

British Columbia Healthy Eating Population Health Survey, 2013: Technical report

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Prepared for the Population and Public Health Program Provincial Health Services Authority (PHSA)

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Executive summary

This technical report presents the findings of the Healthy Eating Population Health Survey conducted in 2013 in British Columbia (B.C.) with the purpose to assess healthy eating knowledge and behaviours and to support the surveillance and monitoring of healthy eating across the province. This survey was conducted by the Provincial Health Services Authority (PHSA) to contribute to the provincial Healthy Eating Strategy, a three-year agenda (2011-2014) for coordinated, consolidated, and collective action to improve healthy eating in B.C. Developed as part of the Healthy Families BC initiative, the strategy employs health promotion and disease prevention strategy to improve the health and well-being of and prevent chronic disease among British Columbians.

In consultation with key stakeholders, including representatives from the Ministry of Health and the five regional health authorities, PHSA identified a series of healthy eating indicator measurements for this survey to investigate self-reported knowledge and behaviours of the adult British Columbian population with respect to food and nutrition. Adapted from a variety of existing national and provincial health surveys, the Healthy Eating Population Health Survey, 2013 questions were designed to address the specific needs of the HFBC Healthy Eating Strategy. Therefore, this survey's results may not be comparable with the results of other similar surveys due to variation in specific survey questions.

Launched in 2013, the survey was administered by BC Stats within the provision of Statistics Act. Survey data was collected from a random sample of 2,653 respondents aged 18 years or older, and data was weighted to ensure representation of B.C.'s population by health region, age, and gender.

Highlights

Eating habits and health

In the survey, "eating habits" were defined as what food and beverage the participants consume, and where and when they consume the food and beverage, and "health" was defined as not merely the absence of disease or injury but also physical, mental, and social well-being. Most British Columbians considered their eating habits (73.7%) and health (78.6%) to be good to very good. However, there were still about one quarter of British Columbians who thought their eating habits (26.3%) and health (21.4%) were fair to poor. Over half of British Columbians (53.3%) were overweight or obese.

Many British Columbians are participating in healthy eating habits and lifestyles that can contribute to better health. Most British Columbians (71.8%) indicated that they had improved or plan to improve at least one aspect of their eating habits in the past 12 months. The top three eating habits that they had improved or planned to improve were: eating more fruits and vegetables (88.4%), reducing sugary foods/drinks (83.8%), and reducing fat (77.4%). The top three reasons for improving or planning to improve eating habits further were: to improve overall health (94.3%), to increase energy or athletic performance (76.8%), and to manage weight (72.9%). Although results showed that British Columbians had sought out ways to improve their overall nutrition and health, about two-thirds (63.3%) reported they were not consuming fruits and vegetables five or more times per day (adequate daily fruit and vegetable consumption level used by

Statistics Canada). The proportion of people who reported consuming fruits and vegetables five or more times per day was higher in females (44.8%) than males (28.2%).

Many nutritional and social benefits are associated with family meals. A vast majority of British Columbians (83.6%) reported eating a meal together at home with most or all of household members at least four times in a week. Younger British Columbians (age 18-34) were less likely to do so compared to senior British Columbians (age 65+).

Access to healthy foods

Economic, social, and environmental factors play a role in determining individuals' access to healthy foods. A vast majority of British Columbians indicated that they had sufficient time to eat healthy foods (81.8%), healthy food options were available (89.1%), healthy foods were affordable (80.8%), and they had no difficulties getting healthy foods because of mobility issues or lack of transportation (90.2%). However, there were still about 10-20% of British Columbians who indicated having difficulty accessing healthy foods, including insufficient time to eat healthy foods (18.2%), the lack of availability (10.9%) or affordability (19.2%) of healthy food options, and mobility or transportation issues (9.8%). Younger British Columbians were more likely to experience insufficient time to eat healthy foods, and the lack of availability and affordability of healthy food options compared to seniors (age 65+). Meanwhile, seniors (age 65+) were more likely to experience mobility issues or lack of transportation than the younger population (age 18-34).

Food skills

Most British Columbians expressed that they had the skills to shop and cook for healthy meals (87.1%), and ate meals prepared from 'scratch' at home, using only fresh or whole ingredients, four times or more per week (88.2%). However, a relatively lower percentage of British Columbians (57.4%) reported taking time to prepare healthy meals when eating alone.

Females were more likely than males to have cooking and shopping skills, to take time to prepare healthy meals when eating alone, and to eat meals prepared from 'scratch' at home four times or more per week.

Sodium knowledge and eating behaviours

In order to test British Columbians' sodium-related knowledge, the survey provided a list of foods that participants rated as containing either high or low amounts of sodium. Although most British Columbians (90.7%) could identify all high-sodium foods correctly, only about half of British Columbians (50.8%) reported not purchasing a particular food or drink due to its high-sodium content in the past month. In addition, pre-packaged meals, processed foods, and foods that people select when they eat out generally contain more calories, sodium, and fat. Results showed that British Columbians reported eating processed foods (19.8%) four times or more per week, pre-packaged meals (39.2%), and foods from restaurants, cafeterias, and coffee shops (63.5%) at least once per week.

Males were less likely than females to identify all high-sodium foods correctly. Males were also more likely to consume processed foods four times or more per week, pre-packaged meals, and food from restaurants, cafeterias, and coffee shops at least once per week.

Sugary drinks

Although a majority of British Columbians (67.5%) indicated that they did not purchase a particular drink due to its high sugar or high caloric content in the past month, most British Columbians (78.1%) reported consuming one or more sugary drinks per week. For this survey, sugary drinks included: regular soda, pop or slushes, specialty coffee or tea drinks with added sugar, 100% fruit juice, sweetened fruit drinks, punches or lemonade, sports drinks, energy drinks, and vitamin-enhanced water. The top three sugary drinks that British Columbians had consumed one or more per week were: 100% fruit juice (57.6%), specialty coffee or tea drinks with added sugar (30.6%), and regular soda, pop, or slushes (27.5%). About one quarter of British Columbians (26.5%) reported that they had consumed one or more artificially sweetened drinks per week.

Males were more likely to consume one or more sugary drinks or artificially sweetened drinks per week than females. Younger adults (age 18-34) were more likely to consume one or more sugary drinks per week compared to seniors (age 65+).

Conclusion

This survey revealed that many British Columbians might not be eating as healthily as they think they are. A majority of people reported they had good to very good healthy eating habits, had sufficient cooking and shopping skills, and were able to identify all high-sodium foods correctly. However, questions related to specific eating behaviours revealed otherwise. For example, only about one-third of British Columbians consumed adequate fruits and vegetables daily.

In general, females were more likely to have better healthy eating knowledge, and behaviours than males. For example, females reported better sodium knowledge and food skills, were more likely to consume adequate fruits and vegetables daily, and were less likely to eat out at restaurants or consume sugary drinks weekly.

Approximately 10-20% of British Columbians reported having difficulty accessing healthy foods, including insufficient time to eat healthy foods, the lack of availability or affordability of healthy food options, and mobility or transportation issues.

Introduction

Chronic disease is the leading burden on the health of British Columbians and the health care system, while obesity is the second highest preventable factor contributing to this burden.¹ There is increasing evidence that demonstrates tackling the preventable risk factors of chronic diseases, such as obesity, unhealthy diet, and physical inactivity can significantly improve health and avoid related health care costs.² To address these issues, the BC Ministry of Health launched a provincial health promotion and disease prevention strategy in 2011. Called Healthy Families BC (HFBC), the program is aimed at improving the health and well-being of British Columbians at every stage of life.

As part of HFBC, the BC Ministry of Health, in consultation with health authorities, developed a Healthy Eating Strategy. This three-year agenda (2011-2014) calls for coordinated, consolidated, and collective action with an aim to improve healthy eating in British Columbia. In order to support the strategy, the Population and Public Health Program of PHSA, in collaboration with the BC Ministry of Health and regional health authorities, developed and launched the Healthy Eating Population Health Survey in 2013. The purpose of the survey was to assess healthy eating knowledge and behaviours among B.C.'s general population, and to inform the planning and implementation of the Healthy Eating Strategy.

This technical report presents the findings of the Healthy Eating Population Health Survey, 2013. It serves two purposes: to assess healthy eating knowledge and behaviours and to support the surveillance and monitoring of healthy eating across the province.

1 British Columbia Ministry of Health. (2013). *Promote, Protect, Prevent: Our Health Begins Here: A Guiding Framework for Public Health*. Victoria, BC: Queens Printer.

2 World Health Organization. (2013). *Global action plan for the prevention and control of NCDs 2013-2020*. http://apps.who.int/iris/bitstream/10665/94384/1/9789241506236_eng.pdf?ua=1 (accessed March 8, 2014)

Methods

Questionnaire

The Healthy Eating Population Health Survey, 2013 questionnaire was adapted from different existing surveys including the Canadian Community Health Survey (CCHS), Tracking Nutrition Trends, Nielsen Company Global Online Survey, and California Dietary Practices Survey, and was revised in consultation with a range of provincial stakeholders. The survey included questions on socio-demographic characteristics, healthy weights, sugary drinks, sodium, fruit and vegetable consumption, consumer choices, and healthy eating knowledge and behaviors. All topic areas under the Healthy Eating Strategy are included in this report. A copy of the questionnaire is available at www.phsa.ca/populationhealth.

Sampling design

The survey was executed by PHSA and was administered by BC Stats within the provision of Statistics Act.

A survey sample of British Columbians, aged 18 years or older was drawn from trusted records of B.C. residents provided by ASDE Survey Sampler Inc., with the records scrubbed against their existing “Do Not Call” list. The total sample comprised of 2,653 individual respondents, stratified by health authorities, gender, and age groups (18-34, 35-64 and 65+). Originally, a minimum of 500 respondents from each of the five health authorities were chosen. This was considered to be a representative random sample for the province with a target total of 2,500 samples. However, upon completion of the total targeted sample, the stratified sample from the age group 18-34 was considered to be low. An additional random sample of 153 respondents was added to bring the sample to a minimum of 30 respondents from each age group and each gender in each health authority. The male:female ratio in the final total sample was 49.1:50.9. The total sample of 525, 530, 558, 517, and 523 respondents represented the Interior Health, Fraser Health, Vancouver Coastal Health, Island Health, and Northern Health authorities respectively.

Data collection and procedures

A combination of Computer Assisted Telephone Interview (CATI) and Random Digital Dialing (RDD) phone interview was used for survey data collection and was completed by B.C. Stats on behalf of PHSA, through a sub-contractor (Advanis). The survey data was collected between April and June in 2013 by interviewing people over the phone. All interviews were conducted on voluntary basis and the survey was offered in four different languages (English, Cantonese, Mandarin, and Punjabi).

Demographic variables

A series of demographic questions were asked, including age, gender, household composition, education, immigration status, Aboriginal status, and household income.

For age, respondents indicated the year and month they were born, which was then used to classify the age into one of three age groups: 18-34; 35-64; and 65+.

Immigration status was assessed with three questions. The first question asked respondents if they were born a Canadian citizen or immigrated to Canada. For those who had immigrated to Canada, a subsequent question asked them to specify which country they were born in and which year they immigrated to Canada.

Aboriginal status was assessed by a question that asked respondents if they considered themselves to be of Aboriginal origin. If the answer was yes, a second question asked respondents if they considered themselves to be First Nations, Metis, or Inuit.

Educational level was assessed by asking the highest educational level attained and the highest certificate in the respondent's household.

Finally, the household income question asked about the main source of income and combined income of the respondent and other members of the household. Income was categorized as follows: less than \$20,000; \$20,000 to \$39,000; \$40,000 to \$59,000; \$60,000 to \$79,000; \$80,000 to \$99,000; \$100,000 to \$119,000; and \$120,000 and more.

Analysis and reporting

Nine respondents (eight missing values for age and one for gender) were excluded from the final dataset and all analyses. Non-responses were excluded from the estimation (their percentage was very low). The reliability of the estimates was assessed by the magnitude of the coefficient of variation.

Using Population Data BC (PopData)'s model, a weighting scheme was constructed based on the sampling ratio by health authorities, gender, and three age categories (18-34, 35-64 and 65+). Survey weights were applied in all estimations to scale up the sample to the total provincial population, as the sampling represented one in approximately 1,700 people in B.C.

Descriptive data analysis was performed at the provincial level for the purpose of this report. The following summary statistics are reported:

- Percentage
- 95% confidence interval (95% CI): an estimated range of values which include (within 95% probability) the unknown population parameter. If the 95% CIs of any two proportions of measures (indicators) compared do not overlap, they are considered significantly different for the purpose of this report.
- Coefficient of variation (CV): a measure of precision (standard error divided by the survey estimates) in a relative terms and expressed as a percentage

The estimates were classified as “acceptable” if the CV was less than 16.5%; “interpret with caution” if the CV was between 16.6% and 33.3%, and “not reliable” if the CV was greater than or equal to 33.3%. Estimates to be interpreted with caution were flagged in the reporting tables and graphs. All analysis was carried out using statistical software programme, SAS 9.3.

Results

Socio-demographic characteristics

Socio-demographic characteristics, including gender, age, household composition, immigration status, Aboriginal status, income, and education are presented in Table 1.

Table 1. Descriptive statistics for socio-demographic variables, B.C., 2013

	N (sample)	(weighted %)	95% CI	CV
Gender	2,644			
Male		49.1	(46.8 , 51.4)	2.35%
Female		50.9	(48.6 , 53.2)	2.27%
Age	2,644			
18-34		28.8	(26.5 , 31.1)	4.07%
35-64		51.8	(49.5 , 54.1)	2.23%
over 65		19.4	(17.9 , 20.8)	3.78%
Household composition	2,631			
Single with no children		19.7	(18.0 , 21.4)	4.44%
Single with children		3.4	(2.6 , 4.2)	12.10%
A couple with no children		33.1	(31.0 , 35.2)	3.21%
A couple with children		29.9	(27.7 , 32.0)	3.64%
A multi-generational family		5.1	(4.0 , 6.2)	10.84%
Other		8.8	(7.4 , 10.2)	8.17%
Household income	2,308			
Less than \$39,000		23.7	(21.7 , 25.7)	4.29%
\$40,000 to \$79,000		32.4	(30.1 , 34.6)	3.54%
\$80,000 or over		43.9	(41.5 , 46.4)	2.80%
Canadian citizen	2,642			
Born a Canadian citizen		75.8	(73.9 , 77.8)	1.33%
Immigrated		24.1	(22.1 , 26.1)	4.18%
Immigrant	557			
Before 2004		81.5	(77.4 , 85.7)	2.59%
After 2004		18.5	(14.3 , 22.6)	11.41%
Aboriginal population	2,632			
Aboriginal		3.7	(2.9 , 4.6)	11.54%
Non-Aboriginal		96.3	(95.4 , 97.1)	0.45%
Aboriginal group	121			
First Nations		49.8	(37.9 , 61.7)	12.07%

	N (sample)	(weighted %)	95% CI	CV
Metis		48.6	(36.7 , 60.5)	12.35%
Education	2,614			
Less than high school diploma or its equivalent		4.6	(3.8 , 5.4)	9.10%
High school diploma or high school equivalency certificate		26.6	(24.6 , 28.6)	3.88%
Some post-secondary education or above		68.8	(66.7 , 70.9)	1.55%

Age and gender

Figure 1 and 2 provide a visual presentation of B.C. and five regional health authorities population by age and gender distribution.

