Income-related differences in mortality among people with diabetes mellitus

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ABSTRACT

Background: Mortality has declined substantially among people with diabetes mellitus over the last decade. Whether all income groups have benefited equally, however, is unclear. We examined the impact of income on mortality trends among people with diabetes.

Methods: In this population-based, retrospective cohort study, we compared changes in mortality from Apr. 1, 1994, to Mar. 31, 2005, by neighbourhood income strata among people with diabetes aged 30 years or more in the province of Ontario, Canada.

Results: Overall, the annual age- and sex-adjusted mortality declined, from 4.05% in 1994/95 (95% confidence interval [CI] 3.98%–4.11%) to 2.69% in 2005/06 (95% CI 2.66%–2.73%). The decrease was significantly greater in the highest income group (by 36%) than in the lowest income group (by 31%; $p < 0.001$). This trend was most pronounced in the younger group (age 30–64 years): the mortality rate ratio widened by more than 40% between the lowest and highest income groups, from 1.12 to 1.59 among women and from 1.14 to 1.60 among men. Income had a much smaller effect on mortality trends in the older group, whose drug costs are subsidized: the income-related difference rose by only 0.9% over the study period.

Interpretation: Mortality declined overall among people with diabetes from 1994 to 2005; however, the decrease was substantially greater in the highest income group than in the lowest, particularly among those aged 30–64 years. These findings illustrate the increasing impact of income on the health of people with diabetes even in a publicly funded health care setting. Further studies are needed to explore factors responsible for these income-related differences in mortality.

The number of people with diabetes mellitus has increased dramatically over the last 20 years[1,2] and is estimated to double to about 366 million by 2030.[3] Diabetes is associated with a 2-fold increase in mortality, with the majority of deaths attributed to cardiovascular causes.[4] However, survival among people with diabetes has improved substantially over the last decade,[1,5,6] in part because of better diabetes care and a reduction in cardiovascular events.[6]

Income is a well-known predictor of survival.[7,8] Even in Canada, where much of health care is universally funded, income-based inequities in health and access to care remain.[9–12] Although income-related differences in all-cause mortality have decreased since the advent of provincially subsidized health care in Canada,[8,9] the income gap may be increasing for certain causes of death, including those related to diabetes.[8] The shift to more complex medical care involving a greater number of drug therapies has resulted in improved diabetes-related outcomes overall.[13] However, patients in lower-income groups may not have benefited from advances in diabetes care as much as more affluent patients have because of the financial burden of out-of-pocket expenses for such medications and diabetes supplies.

We conducted a population-based study to examine income-related differences in mortality from 1994 to 2005 among people with diabetes.

Methods

Study design and data sources

In this population-based, retrospective cohort study, we compared changes in mortality from Apr. 1, 1994, to Mar. 31, 2006, by neighbourhood income strata among people with diabetes aged 30 years or older in Ontario, Canada.

We used Canadian census data and anonymized data from administrative health databases that include records for people covered by the provincial health plan. Health insurance coverage is provided for all Ontario residents; prescription drugs are covered for people aged 65 or more and those receiving social assistance.

We determined the prevalence of diabetes in each study year among people aged 30 years or more using the Ontario Diabetes Database, a registry of Ontario residents with diagnosed diabetes.[14] With the use of a validated algorithm, people are defined as having diabetes if they have had 1 hospital admission or 2 physician claims bearing a diabetes diagnosis within a 2-year period.[14] We then grouped people with dia-

betes in each fiscal year into income quintiles by linking their postal codes with Canadian census data, which provide the median household income level of their neighbourhood of residence.[9,15] We used 1996 census data for the fiscal years 1994 to 1998; 2001 census data for the fiscal years 1999 to 2003; and 2006 census data for the fiscal years 2004 and 2005. People whose postal code could not be linked to a specific neighbourhood income level were assigned to a "missing income" category; mortality data for this group were excluded from the primary analysis but are available in Tables 1, 2 and 3, which appear at the end of this article).

Outcome measures

We calculated the overall all-cause mortality and the rate for each income quintile in the study population and compared the rates across study years. For numerators, we identified all deaths that occurred in the study population using data from the Registered Persons Database, a provincial registry of demographic and residential information. In this database, deaths are captured from death certificates and supplemented with hospital records of in-hospital deaths.

To adjust for differences in population distribution over time, we performed direct age and sex standardization for mortality (overall and by income quintile) using 1994 population distributions. To explore whether mortality trends differed by age and sex, we calculated unadjusted mortality by age group (those 30–64 years old and those 65 years or more) and sex for each income quintile.

To determine whether trends differed based on diabetes status, we calculated all-cause mortality among people without diabetes in each study year. We determined the denominator for each year using the total Ontario population aged 30 years or more from Canadian census data on July 1 of the previous year, minus the number of people with diabetes that year. We calculated overall rates of death, rates by income quintile and rates by age group and sex within each income quintile. We calculated numerators for mortality by subtracting the number of deaths involving people with diabetes from the corresponding total number of deaths in each year.
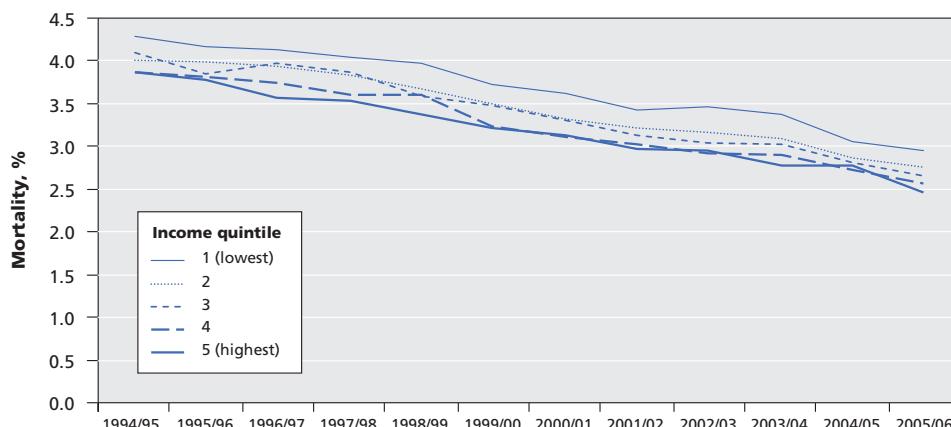
Statistical analysis

We used multivariable Poisson regression analysis to compare mortality by study year, income quintile, age group and sex. We conducted our analyses by fitting a Poisson regression model, relating the variables of interest to the number of deaths, using person-years at risk as an offset. We tested for 2-way and 3-way interactions between age, income and year to determine whether any changes in mortality differed on the basis of income, and whether the effect of income differed between younger people (30–64 years of age) and older people, for whom drug costs are covered. We also compared changes in mortality between populations with and without diabetes to explore whether income-based trends differed by diabetes status. We compared mortality rate ratios between the lowest and highest income quintiles for diabetes patients for each fiscal year. Overall rate ratios were based on age- and sex-adjusted mortality; rate ratios for age and sex subgroups were based on predicted rates from the Poisson regression model.

We conducted a sensitivity analysis that included people who had missing income data, to determine whether differences in mortality among those with missing income data would affect our results. The income quintiles for these individuals were imputed based on age, sex and year. We reanalyzed data with the inclusion of death rates for these people.

Ethics approval

We obtained ethics approval of our study from the Institutional Review Board at Sunnybrook Health Sciences Centre.

Results

In 1994/95, a total of 367 426 people aged 30 years or more in Ontario had diabetes. This number increased to 843 629 by 2005/06, which represents a 130% relative increase in the number of adults with diabetes over 11 years (Tables 1, 2 and 3). During the same period, the population of people in Ontario aged 30 years or more without diabetes increased by 17%, from 5 907 012 in 1994/95 to 6 888 074 in 2005/06 (Tables 4, 5 and 6). (Tables appear at the end of the article.)

Figure 1: Age- and sex-standardized mortality by income quintile among people in Ontario aged 30 years or more with diabetes mellitus from 1994/95 to 2005/06.

Mortality among people with diabetes

Rates of death remained significantly higher among men than among women across the years (4.18% v. 3.89% in 1994/95, and 2.86% v. 2.73% in 2005/06; $p < 0.001$). Mortality was also significantly higher among people aged 65 years or more than among those aged 30–64 (7.14% v. 1.30% in 1994/95; 5.26% v. 0.79% in 2005/06; $p < 0.001$).

