

**Appendix 5 (as supplied by the authors): Health care utilization prior to and after propensity weighting in patients initiated on sitagliptin or an alternative hypoglycemic agent**

	Prior to Weighting			After Weighting #		
	Sitagliptin (n=57 689)	Alternative hypoglycemic agent (n=83 405)	Standardized difference*	Sitagliptin (Weighted n=57 689)	Alternative hypoglycemic agent (Weighted n=55 705)	Standardized difference*
Number of unique drug identifier numbers †						
Mean	10.6	8.97	28%	10.6	10.78	4%
SD	5.51	6.22		5.51	4.67	
Median	10	8		10	10	
25 <sup>th</sup> Percentile	7	5		7	7	
75 <sup>th</sup> Percentile	13	15		13	14	
0	725 (1.26)	4957 (5.94)	25%	725 (1.26)	775 (1.39)	1%
1-4	4632 (8.03)	15 092 (18.09)	30%	4632 (8.03)	4678 (8.40)	1%
5-8	17 181 (29.78)	24 599 (29.49)	1%	17 181 (29.78)	15 977 (28.68)	2%
9-12	17 849 (30.94)	19 091 (22.89)	18%	17 849 (30.94)	16 536 (29.68)	3%
12-15	8001 (13.87)	8460 (10.14)	11%	8001 (13.87)	8000 (14.36)	1%
>16	9301 (16.21)	11 206 (13.44)	8%	9301 (16.12)	9738 (17.48)	4%
Number of unique drug names †						
Mean	9.56	8	32%	9.56	9.69	3%
SD	4.65	5.2		4.65	3.94	
Median	9	7		9	9	
25 <sup>th</sup> Percentile	6	4		6	6	
75 <sup>th</sup> Percentile	12	11		12	12	
0	725 (1.26)	4957 (5.94)	25%	725 (1.26)	775 (1.39)	1%
1-4	5284 (9.16)	16 787 (20.13)	31%	5284 (9.16)	5363 (9.63)	2%
5-8	20 344 (35.26)	27 678 (33.19)	4%	20 344 (35.26)	18 882 (33.90)	3%
9-12	18 377 (31.86)	19 284 (23.12)	20%	18 377 (31.86)	17 236 (30.94)	2%
12-15	7042 (12.21)	7641 (9.16)	10%	7042 (12.21)	7151 (12.84)	2%
>16	5917 (10.26)	7058 (8.46)	6%	5917 (10.26)	6298 (11.31)	3%
Health care use						
Number of any hospitalization						
Mean	0.17	0.25	13%	0.17	0.19	4%
SD	0.54	0.68		0.54	0.46	

Median	0	0		0	0	
25th Percentile	0	0		0	0	
75th Percentile	0	0		0	0	
0	50 874 (88.19)	69 546 (83.38)	14%	50 874 (88.19)	48 013 (86.19)	6%
1	4954 (8.59)	9561 (11.46)	10%	4954 (8.59)	5647 (10.14)	5%
2	1270 (2.20)	2748 (3.29)	7%	1270 (2.20)	1468 (2.64)	3%
>=3	591 (1.02)	1550 (1.86)	7%	591 (1.02)	577 (1.04)	0%
Number of emergency room visits						
Mean	0.55	0.72	12%	0.55	0.6	4%
SD	1.28	1.5		1.28	1.01	
Median	0	0		0	0	
25th Percentile	0	0		0	0	
75th Percentile	1	1		1	1	
0	40 910 (70.91)	54 459 (65.29)	12%	40 910 (70.91)	37 731 (67.73)	7%
1	9734 (16.87)	15 573 (18.67)	5%	9734 (16.87)	10 372 (18.62)	5%
2	3700 (6.41)	6510 (7.81)	5%	3700 (6.41)	4034 (7.24)	3%
>=3	3345 (5.80)	6863 (8.23)	10%	3345 (5.80)	3569 (6.41)	3%
Number of general practitioner visits						
Mean	9.78	10.21	4%	9.78	9.8	0%
SD	8.38	11.87		8.38	7.32	
Median	8	7		8	8	
25th Percentile	5	4		5	5	
75th Percentile	12	12		12	12	
0	1218 (2.11)	3242 (3.89)	10%	1218 (2.11)	1468 (2.64)	3%
1	1418 (2.46)	3537 (4.24)	10%	1418 (2.46)	1560 (2.80)	2%
2	2344 (4.06)	4719 (5.66)	7%	2344 (4.06)	2384 (4.28)	1%
>=3	52 709 (91.37)	71 907 (86.21)	16%	52 709 (91.37)	50 293 (90.28)	4%
Number of endocrinologist visits						
Mean	0.32	0.22	9%	0.32	0.34	2%
SD	1.06	1.14		1.06	1	
Median	0	0		0	0	
25th Percentile	0	0		0	0	
75th Percentile	0	0		0	0	
0	49 228 (85.33)	75 945 (91.06)	18%	49 228 (85.33)	47 358 (85.02)	1%
1	3398 (5.89)	3457 (4.14)	8%	3398 (5.89)	3605 (6.47)	2%
2	2609 (4.52)	1911 (2.29)	12%	2609 (4.52)	2348 (4.22)	2%
>=3	2454 (4.25)	2092 (2.51)	10%	2454 (4.25)	2393 (4.30)	0%

