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STUDY

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WAVE 1 (2017)

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METHODS

The primary objective of the *International Food Policy Study* (IFPS) is to evaluate the impact of national-level food policies. Prospective cohort studies are being conducted in each of five countries—Australia, Canada, Mexico, the United Kingdom, and the United States—to examine dietary patterns and policy-relevant behaviours across countries. The study will provide a quasi-experimental design for evaluating federal-level policies by providing both 'within' and 'between-country' measures over time.

SAMPLE & RECRUITMENT

Online surveys were conducted with a total of 19,857 respondents from the five countries: Australia (n=3,767), Canada (n=3,118), Mexico (n=4,057), the United Kingdom (4,047), and the United States (n=4,868). The baseline survey was conducted in December 2017 and the 12-month follow-up will be conducted in December 2018. Respondents lost to attrition between waves will be replaced at follow-up using the same recruitment methodology as at baseline.

Individuals were eligible to participate if they were 18-64 years of age, and resided in the target country. The IFPS sample was recruited from the *Nielsen Consumer Insights Global Panel*, which maintains and/or has partner panels in each country. The Nielsen panels are recruited using both probability and non-probability sampling methods in each country. For the current project, Nielsen drew stratified random samples from the online panels in each country, based on known proportions in each age group. Nielsen can provide a diverse sample that matches the population distribution of socio-economic factors in each country. The Nielsen panel provides standardized recruitment sampling across countries. Email invitations (with a unique link) were sent to a random sample of panelists that met inclusion criteria. After eligibility screening, all potential respondents were provided with information about the study and were asked to provide consent before participating.

Respondents received remuneration in accordance with their panel's usual incentive structure, which includes points-based or monetary rewards (redeemed for catalog items, as cash or donated) and/or chances to win monthly prizes. These incentives have been shown to increase response rates and decrease response bias in sub-groups under-represented in surveys, including disadvantaged subgroups.[1,2,3]

Young adults were oversampled using target quotas within each country of 2,000 respondents aged 18-30 and 2,000 respondents over 30 years. In addition, Hispanic respondents were over-sampled in the US (n=687), to facilitate comparisons between Hispanic respondents in the US and Mexico.

In Canada, all of the respondents aged 18-30 (n=959) and some of the respondents aged 31-32 (n=20) were recruited from the *Canada Food Study*, rather than from the *Nielsen Consumer Insights Global Panel*. These respondents were recruited into a parallel survey panel using in-person recruitment strategies from five Canadian cities (Vancouver, Edmonton, Toronto, Montreal, and Halifax). Some IFPS survey measures were not included in the *Canada Food Study* survey; therefore, as noted in the IFPS codebook, for some measures, no data is present for respondents aged 18-30. Details on the Canada Food Study methods are available in the Canada Food Study: Technical Report – Wave 2.[4]

All data collection was conducted online, which provides several advantages, including the use of product images to assess beverage consumption, and use of 'skip patterns' and questionnaire routing to account for

differential patterns of use. Online surveys can also reduce social desirability bias, compared to in-person and phone surveys, by providing greater anonymity for sensitive topics such as weight bias and stigma.[5,6]

Online survey methods are well-established, and are emerging as the preferred mode for population-based surveys given declining response rates from random digit dialled (RDD) phone surveys.[7,8,9,10,13] Until recently, online surveys were constrained by limited internet penetration. However, internet penetration now exceeds "landlines", even among lower socioeconomic groups: in the US and Canada, internet use for personal use is between 96% and 98% among young adults, and daily usage rates exceed 90%.[11,12,13]

PARTICIPATION RATES

Table 1 indicates the number of survey invitations sent in each country. The survey was 'closed' when target quotas were met. For commercial panels that include non-probability based sample, the American Association for Public Opinion Research (AAPOR) recommends reporting the 'participation rate', also referred to a 'completion rate'. The participation rate is defined as "the number of respondents who have provided a usable response divided by the total number of initial personal invitations requesting participation".[14] Participation rates are largely a product of sample management and the amount of sample that is 'released' prior to reaching target quotas.