Figure 1. Age distribution of males (age 18+), by health authority, B.C., 2013

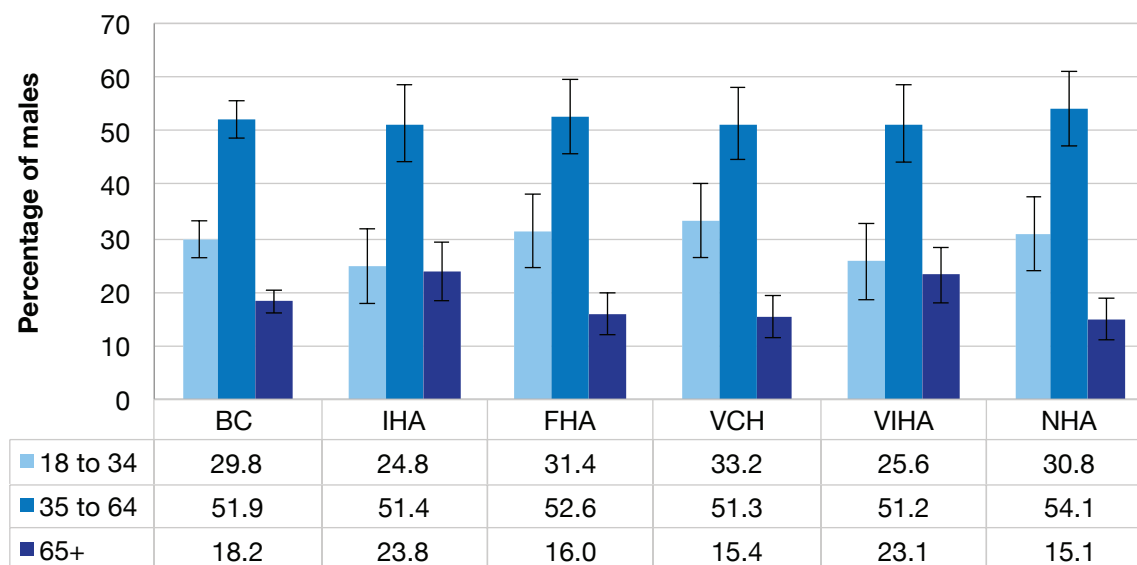
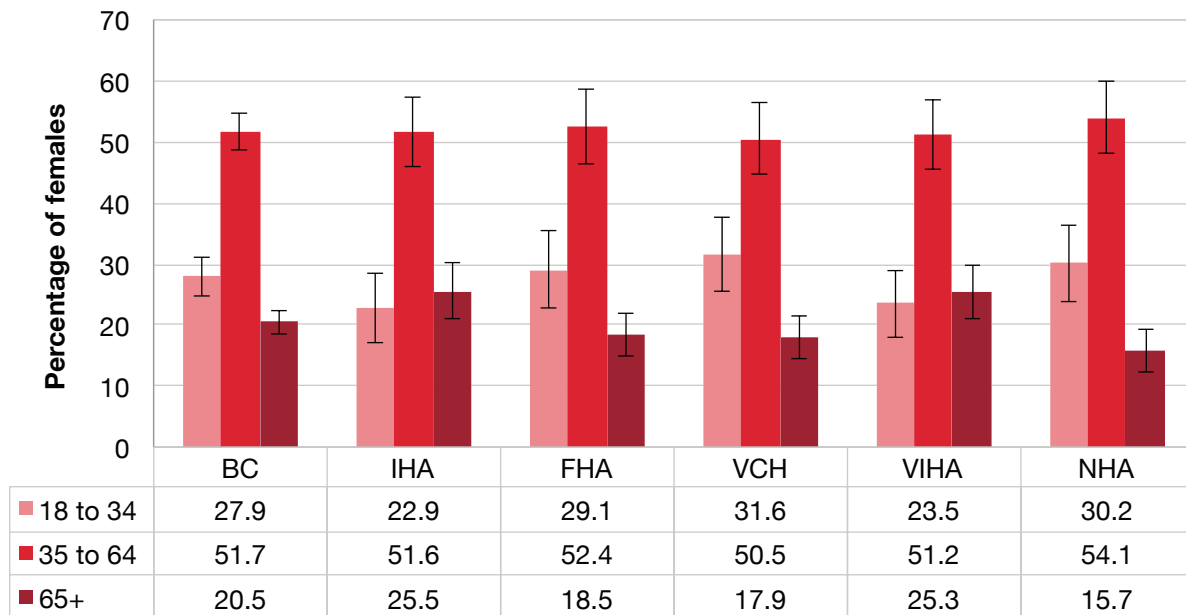


Figure 2. Age distribution of females (age 18+), by health authority, B.C., 2013



General health status

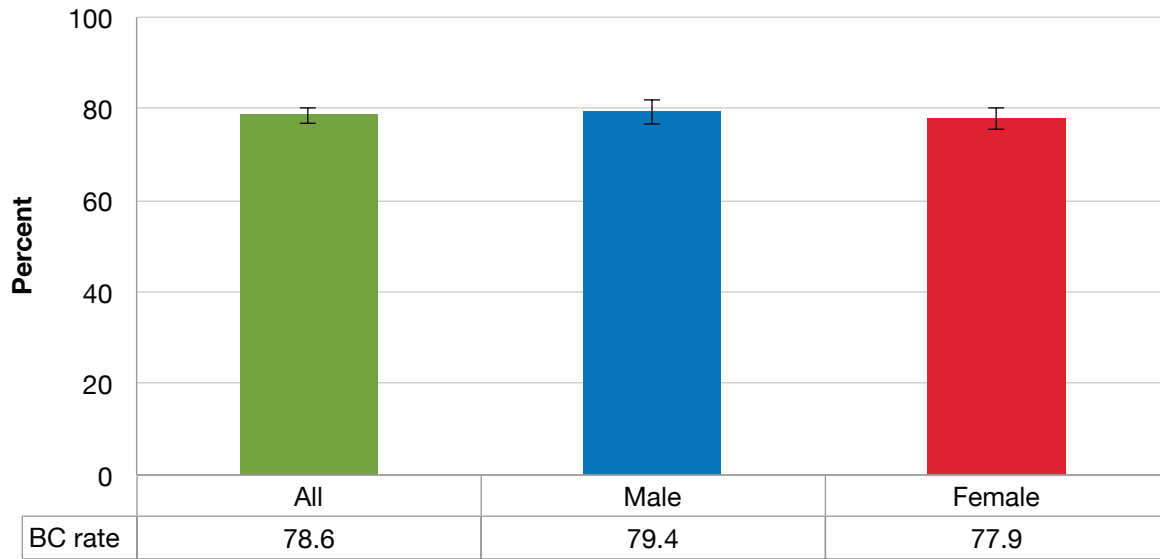
This section provides a brief picture of the health status of the B.C. population. The two measures of health status included in the survey were self-perceived health status and self-reported Body Mass Index (BMI).

Self-perceived health status

“Health” was explained to respondents as meaning not only the absence of disease or injury, but also physical, mental, and social well-being. In B.C., the majority of respondents reported having good to very good health (78.6%) (Figure 3).

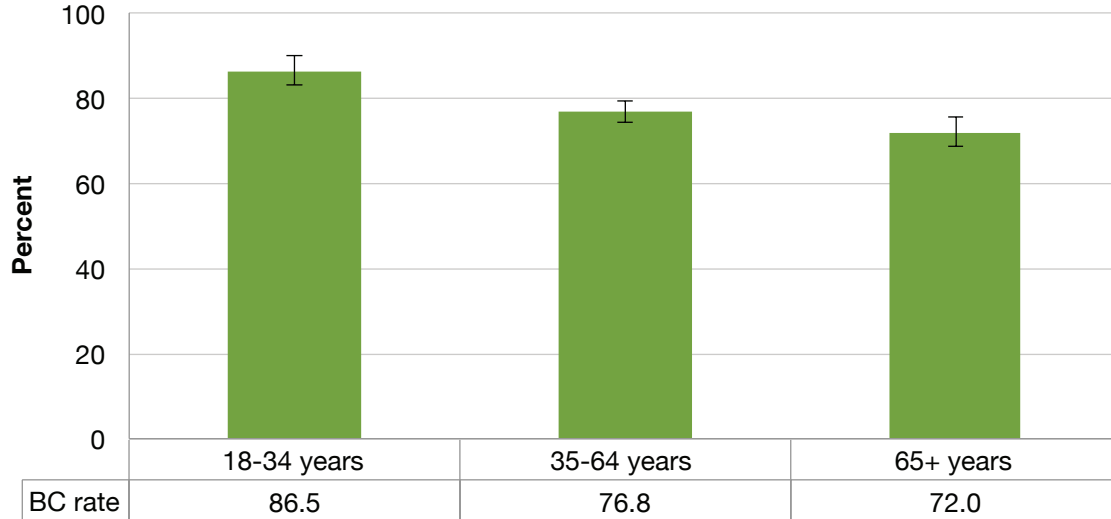
Older British Columbians (age 35+) were less likely to report having good to very good health compared to British Columbians younger (age 18-34) (Figure 4).

Figure 3. Proportion of people (age 18+) who believed they had good to very good overall health, by gender, B.C., 2013



■ 78.6% of British Columbians (age 18+) believed they had good to very good overall health.

Figure 4. Proportion of people (age 18+) who believed they had good to very good overall health, by age, B.C., 2013



■ 86.5% of population in B.C. (age 18-34) believed they had good to very good overall health.

■ The proportion of people (age 18-34) who believed they had good to very good overall health was significantly higher compared to the other age groups.

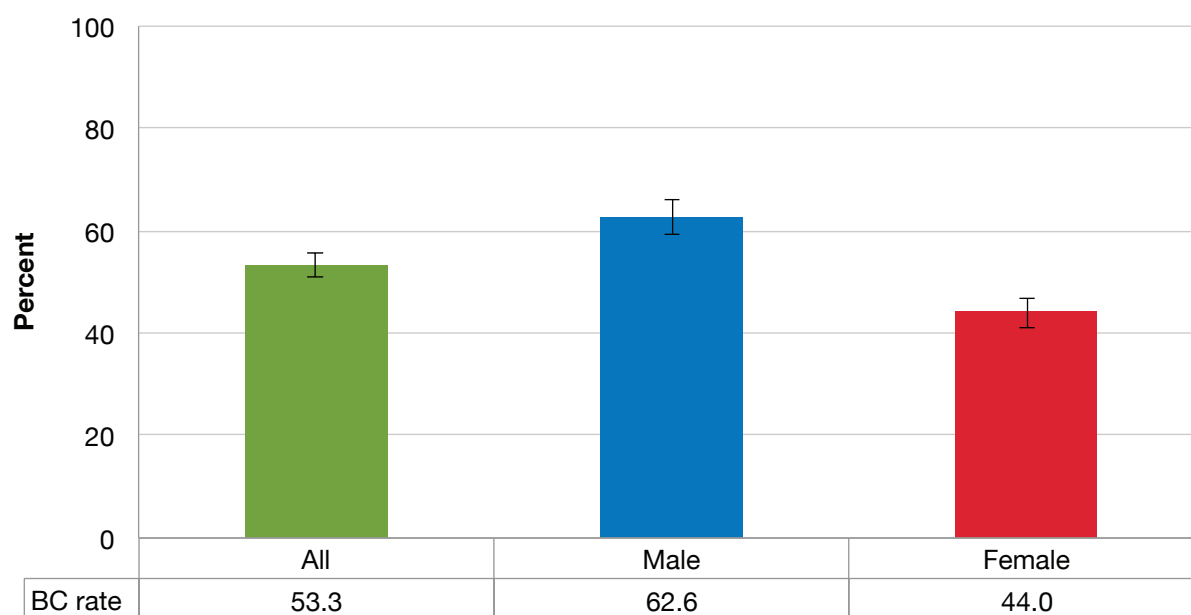
Body mass index (BMI)

BMI is the ratio of a person's weight in relation to his/her height (kg/m^2). Self-reported height and weight were obtained to compute BMI. For this survey, BMI helped us to identify the proportion of the population who were overweight (BMI 25-30) or obese (BMI >30). The BMI cut off point is adopted from a body weight classification system recommended by Health Canada and the World Health Organization (WHO) and is widely used internationally.³

Weight is not a complete and inclusive measure of health. BMI is used for this survey as it is a useful screening tool at the population level, but is not a conclusive indicator of health at the individual level.⁴ B.C. has lower rates of obesity than many other parts of Canada, however, the survey results showed over 50% of people (age 18+) were classified as overweight or obese in B.C. (Figure 5). Notably, males (62.6%) were more likely to be overweight or obese than females (44.0%).

When we looked at the results by age group, British Columbians (age 18-34) were less likely to be overweight or obese compared to the other age groups (age 35-64 and 65+) (Figure 6).

Figure 5. Proportion of people (age 18+) who were classified as overweight or obese, by gender, B.C., 2013



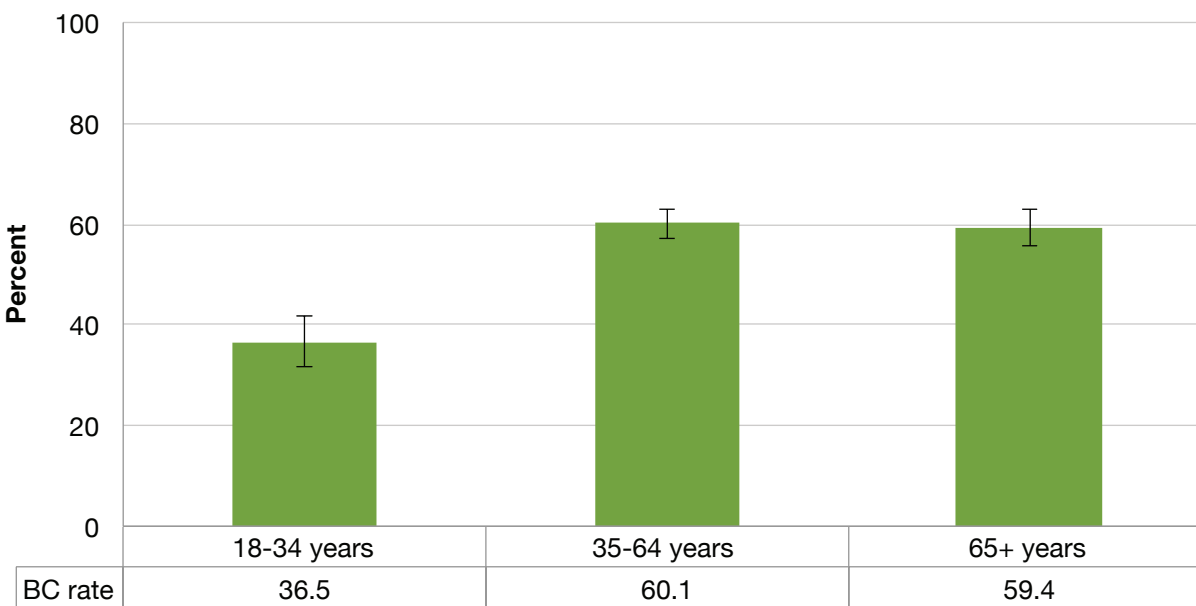
- 53.3% of British Columbians (age 18+) were classified as overweight or obese.
- The proportion of overweight or obese people was significantly higher in males (62.6%) compared to females (44.0%).