Number of nephrologist visits						
Mean	0.23	0.51	8%	0.23	0.28	3%
SD	2.12	4.29		2.12	1.65	
Median	0	0		0	0	
25th Percentile	0	0		0	0	
75th Percentile	0	0		0	0	
0	52 827 (91.57)	75 493 (90.51)	4%	52 827 (91.57)	50 209 (90.13)	5%
1	2393 (4.15)	3476 (4.17)	0%	2393 (4.15)	2534 (4.55)	2%
2	1275 (2.21)	1892 (2.27)	0%	1275 (2.21)	1490 (2.67)	3%
3	1194 (2.07)	2544 (3.05)	6%	1194 (2.07)	1472 (2.64)	4%
Number of gastro- enterologist visits						
Mean	0.19	0.23	4%	0.19	0.23	4%
SD	0.96	1.28		0.96	0.86	
Median	0	0		0	0	
25th Percentile	0	1		0	0	
75th Percentile	0	0		0	0	
0	52 637 (91.24)	75 695 (90.76)	2%	52 637 (91.24)	50 171 (90.07)	4%
1	2438 (4.23)	3628 (4.35)	1%	2438 (4.23)	2598 (4.66)	2%
2	1291 (2.24)	1828 (2.19)	0%	1291 (2.24)	1363 (2.45)	1%
3	1323 (2.29)	2254 (2.70)	3%	1323 (2.29)	1573 (2.82)	3%
Number of ophthalmologist visits						
Mean	1.08	0.92	7%	1.08	1.1	1%
SD	2.3	2.13		2.3	1.91	
Median	0	0		0	0	
25th Percentile	0	0		0	0	
75th Percentile	1	1		1	1	
0	36 786 (63.77)	57 776 (69.27)	12%	36 786 (63.77)	35 506 (63.74)	0%
1	8735 (15.14)	10 626 (12.74)	7%	8735 (15.14)	8527 (15.31)	0%
2	4367 (7.57)	5282 (6.33)	5%	4367 (7.57)	4022 (7.22)	1%
3	7801 (13.52)	9721 (11.66)	6%	7801 (13.52)	7650 (13.73)	1%
Number of internist visits						
Mean	0.88	1.09	7%	0.88	0.94	2%
SD	2.65	3.62		2.65	2.4	
Median	0	0		0	0	
25th Percentile	0	0		0	0	
75th Percentile	1	1		1	1	
0	41 733 (72.34)	60 445 (72.47)	0%	41 733 (72.34)	40 129 (72.04)	1%
1	6926	9728	1%	6926	6882	1%

	(12.01)	(11.66)		(12.01)	(12.35)	
2	3116 (5.40)	4098 (4.91)	2%	3116 (5.40)	2927 (5.25)	1%
3	5914 (10.25)	9134 (10.95)	2%	5914 (10.25)	5768 (10.35)	0%
Number of glycosylated hemoglobin tests						
Mean	10.48	7.8	43%	10.48	10.7	4%
SD	6.34	6.06		6.34	5.51	
Median	10	7		10	10	
0	1368 (2.37)	5927 (7.11)	22%	1368 (2.37)	1686 (3.03)	4%
1-2	3349 (5.81)	12 197 (14.62)	29%	3349 (5.81)	3316 (5.95)	1%
3-4	5043 (8.74)	11 688 (14.01)	17%	5043 (8.74)	4797 (8.61)	0%
>4	47 929 (83.08)	53 593 (64.26)	44%	47 929 (83.08)	45 907 (82.41)	2%
Number of glucose tests						
Mean	12.36	9.6	30%	12.36	12.38	0%
SD	9.78	8.36		9.78	8.2	
Median	11	8		11	11	
0	1282 (2.22)	4416 (5.29)	16%	1282 (2.22)	1620 (2.91)	4%
1-2	2753 (4.77)	7631 (9.15)	17%	2753 (4.77)	2693 (4.83)	0%
3-4	4315 (7.48)	9819 (11.77)	15%	4315 (7.48)	4229 (7.59)	0%
>4	49 339 (85.53)	61 539 (73.78)	29%	49 339 (85.53)	47 163 (84.67)	2%
Number of creatinine tests						
Mean	10.54	9	21%	10.54	10.73	3%
SD	7.24	7.63		7.24	6.19	
Median	9	7		9	9	
0	1178 (2.04)	4165 (4.99)	16%	1178 (2.04)	1420 (2.55)	3%
1-2	2847 (4.94)	8060 (9.66)	18%	2847 (4.94)	2737 (4.91)	0%
3-4	5377 (9.32)	11 099 (13.31)	13%	5377 (9.32)	5192 (9.32)	0%
>4	48 287 (83.70)	60 081 (72.04)	28%	48 287 (83.70)	46 355 (83.22)	1%
Number of lipid tests						
Mean	7.43	5.84	35%	7.43	7.24	4%
SD	4.75	4.3		4.75	3.93	
Median	7	5		7	6	
0	1847 (3.20)	6504 (7.80)	20%	1847 (3.20)	2237 (4.02)	4%
1-2	5128 (8.89)	13 137 (15.75)	21%	5128 (8.89)	5162 (9.27)	1%
3-4	50 714 (87.91)	63 764 (76.45)	30%	50 714 (87.91)	48 306 (86.72)	4%
Number of thyroid stimulating hormone tests						
Mean	4.82	4.18	17%	4.82	4.77	1%
SD	3.88	3.65		3.88	3.34	