In all of the study years, we observed a significant inverse association between income quintile and mortality. Age- and sex-standardized mortality fell signifi-

cantly, by 33%, across all income quintiles over the study period (Figure 1). Compared with the lowest income quintile, the higher income groups experienced a proportionately greater decline in mortality ($p = 0.004$ for interaction between fiscal year and quintile 2 v. quintile 1; $p < 0.001$ for interactions with other quintiles v. quintile 1). This larger decrease in mortality in the higher income groups was seen mainly among younger individuals (aged 30–64 years) ($p < 0.005$ for the interaction between age group, income and year). For instance, among younger women with diabetes, the estimated mortality fell by 45% in the highest income group, compared with 22% in the lowest income group (Figure 2, top panel); among the older women with diabetes, income-related differences were much smaller, falling by 22% in the highest income group and by 21% in the lowest income group (Figure 2, bottom panel). Trends were similar for men.

Mortality by diabetes status
The age- and sex-standardized mortality was significantly higher among people with diabetes than among those without the disease across the years (1994/95: 4.04% v. 0.99%, $p < 0.001$; 2005/06: 2.80% v. 0.86%, $p < 0.001$). The decrease in mortality from 1994/95 to 2005/06 was greater among those with diabetes (by 31%) than among those without it (by 14%) ($p < 0.001$).

Mortality rate ratio
The estimated mortality rate ratios between the lowest and highest income quintiles among patients with diabetes across the study years are presented in Figure 3. Although the income-related difference in mortality widened by 8% overall (from 1.11 to 1.20) over the study period, this trend was most pronounced among individuals aged 30–64 years, among whom there was a 40%–42% widening in the rate ratio between the lowest and highest income group. Income had a much smaller effect on mortality trends in the older group, among whom the income-related difference rose by only 0.9% over the study period.

Sensitivity analysis
As with our primary analysis, we found a significant interaction between income and mortality across the study years among patients with diabetes when missing income data were included. We also found similar differ-

ences in mortality rate ratios between the lowest and highest income quintiles across the study years overall and similar age-related mortality trends (data not shown).

Interpretation

We found a concerning increase in income-related differences in mortality among people with diabetes in our population-based study. Overall, mortality decreased by more than 30% from 1994/95 to 2005/06. However, when we examined trends by income quintile, we found that the improvement in mortality was significantly smaller among people in lower-income neighbourhoods than among those in wealthier neighbourhoods. This finding was most pronounced among young adults with diabetes, among whom the mortality rate ratio between the lowest and highest income quintile widened by more than 40%. Our findings suggest that improvements in diabetes outcomes may be lagging in the poorer segments of the diabetic population.

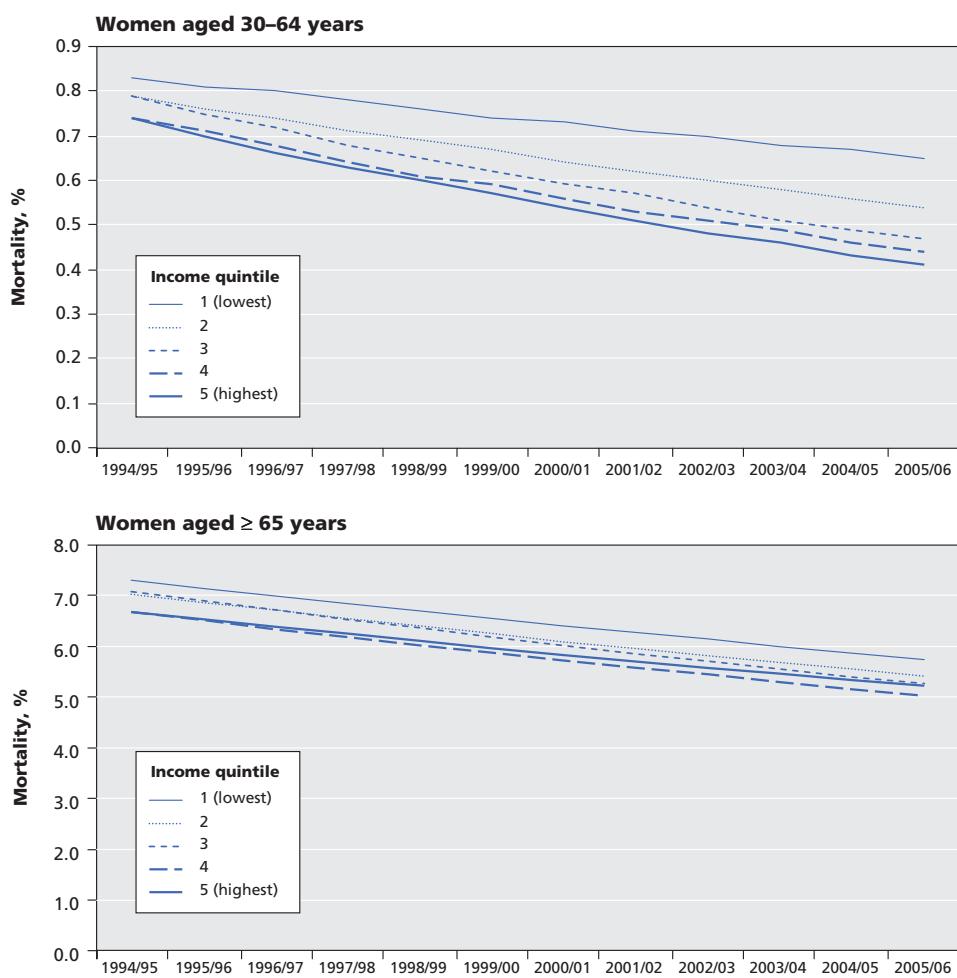There may be several reasons for our findings. First, the

Figure 2: Predicted mortality by income quintile among women with diabetes aged 30–64 years (top panel) and women aged 65 or more (bottom panel) from 1994/95 to 2005/06. (Trends were similar among men.)
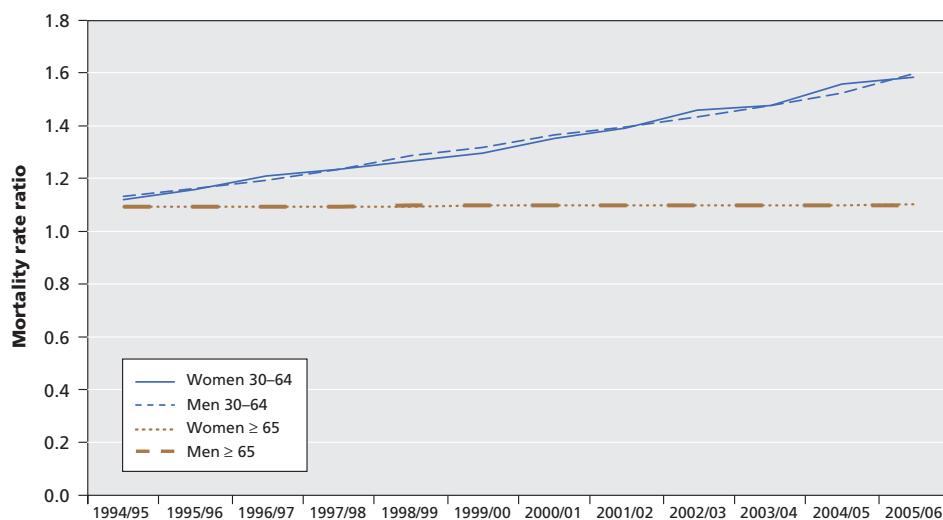
Figure 3: Mortality rate ratios between the lowest and highest income quintile among women and men aged 30 years or more with diabetes from 1994/95 to 2005/06.

complexity and cost of diabetes care has increased markedly over the last decade.[13] This shift to more intensive treatment has no doubt contributed to an overall improvement in survival, given the proven cardiovascular benefits of multiple-drug therapies in patients with type 2 diabetes.[16] Indeed, the rates of cardiovascular events have declined substantially among patients with diabetes,[6] and in the Canadian population overall.[17] Although further studies are needed to determine whether these trends have also differed by income, the increasing cost of medications may now be a greater barrier to effective care for people who cannot afford them. Studies have shown both a rise in the cost of diabetes drugs[18] and in the number of diabetes patients who cannot afford their medications[19,20] over the last decade. Indeed, higher out-of-pocket costs for medications have been shown to lower adherence[21] and increase rates of adverse events.[22] This is further supported by our finding that income-related differences in mortality were much smaller among people aged 65 years or more, for whom drug costs are subsidized, than among those aged 30–64 years, who do not have universal coverage. Moreover, low health literacy among poorer patients may now have a greater impact on their ability to follow more complex medical regimens.[23] Lower-income populations are also more susceptible to unhealthy behaviours such as smoking, poor diet and sedentary lifestyle.[24]

Second, the increased gap in mortality observed in our study may have been influenced by differences in rates of screening for diabetes across income groups. Greater screening can have a favourable impact on mortality, since more people with early disease are identified and offered early treatment. Although awareness of diabetes and rates of screening probably increased over the study period, screening rates may have increased more in higher-income groups because of greater education and health advocacy.

