4.5 Diabetes Prevalence

Definition: the percent of residents aged 19 and older with diabetes (type 1 or 2) in a three–year period as defined by either:

- at least one hospitalization with a diagnosis with an ICD-9-CM code of 250 or an ICD-10-CA code of E10-E14,
 or
- at least two physician visits with an ICD-9-CM code listed above, or
- at least one prescription for diabetes medication (Anatomic, Therapeutic, Chemical (ATC) code A10; see Glossary)

Prevalence was calculated for 2004/05–2006/07 and 2009/10–2011/12 and was age– and sex–adjusted to the Manitoba population aged 19 and older in the first time period. See Glossary for further details.

Key Findings

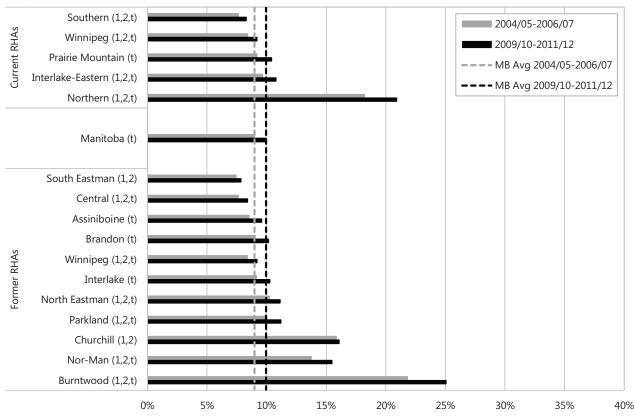
- Diabetes prevalence increased over time in Manitoba from 8.99% to 9.96% of the population aged 19 and older. This increase was reflected in almost all regions, districts, and Winnipeg sub–areas, though in some areas the increase was not statistically significant.
- Diabetes prevalence values were related to PMR, with lower prevalence values in healthier areas and higher prevalence values in less healthy areas. However, this relationship was not linear: the prevalence in Northern was much higher than that in all other regions, in both time periods.
 - Some of this difference is attributable to the higher proportion of Aboriginal peoples living in the Northern health region, as diabetes rates have been shown to be significantly higher among First Nations, Metis, and Inuit residents (Canadian Institute for Health Information, 2009; Martens, Bartlett, Burland, Prior, Burchill, Huq, Romphf, Sanguins, Carter & Bailly, 2010a; Martens, Bond, Jebamani, Burchill, Roos, Derksen, Beaulieu, Steinbach, MacWilliam, Wald, Dik & Sanderson, 2002).
- Among the districts of the rural regions, there was almost ten–fold variation in diabetes prevalence from about 6% to almost 50%.
- There was less variation across NCs within Winnipeg, though some had higher and some had lower than average rates.
- There were strong relationships between income and diabetes prevalence in urban and rural areas in both time periods: diabetes prevalence was higher among residents of lower income areas. Among rural residents, the gap across income groups widened over time (Appendix 2).

Comparison to Other Findings

- These results are consistent with and extend those shown in the 2009 Atlas (Fransoo et al., 2009). Diabetes prevalence continues to increase, though the rate of increase appears to be slowing over time.
- These increases in prevalence are likely related to a combination of two influences: first, longer survival of people with diabetes related to improvements in medical and self–care and second, continuing efforts around awareness and earlier identification of cases.
- The values shown here may be different from those provided by reports using the Canadian Chronic Disease Surveillance System (CCDSS) definition (Public Health Agency of Canada, 2008; Public Health Agency of Canada, 2009). CCDSS uses physician visits and hospitalizations to define cases over a two-year period. Our definition similarly used physician visits and hospitalizations, but covers a three-year period, and also includes residents receiving prescription drugs for diabetes (to take advantage of data available in Manitoba; see Glossary). There are also differences regarding the standard population used for adjustment and accumulation of cases over time.

