (a)	774	0.5%
2004	845	0.6%
2003	1,014	0.8%
2002	996	1.0%
2001	908	0.9%

(a) Excludes Borders and Lanarkshire

Table 28: Foot Risk Calculation

This is a new field, and data collection is incomplete as yet.

NHS Board	Active foot disease	High foot risk	Medium foot risk	Low foot risk	Not recorded
Ayrshire & Arran	123	142	435	3282	12035
Borders	31	82	190	427	3880
Dumfries & Galloway	89	234	752	1613	4076
Fife	149	807	1311	4694	8453
Forth Valley	110	492	977	3134	7481
Grampian	396	66	178	1382	18970
Greater Glasgow & Clyde	542	1477	5574	15647	25362
Highland & Argyll	156	615	1306	4367	5551
Lanark	889	1355	1037	6333	14263
Lothian	560	1968	1770	9119	16424
Orkney	20	56	193	178	374
Shetland	8	7	29	121	693
Tayside	233	980	2172	6296	7013
Western Isles	26	40	82	142	737
Scotland	3332	8321	16006	56735	125312

Table 29a: End Stage Renal Failure Recorded on Diabetes Register

NHS Board	Number of Chronic Renal Failures	Percentage	Total on Register
Ayrshire & Arran	47	0.3%	16,017
Borders	25	0.5%	4,610
Dumfries & Galloway	59	0.9%	6,764
Fife	48	0.3%	15,414
Forth Valley	45	0.4%	12,194
Grampian	Data not available		
Greater Glasgow & Clyde	314	0.6%	48,602
Highland	58	0.5%	11,995
Lanarkshire	165	0.7%	23,877
Lothian	261	0.9%	29,841
Orkney	3	0.4%	821
Shetland	5	0.6%	858
Tayside	122	0.7%	16,694
Western Isles	6	0.6%	1,027
Scotland	Data incomplete		

Table 29b: Recording of End Stage Renal Failure: Scottish Diabetes Survey 2001 – 2007

Year	End Stage Renal Failure	Percentage
2007	1,719	0.8%
2006	873	0.4%
2005	828	0.5%
2004	638	0.4%
2003	606	0.5%
2002	430	0.4%
2001	576	0.5%

Boards have been asked to start collecting data on the recording of estimated GFR (table 30a) and the numbers in different eGFR categories (table 30b) but these data are not yet complete and therefore these tables have been excluded.

GUIDANCE FOR SCOTTISH DIABETES SURVEY 2007

1. Total population

Mid-2006 Population Estimate. Source: Registrar General for Scotland

2. Area diabetes register

This allows prevalence to be calculated. Note that the 'Check' sums throughout the data submission form MUST equal the figure included in 2.1. The number of patients, if any, who have been excluded from the survey for reasons of non-consent should be recorded.

3. Use of CHI number

Records with CHI | Records with no CHI number

The Community Health Index (CHI) is a population register used for health care purposes. The CHI number uniquely identifies a person on the index.

4. Type of diabetes

Type 1 | Type 2 | Other types of diabetes | Not recorded/Not known

'Other' should include Gestational Diabetes Mellitus or Maturity onset diabetes of youth (MODY), but should exclude Impaired Glucose Tolerance (IGT).

5. Age of people on register

0-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 | ≥ 85 | Age not recorded/missing or incomplete data

6. No of people with Type 1 diabetes by age

0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-64 | 65-69 | 70-74 | >74 | Unavailable or incomplete data

7. No. of people with Type 2 diabetes under 35 years

Under 15 years | 15-24 | 25-34

8. Children under 12 years

9. Date of diagnosis

Recorded | Not recorded/Not known

10. Duration of diabetes (Years since diagnosis)

<1 year (equivalent to incident cases) | 1-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | ≥ 50 years | Unavailable or incomplete data

11. Sex of people on register

Male | Female | Not recorded/Not known

Phenotype at birth.

12. Ethnic group

Ethnic group identified | Not recorded/Not known

An ethnic group is a group of people having racial, religious, linguistic and/or other cultural traits in common. The ethnic group to which a patient belongs is judged by the patient. The standard OPCS classification of ethnicity is used here: 0 = White;

1 = Black Caribbean; 2 = Black African; 3 = Indian; 4 = Pakistani; 5 = Bangladeshi; 6 = Chinese; 30 = Other.

13. BMI

Calculated | Not calculated/Data incomplete/Not known

Children under 12 years should be excluded. Refers to BMI based on a weight recorded within last 15 months.

14. BMI range

<18.4 | 18.5-24.9 | 25-29.9 | 30-34.9 | 35-39.9 | ≥ 40 | Not calculated/Data incomplete/Not known

Children under 12 years should be excluded. Note that the ranges have been amended to correct an error in previous years which resulted in an underestimate of overweight and obesity.

15. HbA1c recorded

Measured within last 15 months | Measured >15 months ago | Not measured/Not known

Glycated haemoglobin refers to measurement of HbA1c (not HbA1).