Note: Self-reported height and weight were obtained to compute BMI.

³ Health Canada. (2003). *Canadian Guidelines for Body Weight Classification in Adults - Quick Reference Tool for Professionals*. http://www.hc-sc.gc.ca/fn-an/nutrition/weights-poids/guide-ld-adult/cg_quick_ref-ldc_rapide_ref-eng.php. (accessed May 22, 2014)

⁴ Centers for Disease Control and Prevention. (2013). *Body Mass Index: Considerations for Practitioners*. <http://www.cdc.gov/obesity/downloads/bmiforpractitioners.pdf> (accessed May 22, 2014)

Figure 6. Proportion of people (age 18+) who were classified as overweight or obese, by age, B.C., 2013



- 36.5% of B.C. population (age 18-34) were classified as overweight or obese.
- The proportion of people (age 18-34) who were overweight or obese was significantly lower compared to the other age groups.

Note: Self-reported height and weight were obtained to compute BMI.

Eating habits

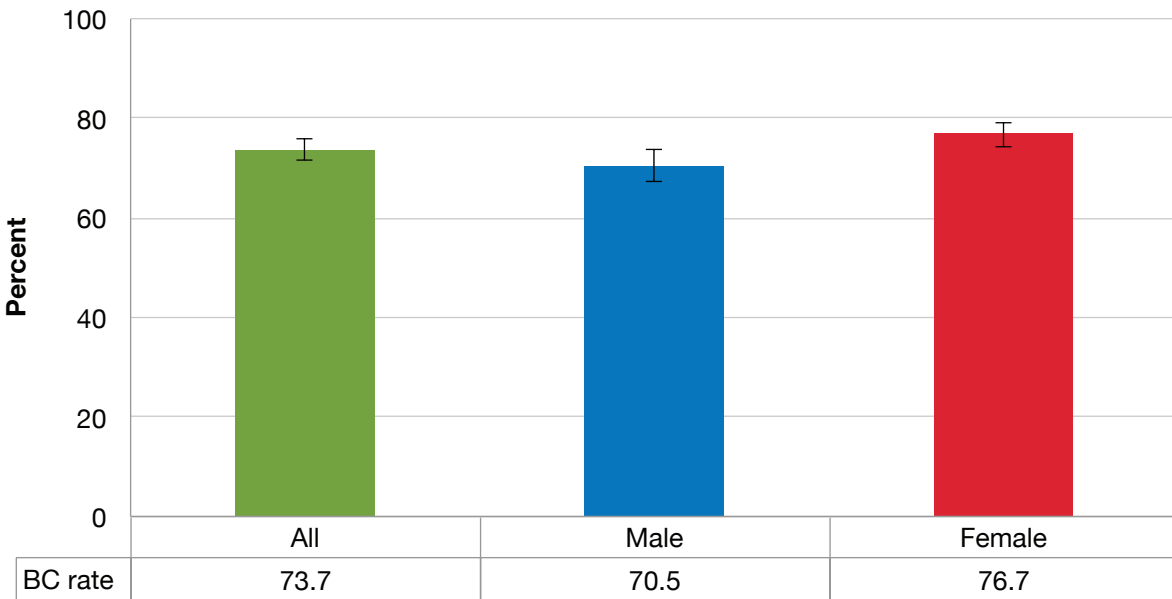
A healthy lifestyle involves many choices and influences. Among them, choosing and practising habits that promote healthy eating is very important. Healthy eating habits promote and support social, physical, and mental well-being for everyone, at all ages and stages of life.⁵ The survey included questions aimed at assessing British Columbians' self-perceived eating habits, such as fruit and vegetable consumption, water consumption, and frequency of meals with others at home.

Perception of personal eating habits

Respondents were asked how they perceived their eating habits. In the survey, "eating habits" is defined by the type of food and beverage the participants consume, and where and when they consume the food and beverage. In B.C., a majority of survey respondents reported having good to very good eating habits (73.7%). Females (76.7%) were more likely than males (70.5%) to express having good to very good eating habits. In addition, the youngest population (age 18-34) were less likely to report having good to very good eating habits compared to the two older age groups (Figure 7-8).

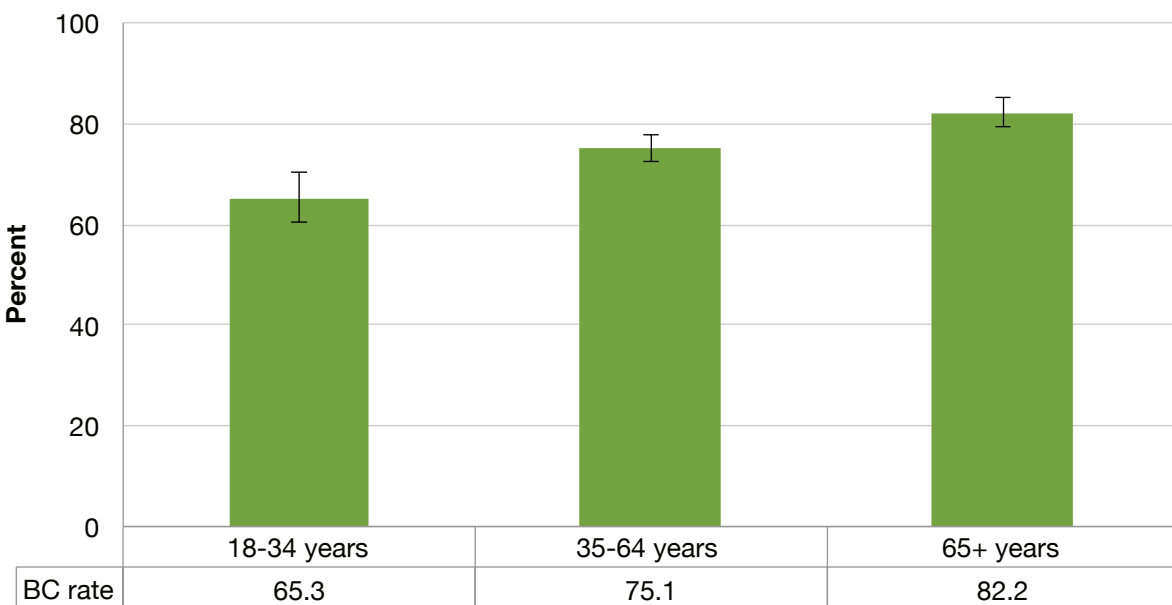
⁵ HealthLinkBC. (2012). *The Meaning of Healthy Eating in British Columbia*. <http://www.healthlinkbc.ca/healthyeating/professionals/about-healthy-eating.html> (accessed May 26, 2014)

Figure 7. Proportion of people (age 18+) who believed they had good to very good eating habits, by gender, B.C., 2013



- 73.7% of British Columbians (age 18+) believed they had good to very good eating habits.
- The proportion of people (age 18+) who believed they had good to very good eating habits was significantly higher in females (76.7%) compared to males (70.5%).

Figure 8. Proportion of people (age 18+) who believed they had good to very good eating habits, by age, B.C., 2013



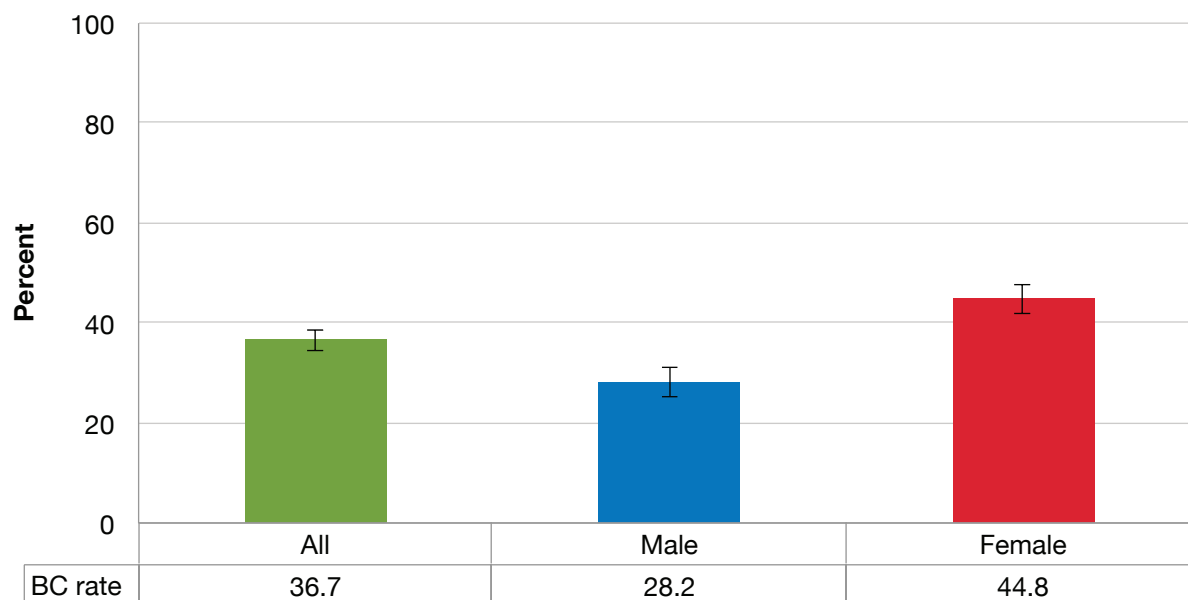
- 65.3% of the population in B.C. (age 18-34) believed they had good to very good eating habits.

- The proportion of people (age 18-34) who believed they had good to very good eating habits was significantly lower compared to the other age groups.

Fruit and vegetable consumption

Canada's Food Guide recommends that adults should eat 5-10 servings of fruits and vegetables every day.⁶ However, in this survey, adequate fruit and vegetable consumption level was examined in terms of the percentage of the population (age 18+) who reported eating fruits and vegetables at least five times daily.⁷ Evidence suggests that this health indicator is a reasonable proxy for good eating habits.⁸ Overall, slightly more than one-third of British Columbians (36.7%) consumed fruits and vegetables five or more times every day. Females (44.8%) were more likely than males (28.2%) to consume fruits and vegetables five or more times daily (Figure 9).

Figure 9. Proportion of people (age 18+) who ate fruits and vegetables five or more times per day, by gender, B.C., 2013



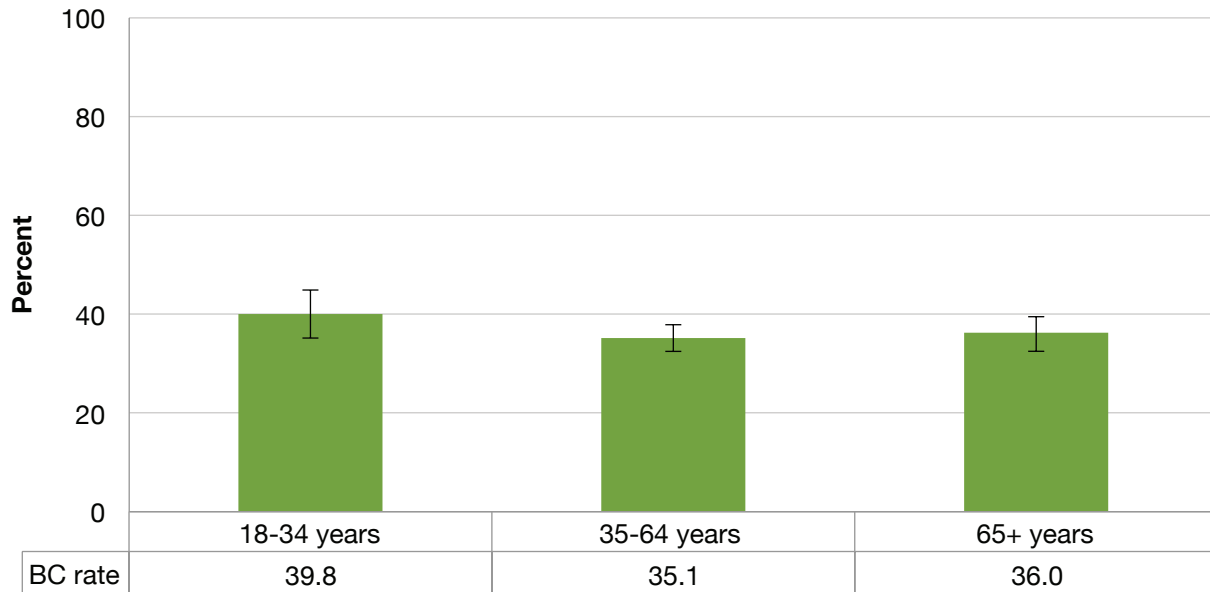
- 36.7% of British Columbians (age 18+) reported eating fruits and vegetables five or more times per day. This proportion was significantly higher in females (44.8%) compared to males (28.2%).

6 Health Canada. (2012). *Eating Well with Canada's Food Guide*. http://www.hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/food-guide-aliment/view_eatwell_vue_bienmang-eng.pdf (accessed May 26, 2014)

7 Statistics Canada. (2009). *Fruit and vegetable consumption*. <http://www.statcan.gc.ca/pub/82-229-x/2009001/deter/fvc-eng.htm>. (accessed July 22, 2014)

8 Garriguet D. *Diet quality in Canada*. *Statistics Canada Health Reports*. <http://www.statcan.gc.ca/pub/82-003-x/2009003/article/10914-eng.pdf>. (accessed July 22, 2014)

Figure 10. Proportion of people (age 18+) who ate fruits and vegetables five or more times per day, by age, B.C., 2013



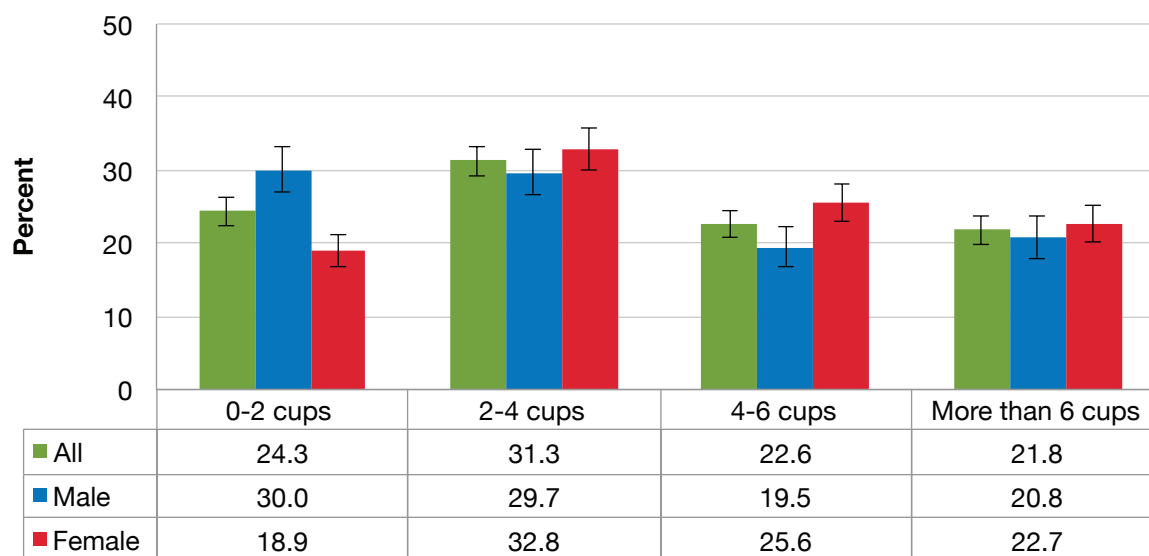
- 39.8% of the population (age 18-34) reported eating fruits and vegetables five or more times per day.
- The proportion of people (age 18-34) who reported eating fruits and vegetables five or more times per day was slightly higher compared to the other age groups, but was not statistically significant.

