

Supplemental Table 1. Classification of ethnic groups by country of origin using the Immigration, Refugees and Citizenship Canada Permanent Resident (IRCC-PR) database ^a

ETHNIC GROUP	COUNTRY OF ORIGIN
SOUTH ASIAN	Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka
EAST ASIAN	China, Hong Kong, Macao, Taiwan, Tibet
SUB-SAHARAN AFRICAN AND CARIBBEAN	Africa NES, Angola, Anguilla, Antigua and Barbuda, Aruba, Bahama Islands, Barbados, Benin, Peoples Republic of Botswana, Republic of Burkina-Faso, Burundi, Cameroon, Cape Verde Islands, Cayman Islands, Central Africa Republic Chad, Republic of Comoros, Democratic Republic of Congo, People's Republic of the Djibouti, Republic of Dominica, Dominican Republic, Eritrea, Ethiopia, Gabon Republic, Gambia, Ghana, Grenada, Guadeloupe, Guinea, Equatorial, Guinea, Republic of, Guinea-Bissau, Haiti, Ivory Coast, Jamaica, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Martinique, Mauritania, Mauritius, Mayotte, Montserrat, Mozambique, Namibia, Netherlands Antilles, The Nevis, Niger, Nigeria, Rwanda, Sao Tome E Principe Senegal, Seychelles, Sierra Leone, Somalia, South Africa, St. Helena, St. Kitts-Nevis, St. Lucia, St., Vincent and the Grenadines, Sudan, Swaziland, Tanzania, Togo, Trinidad & Tobago, Turks and Caicos Islands, Uganda, Virgin Islands, British Virgin Islands, U.S. West Indies NES, Zambia, Zimbabwe
SOUTH-EAST ASIAN	Philippines, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar (Burma), Singapore, Thailand, Vietnam, Korea, Japan
LATIN AMERICAN	Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, French Guiana, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Surinam
WEST ASIAN AND ARAB	Afghanistan, Armenia, Azerbaijan, Cyprus, Georgia, Iran, Israel, Turkey, Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestinian Authority (Gaza/West Bank), Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, Yemen
WESTERN EUROPEAN	Andorra, Australia, Australia NES, Austria, Azores, Belgium, Canada, Denmark, United Kingdom, Finland, France, Germany, Gibraltar, Greece, Greenland, Holy See, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Madeira, Malta, Monaco, Netherlands, New Zealand, Norway, Portugal, San Marino, Scotland, Slovak Republic, Spain, Sweden, Switzerland, United States of America, Wales
EASTERN EUROPEAN	Albania, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Czechoslovakia, Estonia, Hungary, Latvia, Lithuania, Macedonia, Montenegro, Republic of Kosovo, Moldova, Poland, Romania, Russia, Ukraine, Union of Soviet Socialist Republics, Serbia, Slovenia, Yugoslavia

^a Classification of ethnic groups was based on an algorithm using country of origin, followed by mother tongue and surnames.

Supplemental Table 2. Baseline characteristics of immigrants of different ethnic origins, ^a by neighbourhood walkability (N=256,844)