Third, the changing ethnic makeup of the Ontario population may have affected our findings. According to 2006 Can-

adian census data, 28% of Ontarians were immigrants.[25] Moreover, an estimated 37% of people who immigrated during the study period were from South Asia, which represents an increase of more than 50% since before 1991.[25] New immigrants often earn less income than longer-term residents, and people of South Asian origin in particular are more susceptible to diabetes and cardiovascular complications.[26,27]

Although increasing socio-economic inequalities in mortality have been documented in other developed countries,[10,11] Canada has seen a narrowing of income-related differences in mortality overall since the advent of universal health care.[8] In contrast, we found a widening gap in income-related differences in mortality among people with diabetes. This is of particular importance given the higher prevalence of diabetes in lower-income populations.[28] As diabetes increasingly becomes a disease of lower-income populations, disparities in health outcomes may continue to increase. Our findings may have further implications for Canadians living in rural areas with more limited access to health care. Evidence indicates that, compared with urban residents, people in rural areas have lower income, are more likely to engage in unhealthy behaviours, and have higher rates of diabetes, cardiovascular disease and death.[29] This trend may also be magnified in nations with greater disparities in access to health care, especially since the biggest increase in diabetes is happening in developing countries.[2] It is argued that the increased focus on health care as a commercial commodity in many countries has led to greater exclusion of people who cannot pay.[30] Thus, as rates of diabetes continue to increase globally, this will have major implications for both the health of more vulnerable populations and for resource allocation. Our study highlights the need to address barriers to adequate diabetes care in low-income populations.

Strengths and limitations
Strengths of our study include our use of population-based data for a large and diverse jurisdiction and our use of a validated algorithm to identify people with diabetes. However, some limitations merit mention. First, we were unable to differentiate between type 1 and type 2 diabetes. The impact of income on mortality may be different between these groups. Second, we could capture only diagnosed diabetes. Rates of diagnosis may be lower in low-income groups. Third, we did not have data on cause of death and therefore cannot conclude whether the causes of death were similar across income groups. Finally, we did not have income data at the individual level. However, neighbourhood income is a widely used mea-

sure of socio-economic status that correlates well with individual-level measures and may exert an independent influence on the health of a population.[15]

Conclusion

Although mortality declined overall among people with diabetes from 1994 to 2005, the decrease was substantially greater in the highest income group than in the lowest. Our findings suggest that wealthier people may have benefited more from advances in diabetes care than poorer people. They also illustrate the increasing impact of income on the health of people with diabetes even in a publicly funded health care setting.

This article has been peer reviewed.

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The tables for this article appear on pages E6–E17.

Table 1: Crude mortality data from 1994/95 to 2005/06 among people with diabetes mellitus aged 30 years or more, by neighbourhood income and age group (part 1 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
1994/95	Overall	14 863	367 426	4.05	2 523	195 032	1.29	12 340	172 394	7.16
	1 (lowest)	3 755	89 104	4.21	676	47 058	1.44	3 079	42 046	7.32
	2	3 270	81 113	4.03	584	42 608	1.37	2 686	38 505	6.98
	3	3 069	74 078	4.14	483	39 100	1.24	2 586	34 978	7.39
	4	2 395	63 447	3.77	404	34 531	1.17	1 991	28 916	6.89
	5 (highest)	2 262	57 091	3.96	358	30 103	1.19	1 904	26 988	7.05
	Missing	112	2 593	4.32	18	1 632	1.10	94	961	9.78
1995/96	Overall	15 731	399 574	3.94	2 670	212 404	1.26	13 061	187 170	6.98
	1 (lowest)	3 915	96 215	4.07	737	51 179	1.44	3 178	45 036	7.06
	2	3 545	87 795	4.04	592	46 071	1.28	2 953	41 724	7.08
	3	3 129	80 423	3.89	489	42 398	1.15	2 640	38 025	6.94
	4	2 606	69 826	3.73	424	38 103	1.11	2 182	31 723	6.88
	5 (highest)	2 423	62 549	3.87	402	32 888	1.22	2 021	29 661	6.81
	Missing	113	2 766	4.09	26	1 765	1.47	87	1 001	8.69
1996/97	Overall	16 878	431 524	3.91	2 603	229 438	1.13	14 275	202 086	7.06
	1 (lowest)	4 152	102 911	4.03	700	55 240	1.27	3 452	47 671	7.24
	2	3 771	94 124	4.01	617	49 284	1.25	3 154	44 840	7.03
	3	3 530	87 188	4.05	519	45 877	1.13	3 011	41 311	7.29
	4	2 800	76 042	3.68	423	41 310	1.02	2 377	34 732	6.84
	5 (highest)	2 522	68 161	3.70	326	35 697	0.91	2 196	32 464	6.76
	Missing	103	3 098	3.32	18	2 030	0.89	85	1 068	7.96
1997/98	Overall	17 784	467 194	3.81	2 754	249 399	1.10	15 030	217 795	6.90
	1 (lowest)	4 289	109 951	3.90	769	59 796	1.29	3 520	50 155	7.02
	2	3 963	101 403	3.91	594	53 258	1.12	3 369	48 145	7.00
	3	3 745	94 534	3.96	542	49 716	1.09	3 203	44 818	7.15
	4	2 970	83 474	3.56	439	45 336	0.97	2 531	38 138	6.64
	5 (highest)	2 722	74 471	3.66	393	39 066	1.01	2 329	35 405	6.58
	Missing	95	3 361	2.83	17	2 227	0.76	78	1 134	6.88
1998/99	Overall	18 472	502 725	3.67	2 857	269 170	1.06	15 615	233 555	6.69
	1 (lowest)	4 499	117 143	3.84	783	64 066	1.22	3 716	53 077	7.00
	2	4 063	108 524	3.74	630	57 142	1.10	3 433	51 382	6.68
	3	3 727	101 710	3.66	551	53 689	1.03	3 176	48 021	6.61
	4	3 224	90 989	3.54	473	49 655	0.95	2 751	41 334	6.66
	5 (highest)	2 853	80 666	3.54	401	42 225	0.95	2 452	38 441	6.38
	Missing	106	3 693	2.87	19	2 393	0.79	87	1 300	6.69
1999/00	Overall	18 761	541 224	3.47	2 993	291 121	1.03	15 768	250 103	6.30
	1 (lowest)	4 786	130 222	3.68	802	70 766	1.13	3 984	59 456	6.70
	2	4 437	122 253	3.63	663	63 655	1.04	3 774	58 598	6.44
	3	3 735	106 916	3.49	603	57 076	1.06	3 132	49 840	6.28
	4	2 908	93 101	3.12	513	51 531	1.00	2 395	41 570	5.76
	5 (highest)	2 817	84 828	3.32	391	45 372	0.86	2 426	39 456	6.15
	Missing	78	3 904	2.00	21	2 721	0.77	57	1 183	4.82