Water consumption

Plain drinking water is promoted in Canada’s Food Guide as the best way to satisfy thirst. According to Canada’s Food Guide, a wide range of water consumption is compatible with normal hydration, and thus a specific requirement could not be set.⁹ We have analyzed water consumption of B.C.’s population by gender. In general, about one-third of people (31.3%) in B.C. reported drinking two to four cups of water per day, while the percentage of people who reported drinking zero to two cups of water per day, four to six cups of water per day, and more than six cups of water per day were similar (24.3%, 22.6%, and 21.8% respectively) (Figure 11).

⁹ Health Canada. (2012). *Canada Food Guide Questions and Answers for Educators*. http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/faq_educat-eng.php#a14 (accessed May 26, 2014)

Figure 11. Proportion of people (age 18+) with ranges of water consumption levels per day, by gender, B.C., 2013



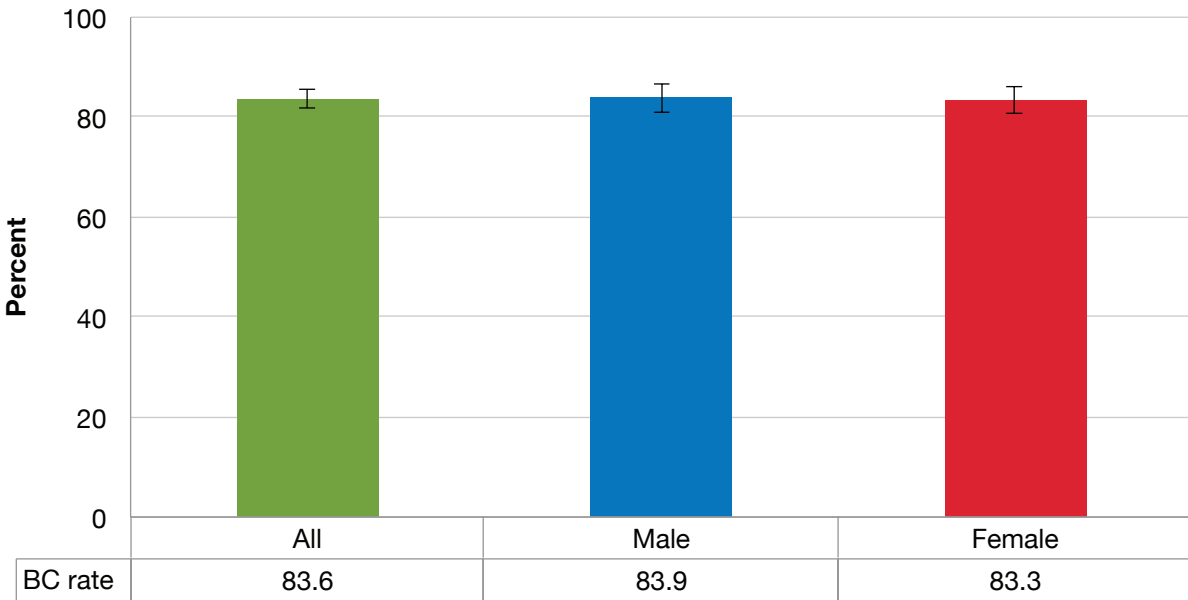
- 24.3% of British Columbians (age 18+) reported drinking two or less cups of water per day. Proportion of people who reported drinking between two and four cups of water (inclusive) per day (31.3%) was significantly higher compared to the proportion of people with other frequencies of water consumption per day.
- The proportion of females (age 18+) who reported drinking two or less cups of water per day (18.9%) was significantly lower compared to males (30.0%).
- The proportion of females (age 18+) who reported drinking between four and six (inclusive) cups of water per day (25.6%) was significantly higher compared to males (19.5%).

Eating together at home

Research from around the world consistently shows the nutritional and social well-being benefits of eating meals with others at home. There is an increased correlation between family meals and the following: increased intake in vegetables, fruits, and calcium-rich foods or dairy; decreased intake of soft drinks; decreased risk of becoming overweight; increased sense of family connectedness; and decreased signs of depression.¹⁰ A vast majority of British Columbians (83.6%) reported eating together at home (individuals who were living alone were excluded in the analysis) at least four times per week with most, or all, of the people in their household. No difference was observed between males and females. Younger population (age 18-34) (78.0%) was less likely to have household dinners at home at least four times a week than the older population (age 65+) (91.8%) (Figure 12-13).

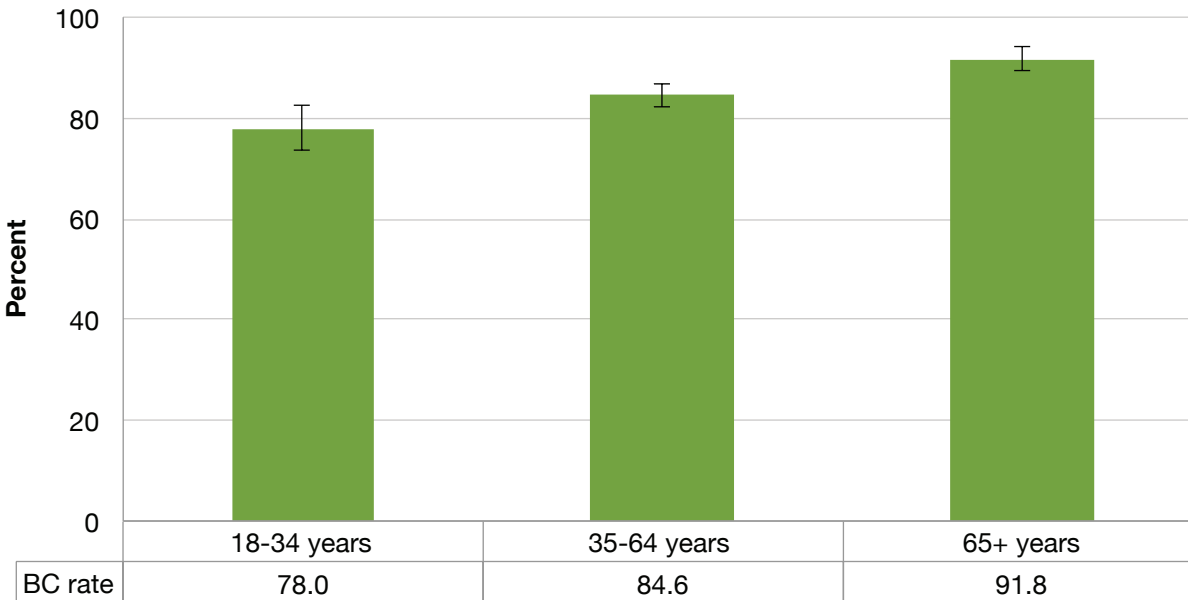
¹⁰ Practice-based Evidence in Nutrition. (2012) *Healthy Lifestyle - Eating Together Evidence Summary* <http://www.pennutrition.com/KnowledgePathway.aspx?kpid=6750&trcatid=42&trid=6681> (accessed March 8, 2014)

Figure 12. Proportion of people (age 18+) who ate meals at home four or more times per week with most, or all, of the people living in their household, by gender, B.C., 2013



■ 83.6% of British Columbians (age 18+) reported eating meals at home at least four times per week with most, or all, of the people in their household.

Figure 13. Proportion of people (age 18+) who ate meals at home four or more times per week with most, or all, of the people living in their household, by age, B.C., 2013



■ 78.0% of the population (age 18-34) reported eating meals at home at least four times per week with most, or all, of the people in their household.

- The proportion of people (age 18-34) who reported eating meals at home at least four times per week with most, or all, of the people in their household was significantly lower compared to people aged 65 and over.

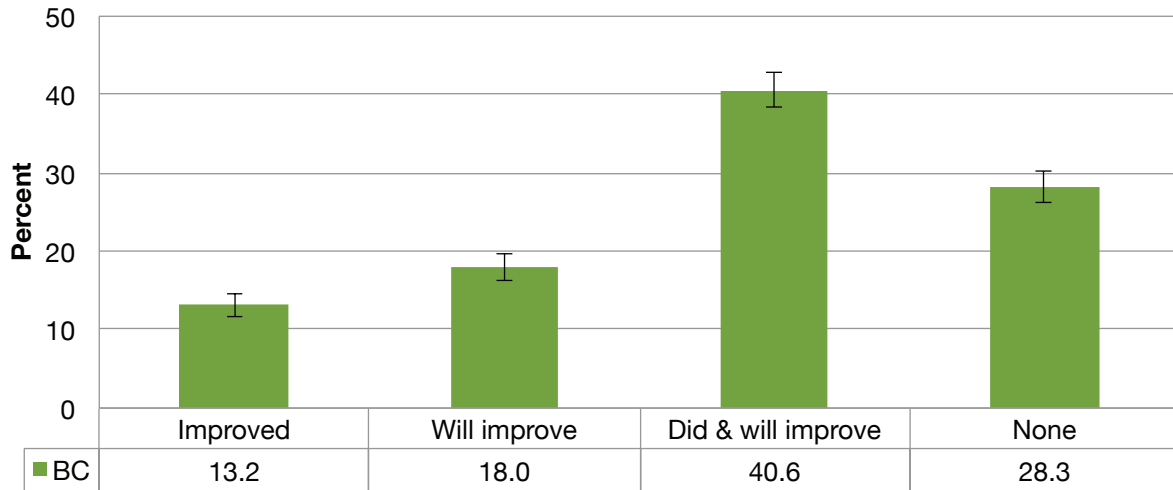
Healthy eating behaviour changes and reasons

In general, a majority of British Columbians (71.7%) had improved or planned to improve at least one aspect of their eating habits in the past 12 months. The highest percentage of British Columbians reported they had improved and were also still planning further improvements to their eating habits (40.6%). The next highest percentage was the group who had not improved and were not planning to improve their eating habits (28.3%), followed by those who had not done so yet, but planned to improve their eating habits (18.0%). The last category was the British Columbians who had improved their eating habits but did not plan to improve further (13.2%). The second category especially is worth noting: almost thirty percent of British Columbians did not change or plan to improve their eating habits at all (Figure 14).

Of the British Columbians who had improved or/and planned to improve their eating habits, the top three changes for improving their eating habits were: eating more fruits and vegetables (88.4%), reducing sugary foods (83.8%), and reducing fat (77.4%) (Figure 15); and the top three reasons were: to improve overall health (94.3%), to increase energy or athletic performance (76.8%), and to manage weight (72.9%) (Figure 19).

Stages of healthy eating behaviour change

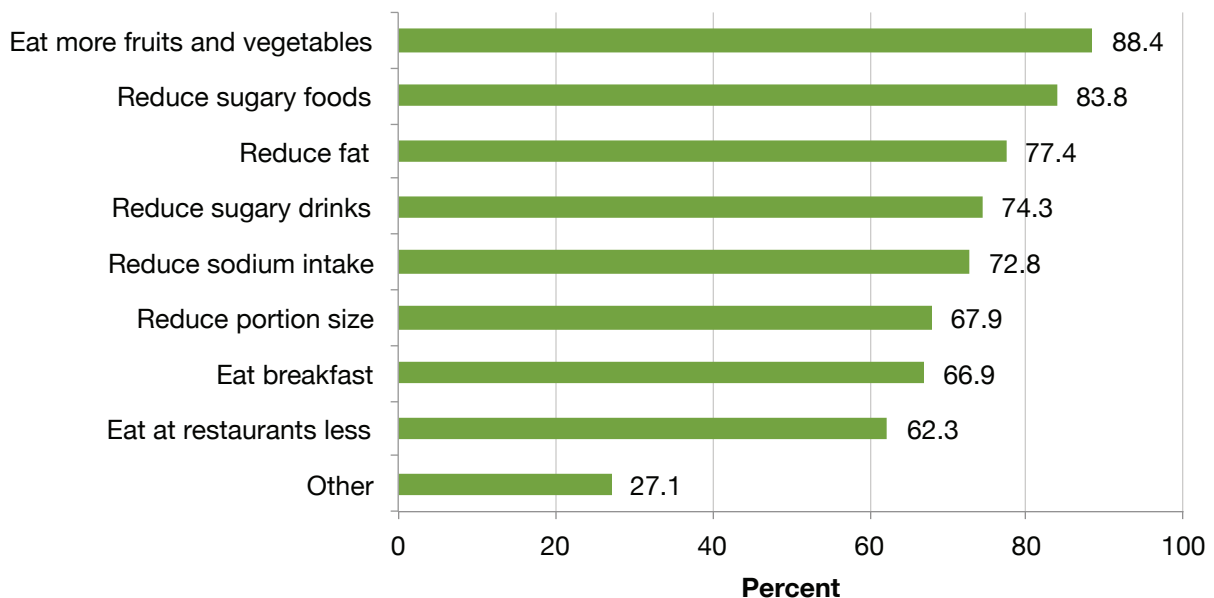
Figure 14. Proportion of people (age 18+) who had improved or/and planned to improve their eating habits, B.C., 2013



- 40.6% of British Columbians (age 18+) did improve their eating habits in the past 12 months and also planned to improve their eating habits further in the next 12 months. This proportion is significantly higher than both proportions of people who just planned to improve their eating habits further in the next 12 months (18.0%), and also the proportion of people who had recently made changes to their eating habits in the past 12 months (13.2%).