16. Most recent HbA1c measurement

Number of patients whose most recent HbA1c was < 7.5 | Number of patients whose most recent HbA1c was 7.5 to 9.0 | Number of patients whose most recent HbA1c was > 9.0 | HbA1c not recorded

17. Most recent HbA1c recording in people with Type 1 diabetes

No of people in each age band 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-64 | 65-69 | 70-74 | >74 with HbA1c < 7 | No of people in each age band with HbA1c 7-7.9 | No of people in each age band with HbA1c 8-8.9 | No of people in each age band with HbA1c 9-9.9 | No of people in each age band with HbA1c 10-10.9 | No of people in each age band with HbA1c 11-11.9 | No of people in each age band with HbA1c ≥ 12 | HbA1c not recorded in each age band

18. Blood pressure recorded

Measured within last 15 months | Measured >15 months ago | Not measured/Not known

19. Most recent blood pressure measurement

Number of patients whose most recent systolic BP was ≤ 140 | Number of patients whose most recent systolic BP was >140 | BP not recorded

20. Cholesterol measurement

Measured within last 15 months | Measured >15 months ago | Not measured/Not known

Children under 12 years should be excluded. The Scottish Diabetes Core Dataset includes data fields for serum total cholesterol, serum HDL cholesterol and triglycerides. Measurements can be either fasted or unfasted. For the purposes of the 2007 Survey, any one of these is sufficient.

21. Most recent cholesterol measurement

Number of patients whose most recent cholesterol was ≤ 5 | Number of patients whose most recent cholesterol was > 5 | Cholesterol not recorded

Children under 12 years should be excluded.

22. Serum creatinine measurement

Measured within last 15 months | Measured >15 months ago | Not measured/Not known
Children under 12 years should be excluded.

23. Estimated GFR recorded

Recorded within last 15 months | Recorded >15 months ago | Not recorded/Data incomplete/Not known
Children under 12 years should be excluded

24. Most recent eGFR measurement

No of patients whose most recent eGFR was <15 | No of patients whose most recent eGFR was 15-29 | No of patients whose most recent eGFR was 30-60 | No of patients whose most recent eGFR was > 60 | eGFR not recorded

25. Urinary microalbumin measurement

Measured within last 15 months | Measured >15 months ago | Not measured/Not known
Children under 12 years should be excluded. Urine specimen tested for presence of microalbuminuria by any method is sufficient for the purposes of the 2005? Survey (Albustix, albumin concentration, albumin: creatinine ratio, timed overnight albumin excretion rate or 24 hour albumin excretion rate).

26. Smoking status

Current smoker | Ex-smoker | Never smoked | Not recorded/Not known.

27. Diabetic Retinopathy Screening

Screened within last 15 months | Screened >15 months ago | Screening status not recorded.
Children under 12 years should be excluded.

28. Diabetic Retinopathy - Left or right eye

Present | Absent | Not recorded
Children under 12 years should be excluded. Present means any degree of retinopathy recorded as present in left and/or right eye; absent means 'no retinopathy' recorded for both eyes.

29. Permanent blindness

Diabetic cause | Non-diabetic cause | Cause not recorded/not known
Permanent blindness is defined as permanent visual acuity corrected (i.e. wearing corrective lenses) of <3/60 (i.e. CF, HM or PL) in the better eye.

30. Myocardial infarct

Recorded as ever having had an acute myocardial infarction

31. Cardiac Revascularisation

Recorded as having undergone cardiac revascularisation
All forms of revascularisation including stents and angioplasty.

32. Stroke

Recorded as having had a stroke

Stroke (cerebrovascular accident) - defined as rapidly developing signs of focal (and/or global) disturbance of cerebral function lasting more than 24 hours or leading to death with no apparent cause other than vascular origin.

33. Peripheral pulses recorded

Measured within last 15 months | Measured >15 months ago | Not calculated / Data incomplete/Not known

Any record of foot pulse assessment within the time frame.

34. Foot ulceration

Recorded as ever having had a foot ulcer

Foot ulcer is defined as any break in the epithelium greater than a crack below the level of the malleoli.

35. Foot risk calculation

Foot risk high | foot risk medium | foot risk low | Not recorded/Data incomplete/Not known

A record of the foot risk assessment ever having been recorded

36. Lower limb amputation

Recorded as ever having had a lower limb amputation

Amputation is defined as recommended in the SIGN guideline on management of diabetic foot disease as 'removal of forefoot or part of the lower limb'. This excludes loss of toes or single metatarsals.

37. End stage renal failure

Recorded as having chronic renal failure

Either serum creatinine was chronically greater than 500 mmol/l (i.e. >500 mmol/l on two occasions three months apart), or the patient was placed on permanent dialysis or received a renal transplant.

38. Deprivation Category

This allows the deprivation profile of the diabetic population to be compared to the profile of the NHS Board and the Scottish population as a whole. Deprivation quintiles are derived from Carstairs deprivation scores based on 2001 census data. Quintiles divide the Scottish population into five groups of equal size population so that 20% of the Scottish population falls into each deprivation quintile. ISD have moved towards using quintiles rather than deprivation categories as equal-sized groups are preferable for statistical analyses. Deprivation quintiles can be assigned to diabetic populations through the patient's postcode.