Table 1: Crude mortality data from 1994/95 to 2005/06 among people with diabetes mellitus aged 30 years or more, by neighbourhood income and age group (part 2 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
2000/01	Overall	19 541	582 113	3.36	3 036	314 305	0.97	16 505	267 808	6.16
	1 (lowest)	4 983	138 383	3.60	884	75 544	1.17	4 099	62 839	6.52
	2	4 541	130 713	3.47	668	68 197	0.98	3 873	62 516	6.20
	3	3 856	115 519	3.34	559	62 084	0.90	3 297	53 435	6.17
	4	3 082	101 674	3.03	517	56 431	0.92	2 565	45 243	5.67
	5 (highest)	3 008	91 741	3.28	389	49 196	0.79	2 619	42 545	6.16
	Missing	71	4 083	1.74	19	2 853	0.67	52	1 230	4.23
2001/02	Overall	20 275	630 293	3.22	3 193	342 576	0.93	17 082	287 717	5.94
	1 (lowest)	5 059	147 692	3.43	864	80 948	1.07	4 195	66 744	6.29
	2	4 752	140 853	3.37	720	73 912	0.97	4 032	66 941	6.02
	3	3 957	125 240	3.16	594	67 952	0.87	3 363	57 288	5.87
	4	3 299	111 967	2.95	552	62 457	0.88	2 747	49 510	5.55
	5 (highest)	3 109	100 223	3.10	429	54 320	0.79	2 680	45 903	5.84
	Missing	99	4 318	2.29	34	2 987	1.14	65	1 331	4.88
2002/03	Overall	21 619	680 277	3.18	3 421	372 005	0.92	18 198	308 272	5.90
	1 (lowest)	5 442	156 570	3.48	982	86 092	1.14	4 460	70 478	6.33
	2	5 028	150 889	3.33	762	79 739	0.96	4 266	71 150	6.00
	3	4 195	135 856	3.09	613	74 142	0.83	3 582	61 714	5.80
	4	3 503	123 097	2.85	565	69 260	0.82	2 938	53 837	5.46
	5 (highest)	3 367	109 251	3.08	479	59 549	0.80	2 888	49 702	5.81
	Missing	84	4 614	1.82	20	3 223	0.62	64	1 391	4.60
2003/04	Overall	22 678	728 077	3.11	3 596	399 999	0.90	19 082	328 078	5.82
	1 (lowest)	5 527	164 018	3.37	995	90 499	1.10	4 532	73 519	6.16
	2	5 252	159 989	3.28	818	84 850	0.96	4 434	75 139	5.90
	3	4 524	146 388	3.09	692	80 380	0.86	3 832	66 008	5.81
	4	3 863	134 592	2.87	601	75 949	0.79	3 262	58 643	5.56
	5 (highest)	3 409	118 016	2.89	463	64 812	0.71	2 946	53 204	5.54
	Missing	103	5 074	2.03	27	3 509	0.77	76	1 565	4.86
2004/05	Overall	22 977	782 333	2.94	3 551	431 067	0.82	19 426	351 266	5.53
	1 (lowest)	5 742	187 281	3.07	1 039	104 915	0.99	4 703	82 366	5.71
	2	5 103	171 899	2.97	770	93 350	0.82	4 333	78 549	5.52
	3	4 346	151 924	2.86	653	83 799	0.78	3 693	68 125	5.42
	4	3 954	141 582	2.79	573	78 217	0.73	3 381	63 365	5.34
	5 (highest)	3 736	125 502	2.98	492	68 117	0.72	3 244	57 385	5.65
	Missing	96	4 145	2.32	24	2 669	0.90	72	1 476	4.88
2005/06	Overall	23 552	843 629	2.79	3 649	465 381	0.78	19 903	378 248	5.26
	1 (lowest)	5 930	198 473	2.99	1 062	111 176	0.96	4 868	87 297	5.58
	2	5 291	184 737	2.86	827	100 490	0.82	4 464	84 247	5.30
	3	4 547	165 830	2.74	678	91 656	0.74	3 869	74 174	5.22
	4	4 069	154 211	2.64	598	85 348	0.70	3 471	68 863	5.04
	5 (highest)	3 620	135 723	2.67	471	73 719	0.64	3 149	62 004	5.08
	Missing	95	4 655	2.04	13	2 992	0.43	82	1 663	4.93

Table 2: Crude mortality data from 1994/95 to 2005/06 among women with diabetes mellitus aged 30 years or more, by neighbourhood income and age group (part 1 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
1994/95	Overall	6 884	176 569	3.90	903	86 355	1.05	5 981	90 214	6.63
	1 (lowest)	1 835	46 474	3.95	267	22 587	1.18	1 568	23 887	6.56
	2	1 512	39 705	3.81	209	19 232	1.09	1 303	20 473	6.36
	3	1 427	35 171	4.06	177	17 145	1.03	1 250	18 026	6.93
	4	1 067	28 901	3.69	140	14 471	0.97	927	14 430	6.42
	5 (highest)	980	25 027	3.92	107	12 151	0.88	873	12 876	6.78
	Missing	63	1 291	4.88	3	769	0.39	60	522	11.49
1995/96	Overall	7 197	191 782	3.75	976	94 188	1.04	6 221	97 594	6.37
	1 (lowest)	1 874	50 016	3.75	302	24 578	1.23	1 572	25 438	6.18
	2	1 611	43 000	3.75	213	20 846	1.02	1 398	22 154	6.31
	3	1 385	38 232	3.62	157	18 667	0.84	1 228	19 565	6.28
	4	1 163	31 787	3.66	141	16 009	0.88	1 022	15 778	6.48
	5 (highest)	1 106	27 358	4.04	154	13 258	1.16	952	14 100	6.75
	Missing	58	1 389	4.18	9	830	1.08	49	559	8.77
1996/97	Overall	7 897	207 392	3.81	940	102 067	0.92	6 957	105 325	6.61
	1 (lowest)	2 025	53 653	3.77	259	26 606	0.97	1 766	27 047	6.53
	2	1 744	46 220	3.77	240	22 435	1.07	1 504	23 785	6.32
	3	1 652	41 567	3.97	184	20 289	0.91	1 468	21 278	6.90
	4	1 291	34 641	3.73	136	17 414	0.78	1 155	17 227	6.70
	5 (highest)	1 135	29 786	3.81	115	14 378	0.80	1 020	15 408	6.62
	Missing	50	1 525	3.28	6	945	0.63	44	580	7.59
1997/98	Overall	8 297	224 770	3.69	951	111 514	0.85	7 346	113 256	6.49
	1 (lowest)	2 047	57 129	3.58	271	28 855	0.94	1 776	28 274	6.28
	2	1 848	49 852	3.71	204	24 299	0.84	1 644	25 553	6.43
	3	1 791	45 284	3.96	197	22 101	0.89	1 594	23 183	6.88
	4	1 345	38 193	3.52	135	19 331	0.70	1 210	18 862	6.42
	5 (highest)	1 218	32 605	3.74	137	15 844	0.86	1 081	16 761	6.45
	Missing	48	1 707	2.81	7	1 084	0.65	41	623	6.58
1998/99	Overall	8 614	241 817	3.56	1 042	120 768	0.86	7 572	121 049	6.26
	1 (lowest)	2 234	60 772	3.68	303	30 846	0.98	1 931	29 926	6.45
	2	1 882	53 564	3.51	227	26 230	0.87	1 655	27 334	6.05
	3	1 732	48 659	3.56	200	23 999	0.83	1 532	24 660	6.21
	4	1 442	41 629	3.46	177	21 286	0.83	1 265	20 343	6.22
	5 (highest)	1 260	35 335	3.57	125	17 262	0.72	1 135	18 073	6.28
	Missing	64	1 858	3.44	10	1 145	0.87	54	713	7.57
1999/00	Overall	8 747	260 244	3.36	1 096	131 012	0.84	7 651	129 232	5.92
	1 (lowest)	2 341	67 688	3.46	325	34 250	0.95	2 016	33 438	6.03
	2	2 092	60 196	3.48	253	29 336	0.86	1 839	30 860	5.96
	3	1 691	50 487	3.35	212	25 276	0.84	1 479	25 211	5.87
	4	1 295	42 616	3.04	178	22 161	0.80	1 117	20 455	5.46
	5 (highest)	1 292	37 253	3.47	118	18 596	0.63	1 174	18 657	6.29
	Missing	36	2 004	1.80	10	1 393	0.72	26	611	4.26

Table 2: Crude mortality data from 1994/95 to 2005/06 among women with diabetes mellitus aged 30 years or more, by neighbourhood income and age group (part 2 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
2000/01	Overall	9 050	279 771	3.23	1 079	141 792	0.76	7 971	137 979	5.78
	1 (lowest)	2 415	71 731	3.37	329	36 586	0.90	2 086	35 145	5.94
	2	2 095	64 341	3.26	237	31 397	0.75	1 858	32 944	5.64
	3	1 765	54 645	3.23	206	27 621	0.75	1 559	27 024	5.77
	4	1 426	46 611	3.06	174	24 421	0.71	1 252	22 190	5.64
	5 (highest)	1 316	40 328	3.26	127	20 296	0.63	1 189	20 032	5.94
	Missing	33	2 115	1.56	6	1 471	0.41	27	644	4.19
2001/02	Overall	9 434	302 975	3.11	1 141	155 172	0.74	8 293	147 803	5.61
	1 (lowest)	2 453	76 387	3.21	310	39 263	0.79	2 143	37 124	5.77
	2	2 200	69 239	3.18	258	34 086	0.76	1 942	35 153	5.52
	3	1 872	59 504	3.15	224	30 400	0.74	1 648	29 104	5.66
	4	1 495	51 436	2.91	182	27 237	0.67	1 313	24 199	5.43
	5 (highest)	1 365	44 213	3.09	153	22 674	0.67	1 212	21 539	5.63
	Missing	49	2 196	2.23	14	1 512	0.93	35	684	5.12
2002/03	Overall	10 204	327 089	3.12	1 272	169 229	0.75	8 932	157 860	5.66
	1 (lowest)	2 704	81 010	3.34	386	41 840	0.92	2 318	39 170	5.92
	2	2 386	74 146	3.22	285	36 850	0.77	2 101	37 296	5.63
	3	1 905	64 506	2.95	209	33 365	0.63	1 696	31 141	5.45
	4	1 621	56 633	2.86	210	30 343	0.69	1 411	26 290	5.37
	5 (highest)	1 555	48 450	3.21	175	25 194	0.69	1 380	23 256	5.93
	Missing	33	2 344	1.41	7	1 637	0.43	26	707	3.68
2003/04	Overall	10 509	350 520	3.00	1 293	182 997	0.71	9 216	167 523	5.50
	1 (lowest)	2 717	84 822	3.20	393	44 077	0.89	2 324	40 745	5.70
	2	2 462	78 866	3.12	278	39 531	0.70	2 184	39 335	5.55
	3	2 065	69 625	2.97	251	36 372	0.69	1 814	33 253	5.46
	4	1 668	62 183	2.68	207	33 605	0.62	1 461	28 578	5.11
	5 (highest)	1 551	52 483	2.96	154	27 648	0.56	1 397	24 835	5.63
	Missing	46	2 541	1.81	10	1 764	0.57	36	777	4.63
2004/05	Overall	10 798	377 150	2.86	1 251	198 073	0.63	9 547	179 077	5.33
	1 (lowest)	2 819	96 675	2.92	402	51 021	0.79	2 417	45 654	5.29
	2	2 408	84 101	2.86	277	43 423	0.64	2 131	40 678	5.24
	3	2 021	72 443	2.79	224	38 209	0.59	1 797	34 234	5.25
	4	1 832	65 484	2.80	189	34 741	0.54	1 643	30 743	5.34
	5 (highest)	1 676	56 501	2.97	150	29 467	0.51	1 526	27 034	5.64
	Missing	42	1 946	2.16	9	1 212	0.74	33	734	4.50
2005/06	Overall	11 083	406 829	2.72	1 365	214 312	0.64	9 718	192 517	5.05
	1 (lowest)	2 937	102 454	2.87	410	54 172	0.76	2 527	48 282	5.23
	2	2 512	90 459	2.78	341	46 776	0.73	2 171	43 683	4.97
	3	2 136	79 202	2.70	247	41 915	0.59	1 889	37 287	5.07
	4	1 841	71 387	2.58	200	37 957	0.53	1 641	33 430	4.91
	5 (highest)	1 608	61 162	2.63	162	32 146	0.50	1 446	29 016	4.98
	Missing	49	2 165	2.26	5	1 346	0.37	44	819	5.37

