

Health Check Restaurant Study

Final report

David Hammond PhD Christine White MSc

November 30, 2013



EXECUTIVE SUMMARY

Exit surveys were conducted with restaurant patrons to examine noticing and use of nutrition information, and food consumption in restaurants participating in the *Health Check Food Service Program*. Surveys were conducted with 1,126 patrons in four restaurants participating in the Health Check program (HC Site 1, HC Site 2, HC Site 3, and HC Site 4) and 4 "Comparison" restaurants matched on menu type (Non - HC Site 1, Non - HC Site 2, Non - HC Site 3, and Non - HC Site 4). Environmental scans of restaurants were conducted to examine the availability of nutrition information within each outlet. Data collection was conducted in May – June 2013.

Availability of nutrition information in restaurant environment

The Health Check symbol appeared on all menus/menu boards in restaurants participating in Health Check Food Service Program, and was accompanied by an explanation of the symbol in all cases. None of the Health Check or Comparison restaurants provided nutrient information for all items on the menu/menu board. Calorie information for some items was available on the menus/menu boards in three of the Health Check restaurants and none of the Comparison restaurants. One Health Check restaurant and two Comparison restaurants had nutrition information for all menu items in easily accessible customer areas, such as on a poster. Additional nutrition information was provided on request at five locations: two of the four Health Check restaurants and three of four Comparison restaurants. One Health Check restaurant had a nutrition information pamphlet available to take home. The three restaurants that did not have nutrition information available directed the Research Assistant to their websites.

Noticing nutrition information and the Health Check logo in restaurants

Awareness of the Health Check logo among patrons of Health Check restaurants was low: only 5% of patrons in Health Check restaurants recalled seeing the Health Check logo anywhere in the restaurant. Respondents from both Health Check and Comparison restaurants were more likely to report seeing calorie information, which was not required, but can be displayed as part

of the *Health Check Food Service Program* at the time of the study. Participants at Health Check and Comparison restaurants were equally likely to believe that nutrition information was "easily accessible" in the restaurant (an average of 5 on a 10-point scale).

Use of nutrition information and the Health Check logo to guide menu selection

Participants at Health Check restaurants were more likely to say their order was influenced by nutrition information in restaurants. Approximately one in ten participants at Health Check restaurants said their order was influenced by nutrition information, compared to 1 in 20 participants at Comparison restaurants. At Health Check restaurants, approximately one third of those who noticed nutrition information said that it influenced their order, compared to 16% at Comparison restaurants.

Consumption and nutrient intake

Overall, participants at Health Check restaurants consumed less saturated fat, carbohydrates, and more protein and fibre than participants at Comparison restaurants. Approximately 15% of participants (87) at Health Check restaurants ordered at least one item with a Health Check symbol. Among participants at Health Check restaurants, those that ordered a Health Check item consumed items with substantially fewer calories, less fat, sodium, carbohydrates and more protein than patrons at the same restaurants who did not order a Health Check item. Among the 87 participants that ordered a Health Check item, only 8 (9%) recalled seeing the Health Check symbol in the restaurant and only 25 (29%) were aware that they had ordered a Health Check item when asked.

Recognition and comprehension of Health Check logo

Recognition of the Health Check symbol was very high, consistent with other research: when shown the logo, 91% of all participants reported recognizing the symbol. More than half reported seeing the symbol on pre-packaged grocery products, and more than a quarter reported seeing the symbol in a restaurant. The vast majority of participants associated the symbol with "healthier" or "more nutritious" food items. Very few differences in recognition

and comprehension of the Health Check symbol were observed between participants at Health Check and Comparison restaurants.

Conclusions

Overall, the findings indicate that the *Health Check Food Service Program* is associated with greater levels of noticing and using nutrition information when selecting meals compared to Comparison restaurants. Nutrient intake at Health Check restaurants was also more favourable with respect to consumption of saturated fat, carbohydrates, protein and fibre than at Comparison restaurants. The extent to which these differences in consumption are attributable to the *Health Check Food Service Program* are unclear, particularly given that few participants noticed the Health Check symbol and participants were more likely to notice other nutrition information not included as part of the program. Restaurants participating in the *Health Check Food Service Program* may provide menu selections with a more favourable nutrition profile, which may reflect the type of restaurants that "self-select" into the program or may be a direct result of participating in the program.

ACKNOWLEDGMENTS

Funding for this study was provided by the Heart & Stroke Foundation of Canada through a contract to the University of Waterloo. The Heart & Stroke Foundation contributed to the research objectives and several survey items, but had no role in data collection, analysis, or presentation of the study findings.

Additional support was provided by a Canadian Institutes of Health Research New Investigator Award (Hammond), and a Canadian Cancer Society Research Institute Junior Investigator Award (Hammond).

We would like to thank Heather Lillico (MSc), Christina Martin (BSc), and Paul Magennis for their assistance with this report.

Suggested citation:

Hammond D, White CM. Health Check Restaurant Study. Prepared on behalf of the Heart & Stroke Foundation of Canada. November, 2013.

Table of contents

ACKNOWLEDGMENTS	\
STUDY PROTOCOL	1
Protocol	1
Participants	2
Survey Measures	3
Data Analysis	
RESULTS	<u>C</u>
Sample Characteristics	<u>C</u>
Patterns of eating away from home	10
Frequency of eating outside the home	10
Planned purchases	10
Factors influencing meal choice	11
Restaurant Environment	12
Awareness and noticing nutrition information	12
Types of information	13
Using nutrition information to guide menu selection	16
Health Check Logo	18
Influenc of Health Check logo	18
Recognition of the Health Check logo?	18
Compensatory behaviours	20
Ease of Access	22
Perceptions of nutrition availability	22
Sources of nutrition information	22
Consumption	23
Consumption and nutrient values	23
Consumption of Health Check items	26
ENVIRONMENTAL SCAN	28
Background	28

Protocol Summary	28
Appearance of Health Check Symbol in participating restaurants	29
Other types of nutrition information on menus/menu boards	29
Nutrition information available on request	31
APPENDIX A – Exit Survey	32
APPENDIX B – Sample Characteristics by Restaurant	54
APPENDIX C – Consumption of Nutrients: Health Check and Comparison Restaurants	59

STUDY PROTOCOL

The current study examined the potential impact of the Health Check restaurant program on consumer behaviour. In particular, the study sought to examine consumer awareness and use of the Health Check program and other nutritional information provided within restaurants.

Protocol

Exit surveys were conducted with restaurant patrons, aged 18 and older, who had visited and ordered food from one of four Health Check™ restaurants and one of four Comparison "non-Health Check" restaurants. Health Check is a program developed by the Heart and Stroke Foundation as a guide designed to help consumers choose healthy foods. Each menu item identified with the Health Check symbol has been reviewed by the Heart and Stroke Foundation's registered dietitians to ensure they meet the specific nutrient criteria developed by the Health Check program based on recommendations in Canada's Food Guide. The criteria include both nutrients people should limit such as total fat, saturated fat, trans fats, sodium, and sugar, as well as nutrients people should be encouraged to consume more of such as fibre, calcium, vitamins and minerals. Menu items that meet these criteria are identified on the menu with the Health Check logo. A fee is paid by each participating restaurant to help cover the cost of the voluntary, not-for-profit program. ¹

The study was conducted from May 2, 2013 to June 27, 2013 in restaurants within Southern Ontario, including Kitchener-Waterloo, Milton, and Listowel. Surveys were conducted at four restaurant chains that participate in the Health Check program: HC Site 1, HC Site 2, HC Site 4, and HC Site 3 Bar and Grill. Surveys were also conducted at four Comparison restaurant chains without the Health Check program, but with similar menu offerings: Non - HC Site 1, Non - HC Site 2, Non - HC Site 4, and Non - HC Site 3, matched respectively by food type to the Health Check restaurants above. Surveys were conducted at one or two sites per restaurant chain

¹ Heart & Stroke Foundation. Health Check Program: Foodservice. Available at: http://www.healthcheck.org/page/foodservice Accessed Oct 9 2013.

depending on the number of restaurant sites within close proximity to the University of Waterloo and whether more than one restaurant manager provided permission to survey outside their establishment. Permission was obtained from each restaurant manager to allow research assistants to stand outside the doors to the restaurant and conduct the surveys.

During the study period, data were collected from Tuesday to Friday 11:00 to 15:00 and 17:00 to 21:00, and on Saturdays and Sundays data were collected from 12:30-20:30. No data were collected on Mondays or during breakfast hours. Participants received a \$5 gift card/coupon to the restaurant where the survey was completed as remuneration for completing the survey. The study received ethics clearance from the Office of Research Ethics at the University of Waterloo. Verbal informed consent was obtained from all participants before completing the survey.

Participants

Participants and Recruitment

To minimize self-selection bias, participants were recruited using a standard intercept survey technique whereby trained interviewers were stationed outside the doors of the restaurant and approached each patron who passed a designated landmark as they exited the restaurant. Patrons were invited to participate in a 5-10 minute survey on food choices in restaurants. Computer-assisted personal interviews were administered using iPad tablets. A short introductory script was used to introduce the survey and ensure that individuals met eligibility criteria. To be eligible, participants had to be 18 years of age or older; have purchased food or drinks at the restaurant; and dined-in at the restaurant, except at pita and pizza restaurants, where takeout customers were also eligible because dine-in customer traffic was low. Participants could only participate in the study once.

A total of 1,146 individuals participated in the survey. Ten individuals were excluded from the final sample due to incomplete food order information; 10 further individuals were excluded from the final sample due to serious concerns about data quality (e.g., the participant appeared

intoxicated (n=3), had a severe language barrier (n=2), had vision impairment that prevented sight of nutrition information within the restaurant (n=2), provided incoherent answers (n=1); or the interviewer reported concerns about a social connection with the participant that may have influenced data and potentially lead to incorrect or missing data (n=1)). The final sample size was 1,126—see Table 1 for a description of the sample at Health Check and Comparison restaurants.

Interviewers tracked respondent refusals, meaning the number of individuals who were approached, but refused due to lack of time or interest, or did not acknowledge the interviewer and the invitation to participate. Interviewers also tracked ineligible respondents, meaning the number of individuals who were willing to complete the survey, but did not meet eligibility criteria. The overall response rate of the survey was 34.3%.²

Survey Measures

A copy of the survey is presented in Appendix A.

Socio-demographic Information

Demographic information included gender, age, and education level (re-coded as "high school or less", "some college/university", "university degree or higher", or "not stated"). Measures from the Canadian Community Health Survey were used to assessed income (re-coded as "less than \$50,000, \$50,000-\$90,000, more than \$90,000, or "Not Stated") and race (re-coded as "white" or "other/not stated"). BMI was computed from self-reported height and weight and was then categorized into underweight, normal weight, overweight, and obese using the WHO guidelines.³ A measure of self-reported "overall diet" was collected by asking, "in general, how healthy is your overall diet: poor, fair, good, very good or excellent." A measure of "weight aspiration" was also collected by asking, "which of the following are you trying to do about your weight: lose weight, gain weight, stay the same weight, or are you not trying to do anything

² Using Response rate #4 of the American Association for Public Opinion Research. See: http://www.aapor.org/Home.htm

³ World Health Organization. Global Database on Body Mass Index: BMI classification [Internet]. Available from: http://apps.who.int/bmi/index.jsp?introPage=intro 3.html.

about your weight?" The survey also collected information on fruit and vegetable intake using measures adapted from the Canadian Community Health Survey.⁴

Ordering Behaviours

Participants were asked whether their meal was dine-in or take-out. Participants who ordered take-out at pizza restaurants were also asked, "before you ordered, did you look at a menu: in store, online, or not at all?" Participants were also asked if they knew what they were going to order before seeing the menu, with response options, "firm idea of what specific meal you would order", "some idea", or "no idea of what specific meal you would order." If participants had an idea of what they would order, they were asked "did you end up ordering that specific meal?" and if they did not, then the interviewer inquired why they changed their mind; participant responses were coded into relevant pre-defined categories (i.e., healthier option, Health Check or nutrition symbol, price, taste/looked better, or try something new), or as "other" with open-ended responses recorded. Participants were also asked to rate how healthy they thought their meal was on a scale from 1 to 10 (where 1 was "not at all healthy" and 10 was "extremely healthy"). Participants were also asked to rate how important factors such as taste, convenience, nutritional quality, price and calories were when they were deciding what to order, on a scale from 1 to 10 (where 1 was "not at all important" and 10 was "extremely important").