Participation rates for eligible participants were calculated for the current study as follows:

Participation Rate = Completes / Total Eligible Invites

Total Eligible Invites = Unknown Eligible - [Unknown Eligible * (Ineligible / (Known Eligible + Unknown Eligible + Ineligible))] + Eligible, no consent + Completes

Unknown Eligible = Did not access survey + Accessed survey, unknown eligibility

The total participation rate was 4.3%. As shown in Table 1, 604,786 invitations were sent to panelists; 28,451 potential respondents (4.7%) accessed the survey link; and 18,878 respondents (3.1%) completed the IFPS survey and were retained in the sample.

TABLE 1: Dispositions of potential respondents for the International Food Policy Study survey, by country, 2017[a]

Disposition	Total		Australia		Canada		Mexico		United Kingdom		United States	
	n	%	n	%	n	%	n	%	n	%	n	%
Invitations sent	604,786		160,940		216,973		68,336		83,998		74,239	
Did not access survey	576,335	95.3	155,506	96.6	212,922	98.1	64,068	93.8	76,921	91.6	66,618	89.7
Total accessed survey	28,451	4.7	5,434	3.4	4,051	1.9	4,268	6.2	7,077	8.4	7,621	10.3
Accessed survey link, unknown eligibility[b]	595	0.1	96	0.1	87	0.0	0	0.0	265	0.3	147	0.2
Eligible, no consent	1,963	0.3	317	0.2	359	0.2	0	0.0	577	0.7	710	1.0
Ineligible[c]	201	0.0	26	0.0	14	0.0	2	0.0	51	0.1	108	0.1
Completes	25,692	4.2	4,995	3.1	3,591	1.7	4,266	6.2	6,184	7.4	6,656	9.0
Excluded, data quality[d]	6,814	1.1	1,228	0.8	1,452	0.7	209	0.3	2,137	2.5	1,788	2.4
Complete, retained	18,878	3.1	3,767	2.3	2,139	1.0	4,057	5.9	4,047	4.8	4,868	6.6

[a] Values are limited to potential respondents from the Nielsen Consumer Insights Global Panel, and exclude 979 Canadian respondents recruited through the Canada Food Study panel
[b] Respondent closed the survey link before the age screening questions was completed and eligibility determined
[c] Respondent screened ineligible due to ineligible age (<18 or >64)
[d] Respondent failed to state their sex at birth and/or region, and/or failed to answer or incorrectly answered the data quality check question, "What is the current month?"

SURVEY CONTENT AND DEVELOPMENT

The study assessed seven primary policy domains: price/taxation, food packaging and labelling, retail food policies, food marketing, nutritional labelling in restaurants, nutrition information and education, and food guide/dietary recommendations. The study has a particular focus on sugary drink policies and beverage intake, in addition to the following consumer perceptions and behaviours: sources of food purchases and food preparation, weight loss behaviour, nutrition knowledge, food security, and weight bias/stigma.

The majority of questionnaire items were drawn or adapted from national surveys or selected based on previous research. Several new measures were also developed by the research team. Cognitive interviewing was previously conducted with 50 young adults in Canada to evaluate and improve several new items including the food source and beverage frequency measures.[15,16]

Surveys were conducted in English in Australia and the United Kingdom; Spanish in Mexico; English or French in Canada; and English or Spanish in the United States (based on the panelist's known language preference). The questionnaire was translated to French by Communications Parisella, etc. Inc (Montreal, Canada) and Spanish by Benton & Associates (Mexico City, Mexico). Members of the research team who were native in each language reviewed the French and Spanish translations independently, and confirmed nutrition-related terminology.

Surveys were also adapted for country-specific terminology (e.g., "soda or pop" in Canada vs. "fizzy drinks" in the United Kingdom). Survey teams in each country also reviewed beverage and food lists and images to ensure that the measures were representative of the products available in each market.

The mean survey completion time across countries was 33 minutes (see Table 2 for time, by country).

TABLE 2: Mean survey time, by country, 2017

Country	Mean survey time
	minutes
Australia	31
Canada – English	31
Canada – French	35
Mexico	42
United Kingdom	30
United States – English	37
United States – Spanish	28
OVERALL	33

DATA INTEGRITY CHECK

As a data integrity check, part of the way through the survey, respondents were asked to select the current month from a list. The month selected by the respondent was compared to the month when the survey was submitted (December). Respondents with month discrepancies and those who failed to answer the question were excluded from the analytic sample.