Table 3: Crude mortality data from 1994/95 to 2005/06 among men with diabetes mellitus aged 30 years or more, by neighbourhood income and age group (part 1 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
1994/95	Overall	7 979	190 857	4.18	1 620	108 677	1.49	6 359	82 180	7.74
	1 (lowest)	1 920	42 630	4.50	409	24 471	1.67	1 511	18 159	8.32
	2	1 758	41 408	4.25	375	23 376	1.60	1 383	18 032	7.67
	3	1 642	38 907	4.22	306	21 955	1.39	1 336	16 952	7.88
	4	1 328	34 546	3.84	264	20 060	1.32	1 064	14 486	7.35
	5 (highest)	1 282	32 064	4.00	251	17 952	1.40	1 031	14 112	7.31
	Missing	49	1 302	3.76	15	863	1.74	34	439	7.74
1995/96	Overall	8 534	207 792	4.11	1 694	118 216	1.43	6 840	89 576	7.64
	1 (lowest)	2 041	46 199	4.42	435	26 601	1.64	1 606	19 598	8.19
	2	1 934	44 795	4.32	379	25 225	1.50	1 555	19 570	7.95
	3	1 744	42 191	4.13	332	23 731	1.40	1 412	18 460	7.65
	4	1 443	38 039	3.79	283	22 094	1.28	1 160	15 945	7.28
	5 (highest)	1 317	35 191	3.74	248	19 630	1.26	1 069	15 561	6.87
	Missing	55	1 377	3.99	17	935	1.82	38	442	8.60
1996/97	Overall	8 981	224 132	4.01	1 663	127 371	1.31	7 318	96 761	7.56
	1 (lowest)	2 127	49 258	4.32	441	28 634	1.54	1 686	20 624	8.17
	2	2 027	47 904	4.23	377	26 849	1.40	1 650	21 055	7.84
	3	1 878	45 621	4.12	335	25 588	1.31	1 543	20 033	7.70
	4	1 509	41 401	3.64	287	23 896	1.20	1 222	17 505	6.98
	5 (highest)	1 387	38 375	3.61	211	21 319	0.99	1 176	17 056	6.89
	Missing	53	1 573	3.37	12	1 085	1.11	41	488	8.40
1997/98	Overall	9 487	242 424	3.91	1 803	137 885	1.31	7 684	104 539	7.35
	1 (lowest)	2 242	52 822	4.24	498	30 941	1.61	1 744	21 881	7.97
	2	2 115	51 551	4.10	390	28 959	1.35	1 725	22 592	7.64
	3	1 954	49 250	3.97	345	27 615	1.25	1 609	21 635	7.44
	4	1 625	45 281	3.59	304	26 005	1.17	1 321	19 276	6.85
	5 (highest)	1 504	41 866	3.59	256	23 222	1.10	1 248	18 644	6.69
	Missing	47	1 654	2.84	10	1 143	0.87	37	511	7.24
1998/99	Overall	9 858	260 908	3.78	1 815	148 402	1.22	8 043	112 506	7.15
	1 (lowest)	2 265	56 371	4.02	480	33 220	1.44	1 785	23 151	7.71
	2	2 181	54 960	3.97	403	30 912	1.30	1 778	24 048	7.39
	3	1 995	53 051	3.76	351	29 690	1.18	1 644	23 361	7.04
	4	1 782	49 360	3.61	296	28 369	1.04	1 486	20 991	7.08
	5 (highest)	1 593	45 331	3.51	276	24 963	1.11	1 317	20 368	6.47
	Missing	42	1 835	2.29	9	1 248	0.72	33	587	5.62
1999/00	Overall	10 014	280 980	3.56	1 897	160 109	1.18	8 117	120 871	6.72
	1 (lowest)	2 445	62 534	3.91	477	36 516	1.31	1 968	26 018	7.56
	2	2 345	62 057	3.78	410	34 319	1.19	1 935	27 738	6.98
	3	2 044	56 429	3.62	391	31 800	1.23	1 653	24 629	6.71
	4	1 613	50 485	3.20	335	29 370	1.14	1 278	21 115	6.05
	5 (highest)	1 525	47 575	3.21	273	26 776	1.02	1 252	20 799	6.02
	Missing	42	1 900	2.21	11	1 328	0.83	31	572	5.42

Table 3: Crude mortality data from 1994/95 to 2005/06 among men with diabetes mellitus aged 30 years or more, by neighbourhood income and age group (part 2 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
2000/01	Overall	10 491	302 342	3.47	1 957	172 513	1.13	8 534	129 829	6.57
	1 (lowest)	2 568	66 652	3.85	555	38 958	1.42	2 013	27 694	7.27
	2	2 446	66 372	3.69	431	36 800	1.17	2 015	29 572	6.81
	3	2 091	60 874	3.43	353	34 463	1.02	1 738	26 411	6.58
	4	1 656	55 063	3.01	343	32 010	1.07	1 313	23 053	5.70
	5 (highest)	1 692	51 413	3.29	262	28 900	0.91	1 430	22 513	6.35
	Missing	38	1 968	1.93	13	1 382	0.94	25	586	4.27
2001/02	Overall	10 841	327 318	3.31	2 052	187 404	1.09	8 789	139 914	6.28
	1 (lowest)	2 606	71 305	3.65	554	41 685	1.33	2 052	29 620	6.93
	2	2 552	71 614	3.56	462	39 826	1.16	2 090	31 788	6.57
	3	2 085	65 736	3.17	370	37 552	0.99	1 715	28 184	6.09
	4	1 804	60 531	2.98	370	35 220	1.05	1 434	25 311	5.67
	5 (highest)	1 744	56 010	3.11	276	31 646	0.87	1 468	24 364	6.03
	Missing	50	2 122	2.36	20	1 475	1.36	30	647	4.64
2002/03	Overall	11 415	353 188	3.23	2 149	202 776	1.06	9 266	150 412	6.16
	1 (lowest)	2 738	75 560	3.62	596	44 252	1.35	2 142	31 308	6.84
	2	2 642	76 743	3.44	477	42 889	1.11	2 165	33 854	6.40
	3	2 290	71 350	3.21	404	40 777	0.99	1 886	30 573	6.17
	4	1 882	66 464	2.83	355	38 917	0.91	1 527	27 547	5.54
	5 (highest)	1 812	60 801	2.98	304	34 355	0.88	1 508	26 446	5.70
	Missing	51	2 270	2.25	13	1 586	0.82	38	684	5.56
2003/04	Overall	12 169	377 557	3.22	2 303	217 002	1.06	9 866	160 555	6.14
	1 (lowest)	2 810	79 196	3.55	602	46 422	1.30	2 208	32 774	6.74
	2	2 790	81 123	3.44	540	45 319	1.19	2 250	35 804	6.28
	3	2 459	76 763	3.20	441	44 008	1.00	2 018	32 755	6.16
	4	2 195	72 409	3.03	394	42 344	0.93	1 801	30 065	5.99
	5 (highest)	1 858	65 533	2.84	309	37 164	0.83	1 549	28 369	5.46
	Missing	57	2 533	2.25	17	1 745	0.97	40	788	5.08
2004/05	Overall	12 179	405 183	3.01	2 300	232 994	0.99	9 879	172 189	5.74
	1 (lowest)	2 923	90 606	3.23	637	53 894	1.18	2 286	36 712	6.23
	2	2 695	87 798	3.07	493	49 927	0.99	2 202	37 871	5.81
	3	2 325	79 481	2.93	429	45 590	0.94	1 896	33 891	5.59
	4	2 122	76 098	2.79	384	43 476	0.88	1 738	32 622	5.33
	5 (highest)	2 060	69 001	2.99	342	38 650	0.88	1 718	30 351	5.66
	Missing	54	2 199	2.46	15	1 457	1.03	39	742	5.26
2005/06	Overall	12 469	436 800	2.85	2 284	251 069	0.91	10 185	185 731	5.48
	1 (lowest)	2 993	96 019	3.12	652	57 004	1.14	2 341	39 015	6.00
	2	2 779	94 278	2.95	486	53 714	0.90	2 293	40 564	5.65
	3	2 411	86 628	2.78	431	49 741	0.87	1 980	36 887	5.37
	4	2 228	82 824	2.69	398	47 391	0.84	1 830	35 433	5.16
	5 (highest)	2 012	74 561	2.70	309	41 573	0.74	1 703	32 988	5.16
	Missing	46	2 490	1.85	8	1 646	0.49	38	844	4.50