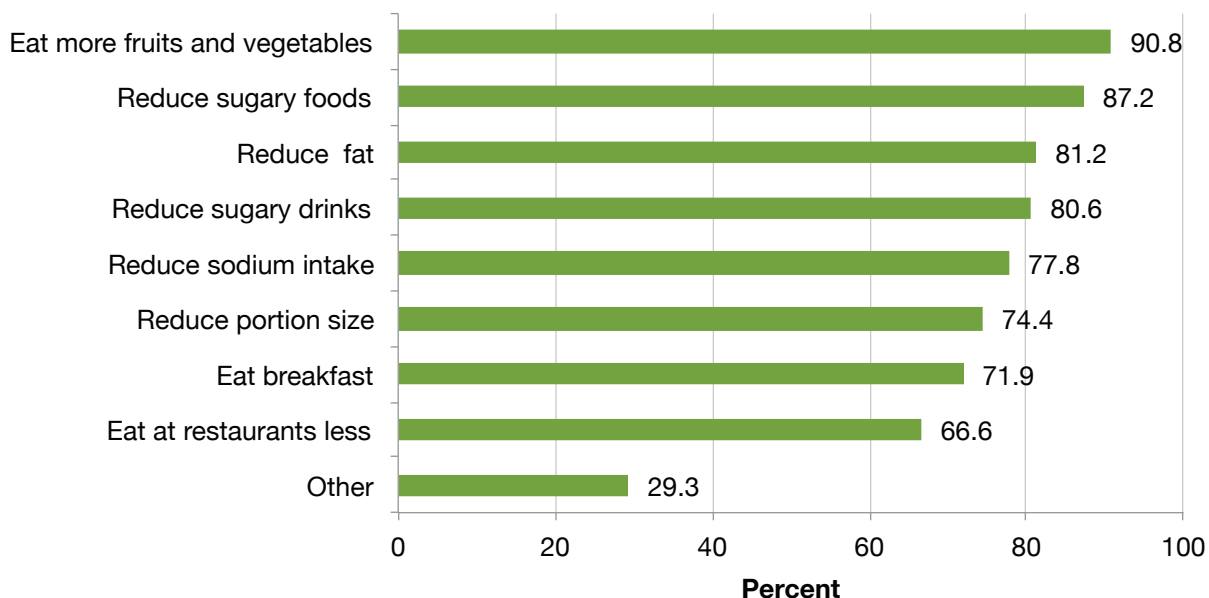
Changes for improving their eating habits

Figure 15. Changes among people (age 18+) who had improved or/and planned to improve their eating habits, B.C., 2013



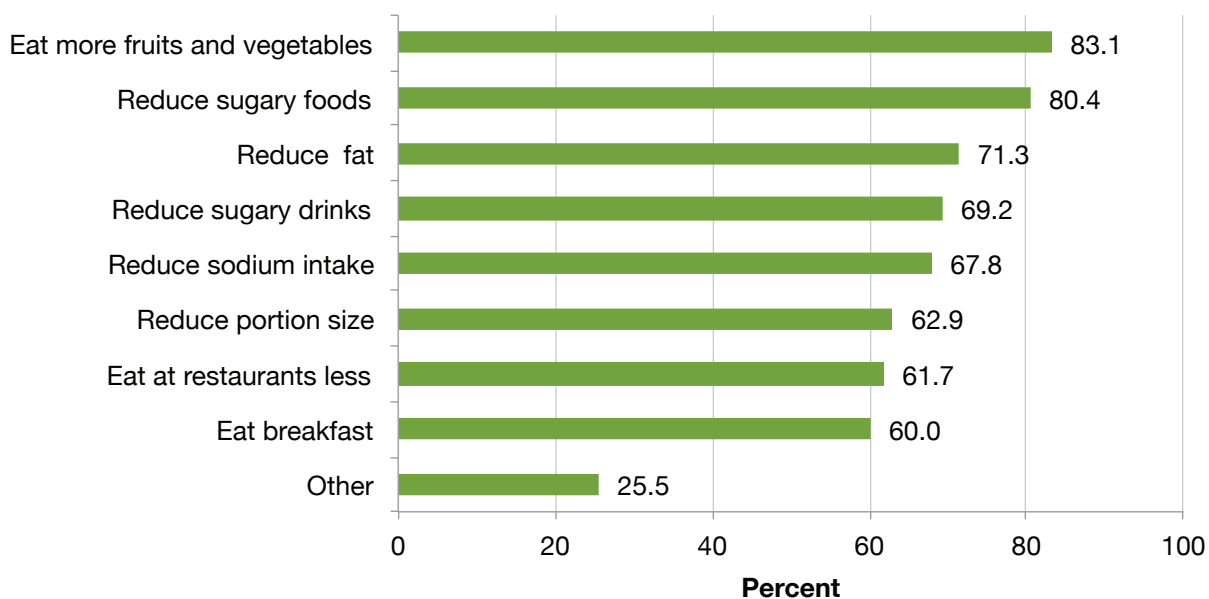
- In B.C., among people (age 18+) who had improved their eating habits or/and planned to improve them, the top three changes for improving their eating habits were: eating more fruits and vegetables (88.4%), reducing sugary foods (83.8%), and reducing fat (77.4%).

Figure 16. Changes among people (age 18+) who had improved and planned to further improve their eating habits, B.C., 2013



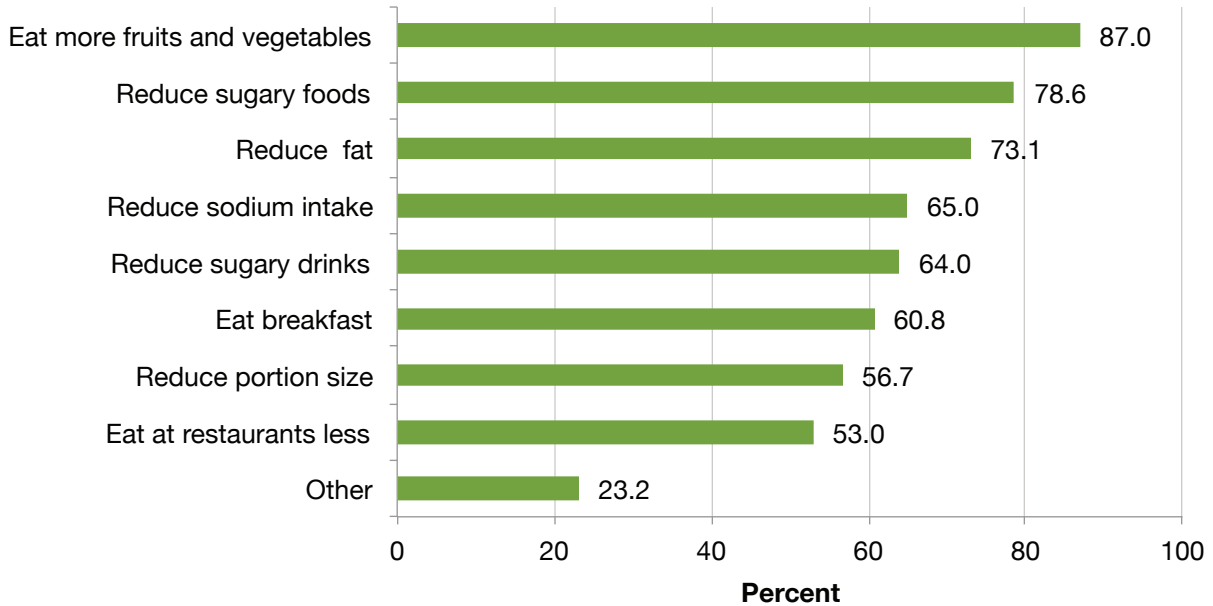
- In B.C., among people (age 18+) who had improved (in the past 12 months) and planned to further improve their eating habits (in the next 12 months), the top three changes for improving their eating habits were: eating more fruits and vegetables (90.8%), reducing sugary foods (87.2%), and reducing fat (81.2%).

Figure 17. Changes among people (age 18+) who had improved their eating habits, B.C., 2013



- In British Columbia, among people (age 18+) who had improved their eating habits in the past 12 months, the top three changes for improving their eating habits were: eating more fruits and vegetables (83.1%), reducing sugary foods (80.4%), and reducing fat (71.3%).

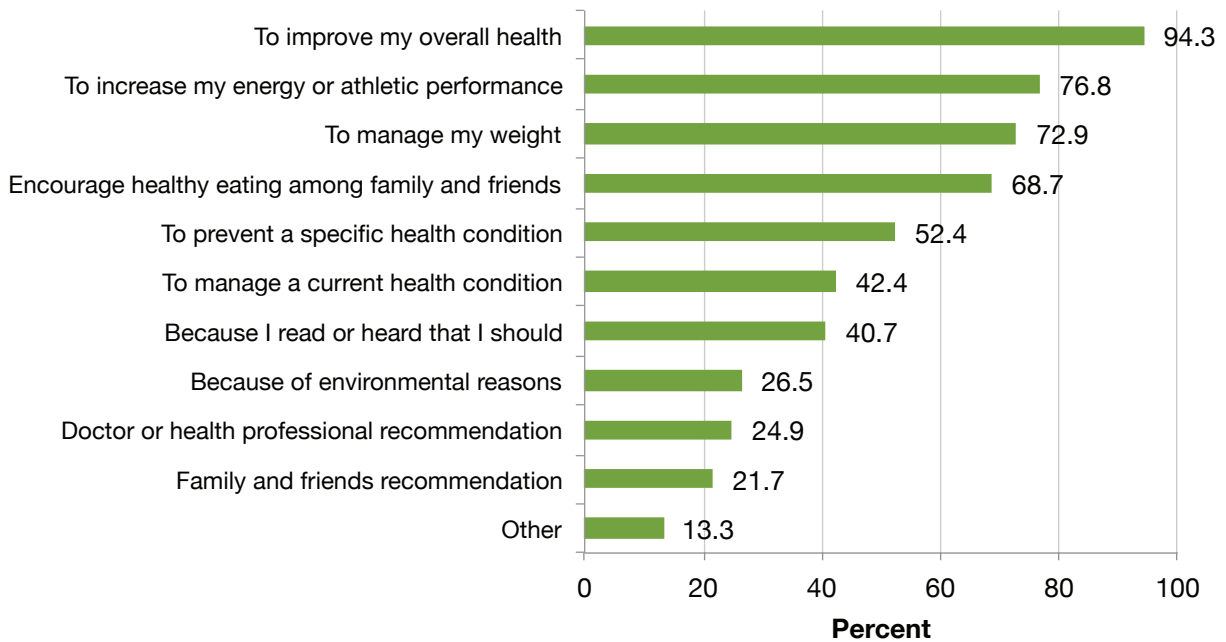
Figure 18. Changes among people (age 18+) who planned to improve their eating habits, B.C., 2013



- In B.C., among people (age 18+) who planned to improve their eating habits further in the next 12 months, the top three changes for improving their eating habits were: eating more fruits and vegetables (87.0%), reducing sugary foods (78.6%), and reducing fat (71.3%).

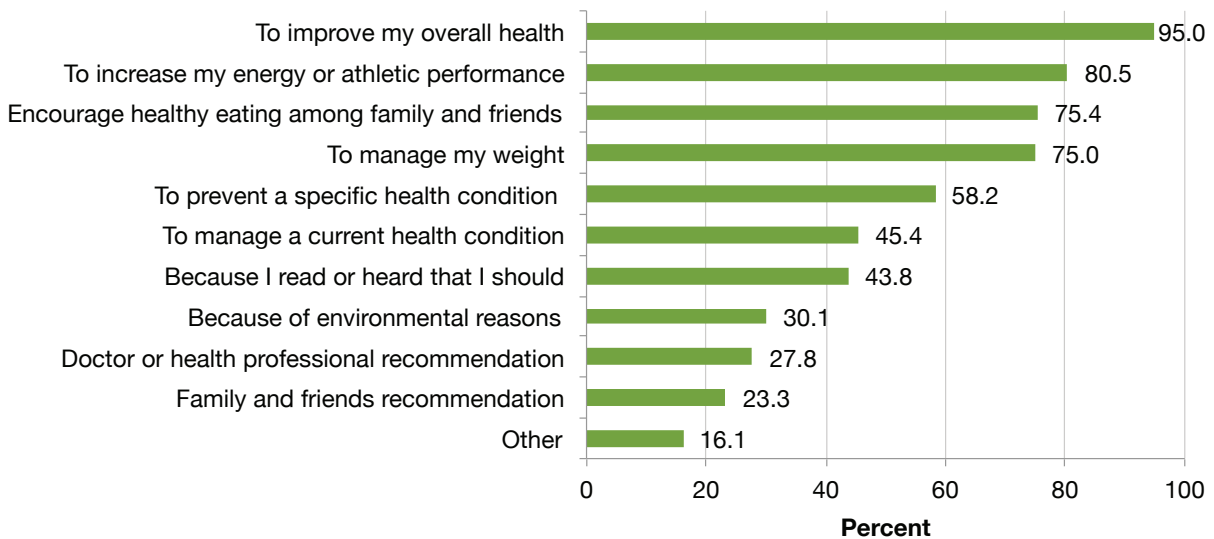
Reasons for improving their eating habits

Figure 19. Reasons for people (age 18+) who had improved or/and planned to improve their eating habits, B.C., 2013



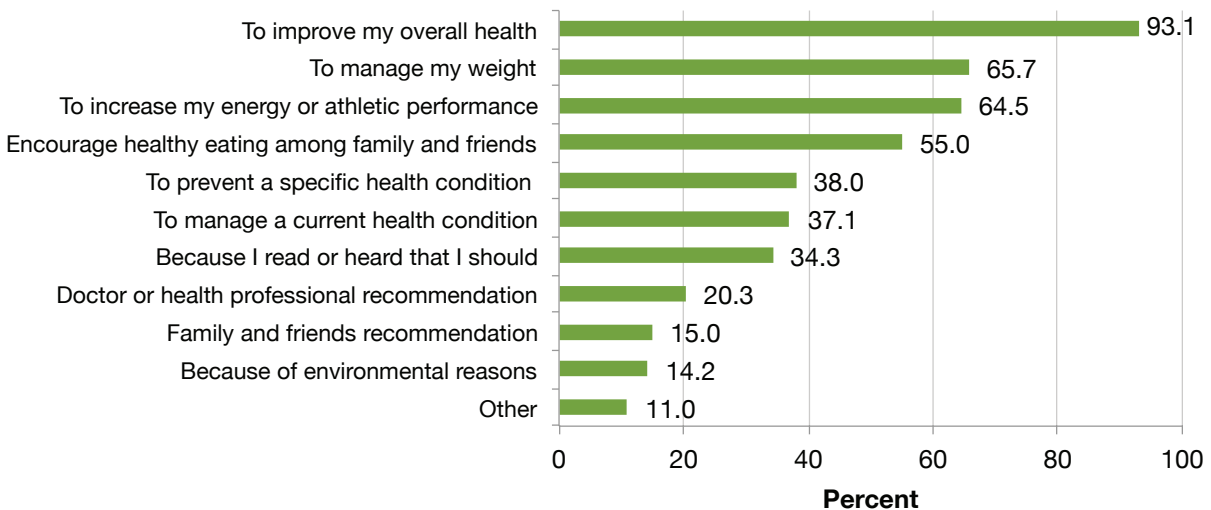
■ In B.C., among people (age 18+) who had improved their eating habits or/and planned to improve them, the top three reasons for improving their eating habits were: to improve my overall health (94.3%), to increase my energy or athletic performance (76.8%), and to manage my weights (72.9%).

Figure 20. Reasons for people (age 18+) who had improved their eating habits and planned to further improve, B.C., 2013



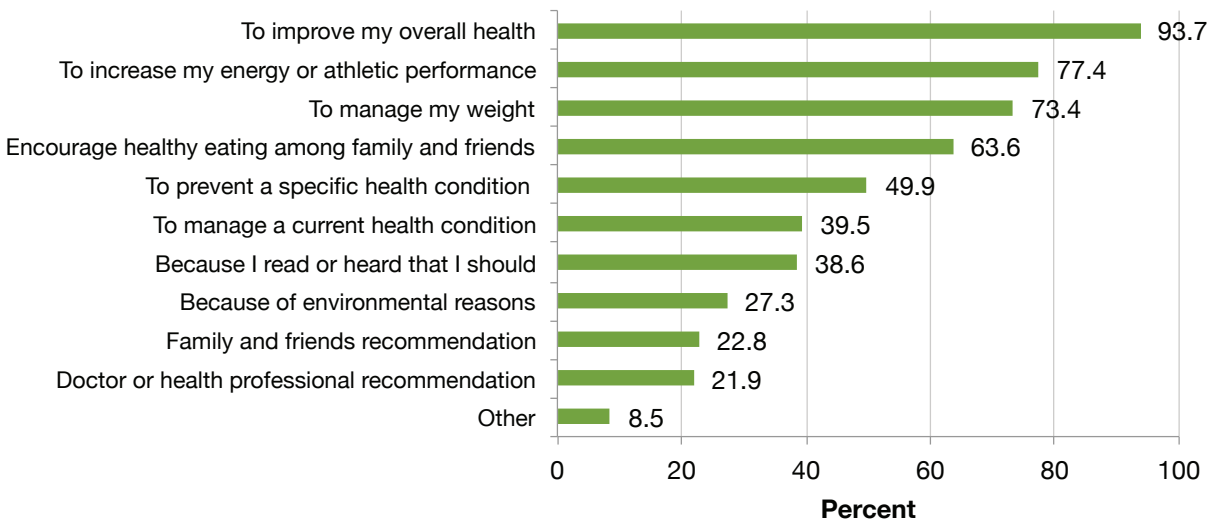
- In B.C., among people (age 18+) who had improved (in the past 12 months) and planned to further improve their eating habits (in next 12 months), the top three reasons for improving their eating habits were: to improve overall health (95.0%), to increase energy or athletic performance (80.5%), and to encourage healthy eating among family and friends (75.4%).