Variables N (%)	South Asian		Sub-Saharan African & Caribbean		South-East Asian		Latin American		West Asian/Arab		East Asian		Eastern European		Western European	
	Least (7,439)	Most (1,908)	Least (3,058)	Most (2,659)	Least (2,059)	Most (3,319)	Least (2,212)	Most (2,434)	Least (3,158)	Most (1,718)	Least (7,007)	Most (6,865)	Least (3,861)	Most (2,645)	Least (1,792)	Most (2,972)
Neighbourhood walkability decile ^b (N)																
Mean ± SD age ^c	37.5±10.1	37.1±9.8	38.2±9.7	37.2± 9.7	39.3± 9.7	39.9±9.9	39.2± 9.7	39.5± 10.4	38.8± 10.2	38.1±9.7	41.2±9.9	39.4±10.4	40.4±10.1	39.8± 10.8	40.0±10.0	39.8±9.9
Female	4,131 (55.5)	951 (49.8)	1,915 (62.6)	1,578 (59.3)	1,378 (66.9)	2,258 (68.0)	1,272 (57.5)	1,368 (56.2)	1,732 (54.8)	804 (46.8)	4,074 (58.1)	4,076 (59.4)	2,317 (60.0)	1,656 (62.6)	1,007 (56.5)	1,615 (62.6)
Income Quintile (Q) ^d																
Q1 (lowest)	597 (8.0)	1,168 (61.2)	581 (19.0)	1,535 (59.3)	140 (6.8)	1,792 (54.0)	193 (8.7)	1,050 (43.1)	251 (7.9)	660 (38.4)	361 (5.2)	2,922 (42.6)	278 (7.2)	1,003 (37.9)	58 (3.2)	789 (26.5)
Q5 (highest)	961 (12.9)	101 (5.3)	345 (11.3)	131 (4.9)	376 (18.3)	195 (5.9)	387 (17.5)	177 (7.3)	972 (30.8)	162 (9.4)	2,120 (30.3)	393 (5.7)	1,109 (28.7)	314 (11.9)	735 (41.0)	330 (11.1)
< high school education	4,120 (55.4)	324 (17.0)	2,169 (70.9)	711 (26.7)	1,062 (51.6)	1,102 (33.2)	1,439 (65.1)	705 (29.0)	1,804 (57.1)	935 (54.4)	3,571 (51.0)	2,791 (40.7)	1,599 (41.4)	444 (16.8)	1,015 (56.6)	1,687 (56.8)
Marital status: Single	2,849 (38.3)	872 (45.7)	1,473 (48.2)	1,587 (59.7)	1,032 (50.1)	1,927 (33.2)	923 (41.7)	1,156 (47.5)	1,244 (39.4)	935 (54.4)	2,258 (32.2)	2,740 (39.9)	1,076 (27.9)	1,016 (38.4)	616 (34.4)	1,281 (43.1)
Immigration Class																
Economic family	2,779 (37.4)	417 (21.9)	903 (29.5)	560 (21.1)	1,075 (52.2)	652 (19.6)	756 (34.2)	636 (26.1)	1,337 (42.3)	240 (14.0)	3,819 (54.5)	1,266 (18.4)	1,764 (45.7)	474 (17.9)	1,072 (59.8)	753 (25.3)
Family reunification	3,252 (43.7)	519 (27.2)	1,502 (49.1)	369 (13.9)	685 (33.3)	676 (20.4)	831 (37.6)	482 (38.8)	636 (20.1)	415 (24.2)	1,535 (21.9)	1,295 (18.9)	806 (20.9)	533 (20.9)	579 (32.3)	1,082 (36.4)
Economic single	188 (2.5)	332 (17.4)	20 (0.7)	120 (4.5)	18 (0.9)	217 (6.5)	42 (1.9)	199 (8.2)	142 (4.5)	268 (15.6)	1,186 (16.9)	1,030 (15.0)	39 (1.0)	509 (19.2)	67 (3.7)	822 (27.7)
Language Ability																
English only	4,535 (61.0)	1,357 (71.1)	2,651 (86.7)	1,959 (73.7)	1,475 (71.6)	1,920 (57.8)	1,595 (72.1)	1,503 (61.8)	1,792 (56.7)	988 (57.5)	4,058 (57.9)	2,545 (37.1)	1,560 (40.4)	1,225 (46.3)	1,343 (74.9)	1,444 (48.6)
Neither English/French	2,864 (38.5)	538 (28.2)	238 (7.8)	422 (15.9)	573 (27.8)	1373 (41.4)	578 (26.1)	870 (35.7)	1,085 (34.4)	507 (29.5)	2,922 (41.7)	4,282 (62.4)	2,008 (52.0)	1,210 (45.7)	353 (19.7)	1,277 (43.0)
Duration in Canada																
< 10 years	4,536 (65.9)	1,327 (69.6)	1,313 (42.9)	1,343 (40.9)	939 (45.6)	1,509 (45.2)	942 (42.6)	845 (34.7)	1,537 (48.6)	650 (37.8)	4,039 (57.6)	2,553 (37.2)	1,678 (43.5)	1,064 (40.2)	3,289 (30.8)	693 (24.3)
Previous Hypertension	5,444 (11.4)	209 (11.0)	477 (15.6)	332 (12.5)	317 (15.4)	486 (14.6)	1,988 (10.8)	232 (9.5)	289 (9.2)	121 (7.0)	630 (9.0)	440 (6.4)	457 (11.8)	260 (9.8)	188 (10.5)	283 (9.5)
Mean ± SD Lipids																
HDL	1.3±0.3	1.2±0.3	1.5±0.4	1.5±0.4	1.4± 0.4	1.5± 0.4	1.4±0.4	1.4±0.4	1.3±0.4	1.4±0.4	1.5± 0.4	1.5±0.4	1.5± 0.4	1.5±0.4	1.5±0.4	1.5±0.4
LDL	3.1±0.9	3.1±0.9	3.1±0.9	3.0± 0.9	3.2±0.9	3.0±0.9	3.2±0.9	3.2±0.9	3.1±0.9	3.1±0.9	3.0±0.9	2.9±0.8	3.2± 0.9	3.2± 0.9	3.2±0.9	3.3±0.9
Total Cholesterol	5.1±1.0	5.0±1.0	5.0± 0.9	4.9±1.1	5.2± 1.0	5.2± 1.0	5.3±1.1	5.2± 1.1	5.1±1.0	5.0±1.0	5.1± 0.9	4.9± 0.9	5.3± 1.1	5.3± 1.1	5.3±1.0	5.3±1.1
Triglycerides	1.6±1.1	1.7±1.2	1.2±1.0	1.2± 0.9	1.6±1.1	1.5± 1.1	1.6±1.1	1.6± 1.2	1.5± 1.0	1.5±1.2	1.4±1.0	1.4±1.0	1.4± 1.0	1.4±1.0	1.4±1.0	1.3±0.9

All variables were significant at p<0.001

Study area: Greater Toronto Area, Hamilton, Ottawa, London.