Table 4: Crude mortality data from 1994/95 to 2005/06 among people without diabetes aged 30 years or more, by neighbourhood income and age group (part 1 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
1994/95	Overall	58 591	5 893 668	0.99	12 694	4 771 138	0.27	45 897	1 122 530	4.09
	1 (lowest)	13 656	1 107 058	1.23	3 042	875 975	0.35	10 614	231 083	4.59
	2	12 669	1 161 176	1.09	2 631	922 108	0.29	10 038	239 068	4.20
	3	11 701	1 184 150	0.99	2 513	957 241	0.26	9 188	226 909	4.05
	4	10 200	1 205 792	0.85	2 315	1 001 017	0.23	7 885	204 775	3.85
	5 (highest)	10 365	1 235 492	0.84	2 193	1 014 797	0.22	8 172	220 695	3.70
1995/96	Overall	59 060	6 000 780	0.98	12 803	4 864 309	0.26	46 257	1 136 471	4.07
	1 (lowest)	13 636	1 123 834	1.21	3 078	890 260	0.35	10 558	233 574	4.52
	2	12 869	1 180 794	1.09	2 744	939 023	0.29	10 125	241 771	4.19
	3	11 740	1 206 103	0.97	2 461	976 307	0.25	9 279	229 796	4.04
	4	10 273	1 229 136	0.84	2 274	1 021 638	0.22	7 999	207 498	3.85
	5 (highest)	10 542	1 260 913	0.84	2 246	1 037 081	0.22	8 296	223 832	3.71
1996/97	Overall	58 844	6 097 842	0.96	12 444	4 946 766	0.25	46 400	1 151 076	4.03
	1 (lowest)	13 640	1 138 989	1.20	3 027	902 531	0.34	10 613	236 458	4.49
	2	12 455	1 198 355	1.04	2 549	953 695	0.27	9 906	244 660	4.05
	3	11 870	1 225 301	0.97	2 390	992 689	0.24	9 480	232 612	4.08
	4	10 209	1 250 212	0.82	2 271	1 039 969	0.22	7 938	210 243	3.78
	5 (highest)	10 670	1 284 985	0.83	2 207	1 057 882	0.21	8 463	227 103	3.73
1997/98	Overall	58 336	6 192 119	0.94	12 011	5 027 549	0.24	46 325	1 164 570	3.98
	1 (lowest)	13 343	1 151 432	1.16	2 812	911 996	0.31	10 531	239 436	4.40
	2	12 342	1 214 383	1.02	2 501	967 109	0.26	9 841	247 274	3.98
	3	11 939	1 244 785	0.96	2 412	1 009 642	0.24	9 527	235 143	4.05
	4	10 301	1 271 871	0.81	2 202	1 059 331	0.21	8 099	212 540	3.81
	5 (highest)	10 411	1 309 648	0.79	2 084	1 079 471	0.19	8 327	230 177	3.62
1998/99	Overall	58 021	6 274 810	0.92	11 614	5 098 397	0.23	46 407	1 176 413	3.94
	1 (lowest)	13 189	1 160 019	1.14	2 785	918 455	0.30	10 404	241 564	4.31
	2	12 570	1 227 671	1.02	2 454	978 080	0.25	10 116	249 591	4.05
	3	11 861	1 262 253	0.94	2 255	1 024 623	0.22	9 606	237 630	4.04
	4	10 210	1 291 781	0.79	2 113	1 077 001	0.20	8 097	214 780	3.77
	5 (highest)	10 191	1 333 086	0.76	2 007	1 100 238	0.18	8 184	232 848	3.51
1999/00	Overall	58 786	6 356 146	0.92	11 690	5 171 727	0.23	47 096	1 184 419	3.98
	1 (lowest)	14 493	1 199 198	1.21	2 914	954 696	0.31	11 579	244 502	4.74
	2	13 088	1 259 662	1.04	2 522	1 003 096	0.25	10 566	256 566	4.12
	3	11 435	1 282 123	0.89	2 252	1 046 467	0.22	9 183	235 656	3.90
	4	9 604	1 293 188	0.74	2 062	1 077 147	0.19	7 542	216 041	3.49
	5 (highest)	10 166	1 321 975	0.77	1 940	1 090 321	0.18	8 226	231 654	3.55

Table 4: Crude mortality data from 1994/95 to 2005/06 among people without diabetes aged 30 years or more, by neighbourhood income and age group (part 2 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
2000/01	Overall	58 194	6 450 421	0.90	11 700	5 258 319	0.22	46 494	1 192 102	3.90
	1 (lowest)	13 814	1 209 323	1.14	2 813	963 618	0.29	11 001	245 705	4.48
	2	12 912	1 275 352	1.01	2 523	1 017 319	0.25	10 389	258 033	4.03
	3	11 714	1 301 059	0.90	2 320	1 063 869	0.22	9 394	237 190	3.96
	4	9 797	1 316 605	0.74	2 095	1 099 219	0.19	7 702	217 386	3.54
	5 (highest)	9 957	1 348 082	0.74	1 949	1 114 294	0.17	8 008	233 788	3.43
2001/02	Overall	57 424	6 554 600	0.88	11 632	5 355 002	0.22	45 792	1 199 598	3.82
	1 (lowest)	13 731	1 223 106	1.12	2 805	976 592	0.29	10 926	246 514	4.43
	2	12 838	1 293 336	0.99	2 611	1 033 966	0.25	10 227	259 370	3.94
	3	11 301	1 322 131	0.85	2 191	1 083 253	0.20	9 110	238 878	3.81
	4	9 386	1 340 735	0.70	2 011	1 122 022	0.18	7 375	218 713	3.37
	5 (highest)	10 168	1 375 292	0.74	2 014	1 139 169	0.18	8 154	236 123	3.45
2002/03	Overall	57 092	6 661 144	0.86	11 954	5 451 319	0.22	45 138	1 209 825	3.73
	1 (lowest)	13 352	1 234 283	1.08	2 854	986 385	0.29	10 498	247 898	4.23
	2	12 687	1 311 262	0.97	2 485	1 049 657	0.24	10 202	261 605	3.90
	3	11 208	1 343 912	0.83	2 335	1 103 201	0.21	8 873	240 711	3.69
	4	9 758	1 367 638	0.71	2 186	1 146 806	0.19	7 572	220 832	3.43
	5 (highest)	10 087	1 404 049	0.72	2 094	1 165 270	0.18	7 993	238 779	3.35
2003/04	Overall	58 533	6 745 633	0.87	12 384	5 525 278	0.22	46 149	1 220 355	3.78
	1 (lowest)	13 375	1 241 299	1.08	2 924	991 477	0.29	10 451	249 822	4.18
	2	12 963	1 325 056	0.98	2 670	1 061 126	0.25	10 293	263 930	3.90
	3	11 539	1 360 984	0.85	2 403	1 118 385	0.21	9 136	242 599	3.77
	4	10 202	1 389 481	0.73	2 205	1 167 094	0.19	7 997	222 387	3.60
	5 (highest)	10 454	1 428 813	0.73	2 182	1 187 196	0.18	8 272	241 617	3.42
2004/05	Overall	57 044	6 826 813	0.84	12 134	5 595 432	0.22	44 910	1 231 381	3.65
	1 (lowest)	13 527	1 270 203	1.06	2 954	1 030 059	0.29	10 573	240 144	4.40
	2	12 174	1 353 483	0.90	2 667	1 095 356	0.24	9 507	258 127	3.68
	3	10 858	1 364 921	0.80	2 323	1 124 005	0.21	8 535	240 916	3.54
	4	10 333	1 409 504	0.73	2 161	1 170 041	0.18	8 172	239 463	3.41
	5 (highest)	10 152	1 428 702	0.71	2 029	1 175 971	0.17	8 123	252 731	3.21
2005/06	Overall	58 953	6 888 074	0.86	12 294	5 656 014	0.22	46 659	1 232 060	3.79
	1 (lowest)	13 725	1 273 696	1.08	3 216	1 034 327	0.31	10 509	239 369	4.39
	2	12 535	1 361 984	0.92	2 559	1 104 300	0.23	9 976	257 684	3.87
	3	11 164	1 377 577	0.81	2 267	1 136 832	0.20	8 897	240 745	3.70
	4	10 790	1 426 340	0.76	2 194	1 186 161	0.18	8 596	240 179	3.58
	5 (highest)	10 739	1 448 477	0.74	2 058	1 194 394	0.17	8 681	254 083	3.42