ETHICS CLEARANCE

The study was reviewed by and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE # 21460).

SURVEY WEIGHTS

Post-stratification sample weights were constructed for each country separately based on sampling probabilities based on weighted proportions by sex at birth, age, and region. Census data from each country was used to calculate the proportion of the population in each sex by age by region group divided by the entire population in all sex by age by region groups.[17,18,19,20,21] The proportion of the respondents in the sample in each sex by age by region group was divided by all respondents in all sex by age by region groups in that country. The population proportion was then divided by the sample proportion in order to calculate the survey weight for each sex by age by region group. Finally, the weights were rescaled to equal the sample size in each country.

The tables below indicate the age and region categories used for weighting.

AUSTRALIA

Age groups	Regions
18-24 years	New South Wales
25-30 years	Victoria
31-39 years	Queensland
40-49 years	Western Australia
50-59 years	South Australia
60-64 years	Tasmania
	Australian Capital Territory

Note: There were 13 respondents from the Northern Territory who were each assigned the mean weight (1).

The survey weights for Australia ranged from 0.21 to 5.62.

CANADA

Age groups	Regions
31-39 years	Atlantic Provinces
40-49 years	Quebec
50-59 years	Ontario
60-64 years	Prairie Provinces
	British Columbia

Note: The weight procedures for the 979 of the respondents aged 18-32 recruited from the Canada Food Study are available in the Canada Food Study: Technical Report – Wave 2 (2017).[4]

The survey weights in Canada ranged from 0.31 to 2.45.

MEXICO

Age groups	Regions
18-24 years	North region
25-29 years	South region
30-39 years	Centre region
40-49 years	Mexico City region
50-64 years	

The survey weights for Mexico ranged from 0.25 to 3.88.

UNITED KINGDOM

Age groups	Regions
18-24 years	North East
25-30 years	North West
31-39 years	Yorkshire and the
40-49 years	Humber
50-59 years	East Midlands
60-64 years	West Midlands
	East of England
	London
	South East
	South West
	Scotland
	Wales
	Northern Ireland

The survey weights for the United Kingdom ranged from 0.25 to 6.51.

UNITED STATES

Age groups	Regions
18-24 years	New England
25-30 years	Middle Atlantic
31-39 years	East North Central
40-49 years	West North Central
50-59 years	South Atlantic
60-64 years	East South Central
	West South Central
	Mountain
	Pacific

Note: There was one respondent from Puerto Rico who was assigned the mean weight (1).

The survey weights for the United States ranged from 0.23 to 7.10.

SAMPLE CHARACTERISTICS

The demographic characteristics of the sample, by country, are shown in Table 3.