^a Ethnic groups was derived based on country of birth and mother tongue using the federal immigration dataset, IRCC-PR.

^b Least walkability refers to the lowest decile of walkability and most walkability refers to the highest decile of walkability.

^c Demographic information (age and sex) were obtained from the Registered Persons Database

^d The 2006 Canadian census to produce neighborhood income quintiles adjusting for household and community size.

Supplemental Table 3. Risk of developing prediabetes in lowest versus highest walkability decile, overall and by immigration status, using glucose thresholds according to the American Diabetes Association and European Association for the Study of Diabetes

Group	Adjusted HR (95% CI)	pvalue
Overall	1.21 (1.19-1.23)	<0.0001
Immigrants	1.18 (1.15-1.22)	<0.0001
Long-term resident	1.20 (1.18-1.22)	<0.0001
Lowest = Decile 1; Highest = Decile 10 (Referent)		

Adjusted for age, sex, and area income.

Study population: Adults aged 20-64

Study area: Greater Toronto Area, Hamilton, Ottawa, London

Data sources: Dynacare Medical Laboratories, Immigration, Refugees and Citizenship Canada Permanent Resident, 2006 Canadian census, Registered Persons Database, Ontario Diabetes Database.

Prediabetes was ascertained using glucose thresholds according to the American Diabetes Association and European Association for the Study of Diabetes: 1) fasting glucose 5.7 to 6.9 mmol/L, 2) 2-hour glucose 7.8 to 11.0 mmol/L on 75-gram OGTT, 3) HbA1c of 5.7-6.4%.

Supplemental Table 4: Risk of developing prediabetes in lowest versus highest walkability decile, by ethnicity, using glucose thresholds according to the American Diabetes Association and European Association for the Study of Diabetes

Ethnic Groups	Adjusted HR (95% CI)	p-value
South Asian	1.05 (0.96-1.14)	0.3
Sub-Saharan African/Caribbean	1.26 (1.16-1.39)	<0.0001
Southeast Asian	1.29 (1.18-1.41)	<0.0001
Latin American	1.14 (1.03-1.26)	0.01
West Asian/Arab	1.42 (1.27-1.59)	<0.0001
East Asian	0.95 (0.90-1.00)	0.05
Eastern European	1.10 (1.00-1.21)	0.05
Western European	1.03 (0.93-1.15)	0.6

Adjusted for age, sex, area income, ethnicity, education, marital status, immigration visa category, duration.

Study population: Adults aged 20-64

Study area: Greater Toronto Area, Hamilton, Ottawa, London

Data sources: Dynacare Medical Laboratories, Immigration, Refugees and Citizenship Canada Permanent Resident, 2006 Canadian census, Registered Persons Database, Ontario Diabetes Database.

Lowest walkability refers to Decile 1 and highest walkability, Decile 10, is the referent.

Prediabetes was ascertained using glucose thresholds according to the American Diabetes Association and European Association for the Study of Diabetes: 1) fasting glucose 5.7 to 6.9 mmol/L, 2) 2-hour glucose 7.8 to 11.0 mmol/L on 75-gram OGTT, 3) HbA1c of 5.7-6.4%.

Supplemental Table 5. Likelihood of developing prediabetes among non-Western European immigrants relative to Western Europeans in the least and most walkable neighbourhoods, using glucose thresholds according to the American Diabetes Association and European Association for the Study of Diabetes

Ethnic Group	Lowest walkability	Highest walkability
South Asian	1.76 (1.60-1.94) P<0.001	1.80 (1.62-1.99) P<0.001
Sub-Saharan African/Caribbean	1.44 (1.29-1.61) P<0.001	1.19 (1.07-1.31) P=0.0008
Southeast Asian	1.61 (1.43-1.80) P<0.001	1.31 (1.19-1.43) P<0.001
Latin American	1.31 (1.17-1.47) P<0.001	1.21 (1.09-1.33) P=0.0002
West Asian/Arab	1.30 (1.17-1.45) P<0.001	0.98 (0.87-1.11) P=0.78
<i>East Asian</i>	1.29 (1.17-1.42) P<0.001	1.44 (1.33-1.56) P<0.001
<i>Eastern European</i>	1.11 (1.00-1.24) P=0.06	1.09 (0.98-1.21) P=0.11
<i>Western European</i>	Referent	Referent

Adjusted for age, sex, area income, ethnicity, education, marital status, immigration visa category, duration.

Study population: Adults aged 20-64

Study area: Greater Toronto Area, Hamilton, Ottawa, London

Data sources: Dynacare Medical Laboratories, Immigration, Refugees and Citizenship Canada Permanent Resident, 2006 Canadian census, Registered Persons Database, Ontario Diabetes Database.

Lowest walkability refers to Decile 1 and highest walkability refers to Decile 10.

Prediabetes was ascertained using glucose thresholds according to the American Diabetes Association and European Association for the Study of Diabetes: 1) fasting glucose 5.7 to 6.9 mmol/L, 2) 2-hour glucose 7.8 to 11.0 mmol/L on 75-gram OGTT, 3) HbA1c of 5.7-6.4%.