Table 5: Crude mortality data from 1994/95 to 2005/06 among women without diabetes aged 30 years or more, by neighbourhood income and age group (part 1 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
1994/95	Overall	28 779	3 072 773	0.94	4 633	2 413 087	0.19	24 146	659 686	3.66
	1 (lowest)	6 760	585 037	1.16	1 061	442 632	0.24	5 699	142 405	4.00
	2	6 188	608 498	1.02	950	465 799	0.20	5 238	142 699	3.67
	3	5 698	617 515	0.92	899	484 212	0.19	4 799	133 303	3.60
	4	4 978	621 407	0.80	873	504 413	0.17	4 105	116 994	3.51
	5 (highest)	5 155	640 316	0.81	850	516 031	0.16	4 305	124 285	3.46
1995/96	Overall	29 165	3 130 417	0.93	4 817	2 463 145	0.20	24 348	667 272	3.65
	1 (lowest)	6 701	594 146	1.13	1 096	450 200	0.24	5 605	143 946	3.89
	2	6 389	619 007	1.03	1 050	474 810	0.22	5 339	144 197	3.70
	3	5 796	629 232	0.92	931	494 388	0.19	4 865	134 844	3.61
	4	5 052	633 911	0.80	869	515 481	0.17	4 183	118 430	3.53
	5 (highest)	5 227	654 121	0.80	871	528 266	0.16	4 356	125 855	3.46
1996/97	Overall	29 187	3 182 141	0.92	4 779	2 507 085	0.19	24 408	675 056	3.62
	1 (lowest)	6 717	601 995	1.12	1 074	456 547	0.24	5 643	145 448	3.88
	2	6 163	628 335	0.98	961	482 521	0.20	5 202	145 814	3.57
	3	5 970	639 484	0.93	952	503 153	0.19	5 018	136 331	3.68
	4	4 962	645 236	0.77	898	525 322	0.17	4 064	119 914	3.39
	5 (highest)	5 375	667 091	0.81	894	539 542	0.17	4 481	127 549	3.51
1997/98	Overall	29 243	3 229 255	0.91	4 658	2 547 669	0.18	24 585	681 586	3.61
	1 (lowest)	6 851	608 294	1.13	1 094	461 135	0.24	5 757	147 159	3.91
	2	6 196	636 344	0.97	948	489 271	0.19	5 248	147 073	3.57
	3	5 947	649 105	0.92	918	511 713	0.18	5 029	137 392	3.66
	4	5 033	656 016	0.77	856	535 011	0.16	4 177	121 005	3.45
	5 (highest)	5 216	679 496	0.77	842	550 539	0.15	4 374	128 957	3.39
1998/99	Overall	29 287	3 270 017	0.90	4 609	2 583 052	0.18	24 678	686 965	3.59
	1 (lowest)	6 815	612 700	1.11	1 080	464 596	0.23	5 735	148 104	3.87
	2	6 342	642 818	0.99	941	494 804	0.19	5 401	148 014	3.65
	3	6 027	657 775	0.92	916	519 167	0.18	5 111	138 608	3.69
	4	4 990	665 749	0.75	844	543 709	0.16	4 146	122 040	3.40
	5 (highest)	5 113	690 975	0.74	828	560 776	0.15	4 285	130 199	3.29
1999/00	Overall	29 755	3 310 438	0.90	4 644	2 619 807	0.18	25 111	690 631	3.64
	1 (lowest)	7 464	633 315	1.18	1 080	482 275	0.22	6 384	151 040	4.23
	2	6 650	660 366	1.01	989	507 410	0.19	5 661	152 956	3.70
	3	5 798	666 125	0.87	915	529 506	0.17	4 883	136 619	3.57
	4	4 677	666 936	0.70	817	545 140	0.15	3 860	121 796	3.17
	5 (highest)	5 166	683 696	0.76	843	555 476	0.15	4 323	128 220	3.37

Table 5: Crude mortality data from 1994/95 to 2005/06 among women without diabetes aged 30 years or more, by neighbourhood income and age group (part 2 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
2000/01	Overall	29 670	3 356 643	0.88	4 602	2 662 351	0.17	25 068	694 292	3.61
	1 (lowest)	7 265	638 114	1.14	1 077	486 297	0.22	6 188	151 817	4.08
	2	6 669	668 028	1.00	966	514 441	0.19	5 703	153 587	3.71
	3	5 824	675 391	0.86	911	538 106	0.17	4 913	137 285	3.58
	4	4 809	678 464	0.71	842	556 082	0.15	3 967	122 382	3.24
	5 (highest)	5 103	696 646	0.73	806	567 425	0.14	4 297	129 221	3.33
2001/02	Overall	57 424	6 554 600	0.88	11 632	5 355 002	0.22	45 792	1 199 598	3.82
	1 (lowest)	13 731	1 223 106	1.12	2 805	976 592	0.29	10 926	246 514	4.43
	2	12 838	1 293 336	0.99	2 611	1 033 966	0.25	10 227	259 370	3.94
	3	11 301	1 322 131	0.85	2 191	1 083 253	0.20	9 110	238 878	3.81
	4	9 386	1 340 735	0.70	2 011	1 122 022	0.18	7 375	218 713	3.37
	5 (highest)	10 168	1 375 292	0.74	2 014	1 139 169	0.18	8 154	236 123	3.45
2002/03	Overall	57 092	6 661 144	0.86	11 954	5 451 319	0.22	45 138	1 209 825	3.73
	1 (lowest)	13 352	1 234 283	1.08	2 854	986 385	0.29	10 498	247 898	4.23
	2	12 687	1 311 262	0.97	2 485	1 049 657	0.24	10 202	261 605	3.90
	3	11 208	1 343 912	0.83	2 335	1 103 201	0.21	8 873	240 711	3.69
	4	9 758	1 367 638	0.71	2 186	1 146 806	0.19	7 572	220 832	3.43
	5 (highest)	10 087	1 404 049	0.72	2 094	1 165 270	0.18	7 993	238 779	3.35
2003/04	Overall	58 533	6 745 633	0.87	12 384	5 525 278	0.22	46 149	1 220 355	3.78
	1 (lowest)	13 375	1 241 299	1.08	2 924	991 477	0.29	10 451	249 822	4.18
	2	12 963	1 325 056	0.98	2 670	1 061 126	0.25	10 293	263 930	3.90
	3	11 539	1 360 984	0.85	2 403	1 118 385	0.21	9 136	242 599	3.77
	4	10 202	1 389 481	0.73	2 205	1 167 094	0.19	7 997	222 387	3.60
	5 (highest)	10 454	1 428 813	0.73	2 182	1 187 196	0.18	8 272	241 617	3.42
2004/05	Overall	57 044	6 826 813	0.84	12 134	5 595 432	0.22	44 910	1 231 381	3.65
	1 (lowest)	13 527	1 270 203	1.06	2 954	1 030 059	0.29	10 573	240 144	4.40
	2	12 174	1 353 483	0.90	2 667	1 095 356	0.24	9 507	258 127	3.68
	3	10 858	1 364 921	0.80	2 323	1 124 005	0.21	8 535	240 916	3.54
	4	10 333	1 409 504	0.73	2 161	1 170 041	0.18	8 172	239 463	3.41
	5 (highest)	10 152	1 428 702	0.71	2 029	1 175 971	0.17	8 123	252 731	3.21
2005/06	Overall	58 953	6 888 074	0.86	12 294	5 656 014	0.22	46 659	1 232 060	3.79
	1 (lowest)	13 725	1 273 696	1.08	3 216	1 034 327	0.31	10 509	239 369	4.39
	2	12 535	1 361 984	0.92	2 559	1 104 300	0.23	9 976	257 684	3.87
	3	11 164	1 377 577	0.81	2 267	1 136 832	0.20	8 897	240 745	3.70
	4	10 790	1 426 340	0.76	2 194	1 186 161	0.18	8 596	240 179	3.58
	5 (highest)	10 739	1 448 477	0.74	2 058	1 194 394	0.17	8 681	254 083	3.42