Restaurant Environment

Participants were asked: "Did you notice any nutrition information anywhere in the restaurant?" Participants could answer "yes" or "no". Follow-up questions assessed where the participants saw the nutrition information (on the menu, next to food items, etc), what type of information they saw (calories, fat, etc.), and when they saw it (before ordering, or at another time). Participants could respond to seeing various types of nutrition information in more than one location and at more than one time, and all responses were recorded. Responses to the

⁻

⁴ Statistics Canada. Canadian Community Health Survey. Available at: http://www23.statcan.gc.ca/imdb-bmdi/instrument/3226 Q4 V2-eng.pdf

type of nutrition information seen, and the location of it, were open ended with no prompting to participants.

Participants were also asked whether nutrition information influenced their choices, and could respond "yes" or "no". If they responded "yes", the interviewer inquired how the information influenced their choices. All responses were coded by the interviewer into relevant pre-defined categories (e.g., ordered a smaller size, ordered "healthier" items, chose items with less calories), or as an "other", with open-ended responses recorded.

Compensation Behaviours

Participants were asked, "will you change what you eat for the rest of the day based on your meal choice here?" ("no", "maybe" or "yes"). If they responded "maybe" or "yes", the interviewer inquired what they would change; responses were coded by the interviewer into relevant pre-defined categories (e.g., eat less than normal, make healthier choices) or entered into as "other, with open-ended responses recorded. Participants were asked similar questions about whether they would change their physical activity patterns for the rest of the day based on their meal choice, and if so, what they would change (e.g., be more active, be less active).

Health Check Logo

Interviewers showed participants a picture of the Health Check symbol on the iPad and asked, "Do you recognize this symbol?" to which participants could answer "yes" or "no". Interviewers then inquired where people had seen the symbol, and what it might mean if the symbol appeared next to a food item on a menu. Participants were asked if any of the items they ordered for themselves or others displayed this symbol, and if so, whether or not it influenced their choice. All participants were also asked if they saw the information on a menu would they be, "more likely to select item", "less likely to select item", or "it would make no difference".

Looking up Nutrition Information

Participants were asked "on a scale of 1 to 10 where 1 is not at all easy and 10 is extremely easy, is nutrition information easily available in this restaurant?" Participants were then asked

whether they had looked up nutrition information for restaurant meals online in the past year. Finally, participants were asked what sources they had used in the past year for information on diet or nutrition (options included food package labels, magazines, TV, internet, etc.). *Sodium Reduction*

Participants were asked, "which of the following applies to you: I am trying to reduce the amount of salt/sodium in my diet, or I am not trying to reduce the amount of salt/sodium in my diet?" Participants were also asked "during the past 7 days, how many meals did you get that were prepared away from home in places such as restaurants, fast food places, food stands, grocery stores, or from vending machines?"

Food Order and Consumption

The respondent's food order was obtained through a series of open-ended questions: (i) "Did you order a main food item or entrée at this meal?", (ii) "Did you modify or add anything to this main food item or entrée, for example adding cheese or asking for no sauce?", (iii) "Did you order any other main food items or entrees at this meal?". This series of questions was repeated for "side" items, "drink" items, and "appetizer, dessert or other food" items. At sit-down restaurants that offered complimentary items such as bread, participants were also asked "Did you eat any complimentary or free items, such as bread?".

To examine the amount of food consumed, participants who had dine-in meals were asked "Did you eat all of your meal?" If the respondent had not finished his/her entire meal, he/she was asked how much of his/her food or drink item he/she consumed (one quarter, one half, three quarters, the entire item, or other). Participants who ordered take-out were not asked how much they consumed; instead, at pita restaurants, it was assumed that those who had takeout orders consumed the entire item. Participants who ordered takeout at pizza restaurants were excluded from food consumption analyses because the majority of menu items were 'family size' and could have been shared by multiple people in unequal serving sizes (n=29).

Nutritional content of food items was obtained from information publicly available on each restaurant's company website. For food items that did not have accessible nutrition

information, the information was obtained from the Canadian Nutrient File or branded food manufacturers websites (e.g., www.fritolay.ca, www.oasis.ca). If nutrition information was not available from any of those sources, it was then obtained from other general online nutrition databases (e.g., www.caloriecount.about.com; www.fatsecret.com; www.myfitnesspal.com). Individuals who did not report details on portion or serving size were assumed to have selected a medium size (e.g., medium soft drink), a conservative standard amount (e.g., 1 packet of sugar, 30mL of salad dressing) or the most common type reported by other study participants (e.g., 9 inch whole wheat pita). For entries that did not contain sufficient detail to illicit the specific item sold (e.g., "pizza"), a standard item type was assigned (e.g., pepperoni on a pan/traditional crust). Individuals who did not identify a specific type of a modification (condiment, etc.) were assigned that category's lowest caloric value (e.g., if a patron did not specify a specific type of salad dressing selected, one serving of "vinaigrette" dressing was assigned because it has the fewest calories of all dressing options). It was assumed that meals came with standard sides or toppings (e.g., dip), unless detail was otherwise provided in the participant's description. Participants whose food order descriptions were not sufficiently detailed to identify foods purchased were excluded from the analysis of food consumption. Participants were also excluded from the analysis of food consumption if it was not possible to access nutritional information about the items ordered (e.g., no calorie information about the item was available from the restaurant or from a general nutrition database).

Data Analysis

Analyses were conducted using IBM SPSS Statistics version 21. Chi-square and t-tests were used to examine statistically significant differences in the sample profile between the Health Check and Comparison sites. Differences in outcomes (e.g., noticing information, calorie consumption, etc.) were tested for statistical significance using logistic regression models for binary outcomes (e.g., "yes"/ "no") and linear regression for continuous outcomes (e.g., calories consumed). All regression models included an indicator variable of "restaurant condition" (Health Check=1, Comparison =0) to assess differences between Health Check and Comparison sites. Odds ratios were adjusted for age, gender, education, income, race, BMI, fruit and vegetable consumption,

weight aspiration, and perceived overall diet quality. Statistical significance was defined as p<0.05, equivalent to a less than 1 in 20 probability that a finding is due to chance alone.

RESULTS

Sample Characteristics

Table 1 shows the sample characteristics of exit survey respondents. Refer to Appendix B for sample characteristics by restaurant.

Table 1. Sample characteristics

	Health Check	Comparison	Statistical Difference
	(n=589)	(n=537)	Statistical Difference
Age Mean(SD)	43.3 (16.4)	40.2 (16.4)	F=9.903 p=0.002
Gender %			
Male	50.4%	50.5%	X ² =0.000 p=0.989
Education %			
High School or less	28.9%	27.7%	X ² =4.375 p=0.224
Some college / university	35.0%	39.1%	
University Degree or	35.5%	31.7%	
Higher			
Not Stated	0.7%	1.5%	
Income %			
Less than \$50,000	16.0%	18.2%	X ² =1.673 p=0.643
\$50,000-\$90,000	22.9%	20.5%	
More than \$90,000	36.5%	37.1%	
Not Stated	24.6%	24.2%	
Race %			
White	84.7%	84.9%	X^2 =0.008 p=0.927
Non-White/Not Stated	15.3%	15.1%	
BMI %			
Underweight	0.5%	1.1%	χ^2 =3.499 p=0.478
Normal Weight	34.0%	31.5%	
Overweight	34.8%	35.8%	
Obese	19.9%	18.4%	
Not Stated	10.9%	13.2%	
Weight Aspirations %			
Lose Weight	49.9%	45.1%	X ² =3.291 p=0.510
Gain Weight	4.8%	6.0%	
Stay Same Weight	25.6%	27.2%	
Not Trying To Do	18.7%	20.3%	
Anything			
Not Stated	1.0%	1.5%	
Overall Diet %			
Poor	7.8%	6.9%	X ² =3.583 p=0.611

Fruit and Vegetable Mean(SD)	5.0 (2.6)	5.0 (2.7)	F=0.020 p=0.887
Not Stated	1.0%	0.4%	
Excellent	3.2%	3.7%	
Very Good	24.8%	20.9%	
Good	37.4%	38.9%	
Fair	26.3%	29.2%	

Patterns of eating away from home

How often do consumers eat away from home?

Participants were asked how many meals they consumed in the past week that were prepared away from home—see Table 2. Virtually all participants reported eating away from home at least once in the past week, with the majority consuming one to three meals outside the home. There was no statistically significant difference in the frequency of eating outside the home between participants at Health Check and Comparison restaurants.

Table 2.

During the past 7 days, how many meals did you get that were prepared away from home in places such as restaurants, fast food places, food stands, grocery stores, or from vending machines?

Entire Sample (N=1126)

	Health Check (n=589)	Comparison (n=537)	Test Statistic F value, p value
None	0.9%	2.8%	1.60, 0.207
1 time	25.4%	22.6%	
2 times	19.7%	21.4%	
3 times	17.7%	16.4%	
4 times	6.9%	12.0%	
5 times	8.7%	8.6%	
6 times	3.9%	4.5%	
7+ times	16.8%	11.7%	

Do consumers plan their meal before visiting the restaurant?

Planned Purchases

When participants were asked if they had an idea of what they would order before entering the restaurant, 52.3% at both the Health Check restaurants, and the Comparison restaurants responded that they had a "firm idea of what to order" prior to entering the restaurant. At

Health Check restaurants, 29.2% had "no idea of what to order", compared to 30.2% at the Comparison restaurants (X^2 =0.23, p=0.893).

Participants were also asked if they changed their planned order once inside the restaurant. At Health Check locations, 92.9% ordered as planned; 93.5% did so at the Comparison locations (X^2 =0.58, p=0.747). If participants did change their order, common reasons cited were to "try something new" (1.2% at Health Check locations, 0.4% at Comparison locations), or to switch to a healthier option (0.3% at Health Check locations, 1.1% at Comparison locations), or for "other" reasons, such as advertising or because certain meals were no longer available.

There was no difference in the perceived healthiness of meals between Health Check and Comparison restaurants. When participants were asked how healthy they thought their meal was on a scale from 1 to 10 (where 1 was not at all healthy and 10 was extremely healthy), the average was 5.3 (SD=2.3) at Health Check restaurants and 5.5 (SD=2.2) at Comparison restaurants (F=0.80, p=0.370).

Dine-in vs. Take-out

There was no significant difference in the proportion of people consuming dine-in meals versus take-out meals between Health Check restaurants (89.0% dine-in), and Comparison restaurants (89.2% dine-in). Among those ordering take-out at the pizza restaurants, 22.2% of participants at the Health Check location looked at the menu online prior to ordering, 55.6% did not look at a menu at all, and 22.2% looked at the menu in store. At the Comparison location, 54.5% looked at the menu online before ordering, 18.2% did not look at it at all, and 27.3% looked at the menu in store (X²=5.79, p=0.122).

What factors affect meal choice?

Participants were asked to rate the importance of various factors on their meal choice—see Table 3. No significant differences were reported between Health Check and Comparison restaurants. As Table 3 shows, taste was the most important factor for both Health Check locations (mean=8.4, SD=1.5) and Comparison locations (mean=8.9, SD=6.1).

Table 3.

On a scale of 1 to 10, where 1 is "not at all important" and 10 is "extremely important", when you decided what to order today how important was... Entire Sample (N=1126)

	Health Check (n=589)	Comparison (n=537)	Test Statistic F value, p value
	Mear	n (SD)	
Taste	8.4 (1.5)	8.9 (6.1)	3.20, 0.074
Convenience	7.8 (8.3)	7.8 (7.9)	0.02, 0.891
Nutritional Quality	5.7 (6.6)	5.8 (6.1)	0.05, 0.818
Price	4.9 (3.0)	5.0 (2.9)	0.20, 0.656
Calories	4.4 (7.4)	4.6 (8.3)	0.33, 0.568

Restaurant Environment

Are consumers more likely to notice nutrition information in Health Check restaurants?

As shown in Figure 1, a significantly greater number of people at the Health Check restaurants noticed nutrition information compared to at the Comparison restaurants (OR=0.72, p=0.019). Table 4 shows the locations where people reported noticing nutrition information. Patrons at Health Check restaurants were significantly more likely to notice nutrition information on the menu/menu board – the most commonly reported source of information—whereas, Comparison restaurant patrons were significantly more likely to report noticing information in pamphlets and next to food items.

Figure 1.