Figure 21. Reasons for people (age 18+) who had improved their eating habits, B.C., 2013



- In B.C., among people (age 18+) who had improved their eating habits in the past 12 months, the top three reasons for improving their eating habits were: to improve overall health (93.1%), to manage weight (65.7%), and to increase energy or athletic performance (64.5%).

Figure 22. Reasons for people (age 18+) who planned to improve their eating habits, B.C., 2013



- In B.C., among people (age 18+) who planned to improve their eating habits in the next 12 months, the top three reasons for improving their eating habits were: to improve overall health (93.7%), to increase energy or athletic performance (77.4%), and to manage weight (73.4%).

Access to healthy foods

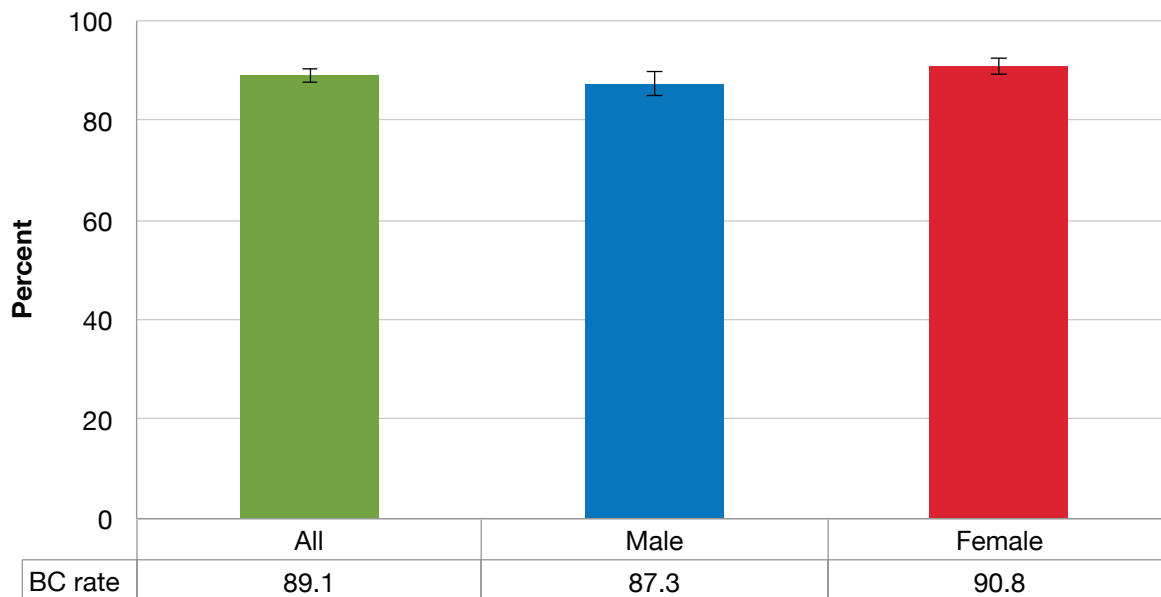
Economic, social, and physical environmental factors play a role in determining an individual’s access to healthy foods. The survey included questions regarding major four factors, among many, that influence access to healthy foods: availability of healthy food options, affordability of healthy foods, mobility barriers to accessing healthy foods, and sufficient time to eat healthy foods.

In B.C., a high percentage of people expressed that they had sufficient time to eat healthy foods (81.8%), healthy food options were available to them (89.1%), and healthy foods were affordable to them (80.8%). Likewise, 90.2% of B.C.’s population expressed not having difficulty getting healthy foods because of mobility issues or lack of transportation. There was no significant difference between males and females in these factors (Figure 23, 25, 27, 29).

Approximately 10-20% of people in B.C. reported having difficulty accessing healthy foods, including insufficient time to eat healthy foods (18.2%), the lack of availability (10.9%) or affordability (19.2%) of healthy food options, and mobility or transportation issues (9.8%) (Figure 23, 25, 27, 29). Youngest British Columbians (age 18-34) were more likely to experience insufficient time to eat healthy foods, and the lack of availability and affordability of healthy food options than seniors (age 65+) (Figure 24, 26, 28). Meanwhile, seniors (age 65+) were more likely to experience mobility issues or lack of transportation than the younger population (age 18-64) (Figure 30).

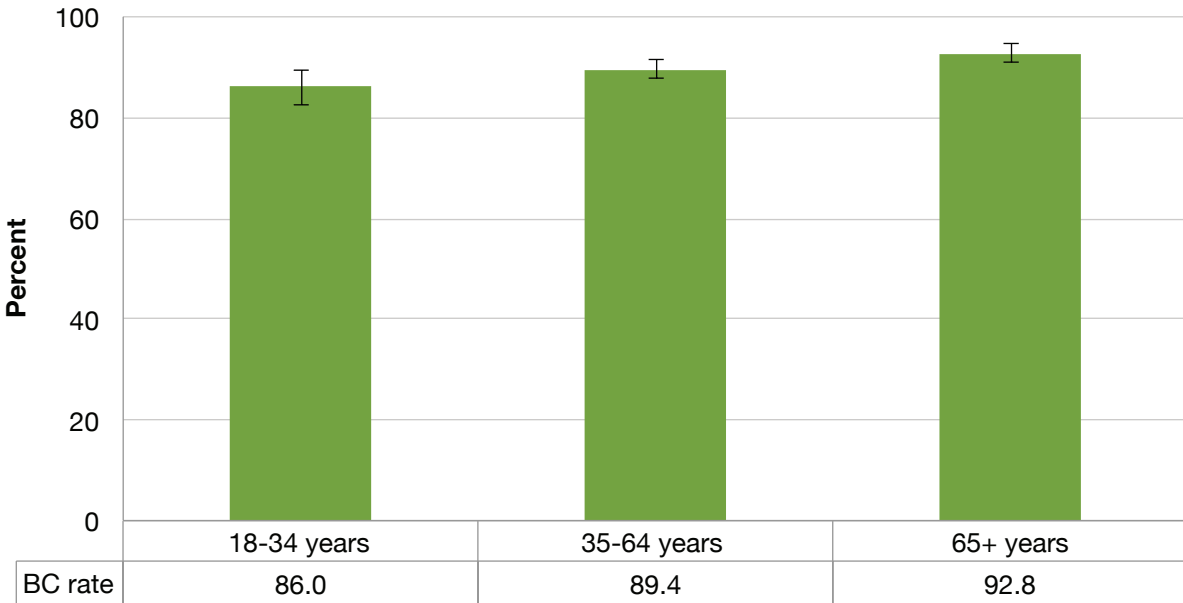
Availability of healthy food options

Figure 23. Proportion of people (age 18+) who agreed/strongly agreed that healthy food options were available where they live or work, by gender, B.C., 2013



- 89.1% of people in B.C. (age 18+) agreed/strongly agreed that healthy food options were available where they live or work.

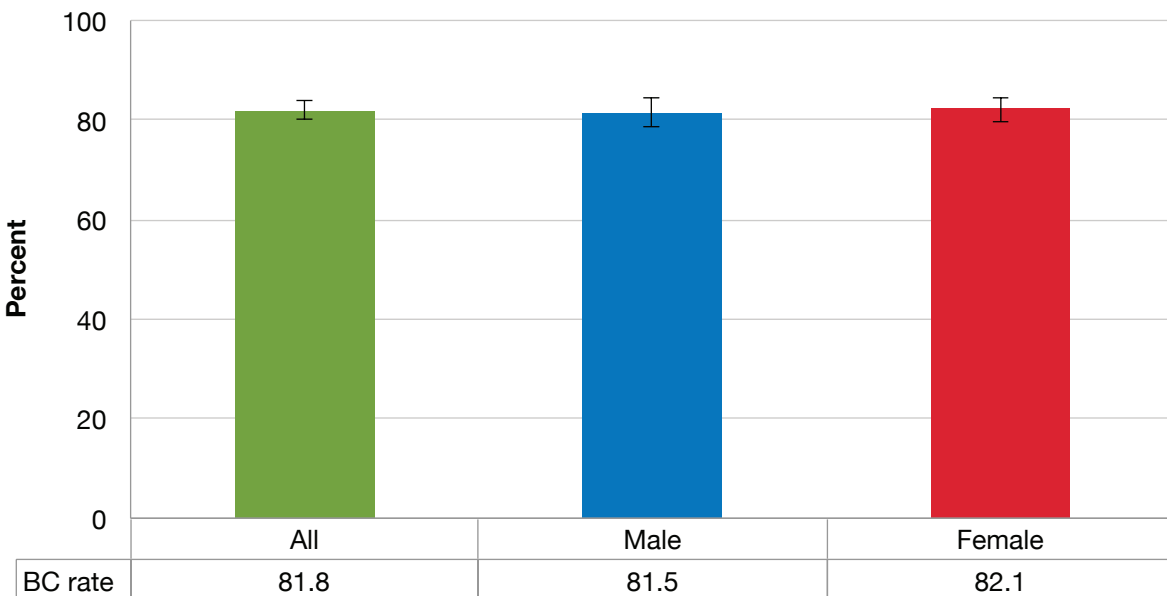
Figure 24. Proportion of people (age 18+) who agreed/strongly agreed that healthy food options were available where they live or work, by age, B.C., 2013



- 86.0% of the population (age 18-34) agreed/strongly agreed that healthy food options were available where they live or work.
- The proportion of people (age 18-34) who agreed/strongly agreed that healthy food options were available where they live or work was significantly lower compared to seniors (age 65+).

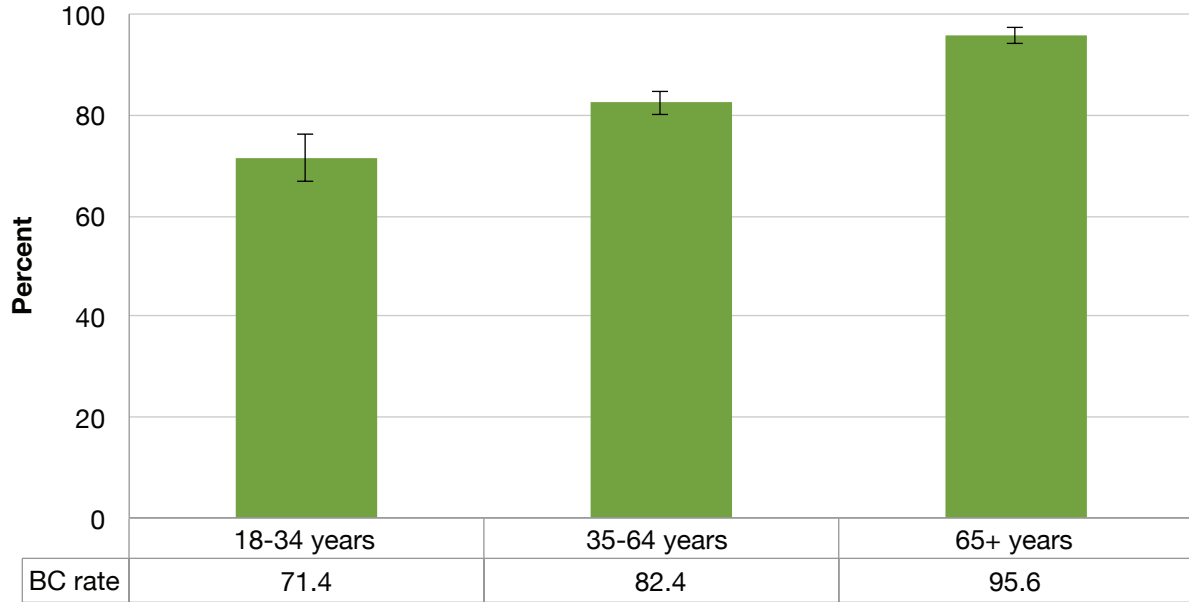
Sufficient time to eat healthy foods

Figure 25. Proportion of people (age 18+) who agreed/strongly agreed they had enough time to eat healthy foods, by gender, B.C., 2013



- 81.8% of people in B.C. (age 18+) agreed/strongly agreed they had enough time to eat healthy foods.

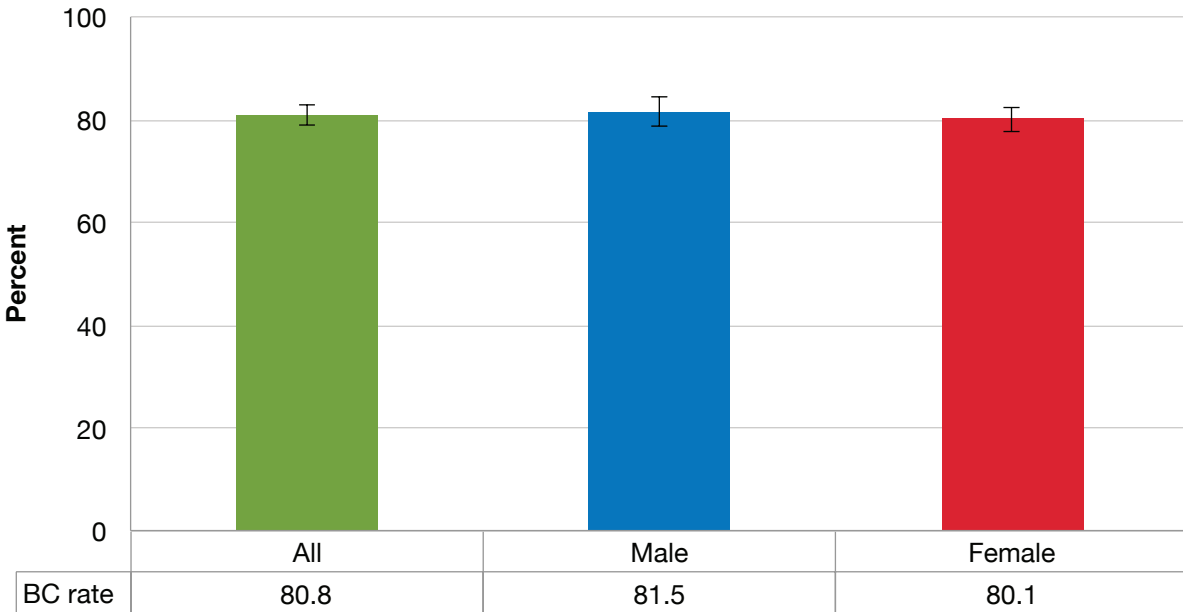
Figure 26. Proportion of people (age 18+) who agreed/strongly agreed they had enough time to eat healthy foods, by age, B.C., 2013



- 71.4% of the population (age 18-34) agreed/strongly agreed they had enough time to eat healthy foods.
- The proportion of people (age 18-34) who agreed/strongly agreed they had enough time to eat healthy foods was significantly lower compared to the other age groups.