Median	4	3		4	4	
0	4781 (8.29)	10 033 (12.03)	12%	4781 (8.29)	5236 (9.40)	4%
1-2	12 462 (21.60)	21 610 (25.91)	10%	12 462 (21.60)	12 482 (22.41)	2%
3-4	40 446 (70.11)	51 762 (62.06)	17%	40 446 (70.11)	37 986 (68.19)	4%
Carotid ultrasound	9358 (16.22)	13 505 (16.19)	0%	9358 (16.22)	9472 (17.00)	2%
Cardiac catheterization	5037 (8.73)	6909 (8.28)	2%	5037 (8.73)	5065 (9.09)	1%
Coronary revascularization	3000 (5.20)	4280 (5.13)	0%	3000 (5.20)	3068 (5.51)	1%
Echocardiography	27 738 (48.08)	38 656 (46.35)	3%	27 738 (48.08)	26 551 (47.66)	1%
Holter monitoring	11 059 (19.17)	15 445 (18.52)	2%	11 059 (19.17)	10 490 (18.83)	1%
Cardiac stress test	23 137 (40.11)	30 200 (36.21)	8%	23 137 (40.11)	22 232 (39.91)	0%
Influenza vaccine	46 035 (79.80)	61 324 (73.53)	15%	46 035 (79.80)	44 662 (80.18)	1%
Colorectal cancer screening	36 721 (63.65)	48 271 (57.88)	12%	36 721 (63.65)	35 512 (63.75)	0%
Prostate specific antigen test	7875 (13.65)	10 403 (12.47)	3%	7875 (13.65)	7279 (13.07)	2%
Mammography	10 204 (17.69)	13 221 (15.85)	5%	10 204 (17.69)	9369 (16.82)	2%
Diabetes management §	31 928 (55.35)	36 713 (44.02)	23%	31 928 (55.35)	31 902 (57.27)	4%
Diabetes incentive ¶	31 057 (53.84)	35 608 (42.69)	22%	31 057 (53.84)	30 491 (54.74)	2%
Bone mineral density test	17 129 (29.69)	22 387 (26.84)	6%	17 129 (29.69)	15 681 (28.15)	3%

Data presented as number (percent) with the exception of number of investigations and health care visits (presented as mean, median, 25<sup>th</sup> percentile, 75<sup>th</sup> percentile, SD standard deviation).

Cell sizes less than six were not reported for reasons of privacy.

#All patients identified prior to weighting were included in the analyses. The number of patients indicated represents a weighted total.

\*Standardized differences are less sensitive to sample size than traditional hypothesis tests. They provide a measure of the difference between groups divided by the pooled standard deviation; a value greater than 10% (0.1) is interpreted as a meaningful difference between the groups.

†Prescribed medication use was assessed in the 120 days prior to the index date.

||Health care use was assessed in the 1 year previous.

§Diabetes management is an all-inclusive service payable to the most responsible physician for providing continuing management and support of a diabetic patient. The service must include assessments focusing on diabetic target organ systems, relevant counseling and maintenance of a diabetic flow sheet retained on the patient's permanent medical record. The flow sheet must track lipids, cholesterol, HbA1C, urinalysis, blood pressure, fundal examination, peripheral vascular examination, weight, BMI and medication dosage. See Schedule of benefits for physician services under the health insurance act - consultations and visits. A1-128. Available from: [http://www.health.gov.on.ca/english/providers/program/ohip/sob/physerv/a\\_consul.pdf](http://www.health.gov.on.ca/english/providers/program/ohip/sob/physerv/a_consul.pdf). Accessed 12/30, 2013. ¶Diabetes management incentive is a fee rendered to a general practitioner providing ongoing management of a diabetic patient consistent with the requirements of the Canadian Diabetes Association including a minimum of lipid, HbA1C, blood pressure, BMI measurement, albumin:creatinine, preventative measures and health promotion, referral for dilated eye exam, foot and neurological exam over the previous 12 months. See Schedule of benefits for physician services under the health insurance act - consultations and visits. A1-128. Available from: [http://www.health.gov.on.ca/english/providers/program/ohip/sob/physerv/a\\_consul.pdf](http://www.health.gov.on.ca/english/providers/program/ohip/sob/physerv/a_consul.pdf). Accessed 12/30, 2013.