Did you notice any nutrition information anywhere in the restaurant today? Entire Sample (N=1126)

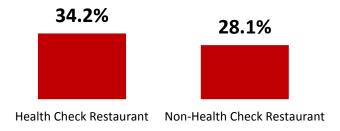


Table 4. Where did you notice nutrition information? Entire Sample (N=1126)

	Health Check	Comparison	Test statistic
	(n=589)	(n=537)	OR (95% CI), p value
Menu/menu board	21.6%	9.3%	0.36 (0.25, 0.51), <0.001
Poster	5.1%	6.5%	1.27 (0.75, 2.18), 0.376
Wall/window/door	5.6%	5.0%	0.80 (0.47, 1.38), 0.420
Pamphlet/brochure	1.9%	5.0%	3.01 (1.40, 6.48), 0.005
Napkin	3.9%	-	
Next to food item/display	1.5%	3.5%	2.46 (1.09, 5.57), 0.031
tem packaging/wrapper	0.7%	0.4%	0.42 (0.06, 2.89), 0.380
Tray liner/tray	0.7%	0.7%	1.39 (0.22, 8.76), 0.728
Cash register	0.2%	-	
Table/counter	0.7%	0.6%	1.06 (0.22, 5.13), 0.947
Other	0.8%	0.4%	0.47 (0.07, 3.10), 0.435
Computer screen / kiosk	-	0.6%	

How many consumers notice the Health Check logo and other types of nutrition information?

Participants were asked what type of nutrition information they noticed using an "open-ended" question. All responses were coded by the interviewer into relevant pre-defined categories. Interviewers were instructed to code any mention of the "Health Check / Heart & Stroke" logo (including a description of the logo) and any "other symbol" using two separate response options.

Table 5 displays the types of nutrition information noticed at Health Check and Comparison restaurants. Calories were the most commonly recalled type of nutrition information, followed by fat. Approximately 5% of people at the Health Check restaurants, and 1.3% at the Comparison restaurants noticed the Health Check / Heart & Stroke logo (OR=0.26, p=0.002). Among the four Health Check restaurants, the Health Check logo was noticed least often at HC Site 1 (0.7%), followed by HC Site 2 (4.2%), HC Site 4 (4.7%), and HC Site 3 (11.4%).

Table 5. What type of nutrition information did you notice nutrition information? Entire Sample (N=1126)

	Health Check (n=589)	Comparison (n=537)
Calories	23.8%	15.3%
Fat	9.2%	7.1%
Health Check / Heart & Stroke logo	5.3%	1.3%
Sodium / Salt	3.9%	1.3%
Sugar / Carbohydrates	2.2%	1.3%
"Other" type of health symbol	0.5%	2.6%
Allergen / Gluten Information	0.3%	0%
Organic	0.2%	0%
Vegetarian / Vegan	0%	0.4%
"Other"	8.1%	4.8%

Table 5a. What type of nutrition information did you notice nutrition information?

Health Check Restaurants

	HC Site 1 (n=148)	HC Site 2 (n=144)	HC Site 3 (n=149)	HC Site 4 (n=148)
Calories	2.0%	82.6%	2.0%	10.1%
Fat	0.7%	33.3%	0.0%	3.4%
Health Check / Heart & Stroke logo	0.7%	4.2%	11.4%	4.7%
Sodium / Salt	0.0%	13.9%	0.0%	2.0%
Sugar / Carbohydrates	0.0%	9.0%	0.0%	0.0%
"Other" type of health symbol	0.0%	0.0%	1.3%	0.7%
Allergen / Gluten Information	0.0%	0.0%	1.3%	0.0%
Organic	0.0%	0.7%	0.0%	0.0%
Vegetarian / Vegan	0.0%	0.0%	0.0%	0.0%
"Other"	5.4%	24.3%	2.7%	0.7%

	Non - HC Site			
	1	2	3	4
	(n=150)	(n=147)	(n=150)	(n=90)
Calories	6.0%	47.6%	2.0%	0.0%
Fat	4.0%	21.1%	0.7%	0.0%
Health Check / Heart & Stroke logo	0.0%	2.0%	2.7%	0.0%
Sodium / Salt	2.0%	2.0%	0.7%	0.0%
Sugar / Carbohydrates	0.7%	4.1%	0.0%	0.0%
"Other" type of health symbol	0.0%	4.1%	5.3%	0.0%
Allergen / Gluten Information	0.0%	0.0%	0.0%	0.0%
Organic	0.0%	0.0%	0.0%	0.0%
Vegetarian / Vegan	0.0%	0.7%	0.7%	0.0%
"Other"	1.3%	11.6%	4.0%	1.1%

Among those who noticed nutrition information, a significantly greater percentage of participants at the Health Check restaurants compared to the Comparison restaurants noticed calories (69.7% vs. 54.3%, OR=0.38, p<0.001), and sodium/salt (11.4% vs. 4.6%, OR=0.36, p=0.032). Of those that answered "other", common responses included protein, serving sizes, or ingredient lists.

When do people notice nutrition information?

Among those who noticed nutrition information, 23.8% of participants at the Health Check restaurants noticed the nutrition information *before* ordering, compared to 14.5% at the Comparison restaurants. Furthermore, among those who reported noticing nutrition information, a significantly greater percentage of participants at Health Check restaurants noticed the information before ordering, compared to participants at Comparison restaurants (72.2% vs. 53.1%, OR=0.42, p=0.001).

Are consumers at Health Check restaurants more likely to be influenced by nutrition information?

Overall, 10.9% of people at the Health Check restaurants said their meal order was influenced by nutrition information, compared to 4.5% at the Comparison restaurants (OR=0.34, p<0.001). Among those who reported seeing nutrition information, 31.8% at the Health Check restaurants said it influenced their order, compared to only 15.9% at the Comparison restaurants (OR=0.36, p=0.001).

Table 6 outlines in what manner nutrition information influenced food orders, among those who said they were influenced. A significantly greater percentage of participants at the Health Check restaurants said they chose items with fewer calories (43.8%) compared to at the Comparison restaurants (20.8%). Choosing "healthier" items was also a popular response, with 42.2% of people at the Health Check locations and 75.0% at the Comparison locations mentioning this action. In addition, 12.5% of people at the Health Check locations indicated that the nutrition information influenced them in "other" ways, compared to 8.3% at Comparison locations. The most common "other" response option was to choose items with more/less of certain macronutrients. Table 7 shows how nutrition information influenced participants among the entire sample.

Table 6.

How did the nutrition information influence what you ordered? Among Influenced (n=88)

	Health Check	Comparison	Test statistic
	(n=64)	(n=24)	OR (95% CI), p value
Chose "healthier" item	42.2%	75.0%	3.90 (0.99, 15.3), 0.051
Chose item with fewer calories	43.8%	20.8%	0.18 (0.04, 0.90), 0.037
"Other"	12.5%	8.3%	0.39 (0.02, 7.83), 0.539
Chose fewer items	-	4.2%	
Chose smaller size	1.6%	-	
Chose item with more calories	1.6%	-	

Table 7.

How did the nutrition information influence what you ordered? Entire Sample (N=1126)

	Health Check (n=589)	Comparison (n=537)	Test statistic OR (95% CI), p value
Chose "healthier" item	2.4%	1.6%	0.65 (0.33, 1.27), 0.208
Chose item with less calories	2.5%	0.4%	0.16 (0.05, 0.47), 0.001
"Other"	0.7%	0.2%	0.21 (0.04, 1.12), 0.067
Chose fewer items	-	0.09%	
Chose smaller size	0.09%	-	
Chose item with more calories	0.09%	-	

Health Check Logo

Do consumers report being influenced by the Health Check logo?

When participants were asked if any items they ordered had the Health Check symbol, a significantly greater percentage of people at the Health Check restaurants said "yes", compared to the Comparison restaurants (n=44, 7.5% vs. n=15, 2.8%, , p<0.01). Among the 44 participants in Health Check restaurants who reported ordering items with the Health Check symbol, 22 said the symbol influenced their choice. Therefore, 3.9% of participants at the Health Check restaurants reported that their meal choice was influenced by the Health Check logo when prompted about the Health Check symbol.

A total of 61 participants at Health Check and 62 participants at Comparison restaurants ordered a meal for children. Of these, 2 Health Check participants (3.3%) and 1 Comparison participants (1.6%) reported that some of the items purchased for their children displayed the symbol). Of the 2 participants who reported ordering Health Check items for their children, neither reported being influenced by the symbol.

Participants were asked if they saw the symbol next to a menu item in the future, how it would affect their food purchasing behaviour—see Table 8. The majority of participants reported that they would be more likely to select an item with a symbol beside it, with no difference between Health Check and Comparison restaurants.

Table 8.

In the future, if you saw this information next to a menu item in a restaurant, would you be: Entire Sample (N=1126)

	Health Check (n=589)	Comparison (n=537)	Test Statistic X ² , p value
More likely to select item	56.7%	58.1%	3.16, 0.206
It would make no difference	40.7%	40.8%	
Less likely to select item	2.6%	1.1%	

Do consumers recognize the Health Check logo?

.

^[1] Respondents who reported ordering Health Check items at Comparison restaurants are incorrect. This indicates the proportion of respondents who make recall errors or provide an incorrect response due to social desirability bias.

When shown the Health Check symbol on the iPad screen, 91.0% of participants at Health Check restaurants reported recognizing the logo, with no significant difference at the Comparison restaurants (90.3%;OR=0.78, p=0.264). As Table 9 indicates, participants reported seeing the Health Check logo in a variety of settings.

Table 9. Where have you seen this symbol? Entire Sample (N=1126)

	Health Check (n=589)	Comparison (n=537)	Test Statistic OR (95% CI), p value
Prepackaged foods/groceries	49.4%	55.5%	1.20 (0.94, 1.54), 0.151
A restaurant/menu	31.1%	24.6%	0.74 (0.56, 0.98), 0.034
Television	13.2%	13.4%	1.14 (0.79, 1.63), 0.486
At Events/Advertising/Promos	8.3%	4.7%	0.59 (0.35, 0.99), 0.045
Don't Know	6.1%	6.9%	1.01 (0.61, 1.67), 0.962
Pamphlet	5.3%	6.9%	1.64 (0.96, 2.79), 0.070
Internet	5.4%	3.9%	0.79 (0.45, 1.41), 0.417
Signs in this restaurant	4.2%	0.9%	0.24 (0.09, 0.67), 0.006
Signs in other restaurants	3.4%	4.3%	1.21 (0.64, 2.28), 0.562
Magazine	4.1%	2.8%	1.01 (0.50, 2.06), 0.980
Medical Facility	4.4%	3.9%	0.93 (0.49, 1.75), 0.820
Other	2.9%	2.4%	0.85 (0.40, 1.81), 0.68
At School	1.5%	2.2%	1.20 (0.47, 3.11), 0.704
Workplace	1.0%	2.0%	1.66 (0.56, 4.90), 0.363

Participants were asked what the Health Check symbol would mean if it was displayed on a menu next to a food item. Responses are displayed in Table 10. The most common response was that the symbol would indicate the food was a healthy or nutritious option (82.2% at Health Check, and 85.3% at Comparison restaurants). In contrast, 1.9% of people at the Health Check restaurants and 1.5% of people at the Comparison restaurants thought that the symbol would mean the item was an unhealthy choice.

Table 10.

If this symbol appeared next to a food item on a menu, what would it mean? Entire Sample (N=1126)

	Health Check (n=589)	Comparison (n=537)	Test Statistic OR (95% CI), p value
Nutritious / Healthy Option	82.2%	85.3%	1.11 (0.79, 1.56), 0.555
Low Fat	6.8%	7.3%	1.10 (0.68, 1.89), 0.691
Low Calorie	5.9%	5.0%	0.91 (0.53, 1.56), 0.720
Other	5.6%	4.7%	0.96 (0.52, 1.75), 0.883
Good For Heart	5.3%	4.8%	0.96 (0.55, 1.69), 0.898
Approved/Certified	3.4%	1.9%	0.45 (0.20, 1.03), 0.059
Don't Know	3.2%	3.0%	1.08 (0.52, 2.24), 0.846
Low Salt / Sodium	3.1%	2.8%	0.96 (0.48, 2.08), 0.990
Unhealthy	1.9%	1.5%	0.81 (0.29, 2.27), 0.694
Low Sugar	0.2%	1.1%	7.42 (0.76, 72.30), 0.085
Low Carbohydrates	0.5%	0.7%	1.46 (0.31, 6.91), 0.631
Allergen / Gluten Information	0.2%	-	
Vegetarian / Vegan	0.2%	-	

Do consumers plan to alter eating behaviour or physical activities later in the day as a result of their meal choice?

Participants were asked if they would change what they eat for the rest of the day based on their meal choice; results are shown in Table 11.

Table 11.