Figure 4.5.1: Diabetes Prevalence by RHA, 2004/05-2006/07 and 2009/10-2011/12

Age- and sex-adjusted percent of residents aged 19+ diagnosed with disorder



- 1 indicates area's rate was statistically different from Manitoba average in first time period
- 2 indicates area's rate was statistically different from Manitoba average in second time period
- t indicates change over time was statistically significant for that area
- s indicates data suppressed due to small numbers

Figure 4.5.2: Diabetes Prevalence by District, 2004/05-2006/07 and 2009/10-2011/12

Age- and sex-adjusted percent of residents aged 19+ diagnosed with disorder

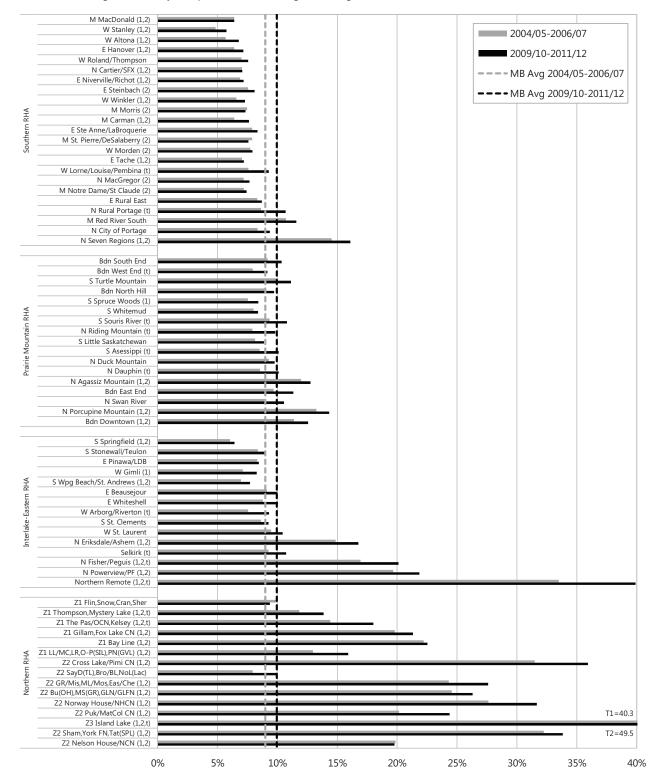
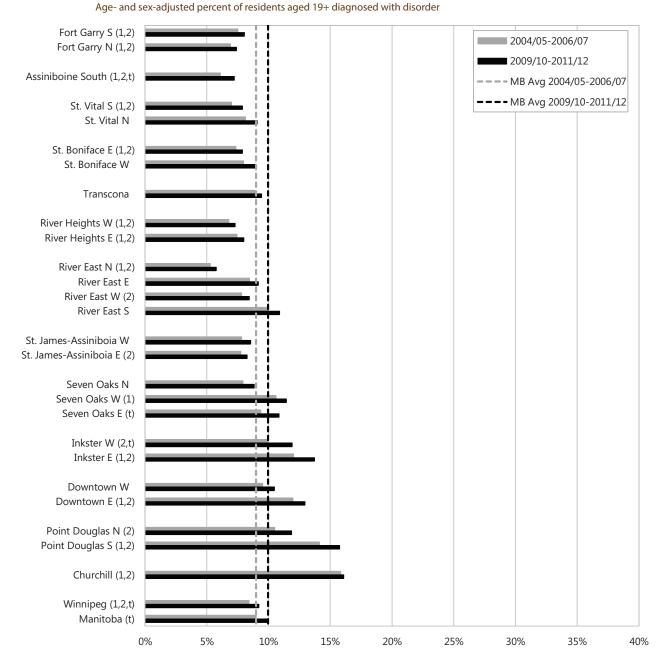


Figure 4.5.3: Diabetes Prevalence by Winnipeg NC, 2004/05-2006/07 and 2009/10-2011/12