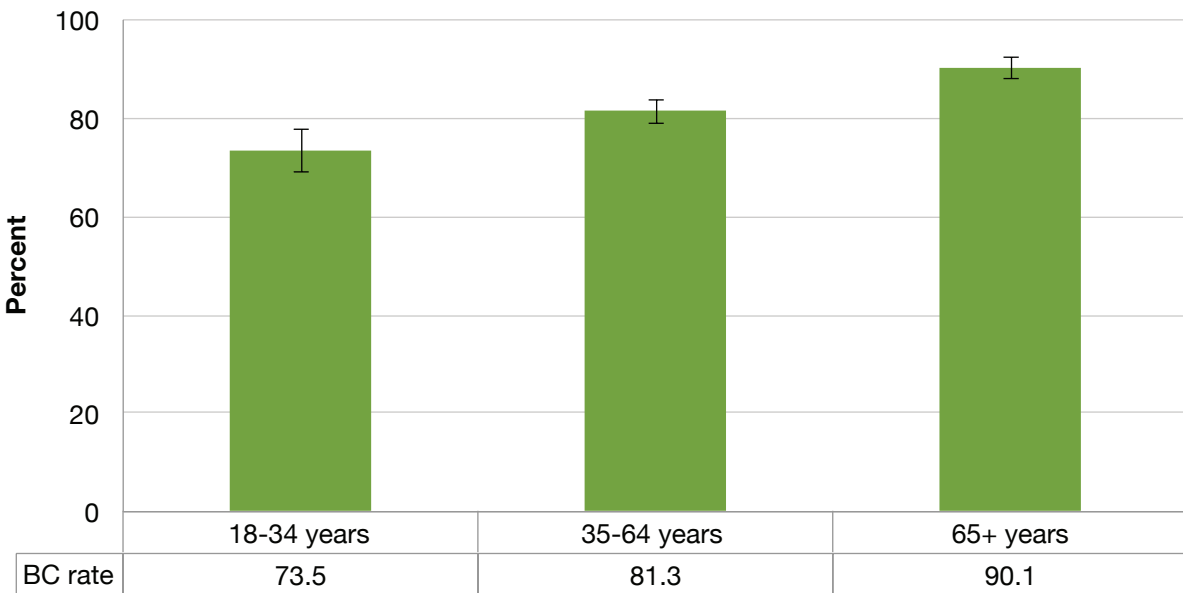
Affordability of healthy foods

Figure 27. Proportion of people (age 18+) who agreed/strongly agreed they could afford to eat healthy foods, by gender, B.C., 2013



■ 80.8% of British Columbians (age 18+) agreed/strongly agreed they could afford to eat healthy foods.

Figure 28. Proportion of people (age 18+) who agreed/strongly agreed they could afford to eat healthy foods, by age, B.C., 2013

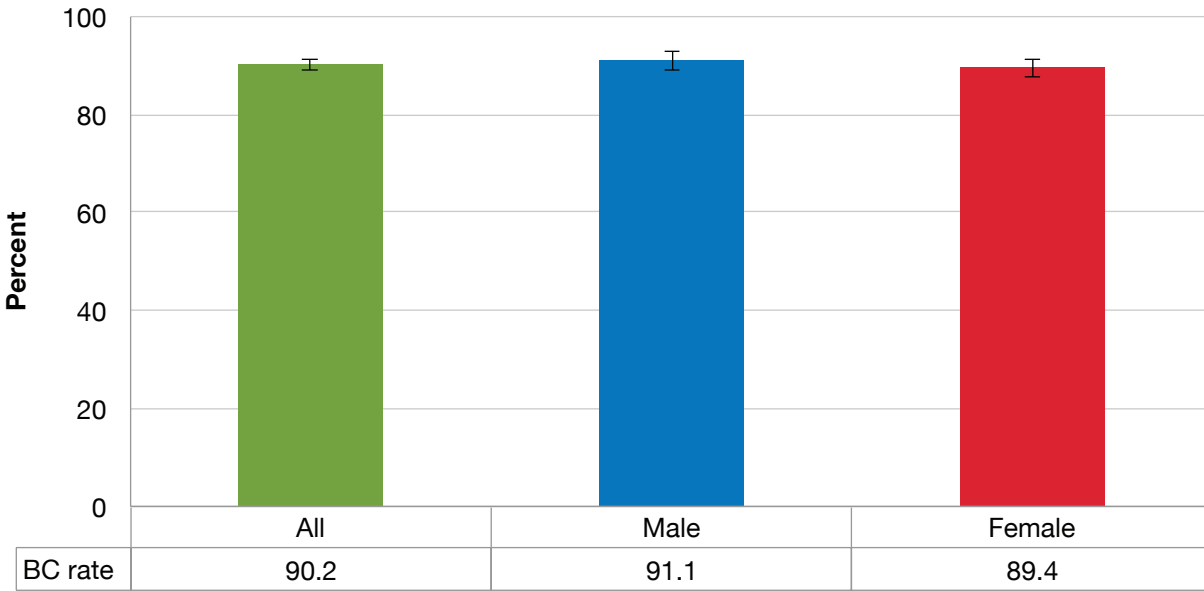


■ 73.5% of the population (age 18-34) agreed/strongly agreed they could afford to eat healthy foods.

- The proportion of people (age 18-34) who agreed/strongly agreed they could afford to eat healthy foods was significantly lower compared to the other age groups.

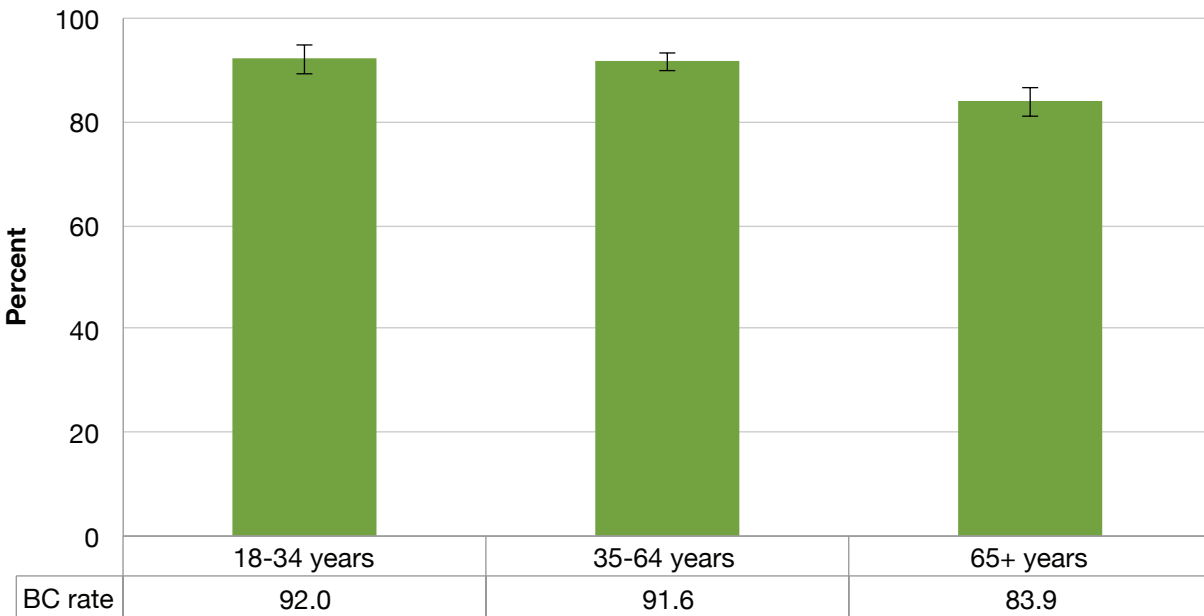
Mobility barriers to accessing healthy foods

Figure 29. Proportion of people (age 18+) who disagreed/strongly disagreed they had difficulty accessing healthy foods because of mobility issues or lack of transportation, by gender, B.C., 2013



- 90.2% of British Columbians (age 18+) disagreed/strongly disagreed they had difficulty accessing healthy foods because of mobility issues or lack of transportation.

Figure 30. Proportion of people (age 18+) who disagreed/strongly disagreed they had difficulty accessing healthy foods because of mobility issues or lack of transportation, by age, B.C., 2013



- 92% of population (age 18-34) disagreed/strongly disagreed that they had difficulty accessing healthy foods because of mobility issues or lack of transportation.
- The proportion of people (age 18-34) who disagreed/strongly disagreed that they had difficulty accessing healthy foods because of mobility issues or lack of transportation was significantly higher compared to seniors (age 65+).

Food skills

Cooking healthy food that is tasty and appealing is not always easy. Not everyone is equipped with the basic shopping and cooking skills for healthy cooking, or has the confidence or the appropriate environment to change their cooking and eating habits. A growing body of research supports the relationship between food preparation and cooking skills and food choices.¹¹ In the survey, respondents were asked about their cooking and shopping skills to prepare healthy meals, and they were also asked if they would take the time to prepare a healthy meal when eating alone. Lastly, they were asked how often they ate meals prepared from “scratch” at home, which are meals prepared from using only fresh or whole ingredients.

In B.C., the vast majority of the population expressed that they had the skills to shop and cook for healthy meals (87.1%), and ate meals prepared from “scratch” at home four times or more per week (88.2%). However, a far lower percentage of British Columbians (57.4%) would take time to prepare healthy meals when eating alone (Figure 31, 33, 35).

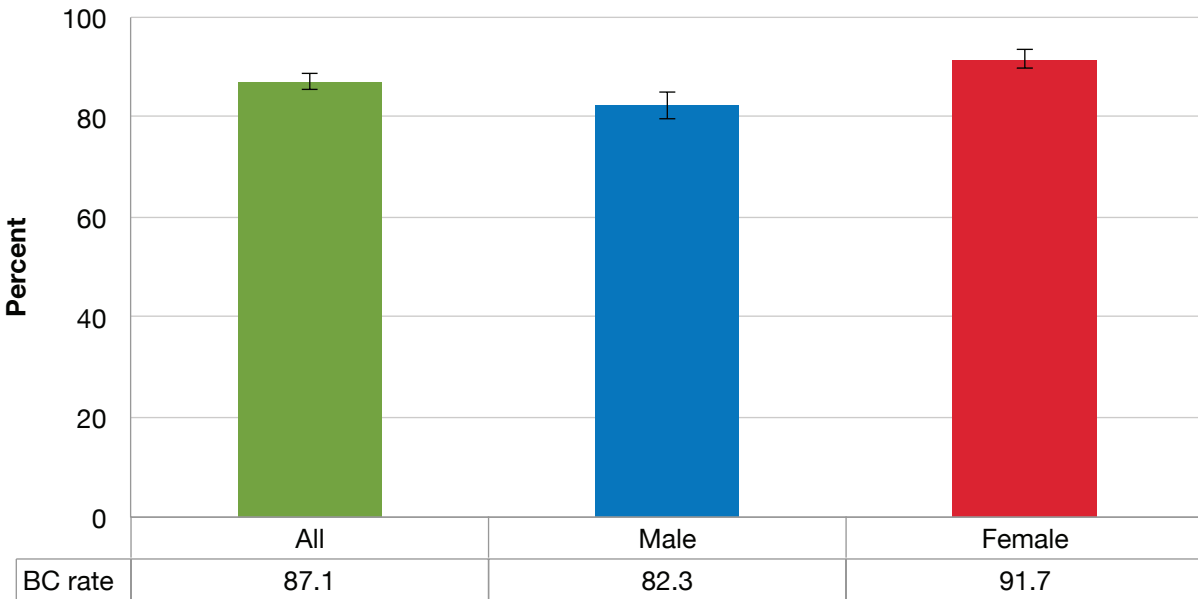
In terms of gender differences, females were more likely than males to: have the cooking and shopping skills to prepare a healthy meal (91.7% vs. 82.3%); take the time to prepare healthy meals when eating alone (61.2% vs. 53.5%); and eat meals prepared from “scratch” at home four times or more per week (91.1% vs. 85.1%) (Figure 31, 33, 35).

British Columbians (age 35-64) were more likely than younger British Columbians (age 18-34) to have the cooking and shopping skills to prepare a healthy meal (89.4% vs. 82.3%), and also ate meals prepared from scratch at home four times or more per week (90.1% vs. 84.0%). In addition, seniors (age 65+) were more likely to take time to prepare healthy meals when eating alone than the youngest group (age 18-34) (67.7% vs 53.5%) (Figure 32, 34, 36).

¹¹ Statistics Canada. (2010). *Improving Cooking and Food Preparation Skills: A Synthesis of the Evidence to Inform Program and Policy Development*. http://www.hc-sc.gc.ca/fn-an/alt_formats/pdf/nutrition/child-enfant/cfps-acc-synthes-eng.pdf (accessed March 8, 2014)

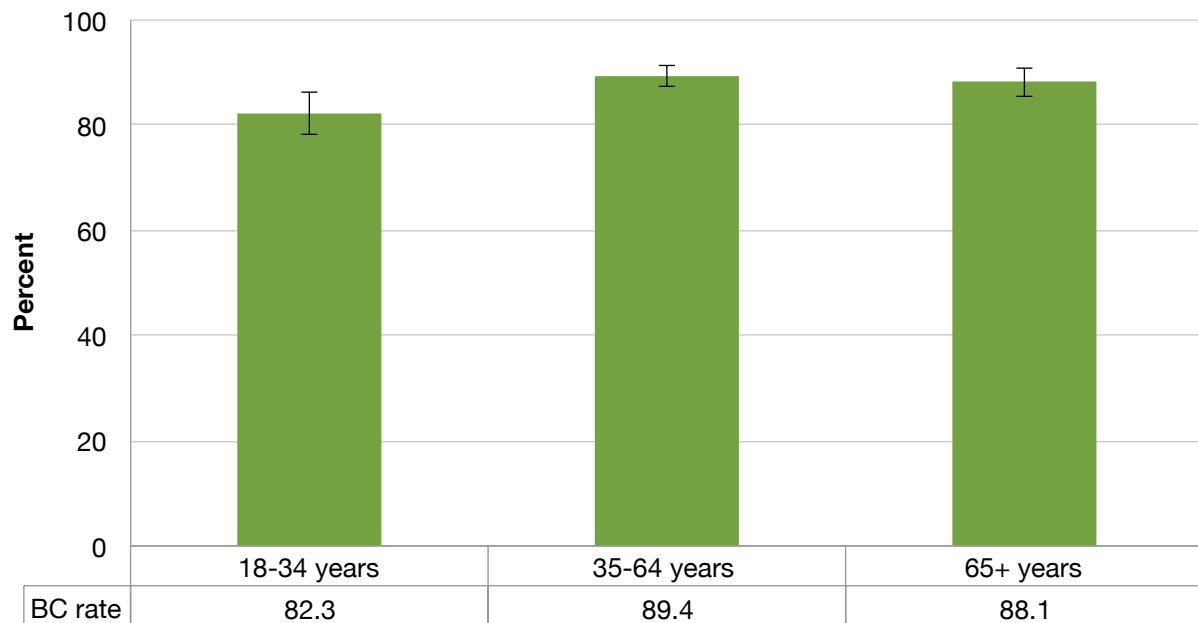
Skills to shop and cook healthy meals

Figure 31. Proportion of people (age 18+) who agreed/strongly agreed that they had the cooking and shopping skills to prepare healthy meals, by gender, B.C., 2013



- 87.1% of British Columbians (age 18+) agreed/strongly agreed that they had the cooking and shopping skills to prepare healthy meals,
- There was a significant gap between the percentages of men and women who felt they had the cooking and shopping skills to prepare healthy meals (82.3% of males compared to 91.7% of females).