Will you change what you eat for the rest of the day based on your meal/drink choice here? Entire Sample (N=1126)

	Health Check (n=589)	Comparison (n=537)	Test Statistic X^2 , p value
No	60.8%	61.8%	0.41, 0.815
Maybe	2.2%	2.6%	
Yes	37.0%	35.5%	

Similar results were observed in terms of plans to alter eating behaviours among a sub-sample of participants who had indicated that nutrition information influenced their food order. When the sub-sample of participants who said their food order was influenced by nutrition information and they planned to alter what they ate for the rest of the day were asked what they would change, the most common response was to eat less (23.4% at Health Check restaurants, and 16.7% at Comparison restaurants, OR=0.40, p=0.343). The second most common response was to make healthier choices (12.5% of people at Health Check restaurants, and 16.7% at Comparison restaurants, OR=0.41, p=0.522). Only 1.6% of people at the Health Check restaurants said they would eat more later in the day; no one indicated they would eat more at the Comparison restaurants. At the Health Check restaurants, 4.7% of people mentioned "other" actions, such as varying the type of food they ate later.

Participants were also asked if they would change their level of physical activity later in the day based on their meal choice; results are shown in Table 12.

Table 12.

Will you change your level of physical activity for the rest of the day based on your meal/drink choice here? Entire Sample (N=1126)

	Health Check (n=589)	Comparison (n=537)	Test Statistic X^2 , p value
lo	84.5%	86.7%	1.12, 0.572
Maybe	1.9%	1.7%	
Yes	13.6%	11.6%	

Similar results were observed in terms of plans to alter physical activity levels among those who said nutrition information influenced their food order. Among those who said nutrition information influenced their food order, and they planned to change their physical activity level, 12.5% at both Health Check and Comparison restaurants said they would change by becoming more active for the rest of the day (OR=0.22, p=0.305); no one indicated they would become less active.

Ease of Access

Do consumers at Health Check restaurants believe that nutrition information is more easily available?

Participants were asked to rate how easily nutrition information was available in the restaurant they visited, using a scale from 1 to 10 (where 1 was not at all easy and 10 was extremely easy). The mean score was 5.7 at both the Health Check restaurants (SD=3.2) and the Comparison restaurants (SD=2.8, F=0.07, p=0.799).

Where do people get their nutrition information?

Participants were asked if they had looked up nutrition information for restaurant meals in the past year online. Overall, 58.2% of participants at Health Check locations, and 58.5% at Comparison locations said they had not looked up restaurant nutrition information online in the past year (OR=0.97, p=0.803).

Participants were asked to confirm which, if any, sources they had used in the last year for information on diet or nutrition from a list of 10 possible sources; the results are shown in Table 13. The most common source of information was from food package labels, followed by the internet.

Table 13.

In the past year, have you used any information on diet or nutrition from any of the following sources? Entire Sample (N=1126)

	Health Check (n=589)	Comparison (n=537)	Test Statistic OR (95% CI), p value
Food package labels	81.2%	82.5%	1.14 (0.82, 1.60), 0.441
Internet	61.6%	63.7%	1.07 (0.82, 1.41), 0.616
Magazine articles / books	54.3%	57.4%	1.20 (0.92, 1.56), 0.185
Food company ads	40.2%	36.7%	0.88 (0.68, 1.13), 0.299
TV / radio	36.0%	33.3%	0.90 (0.69, 1.16), 0.409
Fitness / weight loss program	33.8%	32.8%	0.98 (0.74, 1.28), 0.863
Family doctor	24.3%	28.3%	1.34 (1.01, 1.79), 0.046
Government / health agency website	18.7% 19.0% 1.14 (0.82, 1		1.14 (0.82, 1.58), 0.428
Dietitian	14.1%	17.9%	1.44 (1.02, 2.03), 0.040
Other health professionals	9.3%	9.3% 9.3% 1.04 (0.68, 1.61), 0	

Are consumers trying to reduce sodium in their diet?

When asked whether or not they were trying to reduce the amount of sodium in their diet, 52.7% of participants at Health Check restaurants and 50.2% of participants at Comparison restaurants said they were trying to reduce the amount of salt/sodium in their diet (OR=0.97, p=0.826).

Do consumers at Health Check restaurants consume healthier meals?

Nutrient values for all food and beverage items were calculated based on values provided by restaurants and adjusted for the proportion of meals consumed, as reported by participants (see Table 14 & Figure 2). There were no differences in calories, total fat, or sodium levels consumed in meals (including beverages) at Health Check and Comparison restaurants. Participants at Health Check restaurants consumed significantly less saturated fat, carbohydrates, and significantly more fibre and protein.

Table 14.

Mean nutrients consumed at Health Check vs. Comparison restaurants: Total meal (includes beverage)

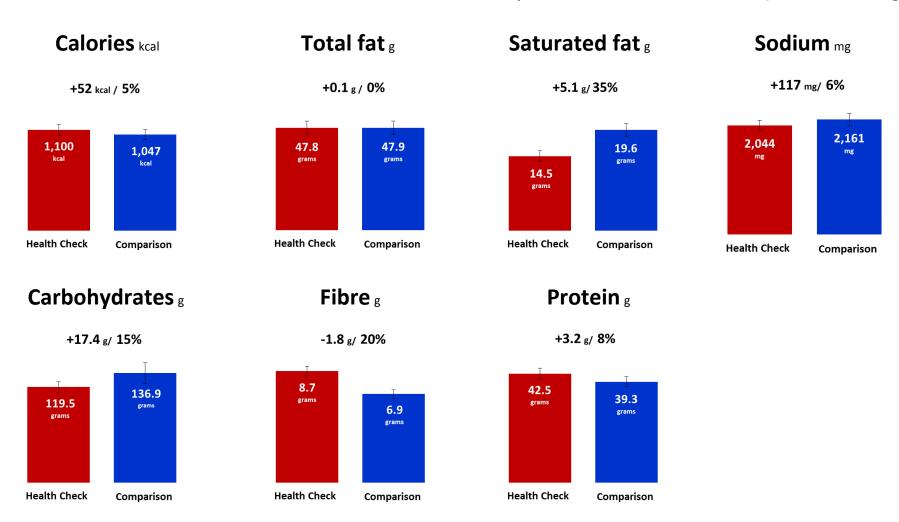
	Health Check	Comparison	
	Restaurants	Restaurants	Test Statistic
	(n=559)	(n=519)	Beta, p value
	Mean (SD)	Mean (SD)	
Calories (kcal)	1099.7 (703.1)	1047.1 (661.2)	58.0, 0.168
Total fat (g)	47.8 (38.8)	47.9 (36.9)	0.1, 0.953
Saturated fat (g)*	14.5 (13.0)	19.6 (12.9)	-4.6 , <0.001
Sodium (mg)	2043.6 (1192.1)	2160.6 (1319.1)	-108.9, 0.162
Carbohydrates (g)	119.5 (78.6)	136.9 (149.1)	-19.5 , 0.009
Fibre (g)	8.7 (4.7)	6.9 (3.7)	1.70, <0.001
Protein (g)	42.5 (26.1)	39.3 (22.6)	3.52, 0.020

^{*}n=537 for Health Check restaurants and 372 for Comparison restaurants

Note: Nutrient values shown for meals at Health Check restaurants are based on all menu items served at the restaurants; the values are *not* limited to Health Check approved menu items.

Figure 2.

Mean nutrients consumed at Health Check vs. Comparison restaurants: Total meal (includes beverage)



Refer to Appendix C for a detailed comparison of nutrients consumed by restaurant (e.g., HC Site 1 and Non - HC Site 1).

Table 15 shows nutrients consumed in food items, excluding drinks. Participants at Health Check restaurants consumed significantly less saturated fat, sodium, carbohydrates, and significantly more fibre and protein than participants at Comparison restaurants.

Table 15.

Mean nutrients consumed at Health Check vs. Comparison restaurants: Food only

	Health Check	Comparison	
	Restaurants (n=563) Mean (SD)	Restaurants (n=520) Mean (SD)	Test Statistic Beta, p value
Calories (kcal)	978.4 (672.8)	948.4 (623.1)	30.3, 0.452
Total fat (g)	47.1 (38.9)	47.6 (37.0)	-0.1, 0.962
Saturated fat (g)*	14.2 (12.9)	19.5 (12.9)	-4.8, <0.001
Sodium (mg)	1960.9 (1170.1)	2115.8 (1311.0)	-150.7, 0.049
Carbohydrates (g)	96.7 (69.6)	118.1 (147.2)	-24.9 , 0.001
Fibre (g)	8.6 (4.6)	6.8 (3.7)	1.7, <0.001
Protein (g)	41.7 (26.1)	38.2 (22.4)	3.7, 0.013

^{*}n=540 for Health Check restaurants and 373 for Comparison restaurants

Table 16 shows nutrients consumed in beverage items, excluding food. Participants at Health Check restaurants consumed significantly more calories, sodium and carbohydrates, and significantly less protein in beverages.

Table 16.

Mean nutrients consumed at Health Check vs. Comparison restaurants: Beverages only

	Health Check	Comparison	
	Restaurants (n=585) Mean (SD)	Restaurants (n=536) Mean (SD)	Test Statistic Beta, p value
Calories (kcal)	113.9 (140.5)	98.3 (130.5)	20.3, 0.013
Total fat (g)	0.5 (3.3)	0.4 (1.4)	0.1, 0.407
Saturated fat (g)*	0.3 (2.1)	0.1 (0.7)	0.2, 0.052
Sodium (mg)	69.3 (199.2)	44.8 (121.7)	29.1, 0.006
Carbohydrates (g)	21.9 (29.6)	18.6 (26.2)	4.4, 0.008
Fibre (g)	0.1 (0.6)	0.1 (0.5)	0.0, 0.673
Protein (g)	0.7 (2.2)	1.1 (3.6)	-0.3, 0.080

^{*}n=579 for Health Check restaurants and 463 for Comparison restaurants

How does the nutritional quality of Health Check items compare to other items?

Items ordered by participants were compared towith items labeled as Health Check selections according to restaurant menus and websites to identify whether participants had ordered a Health Check approved item. Approximately 15% (n=87) of participants at Health Check restaurants (HC Site 1, HC Site 2, HC Site 3, and HC Site 4) ordered at least one item with a Health Check symbol. Of the 87 participants that ordered a Health Check item, 8 (9%) recalled seeing the Health Check symbol in the restaurant and only 23 (29%) were aware that they had ordered a Health Check item when asked. In contrast, 35 participants of the participants who did not order a Health Check item, incorrectly reported they had.

Table 17 compares the nutrients consumed by participants at Health Check restaurants who ordered a Health Check approved item with participants who did not order a Health Check item from the same restaurants. As Table 17 indicates, meals that included a Health Check item were significantly lower in calories, total fat, saturated fat, sodium, carbohydrates and protein.

Table 17.

Mean nutrients consumed among patrons at Health Check restaurants who ordered items with a Health Check symbol vs. patrons who did not order items with a Health Check symbol

	Ordered Health	No Health	
	Check Item	Check Item	Test Statistic
	(n=84)	(n=476)	Beta, p value
	Mean (SD)	Mean (SD)	
Calories (kcal)	556.2 (282.0)	1194.5 (711.7)	-582.6, <0.001
Total fat (g)	18.1 (13.0)	53.0 (39.5)	-32.5, <0.001
Saturated fat (g)*	4.2 (4.4)	16.3 (13.1)	-11.4, <0.001
Sodium (mg)	1242.2 (464.6)	2184.5 (1225.1)	-856.2, <0.001
Carbohydrates (g)	70.3 (44.4)	128.1 (80.1)	-48.5, <0.001
Fibre (g)	7.7 (3.0)	8.9 (4.9)	-0.9, 0.126
Protein (g)	29.2 (12.8)	44.9 (27.2)	-14.2, <0.001

^{*}n=78 for Health Check items and 459 for Comparison items

The information in Table 17 is calculated based on a "general" Health Check order variable, where participants are considered to have ordered a Health Check item if they have ordered at least one item with a Health Check symbol; however, the participants may have also ordered additional food items that are not Health Check approved.

It is possible to also examine nutrient consumption using a more detailed Health Check order variable, such that participants would only be considered to have ordered a Health Check item if they ONLY ordered approved Health Check items (e.g., ordered a Veggie burger from HC Site 1, but it had to be on a multigrain bun with ketchup, lettuce, tomatoes and onions (no other toppings), with a side salad and raspberry vinaigrette dressing, a bottle of water, and no other items. A preliminary review of a sub-section of the 87 cases included in analyses using the "general" Health Check order variable showed that only 2 of 20 food orders would be considered as ONLY including approved Health Check items.