TABLE 3: Sample Demographics, by country, 2017 n=19,857

Disposition	Australia n=3,767		Canada n=3,118		Mexico n=4,057		United Kingdom n=4,047		United States n=4,868	
	Unweighted % (n)	Weighted % (n)	Unweighted % (n)	Weighted % (n)	Unweighted % (n)	Weighted % (n)	Unweighted % (n)	Weighted % (n)	Unweighted % (n)	Weighted % (n)
Sex										
Male	40.0% (1,505)	49.6% (1870)	43.9% (1,370)	50.2% (1565)	49.7% (2,017)	47.8% (1938)	48.7% (1,972)	49.8% (2016)	47.0% (2,289)	49.8% (2424)
Female	60.0% (2,262)	50.4% (1897)	56.1% (1,748)	49.8% (1553)	50.3% (2,040)	52.2% (2119)	51.3% (2,075)	50.2% (2031)	53.0% (2,579)	50.2% (2444)
Age										
(mean; SD)	40.2 years (SD=14.6)	40.4 years (SD=13.3)	41.9 years (SD=15.4)	40.5 years (SD=13.7)	33.7 years (SD=11.4)	37.1 years (SD=12.6)	37.3 years (SD=13.3)	40.8 years (SD=13.2)	39.1 years (SD=14.0)	41.1 years (SD=13.5)
Education										
Low	27.0% (1018)	26.9% (1013)	15.5% (484)	14.1% (440)	18.1% (735)	17.0% (688)	24.6% (996)	25.5% (1033)	19.3% (941)	21.1% (1027)
Medium	35.4% (1334)	35.2% (1324)	34.8% (1084)	34.4% (1072)	12.3% (501)	12.5% (508)	28.4% (1150)	28.3% (1145)	17.7% (863)	19.5% (947)
High	36.9% (1390)	37.1% (1399)	48.9% (1525)	50.7% (1582)	68.4% (2774)	69.4% (2817)	46.1% (1865)	45.3% (1834)	62.5% (3043)	58.9% (2869)
Not stated	0.7% (25)	0.8% (30)	0.8% (25)	0.8% (24)	1.2% (47)	1.1% (45)	0.9% (36)	0.9% (35)	0.4% (21)	0.5% (24)
Ethnicity										
Majority	83.2% (3134)	81.6% (3076)	70.0% (2184)	67.2% (2096)	86.0% (3487)	86.0% (3489)	87.8% (3552)	88.4% (3579)	66.9% (3255)	65.0% (3166)
Minority	16.1% (607)	17.5% (661)	27.8% (868)	30.5% (950)	12.5% (509)	12.7% (515)	11.3% (456)	10.4% (420)	32.2% (1568)	34.0% (1656)
Not stated	0.7% (26)	0.8% (31)	2.1% (66)	2.3% (72)	1.5% (61)	1.3% (52)	1.0% (39)	1.2% (48)	0.9% (45)	0.9% (46)
BMI										
Underweight	3.1% (118)	2.8% (104)	2.8% (87)	2.9% (91)	2.6% (106)	2.5% (100)	3.9% (156)	3.6% (145)	2.4% (115)	2.8% (138)
Normal weight	36.0% (1356)	36.5% (1374)	39.6% (1235)	40.2% (1255)	42.8% (1737)	40.8% (1655)	33.0% (1337)	31.4% (1270)	37.5% (1827)	35.4% (1722)
Overweight	25.0% (941)	25.3% (954)	27.8% (868)	27.4% (854)	31.5% (1277)	33.1% (1341)	20.2% (819)	21.8% (881)	29.5% (1436)	30.4% (1479)
Obese	20.3% (765)	18.8% (707)	18.3% (571)	17.4% (543)	16.0% (649)	17.1% (692)	11.6% (470)	12.5% (505)	22.1% (1078)	22.0% (1073)
Missing	15.6% (587)	16.6% (628)	11.4% (357)	12.0% (376)	7.1% (288)	6.6% (269)	31.2% (1265)	30.8% (1248)	8.4% (412)	9.3% (455)

COMPARISONS WITH NATIONAL BENCHMARK SURVEYS

Australia

Table 4 compares estimates of education, ethnicity, and BMI from Wave 1 (2017) with Australian estimates from the Australian Census of Housing and Population conducted in August 2016 and Organisation for Economic Co-operation and Development (OECD) collected in 2014 & 2016.

TABLE 4: Prevalence estimates for education, ethnicity and BMI in Australia

Table 4a. Education	Census of Population and Housing 2016, age 15+ [a]	OECD 2016, age 25-64 [b]	IFPS 2017, age 18-64
	%	%	Weighted %
Education qualifications			(n=3,766)
Vocational	18.8	--	15.6
Advanced diploma or diploma	8.9	--	19.5
Bachelor or higher degree	22.0	--	37.1
No qualification	39.9	--	26.9
Not stated	9.5	--	0.8
Adult education level (age 25-64)			(n=3,736)
Below upper secondary	--	20.1	8.2
Upper secondary	--	36.2	54.4
Tertiary	--	43.7	37.4

[a] Australian Bureau of Statistics. 2016 Census of Population and Housing: Highest qualification achieved, 2016. Available at: https://profile.id.com.au/australia/qualifications.
[b] Organisation for Economic Co-operation and Development (OECD). Adult education level: Below upper secondary, upper secondary, and tertiary, 2016. Available at: https://data.oecd.org/eduatt/adult-education-level.htm. Source data obtained from 2016 Survey of Education and Work.