Appendix Table 2.14: Diabetes Prevalence Among Residents Aged 19+

3	Number	CRUDE	Number	CRUDE	Winnipeg	Number	CRUDE	Number	CRUDE		ADJUSTED	STED
Kegional Health Authority	observed	percent	observed	percent	Neighbourhood	observed	percent	observed	percent	Income Quintile	percent	ent
	2004/05-2006/07	2006/07	2009/10-2011/1	2011/12	Cluster	2004/05-2006/07	2006/07	2009/10	2009/10-2011/12		2004/05-2006/07	2009/10-2011/12
Current RHAs					Fort Garry S	1,924	%86'9	2,375	7.67%	Income Unknown	12.3%	15.6%
Southern	8,341	7.39%	10,124	8.12%	Fort Garry N	1,575	6.95%	2,037	7.98%	Lowest Rural R1	14.7%	17.1%
Winnipeg	42,863	8.42%	51,607	9.46%	Assiniboine South	1,866	6.54%	2,312	7.95%	R2	9.25%	10.6%
Prairie Mountain	12,105	10.1%	14,059	11.3%	St. Vital S	1,723	6.59%	2,483	8.24%	R3	9.14%	10.4%
Interlake-Eastern	8,811	10.2%	10,738	11.7%	St. Vital N	1,885	8.86%	2,131	9.79%	R4	8.01%	8.70%
Northern	6,045	14.0%	7,599	16.5%	St. Boniface E	1,928	7.23%	2,456	8.03%	Highest Rural R5	7.77%	8.19%
Manitoba	78,681	8.99%	94,724	10.1%	St. Boniface W	1,041	8.38%	1,196	9.43%	Lowest Urban U1	11.0%	12.1%
Former RHAs					Transcona	2,043	8.23%	2,419	9.05%	N2	%90.6	%68.6
South Eastman	2,908	%96'9	3,588	7.45%	River Heights W	1,989	7.07%	2,232	7.68%	U3	8.01%	8.91%
Central	5,433	7.64%	6,536	8.54%	River Heights E	1,274	7.32%	1,394	7.87%	U4	7.27%	8.22%
Assiniboine	5,225	10.1%	5,979	11.3%	River East N	389	5.27%	200	2.90%	Highest Urban U5	80.9	6.77%
Brandon	3,289	8.89%	3,983	9.84%	River East E	1,643	7.76%	2,012	80.6	linear trend rural T1	1	<.0001
Winnipeg	42,776	8.41%	51,505	9.45%	River East W	2,806	9.16%	3,244	10.2%	linear trend rural T2	2	<.0001
Interlake	5,694	9.94%	086′9	11.6%	River East S	1,165	8.74%	1,318	9.71%	compare rural trends over time	ds over time	0.0126
North Eastman	3,117	10.7%	3,758	12.0%	St. James-Assiniboia W	2,229	8.83%	2,598	10.0%	linear trend urban T1	Ľ	<.0001
Parkland	3,591	11.5%	4,097	13.1%	St. James-Assiniboia E	1,822	8.55%	1,977	9.12%	linear trend urban T2	12	<.0001
Churchill	87.0	12.9%	102	14.6%	Seven Oaks N	292	8.67%	381	9.71%	compare urban trends over time	ds over time	0.5748
Nor-Man	2,012	12.3%	2,429	14.5%	Seven Oaks W	1,723	10.3%	2,287	11.6%			
Burntwood	4,033	15.1%	5,170	17.7%	Seven Oaks E	2,663	10.1%	3,391	11.6%			
					Inkster W	1,093	8.74%	1,557	10.9%	bold trend = significant	cant	
					Inkster E	1,140	11.3%	1,396	13.1%			
blank cells = suppressed	pass				Downtown W	2,455	8.61%	2,838	9.52%			
					Downtown E	2,773	10.5%	3,103	11.2%			
					Point Douglas N	1,987	10.0%	2,339	11.1%			
					Point Douglas S	1,348	13.1%	1,529	14.0%			
				_	Churchill	87.0	12.9%	102	14.6%			