ENVIRONMENTAL SCAN

Background

Environmental scans were conducted to assess the presence of nutritional information within participating restaurants. The environmental scan tool included a checklist used to identify whether different types of nutrition information such as the calories, other nutrients, the Health Check symbol, other symbols or words that indicate "light", "low-calorie", or "low-fat", or health-related claims were present within the restaurant environment. Details were also collected about where different types of nutritional information appeared (i.e., on menus/menu boards, on posters or signs, other locations), and whether any nutritional pamphlets or brochures were available in-store. Scans were completed at each of the restaurant outlets listed in Table 18.

Protocol Summary

A trained research assistant visited one site per restaurant chain, and completed the environment scan tool while on-site. Upon arrival at the restaurant, the research assistant purchased a meal. At fast-food locations, the research assistant was instructed to complete the survey while waiting to order or waiting for the food, and was asked to do so in a discrete manner to minimize making the staff feel uncomfortable. At sit-down restaurants, the research assistant was instructed to ask for a menu, carefully review it and complete the survey before ordering and returning the menu (the research assistant needed the menu to complete several scan questions).

Table 18.

Environmental Scan Restaurant Locations

Data withheld due to confidentiality

Where does the Health Check Symbol appear in participating restaurants?

Table 19 shows the locations where the Health Check symbol was displayed in each of the four participating restaurants. Overall, the Health Check symbol appeared on all menus/menu boards in participating restaurants and all restaurants had an explanation that accompanied the symbol. At HC Site 3 and HC Site 4 the explanation was prominently displayed and easy to find. At HC Site 1, the explanation was present on the menu board; however, it appeared in a relatively small font size, and was difficult to read from the customer area. At HC Site 2, the explanation was not present on the menu board; instead it was available in a menu pamphlet located on the counter.

Table 19.

Display of Health Check symbol in participating restaurants

Symbol location	HC Site 1	HC Site 2	HC Site 3	HC Site 4	Total
Menu / menu board	Yes	Yes	Yes	Yes	4
Poster	-	Yes	-	-	1
Wall / window / door	-	-	-	-	0
Food item / food display	Yes	Yes	-	-	2
Tray liner / on the tray	-	-	-	-	0
Computer screen / kiosk	-	-	-	-	0
Pamphlet or brochure	-	Yes	-	Yes	2
Other location	-	-	-	-	0

What other types of nutrition information appeared on menus/menu boards?

None of the Health Check or Comparison restaurants provided calorie information for all items on their menus. As shown in Table 20, calorie information for some items was available on the menus/menu boards in three of the Health Check restaurants. HC Site 1 did not display any calorie information and HC Site 3 only displayed calorie information for three beverages on the beverage menu. HC Site 4 displayed calorie information in the menu for all Heath Check items. None of the Comparison restaurants displayed any calorie information on their menu/menu board. Three of the four Comparison restaurants used other symbols or words to indicate "light", "low-calorie", or "low-fat" items on their menu. HC Site 1 had one menu board panel dedicated to the Health Check items on their menu; the Health Check symbol was large in comparison to the text on this panel.

Table 20.

Display of "other" nutrition information on menus / menu boards in restaurants

	Health Check	Comparison
Calorie information for <i>all</i> items	0	0
Calorie information for some items	3	0
Other nutrition information for some items	1	0
Symbols or words that indicate "light", "low-	1	3
calorie", or "low-fat" for some items		
Health-related claims on the menu/menu board 1		1
(e.g., 100% real fruit, natural, organic)		
Section highlighting healthy or lighter options	2	0

Does any nutrition information appear in other locations within the restaurants?

One Health Check restaurant (HC Site 2) and two Comparison restaurants (Non - HC Site 2 and Non - HC Site 1) had easily accessible nutrition information for all items on their menu on a poster within the restaurant. The remaining restaurants had little or no nutrition information accessible from other locations within the restaurant (see Table 21).

Table 21. Display of "other" nutrition information in restaurants

Location	Health Check	Comparison
On a poster	1	2
On a wall / window / door	0	1
Next to food item / food display	1	1
On the tray liner / on the tray	0	0
On a computer screen / kiosk	0	0
In a pamphlet or brochure	1	1
Any other location	0	1

What nutrition information is provided to patrons upon request?

Prior to leaving Health Check restaurants, the research assistant asked the server, "Do you have any nutrition information available, including anything on the Health Check Program?" At Comparison restaurants, the research assistant asked the server "Do you have any nutrition information available, such as a pamphlet?" Nutrition information was provided at five locations, including two of the four Health Check restaurants and three of four Comparison restaurants. Only one of these five restaurants—a Health Check restaurant—had a nutrition information pamphlet available to take home. The servers at the other four restaurants indicated that they had nutrition information available in the restaurant, but not to take home, and either directed the research assistant to the nutritional poster (if available) or provided a nutrition table to review in the restaurant. The servers at the three restaurants that did not have nutrition information available in-store directed the research assistant to visit the nutrition section on their company websites.

Appendix A

Exit Survey

Note: Interviewer instructions are italicized, and programmer notes are indicated throughout

Variable	Questionnaire Item
Information Screen	Interviewer ID [open-ended, 3 characters]
interID	Restaurant site [drop-down with 8 choices]
city	Site [drop-down with 2 options]
restaurant	[Programmer notes:
	- Insert "Begin Survey" button on screen- Assign respondent ID to each record for that goes past this screen]
Information Screen	Interviewer ID [open-ended, 3 characters]
interID	Restaurant site [drop-down with 8 choices]
city	Site [drop-down with 2 options]
restaurant	[Programmer notes:
	- Insert "Begin Survey" button on screen
	- Assign respondent ID to each record for that goes past this screen]
Screener	Are you interested in participating?
[Programmer note:	YES → "Great. I just have a few quick questions before we start to see whether you are
this is just text to	eligible to participate." Continue
show on the	[If the recognition was he less than 18 years of and Ave year at least 18 years of and
screen. If they select 'next', we	[If the respondent may be less than 18 years of age] Are you at least 18 years of age? YES → continue
will count them as	
eligible.]	Did you purchase any food or drinks at [insert restaurant name] for yourself today? YES → continue
[See Detailed	Was your meal dine-in or take out?
Approach Script	Dine in → continue
for full screener]	Take out at Pita or Pizza restaurants → continue
	Have you participated in this study in the past?
	NO → Click 'Next' to begin survey.

Information	Thanks. First, I'm going to go over this information letter with you [hand Information Letter to respondent].
	 You are being asked to participate in a research study examining food choices in restaurants.
	The study will take about 10 minutes.
	 We will ask you questions about your meal, including what you ordered and why you selected those items, as well as general questions about nutrition, lifestyle and demographic information.
	You will receive a \$5 gift card for participating in the study.
	There are no known risks or discomforts.
	 You are free to decline any questions you wish, and you can withdraw from the study at any time, and you will still receive the \$5 gift card.
	This study has been reviewed by and received ethics clearance from the University of Waterloo Office of Research Ethics.
	Contact information is available in the letter.
consent	Based on the information you received, do you agree to take part in this research study? Yes → "Thank you. I would now like to begin with the survey." continue No → "Thank you for your time." END
intdate	[Programmer note: record variables, do not show on screen]
intstart	Date of survey
	Start time of survey
gender	[DO NOT read out loud] Indicate gender of respondent:
	1. Male
Meal Type	Z. Female I'll start with some questions about your purchase here today. Please do NOT include
meal.type	items ordered for anyone else.
	Would you describe this as your [read options out loud]: 1. Breakfast 2. Lunch 3. Dinner 4. Snack 5. Other → Specify: [open-ended text] 77. Don't know 88. Refused
Food Order Section	[Programmer note: Insert series of drop down lists of food items specific to restaurant selected. Include an 'other' option with open-ended text entry for each section (main, sides, drink, other). Include one series of drop-downs per section as default, but allow interviewers to add another "row" for multiple items within a section]

fo.main1	Did you order a main food item or entrée at this meal?
	[Include "shared" items. Probe for exact name of item, including variety and size, if
	applicable]
	Yes, select from list [Drop down menu specific to restaurant]
	Yes, open-ended [open-ended]
	No
	How many of this item did you have? [drop-down with numbers, default set at 1]
fo.main1mod1, etc.	[If fo.main1 ne "No":]
[Add screens as	Did you modify or add anything [ELSE] to this main food item or entree, for example
necessary]	adding cheese or asking for no sauce? [If necessary, ask "What did you modify or add?"]
	Yes, add toppings [Checklist]
	Yes, add modification from a list [Drop down menu specific to restaurant]
	Yes, subtract modification from a list [Drop down menu specific to restaurant]
	Yes, open-ended [open-ended]
	No
	How many of this item did you have? [drop-down with numbers, default set at 1]
	[Programmer note: Only include "Yes, add toppings" (checklist) if restaurant = Harveys
	(50), HC Site 2 (52), Non - HC Site 2 (53), HC Site 4 (56), or Non - HC Site 4 (57)]
fo.main2, etc.	Did you order ANY OTHER <u>main food item or entrée</u> at this meal?
[Add screen as	[Include "shared" items. Probe for exact name of item, including variety and size, if
necessary]	applicable]
	Yes, select from a list [Drop down menu specific to restaurant]
	Yes, open-ended [open-ended]
	No
	How many of this item did you have? [drop-down with numbers, default set at 1]
fo.side1	Did you order a side? [If necessary, ask "What did you have?"]
	[Include "shared" items. Probe for exact name of item, including variety and size, if
	applicable]
	Yes, select from list [Drop down menu specific to restaurant]
	Yes, open-ended [open-ended]
	No
	How many of this item did you have? [drop-down with numbers, default set at 1]

Did you modify or add anything [ELSE] to this item, for example adding cheese or asking
for no sauce? [If necessary, ask "What did you modify or add?"]
Yes, add modification from a list [Drop down menu specific to restaurant]
Yes, subtract modification from a list [Drop down menu specific to restaurant]
Yes, open-ended [open-ended]
No
How many of this item did you have? [drop-down with numbers, default set at 1]
Did you order ANY OTHER <u>side</u> ? [If necessary, ask "What did you have?"]
[Include "shared" items. Probe for exact name of item, including variety and size, if
applicable]
Yes, select from a list [Drop down menu specific to restaurant]
Yes, open-ended [open-ended]
No
How many of this item did you have? [drop-down with numbers, default set at 1]
Did you order <u>a drink</u> ? [If necessary, ask "What did you order?" and ask about refills. Do
NOT include water.]
Yes, select from a list [Drop down menu specific to restaurant]
Yes, open-ended [open-ended]
No
How many of this item did you have? [drop-down with numbers, default set at 1]
[If fo.drink ne "No":]
Did you modify or add anything [ELSE] to this item, (for example cream or sugar)? [If necessary, ask "What did you modify or add?"]
Yes, add modification from a list [Drop down menu specific to restaurant]
Yes, subtract modification from a list [Drop down menu specific to restaurant]
Yes, open-ended [open-ended]
No
How many of this item did you have? [drop-down with numbers, default set at 1]
Did you order ANY OTHER drinks? [If necessary, ask "What did you order?" and ask about
refills. Do NOT include water.]
Yes, select from a list [Drop down menu specific to restaurant]
Yes, open-ended [open-ended]
No
How many of this item did you have? [drop-down with numbers, default set at 1]

fo.other1	Did you order an appetizer, dessert or any other food items? [If necessary, ask "What did
	you order?"][Include "shared" items. Probe for exact name of item, including variety and
	size, if applicable]
	Yes, select from a list [Drop down menu specific to restaurant]
	Yes, open-ended [open-ended]
	No
	INO
	How many of this item did you have? [drop-down with numbers, default set at 1]
fo.other1mod1,	[If fo.other1 ne "No":]
etc.	Did you modify or add anything [ELSE] to this item? [If necessary, ask "What did you
[Add screens as	modify or add?"]
necessary]	Yes, add modification from a list [Drop down menu specific to restaurant]
necessary;	Yes, subtract modification from a list [Drop down menu specific to restaurant]
	Yes, open-ended [open-ended]
	No
	How many of this item did you have? [drop-down with numbers, default set at 1]
fo.other2, etc.	Did you order ANY OTHER appetizer, dessert or any other food items? [Include "shared"
[Add screens as	items. Probe for exact name of item, including variety and size, if applicable]
necessary]	Yes, select from a list [Drop down menu specific to restaurant]
	Yes, open-ended [open-ended]
	No
	How many of this item did you have? [drop-down with numbers, default set at 1]
fo.comp	[If restaurant=fast food, skip to f.meal]
, rototinp	Did you eat any complimentary or free items, such as bread? [If necessary, ask "What
	complimentary items did you eat?"]
	Yes, select from a list [Drop down menu specific to restaurant]
	Yes, open-ended [open-ended]
	No
	How many of this item did you have? [drop-down with numbers, default set at 1]
Dine-in or Takeout	Programmer Note: Ask only if site= HC Site 2 (521 or 522), Non - HC Site 2 (531 or 532),
Meal.inout	HC Site 4 (561 or 562) or Non - HC Site 4 (571)
	[Select appropriate response based on the participant's answer during the eligibility
	screening. Do NOT read out loud, unless you cannot remember their response. Leftovers