Table 4b. Ethnicity	Census of Population and Housing 2016, all ages [c]	IFPS 2017, age 18-64 (n=3,767)
	%	Weighted %
Only speaks English at home	72.7	83.7
Speaks a language besides English at home	20.8	16.3
Not stated	6.5	0.8

[c] Australian Bureau of Statistics. 2016 Census of Population and Housing: Language spoken at home, 2016. Available at: https://profile.id.com.au/australia/language.

Table 4c. BMI	OECD 2014, age 15+, measured [d]	IFPS 2017, age 18-64, self-reported (n=3,139)
	%	Weighted %
Overweight or obese	63.4	52.9

[d] Organisation for Economic Co-operation and Development (OECD). Overweight or obese population: Measured, 2014. Available at: https://data.oecd.org/healthrisk/overweight-or-obese-population.htm. Source data obtained from 2014 National Health Survey.

Canada

Table 5 compares estimates of education, ethnicity, and BMI from Wave 1 (2017) with Canadian estimates from the Canadian Census conducted in 2016, OECD collected in 2015 and 2016, and Canadian Community Health Survey (CCHS) conducted in 2015.

TABLE 5: Prevalence estimates for education, ethnicity and BMI in Canada

Table 5a. Education	Census 2016, age 15+ [a]	OECD 2016, age 25-64 [b]	IFPS 2017, age 18-64 (n=2,123)
	%	%	Weighted %
Education qualifications			
No certificate, diploma or degree	18.3	--	1.7
Secondary (high) school diploma or equivalency certificate	26.5	--	14.9
Apprenticeship or trades certificate or diploma	9.8	--	8.0
College, CEGEP or other non-university certificate or diploma	19.4	--	21.0
University certificate or diploma below bachelor level	2.8	--	10.6
University certificate, diploma or degree at bachelor level or above	23.3	--	43.9
Adult education level (age 25-64)			
Below upper secondary	--	9.4	1.7
Upper secondary	--	34.3	54.4
Tertiary	--	56.3	43.9

[a] Statistics Canada. Census 2016 – Education Highlight Tables: Highest level of educational attainment (general), age groups 15 years and over, both sexes, 2016. Available at: https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/edu-sco/Table.cfm?Lang=E&T=11&Geo=00&SP=1&view=2&age=1&sex=1

[b] Organisation for Economic Co-operation and Development (OECD). Adult education level: Below upper secondary, upper secondary, and tertiary, 2016. Available at: https://data.oecd.org/eduatt/adult-education-level.htm. Source data obtained from the 2016 Labour Force Survey (LFS).

Table 5b. Ethnicity	CCHS 2015, age 12+ [c]	IFPS 2017, age 18-64 (n=2,140)
	%	Weighted %
White only	77.0	75.2
Chinese only	3.3	7.4
South Asian only	3.4	2.9
Black only	2.0	1.3
Indigenous inclusive	4.7	3.2
Mixed/other/not stated/missing	9.6	10.0

[c] Statistics Canada. 2015 Canadian Community Health Survey (CCHS): Ethnic origin, 2015.

Table 5c. BMI	OECD 2015, age 18+, measured [d]	OECD 2016, age 15+, self-reported [e]	CCHS 2016, age 18+, adjusted self-report [f]	IFPS 2017, age 18-64, self-reported (n=1,869)
	%	%	%	Weighted %
Overweight or obese	64.1	53.1	--	61.5
Obese	--	--	26.5	25.2

[d] Organisation for Economic Co-operation and Development (OECD). Overweight or obese population: Measured, 2015. Available at: https://data.oecd.org/healthrisk/overweight-or-obese-population.htm. Source data obtained from the 2015 Canadian Health Measures Survey (CHMS).

[e] Organisation for Economic Co-operation and Development (OECD). Overweight or obese population: Self-reported, 2016. Available at: https://data.oecd.org/healthrisk/overweight-or-obese-population.htm. Source data obtained from the 2016 Canadian Community Health Survey (CCHS).

[f] Statistics Canada. Canadian Community Health Survey (CCHS): Body mass index, overweight or obese, self-reported, adult, age groups (18 years and older), 2016. Available at: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310009620.