Table 6: Crude mortality data from 1994/95 to 2005/06 among men without diabetes aged 30 years or more, by neighbourhood income and age group (part 1 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
1994/95	Overall	29 812	2 820 895	1.06	8 061	2 358 051	0.34	21 751	462 844	4.70
	1 (lowest)	6 896	522 021	1.32	1 981	433 343	0.46	4 915	88 678	5.54
	2	6 481	552 678	1.17	1 681	456 309	0.37	4 800	96 369	4.98
	3	6 003	566 635	1.06	1 614	473 029	0.34	4 389	93 606	4.69
	4	5 222	584 385	0.89	1 442	496 604	0.29	3 780	87 781	4.31
	5 (highest)	5 210	595 176	0.88	1 343	498 766	0.27	3 867	96 410	4.01
1995/96	Overall	29 895	2 870 363	1.04	7 986	2 401 164	0.33	21 909	469 199	4.67
	1 (lowest)	6 935	529 688	1.31	1 982	440 060	0.45	4 953	89 628	5.53
	2	6 480	561 787	1.15	1 694	464 213	0.36	4 786	97 574	4.90
	3	5 944	576 871	1.03	1 530	481 919	0.32	4 414	94 952	4.65
	4	5 221	595 225	0.88	1 405	506 157	0.28	3 816	89 068	4.28
	5 (highest)	5 315	606 792	0.88	1 375	508 815	0.27	3 940	97 977	4.02
1996/97	Overall	29 657	2 915 701	1.02	7 665	2 439 681	0.31	21 992	476 020	4.62
	1 (lowest)	6 923	536 994	1.29	1 953	445 984	0.44	4 970	91 010	5.46
	2	6 292	570 020	1.10	1 588	471 174	0.34	4 704	98 846	4.76
	3	5 900	585 817	1.01	1 438	489 536	0.29	4 462	96 281	4.63
	4	5 247	604 976	0.87	1 373	514 647	0.27	3 874	90 329	4.29
	5 (highest)	5 295	617 894	0.86	1 313	518 340	0.25	3 982	99 554	4.00
1997/98	Overall	29 093	2 962 864	0.98	7 353	2 479 880	0.30	21 740	482 984	4.50
	1 (lowest)	6 492	543 138	1.20	1 718	450 861	0.38	4 774	92 277	5.17
	2	6 146	578 039	1.06	1 553	477 838	0.33	4 593	100 201	4.58
	3	5 992	595 680	1.01	1 494	497 929	0.30	4 498	97 751	4.60
	4	5 268	615 855	0.86	1 346	524 320	0.26	3 922	91 535	4.28
	5 (highest)	5 195	630 152	0.82	1 242	528 932	0.23	3 953	101 220	3.91
1998/99	Overall	28 734	3 004 793	0.96	7 005	2 515 345	0.28	21 729	489 448	4.44
	1 (lowest)	6 374	547 319	1.16	1 705	453 859	0.38	4 669	93 460	5.00
	2	6 228	584 853	1.06	1 513	483 276	0.31	4 715	101 577	4.64
	3	5 834	604 478	0.97	1 339	505 456	0.26	4 495	99 022	4.54
	4	5 220	626 032	0.83	1 269	533 292	0.24	3 951	92 740	4.26
	5 (highest)	5 078	642 111	0.79	1 179	539 462	0.22	3 899	102 649	3.80
1999/00	Overall	29 031	3 045 708	0.95	7 046	2 551 920	0.28	21 985	493 788	4.45
	1 (lowest)	7 029	565 883	1.24	1 834	472 421	0.39	5 195	93 462	5.56
	2	6 438	599 296	1.07	1 533	495 686	0.31	4 905	103 610	4.73
	3	5 637	615 998	0.92	1 337	516 961	0.26	4 300	99 037	4.34
	4	4 927	626 252	0.79	1 245	532 007	0.23	3 682	94 245	3.91
	5 (highest)	5 000	638 279	0.78	1 097	534 845	0.21	3 903	103 434	3.77

Table 6: Crude mortality data from 1994/95 to 2005/06 among men without diabetes aged 30 years or more, by neighbourhood income and age group (part 2 of 2)

Year	Income quintile	All ages (≥ 30 yr)			Age 30–64 yr			Age ≥ 65 yr		
		Deaths	Population	Mortality, %	Deaths	Population	Mortality, %	Deaths	Population	Mortality, %
2000/01	Overall	28 524	3 093 778	0.92	7 098	2 595 968	0.27	21 426	497 810	4.30
	1 (lowest)	6 549	571 209	1.15	1 736	477 321	0.36	4 813	93 888	5.13
	2	6 243	607 324	1.03	1 557	502 878	0.31	4 686	104 446	4.49
	3	5 890	625 668	0.94	1 409	525 763	0.27	4 481	99 905	4.49
	4	4 988	638 141	0.78	1 253	543 137	0.23	3 735	95 004	3.93
	5 (highest)	4 854	651 436	0.75	1 143	546 869	0.21	3 711	104 567	3.55
2001/02	Overall	27 964	3 147 268	0.89	7 044	2 645 379	0.27	20 920	501 889	4.17
	1 (lowest)	6 470	578 357	1.12	1 715	484 161	0.35	4 755	94 196	5.05
	2	6 281	616 450	1.02	1 594	511 325	0.31	4 687	105 125	4.46
	3	5 510	636 649	0.87	1 309	535 630	0.24	4 201	101 019	4.16
	4	4 755	650 482	0.73	1 217	554 743	0.22	3 538	95 739	3.70
	5 (highest)	4 948	665 330	0.74	1 209	559 520	0.22	3 739	105 810	3.53
2002/03	Overall	27 817	3 199 429	0.87	7 200	2 692 569	0.27	20 617	506 860	4.07
	1 (lowest)	6 426	583 866	1.10	1 757	488 975	0.36	4 669	94 891	4.92
	2	6 151	625 123	0.98	1 540	518 891	0.30	4 611	106 232	4.34
	3	5 528	647 213	0.85	1 363	545 410	0.25	4 165	101 803	4.09
	4	4 883	663 652	0.74	1 318	566 849	0.23	3 565	96 803	3.68
	5 (highest)	4 829	679 575	0.71	1 222	572 444	0.21	3 607	107 131	3.37
2003/04	Overall	28 625	3 240 315	0.88	7 420	2 728 376	0.27	21 205	511 939	4.14
	1 (lowest)	6 443	586 898	1.10	1 843	491 175	0.38	4 600	95 723	4.81
	2	6 269	631 816	0.99	1 607	524 429	0.31	4 662	107 387	4.34
	3	5 708	655 424	0.87	1 405	552 685	0.25	4 303	102 739	4.19
	4	4 985	674 460	0.74	1 294	576 907	0.22	3 691	97 553	3.78
	5 (highest)	5 220	691 717	0.75	1 271	583 180	0.22	3 949	108 537	3.64
2004/05	Overall	27 831	3 278 706	0.85	7 273	2 761 626	0.26	20 558	517 080	3.98
	1 (lowest)	6 398	601 671	1.06	1 796	508 979	0.35	4 602	92 692	4.96
	2	5 946	647 698	0.92	1 610	541 992	0.30	4 336	105 706	4.10
	3	5 425	657 080	0.83	1 421	555 739	0.26	4 004	101 341	3.95
	4	5 172	682 554	0.76	1 277	578 830	0.22	3 895	103 724	3.76
	5 (highest)	4 890	689 703	0.71	1 169	576 086	0.20	3 721	113 617	3.28
2005/06	Overall	28 140	3 306 802	0.85	7 291	2 789 696	0.26	20 849	517 106	4.03
	1 (lowest)	6 561	603 009	1.09	1 945	510 736	0.38	4 616	92 273	5.00
	2	6 052	651 430	0.93	1 560	545 865	0.29	4 492	105 565	4.26
	3	5 233	662 889	0.79	1 309	561 675	0.23	3 924	101 214	3.88
	4	5 243	690 377	0.76	1 282	586 364	0.22	3 961	104 013	3.81
	5 (highest)	5 051	699 097	0.72	1 195	585 056	0.20	3 856	114 041	3.38