	do NOT count as take-out.]
	Was your meal dine-in or take out?
	 Dine-in Take out
Finish Meal	Programmer Note: Skip if site = [HC Site 2 (521 or 522), Non - HC Site 2 (531 or 532), HC
f.meal	Site 4 (561 or 562) or Non - HC Site 4 (571)] AND meal.inout = 2 (takeout). Ask all
	others.
Adapted from Hammond et al, 2011	
et ai, 2011	I'd like to ask about how much you actually ate.
	Did you eat all of your meal?
	1. No
	2. Yes 77. Don't know
	88. Refused
	So. Neruseu
f.mealamt	[If f.meal=NO:]
caiaine	How much of your [insert each separately: fo.main, fo.side, fo.other (as many items as
	entered)] did you eat? [read responses]
	1. One quarter
	2. One half
	3. Three quarters 4. Entire item
	5. Other [open-ended]
	77. Don't know
	88. Refused
Finish B 4 4	Decree National Materials (No. 1) (10.0) (10.0) (10.0) (10.0) (10.0) (10.0) (10.0)
Finish Drink f.drink	Programmer Note: Skip if site = [HC Site 2 (521 or 522), Non - HC Site 2 (531 or 532), HC Site 4 (561 or 562) or Non - HC Site 4 (571)] AND meal.inout = 2 (takeout). Ask all
I.UIIIK	others.
Adapted from Hammond	others.
et al, 2011	Did you finish all of the drink(s) you ordered?
	1. No
	2. Yes
	77. Don't know
	88. Refused
f.drinkamt	
	[If f.drink=NO AND fo.ndrink=1] How much of your [insert each separately: fo.drink1,
	fo.drink2, etc.] did you drink? [read responses]
	[If f.drink=NO AND fo.ndrink>1] How much of your last refill of [insert each separately: fo.drink1, fo.drink2, etc.] did you drink? [read responses]
	io.ariikt, io.ariikz, etc.j ala you ariik: [reaa responses]

	1. One quarter
	2. One half
	3. Three quarters
	4. Entire item
	5. Other [open-ended]
	77. Don't know
	88. Refused
Share Food	Programmer Note: Skip if site = [HC Site 2 (521 or 522), Non - HC Site 2 (531 or 532), HC
f.share	Site 4 (561 or 562) or Non - HC Site 4 (571)] AND meal.inout = 2 (takeout). Ask all
	others.
	Did you consume any food or drink from anyone also's mool?
	Did you consume any food or drink from anyone else's meal?
	["A few bites" counts as "Yes".]
	1. No
	2. Yes
	77. Don't know
	88. Refused
Pizza – Menu	Programmer Note: Ask only if site= [HC Site 4 (561 or 562) or Non - HC Site 4 (571)] AND
Viewing	meal.inout = 2 (takeout).
Pizza.menu	
1 1224.1116114	You mentioned your meal was take-out. Before you ordered, did you look at a
	menu[Read first 3 options]
	1. In store,
	2. Online, or
	3. Not at all
	4. Other [open-ended]
	77. Don't know
	88. Refused
Meal.idea	Programmer Note: Ask if:
meal.idea	- site=[HC Site 4 (561 or 562) or Non - HC Site 4 (571)] AND meal.inout = 1 (dine-
	in),
	- OR site is NOT [HC Site 4 (561 or 562) or Non - HC Site 4 (571)]
	Did you have an idea of what specific meal you would order before you entered the
	restaurant today? Would you say that you had a [Read first 3 options]
	Programmer Note: If site= [HC Site 4 (561 or 562) or Non - HC Site 4 (571)] AND
	meal.inout = 2 (takeout) AND pizza.menu=1, 2 or 4, ask:
	Did you have an idea of what specific meal you would order before you saw the menu
	today? Would you say that you had a [Read first 3 options]
	Firm idea what specific meal you would order
	1. Titti idea what specific friedly you would order

	2.6
	2. Some idea
	3. No idea of what specific meal you would order
	77. Don't know
	88. Refused
	Programmer Note: SKIP question if site=[HC Site 4 (561 or 562) or Non - HC Site 4 (571)] AND meal.inout = 2 (takeout) AND pizza.menu=3, 77 or 88
Order.idea	Programmer note: Ask only if meal.idea = 1 OR 2
order.idea	
order.ided	Did you end up ordering that specific meal? [Do NOT read options out loud]
	1. No
	2. Yes
	3. Partly / Some
	77. Don't know
	88. Refused
Order.change	Programmer note: Ask only if order.idea = 1 OR 3
order.change	Tropianime note. 75k only if orderided - 1 on 5
order.change	Marthan and the control of the contr
	Was there anything in particular that led you to change your idea of what to order?
	[If respondent needs clarification, say, "For example, anything you might have seen or
	heard, or discussed in the restaurant."
	DO NOT read options out loud – select all that are mentioned.]
	Healthier option / Nutrition general
	2. Health Check – nutrition symbol
	3. Price
	4. Taste / looked better
	5. Try something new
	6. Other [open ended]
	77. Don't know
	88. Refused
	oo. Refuseu
Perceptions of	On a scale of 1 to 10, where 1 is "not at all healthy" and 10 is "extremely healthy", in your
nutrition quality	opinion, how healthy was your [meal/drink] choice today?
p.nutrqual	
	1 2 3 4 5 6 7 8 9 10
Adapted from Hammond et al, 2011	Not at all Extremely
	77. Don't know
	88. Refused
	[Programmer note: radio buttons for each number, word anchors lined up below the

	numbers 1 and 10. Include "Don't Know" and "Refused" options.]
Influences on menu selection Adapted from Bollinger et al, 2010	I'd now like to ask you about factors that may have influenced what [food/drink] you chose to order today. On a scale of 1 to 10, where 1 is "not at all important" and 10 is "extremely important", when you decided what to order today [Repeat scale as necessary]
infl.price infl.taste	How important was price?
infl.conven infl.calorie	How important was taste? How important was convenience?
infl.nutrqual	How important was the number of calories? How important was overall nutritional quality?
	1 2 3 4 5 6 7 8 9 10
	Not at all important Extremely important
	77. Don't know 88. Refused
	[This question is not asking whether respondents thought their meal was pricey or tasty; we are asking about what influenced their choice when they ordered, <u>before</u> they received their meal.]
	[Programmer note: Use scale as above for each of the five items. Randomize order of items and include "Don't Know" and "Refused" options for each.]
Meal Before	Have you ordered the same meal in this restaurant before your visit today? (DO NOT
meal.before	read options out loud – select all that are mentioned.) 1. No
	2. Yes
	77. Don't know 88. Refused
Reasons for eating	What was the main reason you chose to eat out today?
out	[DO NOT read options out loud – select all that are mentioned.]
reason.eat.out	
	Special occasion / celebration
	2. Convenience / Didn't feel like cooking3. Escape from routine / try something new
	4. Taste / Like food
	5. Other
	77. Don't know
	88. Refused

	Programmer note: No open ended response for "other" category
Labeling	I'd now like to ask you about the restaurant environment.
Awareness 1	Tu now like to ask you about the restaurant environment.
	Did you notice any nutrition information anywhere in the restaurant today?
info.notice	
	1. No 2. Yes
Adapted from	77. Don't know
Dumanovsky et al., 2011	88. Refused
·	oo. netuseu
	[Programmer note: If "NO", skip to comp.eat]
Labeling	Where was this information located? [DO NOT read options out loud – select all that are
Awareness 2	mentioned.]
info.location1	
info.location2	[If respondent says "on sign" ask: Where was the sign?]
info.location3, etc.	1. On the menu /menu board
	2. On a poster
Adapted from Hammond	3. On a wall/window/door
et al., 2011	4. Next to food item / food display
	5. On the item packaging/wrapper
	6. On the tray liner / on the tray
	7. In a pamphlet or brochure
	8. On a computer screen/At a kiosk
	9. Other → Specify: [open-ended text] 77. Don't know
	88. Refused
Labeling	[Programmer note: Ask set of info.type, info.when, info.infl, info.inflhow separately for
Awareness 3	each source selected in info.location]
info.type	What type of nutrition information did you notice [insert each source identified in
	info.location]? [DO NOT read options out loud – select all that are mentioned]
Adapted from Hammond	1. Health Check / Heart & Stroke symbol
et al., 2011	2. Other symbol
	3. Calories
	4. Fat
	5. Sugar / Carbohydrates
	6. Sodium / Salt
	7. Organic
	8. Allergen / Gluten information
	9. Vegetarian/ Vegan
	10. Other → Specify: [open-ended text]
	77. Don't know

	88. Refused
Menu Label	Did you notice the information [insert each source identified in info.location] before,
Influence 1	during, or after you ordered? [Check all that apply]
info.when	1. Before
	2. During
	3. After
	4. Other: 77. Don't know
	88. Refused
Menu Label	[Skip if info.when=3 only:]
Influence 2	Did the nutrition information [insert each source identified in info.location] influence
info.infl	what you ordered?
	1. No
Adapted from Hammond	2. Yes
et al., 2011	77. Don't know
	88. Refused
	[Programmer note: If "NO" skip to comp.eat]
Menu Label	How did the nutrition information [insert each source identified in info.location]
Influence 3	influence what you ordered? [DO NOT read options out loud – select all options that
info.inflhow	apply]
	1. Ordered a smaller size
Adapated from Bassett et	Ordered a larger size
al., 2008; Elbel et al., 2009 and 2001;Pulos et al.,	3. Ordered items with less calories
2011; Dumanovsky et al.,	4. Ordered items with more calories
2011	5. Ordered "healthier" items
	6. Ordered "less healthy" items
	7. Ordered fewer items (e.g., no side/dessert)
	8. Ordered more items9. Ate less/didn't finish
	10. Ate more
	11. Other → Specify: [open-ended text]
	77. Don't know
	88. Refused
Calorie	Will you change what you eat for the rest of the day based on your [meal/drink] choice
compensation 1	here? [read first 3 options]
comp.eat	1. No
	I / Ι/Ια//ηΔ
Adapted from Hammond	2. Maybe 3. Yes

et al., 2011	88. Refused
	Oor Network
comp.eathow	[If comp.eat=2,3:] What will you change? [DO NOT read options. Check all that are mentioned and/or specify "Other".] 1. Eat less than normal 2. Eat more than normal 3. Make healthier choices 4. Make less healthy choices 5. Other → Specify: [open-ended text] 77. Don't know 88. Refused
Calorie	Will you change your level of physical activity for the rest of the day based on your
compensation 2	[meal/drink] choice here? [read first 3 options]
comp.pa	1. No
	2. Maybe
Adapted from Hammond	3. Yes
et al., 2011	77. Don't know
	88. Refused
comp.pahow	<pre>[If comp.pa=2,3:] What will you change? [DO NOT read options. Check all that are mentioned and/or specify "Other".] 1. More active 2. Less active</pre>
	3. Other → Specify: [open-ended text] 77. Don't know 88. Refused
Child Order	3. Other → Specify: [open-ended text]77. Don't know
Child Order Child.order	 3. Other → Specify: [open-ended text] 77. Don't know 88. Refused Did you order food for any children aged 12 or under today? 1. No
	 3. Other → Specify: [open-ended text] 77. Don't know 88. Refused Did you order food for any children aged 12 or under today? 1. No 2. Yes
	 3. Other → Specify: [open-ended text] 77. Don't know 88. Refused Did you order food for any children aged 12 or under today? 1. No 2. Yes 77. Don't know
	 3. Other → Specify: [open-ended text] 77. Don't know 88. Refused Did you order food for any children aged 12 or under today? 1. No 2. Yes
	 3. Other → Specify: [open-ended text] 77. Don't know 88. Refused Did you order food for any children aged 12 or under today? 1. No 2. Yes 77. Don't know
	 3. Other → Specify: [open-ended text] 77. Don't know 88. Refused Did you order food for any children aged 12 or under today? 1. No 2. Yes 77. Don't know 88. Refused
Child.order	 3. Other → Specify: [open-ended text] 77. Don't know 88. Refused Did you order food for any children aged 12 or under today? 1. No 2. Yes 77. Don't know 88. Refused Programmer note: If child.order=1,77 or 88, skip to healthcheck.recog
Child.order Influences on	 3. Other → Specify: [open-ended text] 77. Don't know 88. Refused Did you order food for any children aged 12 or under today? 1. No 2. Yes 77. Don't know 88. Refused Programmer note: If child.order=1,77 or 88, skip to healthcheck.recog