Mexico

Table 6 compares estimates of education, ethnicity, and BMI from Wave 1 (2017) with Mexican estimates from the Encuesta Nacional de Salud y Nutrición (ENSANUT) conducted in 2016, OECD collected in 2016, and Encuesta Intercensal conducted in 2015.

TABLE 6: Prevalence estimates for education, ethnicity and BMI in Mexico

Table 6a. Education	ENSANUT 2016, age 5+ [a]	OECD 2016, age 25-64 [b]	IFPS 2017, age 18-64 (n=4,011)
	%	%	Weighted %
Education qualifications			
Ninguno	4.9	--	0.0
Prescolar	4.0	--	0.0
Primaria	32.6	--	0.1
Secundaria	28.1	--	2.7
Preparatoria o bachillerato	16.1	--	14.2
Normal básica	0.1	--	0.4
Estudios técnicos o comerciales con primaria terminada	0.5	--	0.2
Estudios técnicos o comerciales con secundaria terminada	1.1	--	2.2
Estudios técnicos o comerciales con preparatoria terminada	1.6	--	9.8
Normal de licenciatura	1.0	--	3.2
Licenciatura/profesional	9.3	--	52.8
Maestría	0.6	--	12.0
Doctorado	0.1	--	2.2
Adult education level (age 25-64)			
Below upper secondary	--	63.4	2.9
Upper secondary	--	19.8	26.9
Tertiary	--	16.8	70.2

[a] Encuesta Nacional de Salud y Nutrición (ENSANUT) de Medio Camino: Distribución de la escolaridad de la población, 2016. Available at: http://transparencia.insp.mx/2017/auditorias-insp/12701_Resultados_Encuesta_ENSANUT_MC2016.pdf.

[b] Organisation for Economic Co-operation and Development (OECD). Adult education level: Below upper Secondary, upper secondary, and tertiary, 2016. Available at: https://data.oecd.org/eduatt/adult-education-level.htm. Source data obtained from 2016 Encuesta Nacional de Ocupación y Empleo (ENOE).

Table 6b. Ethnicity	Encuesta Intercensal 2015, all ages [c]	IFPS 2017, age 18-64 (n=4,004)
	%	Weighted %
Indigenous	21.5	12.9
Not indigenous/not stated	78.5	87.1

[c] National Institute of Statistics, Geography and Data Processing. Encuesta Intercensal: Principales resultados, 2015. Available at: http://internet.contenidos.inegi.org.mx/contenidos/productos/prod_serv/contenidos/espanol/bvinegi/productos/nueva_estruc/promo/eic_2015_presentacion.pdf.

Table 6c. BMI	OECD 2016, age 15+, measured [d]	IFPS 2017, age 18-64, self-reported (n=3,788)
	%	Weighted %
Overweight or obese	72.5	53.7

[d] Organisation for Economic Co-operation and Development (OECD). Overweight or obese population: Measured, 2016. Available at: https://data.oecd.org/healthrisk/overweight-or-obese-population.htm. Source data obtained from the 2016 Encuesta Nacional de Salud y Nutrición (ENSANUT).

United Kingdom

Table 7 compares estimates of education, ethnicity, and BMI from Wave 1 (2017) with British estimates from the UK Census conducted in March 2011 and OECD collected in 2016.

TABLE 7: Prevalence estimates for education, ethnicity and BMI in the United Kingdom

Table 7a. Education	UK Census 2011, age 18+, England and Wales [a]	OECD 2016, age 25-64 [b]	IFPS 2017, age 18-64
	%	%	Weighted %
Education qualifications			(n=4,012)
No qualifications	22.6	--	2.4
Level 1	13.0	--	14.4
Level 2	14.1	--	15.3
Apprenticeship	3.7	--	1.3
Level 3	12.2	--	19.9
Level 4+	28.6	--	45.0
Other	5.8	--	1.7
Adult education level (age 25-64)			(n=3,945)
Below upper secondary	--	19.3	26.4
Upper secondary	--	34.8	27.9
Tertiary	--	46.0	45.8

[a] Office for National Statistics. 2011 Census – Key Statistics for England and Wales, 2011. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/2011censuskeystatisticsforenglandandwales/2012-12-11.