2 3 4 5 6 7 8 9 10 mportant Extremely important now d ion is not asking whether respondents thought the meal was nutritious; we are ut what influenced their choice when they ordered, before the child received er note: If child.nutrqual=1, skip to healthcheck.recog er note: child.nutrqual=2-10:
ion is not asking whether respondents thought the meal was nutritious; we are ut what influenced their choice when they ordered, before the child received of the received of the child received of the received of the child.nutrqual=1, skip to healthcheck.recoger note: child.nutrqual=2-10:
ut what influenced their choice when they ordered, <u>before</u> the child received er note: If child.nutrqual=1, skip to healthcheck.recog er note: child.nutrqual=2-10:
er note: child.nutrqual=2-10:
trition information in the restaurant influence the meal you ordered for your
s n't know fused
er note: If child.info.infl=1,77 or 88, skip to healthcheck.recog
er note: If child.info.infl=2:
mation influenced the meal you ordered for your child?
ead options out loud – select all that are mentioned. If R gives a "source" (e.g., oster), ask "What was on it that influenced you?"]
alth Check / Heart & Stroke symbol ner symbol ories ecific ingredients ner → Specify: [open-ended text] n't know

Health Check	Programmer note: show symbol on screen
Recognize	
healthcheck.recog	Do you recognize this symbol?
	[Show screen]
	THEART & STROKE FOUNDATION 1. No 2. Yes 77. Don't know 88. Refused
Health Check	Programmer note: If healthcheck.recog =1, SKIP TO healthcheck.understand
Location	
healthcheck.locatio	Where have you seen this symbol?
n	
	[DO NOT read options out loud – select all that are mentioned]
	1. Restaurant / Menu
	2. Pre-packaged foods / groceries
	3. Poster / signs in this restaurant
	4. Poster / signs other
	5. TV
	6. Internet
	7. Magazine
	8. Pamphlet
	9. Other → Specify: [open-ended text]
	77. Don't know
	88. Refused
u di di	
Health Check	If this symbol appeared next to a food item on a menu, what would it mean?
Understanding	
healthcheck.unders	[DO NOT read options out loud – select all that are mentioned]
tand	1. Nutritious / Healthy option
	2. Low salt/sodium
	3. Low fat
	4. Low calorie

	5. Low sugar
	6. Low Carbohydrates
	7. Organic
	8. Allergen / Gluten information
	9. Vegetarian/ Vegan
	10. Other → Specify: [open-ended text]
	77. Don't know
	88. Refused
Health Check	Programmer note: If child.order=1,77 or 88:
Influence1	
healthcheck.influen	Did any of the items you ordered today have this symbol?
ce1	
	1. No
	2. Yes
	77. Don't know
	88. Refused
	oo. Netuseu
Health Check	Programmer note: If child.order=2:
Influence1-child	
healthcheck.influen	Did any of the items you ordered today for yourself or your children have this symbol?
ce1c	[If R says yes, ask, "Would that be for yourself, your child or both of you?"]
	1. No
	2. Yes – self
	3. Yes – child
	4. Yes – both
	77. Don't know
	88. Refused
	ob. Neruseu
Health Check	Programmer note: Ask if child.order=1,77 or 88 AND healthcheck.influence1=2
Influence2	
healthcheck.influen	Did the symbol influence what you ordered today?
ce2	
	1. No
	2. Yes
	77. Don't know
	88. Refused

Health Check	Programmer note: Ask only if healthcheck.influence1c=2,3,4
Influence2-child	Programmer note: Skip if child.info.type=1
healthcheck.influen	
ce2c	Did the symbol influence what you ordered for yourself or your children?
	[If R says yes, ask, "Would that be for yourself, your child or both of you?"]
	1. No
	2. Yes – self
	3. Yes – child
	4. Yes – both
	77. Don't know
	88. Refused
Health Check	In the future, if you saw this information next to a menu item in a restaurant, would you
Influence3	be:
healthcheck.influen	[Read first 3 options]
ce3	1. More likely to select item
	Less likely to select item It would make no difference
	77. Don't know
	88. Refused
	oo. Nerasea
Frequency Eating	Next I am going to ask you about meals. By meal, I mean breakfast, lunch and dinner.
Out	During the past 7 days, how many meals did you get that were prepared away from
freq.eatout	home in places such as restaurants, fast food places, food stands, grocery stores, or from
	vending machines?
Adapted from NHANES WHQ, 2009-2010	Enter number: [Programmer note: numeric, 0-30 limit]
Wild, 2003 2010	77. Don't know
	88. Refused
A	
Availability of Nutrition info	On a scale of 1 to 10, where 1 is "not at all easy" and 10 is "extremely easy", is nutrition
	information easily available in this restaurant?
p.infoavail	1 2 2 4 5 6 7 9 0 10
	1 2 3 4 5 6 7 8 9 10
	Not at all Extremely
	77. Don't Know
	88. Refused
	oo. Neruseu
	[Programmer note: radio buttons for each number, word anchors lined up below the
	numbers 1 and 10. Include "Don't Know" and "Refused" options.]

Sources of	In the past year, have you looked up nutrition information for restaurant meals online?
nutrition info	1. No
info.online	2. Yes
	77. Don't know
Adapted from: TNT Surveys	88. Refused
info.source[a-j]	In the past year, have you used any information on diet or nutrition from any of the following sources. Please tell me 'yes' or 'no' for each. [read list and select all 'yes' responses] a) Food package labels b) Magazines, articles or books c) TV or radio d) Fitness or weight loss program e) Internet f) Dietitian g) Family doctor h) Other health professional → Specify: [open-ended text] i) Food company ads or materials j) Government / health agency websites 77. Don't know 88. Refused
	[Programmer note: Randomize order of items on list. Code each as Present/Absent]
Overall diet health	In general, how healthy is your overall diet? [read first 5 options out loud]
	1. Poor
p.overalldiet	2. Fair
	3. Good
	4. Very good
Adapted from: NHANES	5. Excellent
DBQ, 2009-2010	77. Don't know
	88. Refused
Fruit and	The next questions are about the foods you usually eat or drink. Think about all the
Vegetable Section	foods you eat, both meals and snacks, at home and away from home.
	[If R says 'it varies', ask about a typical month. If they say there is no typical month, ask about the last month. If R says 'a few times, a couple of times, once in a while, etc.,' ask for their best guess at an exact number.]

Fruit and	How often do you usually drink fruit juices such as orange, grapefruit or tomato?
Vegetable 1	(for example: once a day, three times a week, twice a month)
fv.juice	1 per day
	2 per week
Adapted from CCHS	3 per month
	4 per year
	5. Never
	77. Don't know
	88. Refused
	[Fruit juice means 100% fruit juice. If "R" asks what we mean by 100% fruit juice, say "a
	juice with no sugar or sweetener added."]
Fruit and	Not counting juice, how often do you usually eat fruit?
Vegetable 2	1 per day
fv.fruit	2 per week
	3 per month
Adapted from CCHS	4 per year
	5. Never
	77. Don't know
	88. Refused
	[If required, this includes canned, frozen and fresh fruit, eaten on its own or with other
	food, cooked or raw.]
Fruit and	How often do you usually eat green salad?
Vegetable 3	1 per day
fv.salad	2 per week
	3 per month
Adapted from CCHS	4 per year
	5. Never
	77. Don't know
	88. Refused
	[A green salad includes lettuce with or without other ingredients.]
Fruit and	How often do you usually eat potatoes, not including french fries, fried potatoes, or
Vegetable 4	potato chips?
fv.potato	1 per day
	2 per week
Adapted from CCHS	3 per month
	4 per year
	5. Never
	77. Don't know
	88. Refused
	[If asked, sweet potatoes and yams do NOT count.]

Fruit and	How often do you usually eat carrots?
Vegetable 5	1 per day
fv.carrot	2 per week
	3 per month
Adapted from CCHS	4 per year
	5. Never
	77. Don't know
	88. Refused
	[If required, includes canned, frozen and fresh, eaten on their own or with other food,
	cooked or raw.]
Fruit and	Not counting carrots, potatoes, or salad, how many servings of other vegetables do you
Vegetable 7	usually eat?
fv.veg	1 per day
	2 per week
Adapted from CCHS	3 per month
	4 per year
	5. Never
	77. Don't know
	88. Refused
	[If required includes expend from and freely extend on their purpose with athor food
	[If required, includes canned, frozen and fresh, eaten on their own or with other food,
	cooked or raw.]
Sodium	Which of the following applies to you: [read first 2 options out loud]
sodium	1. I am trying to reduce the amount of salt/sodium in my diet
	 I am NOT trying to reduce the amount of salt/sodium in my diet Don't know
Adapted from: NHANES, 2009-2010	88. Refused
2003 2010	oo. Refused
Current weight	Which of the following are you trying to do about your weight: [read first 4 options out
loss efforts	loud
wt.behav	1. Lose weight
wt.bellav	2. Gain weight
Adapted from: NHANES,	3. Stay the same weight, or are you
2009-2010	4. Not trying to do anything about your weight?
	77. Don't know
	88. Refused
Demographics	Now I'd like to ask a few general background questions.
Age	In what year were you born?
_	Enter year: [numeric, 1900-1995 limit]
age	77. Don't know
	88. Refused

Education	What is the highest level of education you have completed, or the highest degree you
	have received? [DO NOT read options]
Adams of frame Allianis	
Adapted from: NHANES DMQ, 2009-2010	1. Less than high school diploma
	2. High school diploma or equivalent
educ.can	3. Trade certificate or diploma from a technical/vocational school or apprenticeship training
	Diploma or certificate from community college or CEGEP (other than trades certificates or diplomas)
	5. Some university, or university certificate/diploma below the bachelor's level6. Bachelor's degree (e.g., BA, BSc)
	7. University degree above the bachelor's level (e.g., Master's, professional school, doctorate)
	77. Don't know
	88. Refused
Household size	Including yourself, how many people currently live in your household? Please do not include anyone who usually lives somewhere else.
hhldsize	Enter number: [numeric, 1-20]
	77. Don't know
Adapted from: NHANES	88. Refused
Income	For statistical purposes only, what was your total household income before taxes, in the
income50	past 12 months? Would it be less than \$50,000 or more than \$50,000 per year?
	1 Less than \$50,000
	2 \$50,000 and more
Adapted from: Canadian	77. Don't know
Community Health Survey	88. Refused
and NHANES, 2009-10	[If income loss, include in <\$50,000]
	[Programmer note: income1/income2 options conditional on income50]
income1	
	[If income50=1]:
	Please stop me when I have read the category which applies to your household. Was it
	1 Less than \$10,000
	2 \$10,000 to less than \$20,000
	3 \$20,000 to less than \$30,000
	4 \$30,000 to less than \$40,000
	5 \$40,000 to less than \$50,000
income2	77. Don't know 88. Refused
	oo. neruseu
i	