[b] Organisation for Economic Co-operation and Development (OECD). Adult education level: Below upper Secondary, upper secondary, and tertiary, 2016. Available at: https://data.oecd.org/eduatt/adult-education-level.htm. Source data obtained from the 2016 Labour Force Survey.

Table 7b. Ethnicity	UK Census 2011, all ages [c]	IFPS 2017, age 18-64 (n=4,152)
	%	Weighted %
White (including Gypsy/Traveller/Irish Traveller)	87.2	87.6
Mixed/Multiple Ethnic Groups	2.0	3.5
Asian/Asian British	2.3	5.3
Black/African/Caribbean/Black British	3.0	2.0
Other Ethnic Group	0.9	1.7

[c] Office for National Statistics. 2011 Census – Ethnic group, local authorities in the United Kingdom, 2011. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/2011censuskeystatisticsandquickstatisticsforlocalauthoritiesintheunitedkingdompart1.

Table 7c. BMI	OECD 2016, age 16+, measured [d]	IFPS 2017, age 18-64, self-reported (n=2,801)
	%	Weighted %
Overweight or obese	61.4	49.5

[d] Organisation for Economic Co-operation and Development (OECD). Overweight or obese population: Measured, 2016. Available at: https://data.oecd.org/healthrisk/overweight-or-obese-population.htm. Source data obtained from 2016 Health Survey for England (England only).

United States

Table 8 compares estimates of education, ethnicity, and BMI from Wave 1 (2017) with American estimates from the US Current Population Survey conducted in 2015, OECD collected in 2016, and American Community Survey (ACS) conducted in 2016.

TABLE 8: Prevalence estimates for education, ethnicity and BMI in the United States

Table 8a. Education	Current Population Survey 2015, age 18+ [a]	OECD 2016, age 25-64 [b]	IFPS 2017, age 18-64 (n=4,843)
	%	%	Weighted %
Eduation qualifications			
8th grade or lower	3.7	--	1.1
9th grade	1.4	--	0.2
10th grade	1.7	--	0.2
11th grade	4.2	--	1.1
High school graduate	28.9	--	18.6
Associate's degree or some college with no degree	28.6	--	19.6
Bachelor's degree or more	31.4	--	59.2
Adult education level (age 25-64)			
Below upper secondary	--	9.9	2.6
Upper secondary	--	44.5	38.2
Tertiary	--	45.7	59.2

[a] U.S. Census Bureau. 2015 Current Population Survey: Educational Attainment in the United States, 2015. Available at: https://www.census.gov/content/dam/Census/library/publications/2016/demo/p20-578.pdf.

[b] Organisation for Economic Co-operation and Development (OECD). Adult education level: Below upper Secondary, upper secondary, and tertiary, 2016. Available at: https://data.oecd.org/eduatt/adult-education-level.htm. Source data obtained from the 2016 Current Population Survey (CPS).

	ACS 2016, all ages [c]	IFPS 2017, age 18-64 (n=4,813)
	%	%
Ethnicity		
White only	62.0	65.7
Hispanic or Latino only	17.3	19.0
Black or African American only	12.3	5.0
Other race only	6.2	8.6
Two or more races	2.3	1.7

[c] U.S. Census Bureau. 2016 American Community Survey (ACS) 5-Year Estimates, 2016. Available at: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk.

	OECD 2016, age 20-74, measured [d]	OECD 2016, age 15+, self-reported [e]	IFPS 2017, age 18-64, self-reported (n=4,412)
	%	%	Weighted %
BMI			
Overweight or obese	71.0	65.1	57.8

[d] Organisation for Economic Co-operation and Development (OECD). Overweight or obese population: Measured, 2016. Available at: https://data.oecd.org/healthrisk/overweight-or-obese-population.htm. Source data obtained from the 2016 National Health and Nutrition Examination Survey (NHANES).

[e] Organisation for Economic Co-operation and Development (OECD). Overweight or obese population: Self-reported, 2016. Available at: https://data.oecd.org/healthrisk/overweight-or-obese-population.htm. Source data obtained from the 2016 National Health Interview Survey (NHIS).

REFERENCES

[1] Groves RM. Fowler FJ, Couper MP, Lepkowski JM, Singer E, Tourangeau R. Survey Methodology, 2nd Edition. John Wiley & Sons. 2009.