	[If income50=2]:
	Please stop me when I have read the category which applies to your household. Was it 1 \$50,000 to less than \$60,000
	2 \$60,000 to less than \$70,000
	3 \$70,000 to less than \$80,000
	4 \$80,000 to less than \$90,000 5 \$90,000 to less than \$100,000
	6 \$100,000 to less than \$150,000
	7 \$150,000 and over
	77. Don't know
	88. Refused
Ethnicity	People in Canada come from many racial and cultural groups. Do you consider yourself to
	be [Read and check all that apply]
race.can	1. White
	2. South Asian (e.g., East Indian, Pakistani, Sri Lankan)
Adapted from Canadian Community Health Survey	3. Chinese 4. Black
Community Health Survey	5. Filipino
	6. Latin American
	7. Arab
	8. Southeast Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian)
	9. West Asian (e.g., Iranian, Afghan)
	10. Korean
	11. Japanese
	12. Aboriginal (e.g., First Nations, Métis, Inuk/Inuit)
	13. Other → Specify: [open-ended text]
	77. Don't know
	88. Refused
Height and Weight	It is helpful to know the height and weight of survey participants. Would you be
htwt.tell	comfortable telling me your height and weight?
	1. No
	2. Yes
	[Programmer note: If htwt.tell="no", skip to receipt.yn]
	How tall are you without shoes?
height.feet	
height.inch	Enter number: feet [numeric, 3-7]
	AND
	Enter number: inches [numeric, 0-12]
height.cm	OR
	Enter number: cm [numeric, 100-250]
	77. Don't know
	88. Refused

weight.lb	How much do you weigh without clothes or shoes?
	Enter number: pounds [numeric, 60-999]
	77. Don't know
	88. Refused
wieght ka	
wieght.kg	OR
	Enter number: kg [numeric, 30-500]
	77. Don't know
	88. Refused
Debriefing	Thank you for completing this survey today.
	The information letter I gave you earlier includes contact information for the researcher
	and the Office of Research Ethics, if you have any questions or concerns.
	and the chief of headersh lamber, in you have any questions of contestino.
	To thank you for your participation today, we would like to give you a \$5 gift card. Please
	sign or initial here to confirm that you've received it.
	[Give respondent \$5 gift card and have them sign or initial that it was received.]
	[Programmer note: record variables, do not show on screen]
intend	End time
intlength	Survey length (End time – Start time)
Interviewer Notes	Do you have any concerns about data quality or are there any changes that need to be
note	made to the data entered?
	RECORD ID NUMBER BEFORE CLICKING 'FINISH'
	No
	Changes to data entry [make note on tracking sheet]
	Some concerns about data quality [make note on tracking sheet]
	Serious concerns about data quality [make note on tracking sheet]
	Other [open-ended]
	77. Don't Know
	88. Refused
Goodbye	Thank you again for all your help. END
<u> </u>	

Appendix B
Sample Characteristics by Restaurant

	HC Site 1 (HC)	Non - HC Site 1	Statistical
	(n=148)	(n=150)	Difference
Age Mean(SD)	49.4 (17.1)	43.4 (19.5)	F=7.835 p=0.005
Gender %			
Male	54.1%	61.3%	X ² =1.618 p=0.203
Female	45.9%	38.7%	
Education %			
High School	40.5%	25.3%	X ² =8.511 p=0.037
Some Further	33.1%	40.7%	-
Education			
University Degree or	25.0%	33.3%	
Higher			
Not Stated	1.4%	0.7%	
Income %			
Less than \$50,000	27.0%	34.0%	X ² =3.083 p=0.379
\$50,000-\$90,000	23.6%	17.3%	
More than \$90,000	24.3%	26.7%	
Not Stated	25.0%	22.0%	
Race %			
White	86.5%	78.7%	X ² =3.162 p=0.075
Non-White/Not Stated	13.5%	21.3%	
BMI %			
Underweight	-	2.0%	X ² =5.631 p=0.228
Normal Weight	31.1%	29.3%	
Overweight	31.8%	38.0%	
Obese	24.3%	17.3%	
Not Stated	12.8%	13.3%	
Weight Aspirations %			
Lose Weight	51.4%	46.7%	X ² =6.195 p=0.185
Gain Weight	3.4%	10.0%	
Stay Same Weight	25.7%	22.0%	
Not Trying To Do	18.2%	20.7%	
Anything			
Not Stated	1.4%	0.7%	
Overall Diet %			
Poor	6.1%	8.0%	X ² =3.872 p=0.568

Fair	27.0%	30.7%	
Good	38.5%	37.3%	
Very Good	25.0%	20.7%	
Excellent	2.0%	3.3%	
Not Stated	1.4%	-	
Fruit and Vegetable	5.1 (2.7)	4.7 (2.4)	F=2.057 p=0.153
Mean(SD)			

	HC Site 2 (HC)	HC Site 2 (HC) Non - HC Site 2 (n=144) (n=147)	Statistical
	(n=144)		Difference
Age Mean(SD)	35.9 (12.6)	34.0 (11.3)	F=1.650 p=0.200
Gender %			
Male	53.5%	51.0%	X ² =0.175 p=0.675
Female	46.5%	49.0%	
Education %			
High School	20.8%	20.4%	X ² =3.305 p=0.347
Some Further	33.3%	42.2%	
Education			
University Degree or	45.1%	36.1%	
Higher			
Not Stated	0.7%	1.4%	
Income %			
Less than \$50,000	5.6%	12.2%	X ² =5.534 p=0.137
\$50,000-\$90,000	19.4%	13.6%	
More than \$90,000	46.5%	49.0%	
Not Stated	28.5%	25.2%	
Race %			
White	82.6%	84.4%	X ² =0.155 p=0.694
Non-White/Not Stated	17.4%	15.6%	
BMI %			
Underweight	0.7%	0.7%	X ² =1.879 p=0.758
Normal Weight	41.7%	38.8%	
Overweight	37.5%	37.4%	
Obese	15.3%	14.3%	
Not Stated	4.9%	8.8%	
Weight Aspirations %			
Lose Weight	52.1%	49.0%	X ² =3.456 p=0.485
Gain Weight	6.9%	6.8%	
Stay Same Weight	23.6%	26.5%	
Not Trying To Do	17.4%	15.6%	

Anything			
Not Stated		2.0%	
Overall Diet %			
Poor	8.3%	2.7%	X ² =13.280 p=0.021
Fair	19.4%	29.3%	
Good	34.0%	42.2%	
Very Good	31.9%	20.4%	
Excellent	6.3%	4.8%	
Not Stated		0.7%	
Fruit and Vegetable Mean(SD)	5.8 (2.8)	5.6 (3.2)	F=0.282 p=0.596

	HC Site 3 (HC) (n=149)	Montana's (n=150)	Statistical Difference
Age Mean(SD)	47.7 (14.6)	40.5 (15.2)	F=17.164 p<0.001
Gender %			
Male	34.2%	44.0%	X ² =2.997 p=0.083
Female	65.8%	56.0%	
Education %			
High School	28.2%	24.0%	X ² =1.276 p=0.735
Some Further	38.9%	38.0%	
Education			
University Degree or	32.2%	36.7%	
Higher			
Not Stated	0.7%	1.3%	
Income %			
Less than \$50,000	16.1%	10.7%	X ² =2.488 p=0.477
\$50,000-\$90,000	22.1%	25.3%	
More than \$90,000	38.3%	42.7%	
Not Stated	23.5%	21.3%	
Race %			
White	94.6%	88.0%	X ² =4.140 p=0.042
Non-White/Not Stated	5.4%	12.0%	
ВМІ %			
Underweight	0.7%	0.7%	X ² =1.004 p=0.909
Normal Weight	34.2%	34.0%	
Overweight	30.9%	35.3%	
Obese	18.8%	15.3%	
Not Stated	15.4%	14.7%	

Weight Aspirations %			
Lose Weight	51.7%	40.0%	X ² =5.300 p=0.258
Gain Weight	4.0%	2.7%	
Stay Same Weight	26.8%	35.3%	
Not Trying To Do	16.8%	20.7%	
Anything			
Not Stated	0.7%	1.3%	
Overall Diet %			
Poor	6.0%	6.7%	X^2 =2.448 p=0.784
Fair	26.2%	24.7%	
Good	40.9%	38.0%	
Very Good	24.2%	26.7%	
Excellent	2.0%	4.0%	
Not Stated	0.7%	-	
Fruit and Vegetable	4.8 (2.5)	5.1 (2.7)	F=0.904 p=0.343
Mean(SD)			

	HC Site 4 (HC) (n=148)	Non - HC Site 4 (n=90)	Statistical Difference
Age Mean(SD)	40.1 (17.2)	44.3 (16.8)	F=3.313 p=0.070
Gender %			
Male	60.1%	42.2%	X ² =7.216 p=0.007
Female	39.9%	57.8%	
Education %			
High School	25.7%	50.0%	X ² =27.655 p<0.001
Some Further	34.5%	33.3%	
Education			
University Degree or	39.9%	13.3%	
Higher			
Not Stated	-	3.3%	
Income %			
Less than \$50,000	14.9%	14.4%	X^2 =4.438 p=0.218
\$50,000-\$90,000	26.4%	28.9%	
More than \$90,000	37.2%	25.6%	
Not Stated	21.6%	31.1%	
Race %			
White	75.0%	91.1%	X ² =9.475 p=0.002
Non-White	25.0%	8.9%	
BMI %			
Underweight	0.7%	1.1%	X ² =9.076 p=0.059
Normal Weight	29.1%	18.9%	

p=0.922
n=0 922
n=0 922
n-0 922
p-0.522
p=0.670
p=0.955
2

Appendix C

Consumption of nutrients: Health Check and Comparison restaurants

HC Site 1 vs. Non - HC Site 1

Table 22.

Mean nutrients consumed in meal at paired Health Check vs. Comparison restaurants (food and drink)

	HC Site 1 (n=148) Mean (SD)	Non - HC Site 1 (n=146) Mean (SD)	Test Statistic Beta, p value
Calories (kcal)	917.3 (331.2)	794.5 (381.8)	163.2, <0.001
Total fat (g)	34.3 (14.8)	36.4 (20.7)	-0.3, 0.893
Saturated fat (g)	10.2 (7.0)	12.4 (7.9)	-1.5, 0.073
Sodium (mg)	2001.6 (660.0)	1461.3 (708.9)	617.4, <0.001
Carbohydrates (g)	119.3 (51.9)	179.5 (241.7)	-71.7, 0.001
Fibre (g)	9.3 (4.4)	6.1 (3.4)	2.9, <0.001
Protein (g)	29.8 (9.8)	31.9 (16.4)	-0.7, 0.651

HC Site 2 vs. Non - HC Site 2

Table 23.

Mean nutrients consumed in meal at paired Health Check vs. Comparison restaurants (food and drink)

	HC Site 2 (n=139) Mean (SD)	Non - HC Site 2 (n=0-148) Mean (SD)	Test Statistic Beta, p value
Calories (kcal)	534.9 (212.0)	551.1 (209.1)	-11.5, 0.649
Total fat (g)	17.5 (10.3)	18.7 (12.3)	-1.2, 0.405
Saturated fat (g)	4.7 (3.8)		
Sodium (mg)	1363.3 (562.2)	1579.8 (622.2)	-223.1, 0.001
Carbohydrates (g)	69.0 (29.4)	70.4 (26.8)	-1.0, 0.762
Fibre (g)	7.1 (2.3)	5.3 (2.1)	1.7, <0.001
Protein (g)	28.1 (9.8)	26.3 (9.9)	2.3, 0.048

HC Site 3 vs. Non - HC Site 3

Table 24.

Mean nutrients consumed in meal at paired Health Check vs. Comparison restaurants (food and drink)

	HC Site 3 (n=143) Mean (SD)	Non HC Site 3 (n=147) Mean (SD)	Test Statistic Beta, p value
Calories (kcal)	1379.3 (756.8)	1561.2 (669.6)	-129.2, 0.136
Total fat (g)	71.1 (48.0)	77.0 (38.3)	-3.0, 0.571
Saturated fat (g)	19.4 (16.1)	23.2 (13.7)	-2.4, 0.194
Sodium (mg)	2609.8 (1597.5)	2684.7 (1105.8)	2.7, 0.987
Carbohydrates (g)	115.1 (81.9)	115.1 (104.6)	-36.3, 0.002
Fibre (g)	9.0 (5.6)	8.6 (4.1)	0.6, 0.333
Protein (g)	51.6 (28.6)	50.1 (22.7)	2.5, 0.411

HC Site 4 vs. Non - HC Site 4

Table 25.

Mean nutrients consumed in meal at paired Health Check vs. Comparison restaurants (food and drink)

	HC Site 4 (n=129) Mean (SD)	Non - HC Site 4 (n=79) Mean (SD)	Test Statistic Beta, p value
Calories (kcal)	1607.6 (783.1)	1479.9 (664.0)	63.5, 0.568
Total fat (g)	70.0 (36.7)	69.3 (35.7)	-2.3, 0.682
Saturated fat (g)	23.0 (11.8)	25.9 (12.7)	-3.4, 0.066
Sodium (mg)	2214.8 (1294.6)	3558.2 (1887.1)	-1377.8, <0.001
Carbohydrates (g)	178.8 (95.5)	148.0 (68.2)	22.2, 0.084
Fibre (g)	9.4 (5.3)	8.1 (4.0)	1.1, 0.146
Protein (g)	62.6 (30.7)	57.1 (27.8)	4.3, 0.334