[2] Groves R. Non-response rates and non-response bias in household surveys. Public Opinion Quarterly. 2006; 70(5):646–75.

[3] Juan D, Barón JK, Bruenig RV, Cobb-Clark D, Gørgens T, Sartbayeva A. Does the Effect of Incentive Payments on Survey Response Rates Differ by Income Support History?. Institute for the Study of Labor. 2008. Discussion Paper No. 3473. Available from: http://ftp.iza.org/dp3473.pdf

[4] Hammond D, White CM, Reid JL. Canada Food Study: Technical Report – Wave 2 (2017). University of Waterloo. March 2018. Available at http://canadafoodstudy.ca/studydocs

[5] Dennis MJ, Li R. More honest answers to surveys? A study of data collection mode effects. Journal of Online Research. 2007.

[6] Braunsberger K, Wybenga H, Gates R. A comparison of reliability between telephone and web-based surveys. Journal of Business Research 2007; 60(7):758-64.

[7] Groves, R.M. Three eras of survey research. Public Opinion Quarterly. 2011; 75(5): 861-871.

[8] Statistics Canada. Residential telephone service survey. Government of Canada. 2010. Available from: http://www.statcan.gc.ca/daily-quotidien/110405/dq110405a-eng.htm

[9] Blumberg S, Luke JV, Ganesh N, Davern ME, Boudreaux MH. Wireless Substitution: State-level Estimates from the National Health Interview Survey, 2010–2011. National Health Statistics Reports. 2012; 61.

[10] Blumberg S, Luke JV. Re-evaluating the need for concern regarding noncoverage bias in landline surveys. Am J Public Health. 2009; 99(10):1806–10.

[11] Calculated using penetration rate and population data from "Countries and Areas Ranked by Population: 2012", Population data, International Programs, U.S. Census Bureau. Available from: http://www.census.gov/population/international/data/idb/rank.php

[12] Statistics Canada. Individual internet use and e-commerce. Statistics Canada. 2010. Available from: http://www.statcan.gc.ca/daily-quotidien/111012/dq111012a-eng.htm

[13] Pew Research Centre. Pew Internet & American Life Project: Trend Data (Adults). Pew Research Centre. 2013. Available from: http://pewinternet.org/Trend-Data-(Adults)/Whos-Online.aspx

[14] The American Association for Public Opinion Research. 2016. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 9th edition. AAPOR. Available at: https://www.aapor.org/AAPOR_Main/media/publications/Standard-Definitions20169theditionfinal.pdf

[15] O'Neill M, White CM, Vanderlee L, Reid JL, Acton RB, Hammond D. Validation of a brief measure to assess food source and preparation: the Food Source Dietary Recall. [Under review].

[16] Vanderlee L, Reid JL, White CM, Hobin EP, Acton RB, Jones AC, O'Neill ML, Kirkpatrick SI, Hammond D. Evaluation of the online Beverage Frequency Questionnaire (BFQ). Nutrition Journal. 2018; 17:73. doi: 10.1186/s12937-018-0380-8.

[17] Statistics Canada. Table 051-0001 - Estimates of population, by age group and sex for July 1, Canada, provinces and territories, annual (persons unless otherwise noted), 2016. CANSIM (database). Accessed March 1, 2018. Available from: http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=0510001&p2=17

[18] Office for National Statistics. Statistical Bulletin: Population estimates for UK, England and Wales, Scotland and Northern Ireland: mid-2016, 2017. Accessed March 1, 2018. Available from https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2016

[19] United States Census Bureau. (2017, June). National Population by Characteristics: 2010-2016, 2017. Accessed March 1, 2018. Available from https://www.census.gov/data/datasets/2016/demo/popest/nation-detail.html

[20] Instituto Nacional de Estadística y Geografía. Intercensal Survey 2015, 2016. Accessed March 1, 2018. Available from http://www.beta.inegi.org.mx/proyectos/enchogares/especiales/intercensal/

[21] Australian Bureau of Statistics. Australian Demographic Statistics, June 2017, 2017. Accessed March 1, 2018. Available from: http://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyReleaseDate/30125843DE7F366ECA2582570013F5FE?OpenDocument