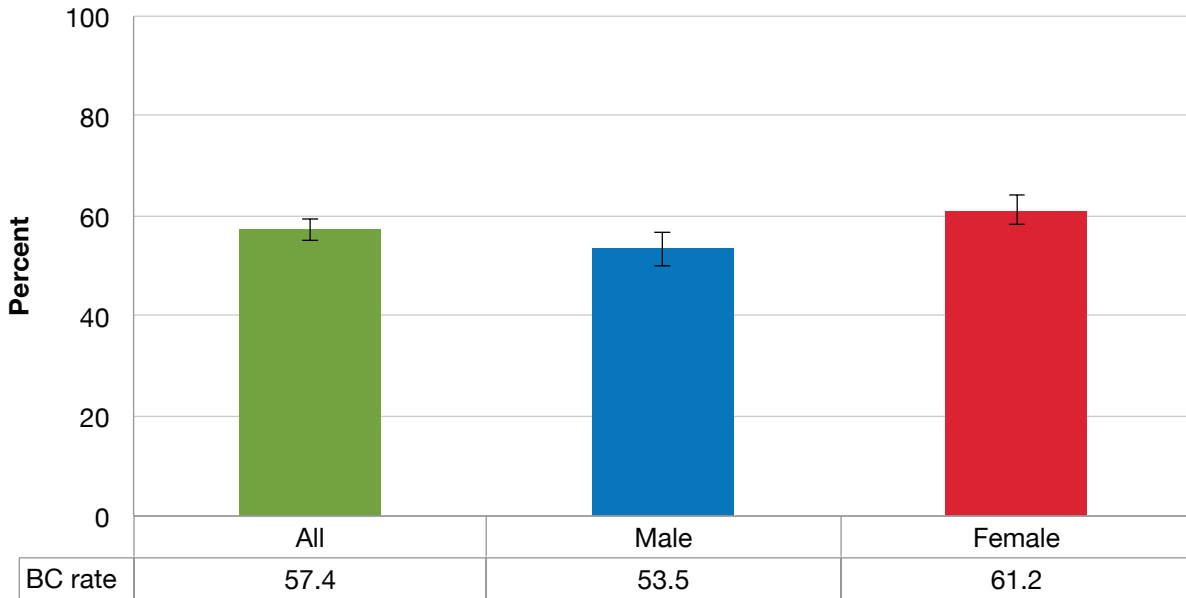
Figure 32. Proportion of people (age 18+) who agreed/strongly agreed that they had the cooking and shopping skills to prepare healthy meals, by age, B.C., 2013



- 82.3% of the population (age 18-34) agreed/strongly agreed that they had the cooking and shopping skills to prepare healthy meals.
- The proportion of people (age 18-34) who agreed/strongly agreed that they had the cooking and shopping skills to prepare healthy meals, was significantly lower compared to the older population (age 35-64).

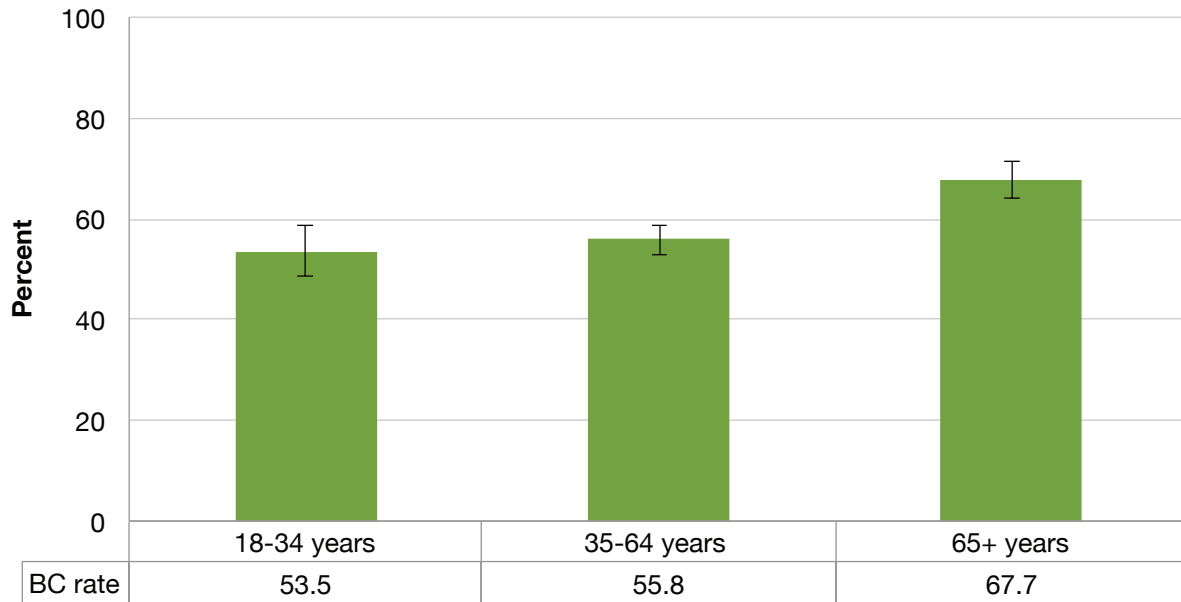
Cook healthy meals when eating alone at home

Figure 33. Proportion of people (age 18+) who agreed/strongly agreed they took time to prepare healthy meals when eating alone, by gender, B.C., 2013



- 57.4% of people in B.C. (age 18+) agreed/strongly agreed that they took time to prepare healthy meals when eating alone. The proportion of females who took time to prepare healthy meals when eating alone (61.2%) was significantly higher compared to the proportion of males (53.5%).

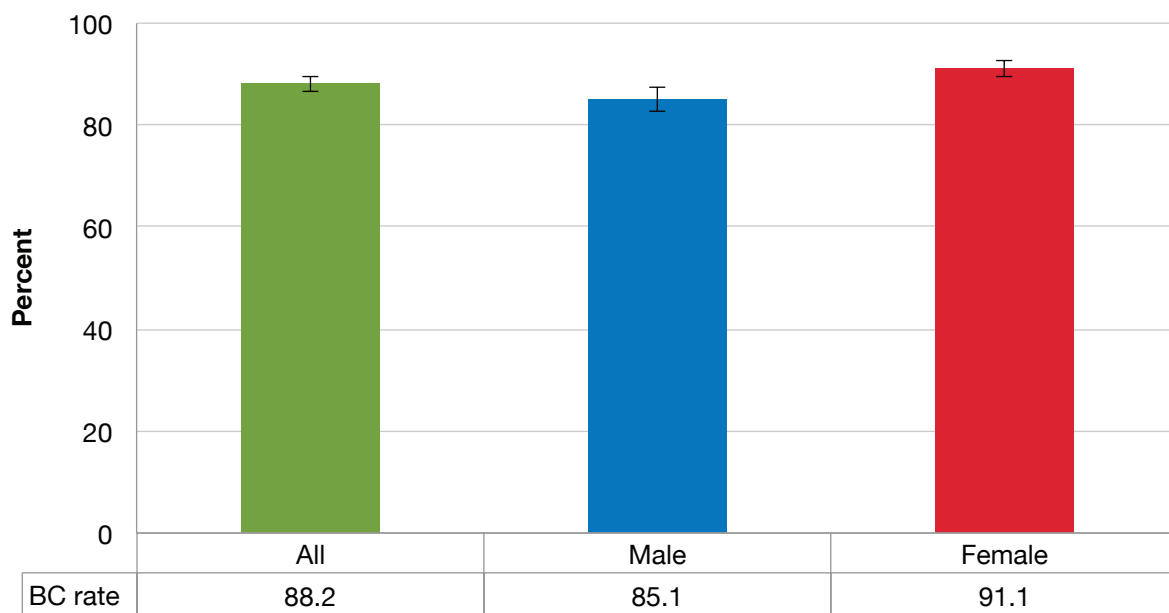
Figure 34. Proportion of people (age 18+) who agreed/strongly agreed they took time to prepare healthy meals when eating alone, by age, B.C., 2013



- 53.5% of population (age 18-34) agreed/strongly agreed they took time to prepare healthy meals when eating alone.
- The proportion of people (age 18-34) who agreed/strongly agreed they took time to prepare healthy meals when eating alone was significantly lower compared to seniors (age 65+).

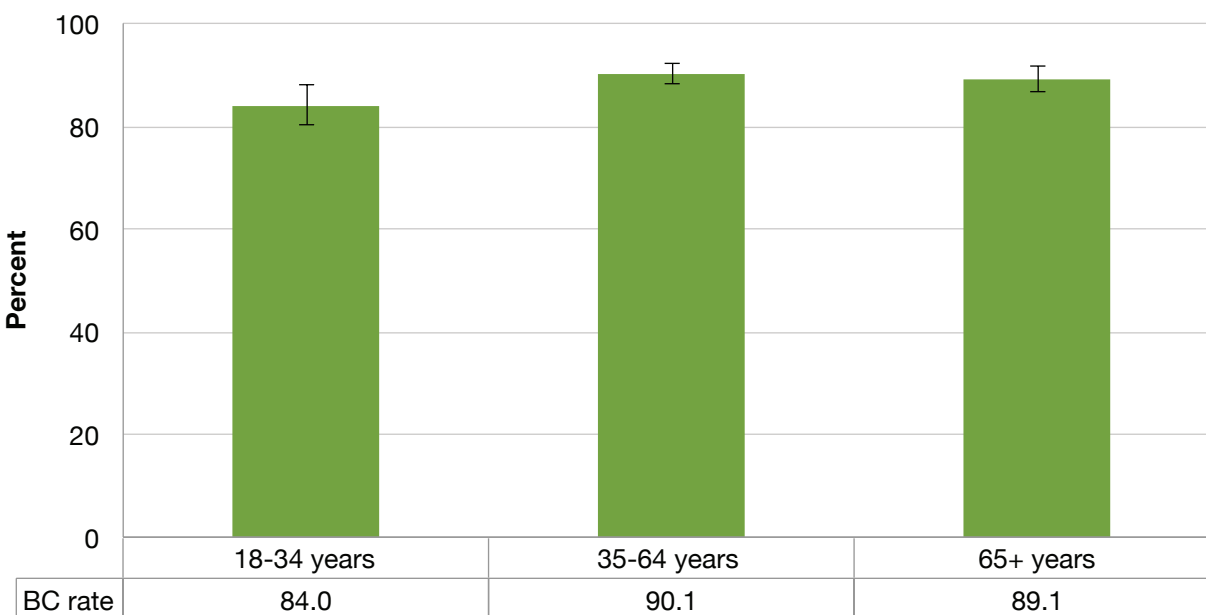
Eat meals prepared from “scratch”

Figure 35. Proportion of people (age 18+) who ate meals prepared from “scratch” four or more times per week, by gender, B.C., 2013



- 88.2% of British Columbians (age 18+) reported having meals prepared from “scratch” four or more times per week. The proportion of females (91.1%) who reported having meals prepared from “scratch” four or more times per week was significantly higher compared to the proportion of males (85.1%).

Figure 36. Proportion of people (age 18+) who ate meals prepared from “scratch” four or more times per week, by age, B.C., 2013



- 84.0% of population (age 18-34) reported having meals prepared from “scratch” four or more times per week.
- The proportion of people (age 18-34) who reported having meals prepared from “scratch” at least four times per week was significantly lower than the older population (age 35-64).

Sodium

Increased sodium intake is associated with high blood pressure, which is a major risk factor for kidney disease, stroke, and heart disease. The WHO calls high blood pressure the leading preventable risk factor for death around the world.¹² The majority of sodium found in the typical diet comes from processed food products, which accounts for about 77% of Canadians’ total sodium intake.¹³

In the survey, respondents were asked about their knowledge of sodium. To assess their sodium knowledge, they were given a list of foods and were asked to indicate the foods that contain high/low amounts of sodium.

In B.C., most people (age 18+) (90.7%) identified all high-sodium foods correctly, but there was a noticeable drop in the percentage of people who could identify all low-sodium foods correctly (61.8%). In addition,

¹² Health Canada. (2012). *Guidance for the Food Industry on Reducing Sodium in Processed Foods*. <http://www.worldactiononsalt.com/docs/world/78296.pdf> (accessed March 8, 2014)

¹³ Statistics Canada. (2012). *Guidance for the Food Industry on Reducing Sodium in Processed Foods*. <http://www.hc-sc.gc.ca/fn-an/legislation/guide-ld/2012-sodium-reduction-indust-eng.php#a3> (accessed March 8, 2014)

57.3% percent of people were able to identify both high and low-sodium foods correctly. Females (93.2%) were more likely to correctly identify all high-sodium foods than males (88.0%). No age difference was found for correct identification of high-sodium foods (Figure 37-42).

British Columbians (age 18-34) were less likely to identify all low-sodium foods correctly, and both high and low-sodium foods correctly when compared to older British Columbians (age 35+). In terms of avoiding the purchase of food/drink due to high sodium content, about half of the respondents (50.8%) reported that they did not purchase a food/drink because of its high sodium content at least once in the past month. Older population (age 65+) were more likely not to purchase a food/drink due to its high-sodium content at least once in the past month younger population (age 18-34) (Figure 43-44).

Evidence shows that the foods people select when they eat out generally contain more calories, fat, sodium, and saturated fat than at-home meals and snacks.¹⁴ Consuming less healthy foods that contain high amounts of sodium, fat, and sugar is frequently harmful to health and can negatively impact our physical, mental, and social well-being. In B.C., more than sixty percent of people (63.5%) reported eating food from restaurants, cafeterias, and coffee shops, including take-out, delivery, drive-throughs, and sit-down meals, at least once per week. Males (66.7%) were more likely to eat out more than once per week than females (60.4%) (Figure 45-46).

Processed foods and pre-packaged meals are often high in calories, fat, salt, and/or sugar. In Canada, the majority of sodium consumption comes from processed food products, which accounts for about 77% of Canadians' total sodium intake.¹⁵ Consuming high amounts of sodium, salt, and/or sugar can negatively impact our health. For that reason, we were interested to know how often people in B.C. consumed processed foods (including canned goods and deli meats) and pre-packaged meals (including frozen entrees or instant meals).

About one-fifth of the population (19.8%) reported eating processed foods four times or more per week in B.C. Males (24.6%) were more likely to eat processed foods four times or more per week than females (15.1%). In general, the youngest population group (age 18-34) was more likely to eat processed foods four times or more per week compared to the older age groups (Figure 47-48).

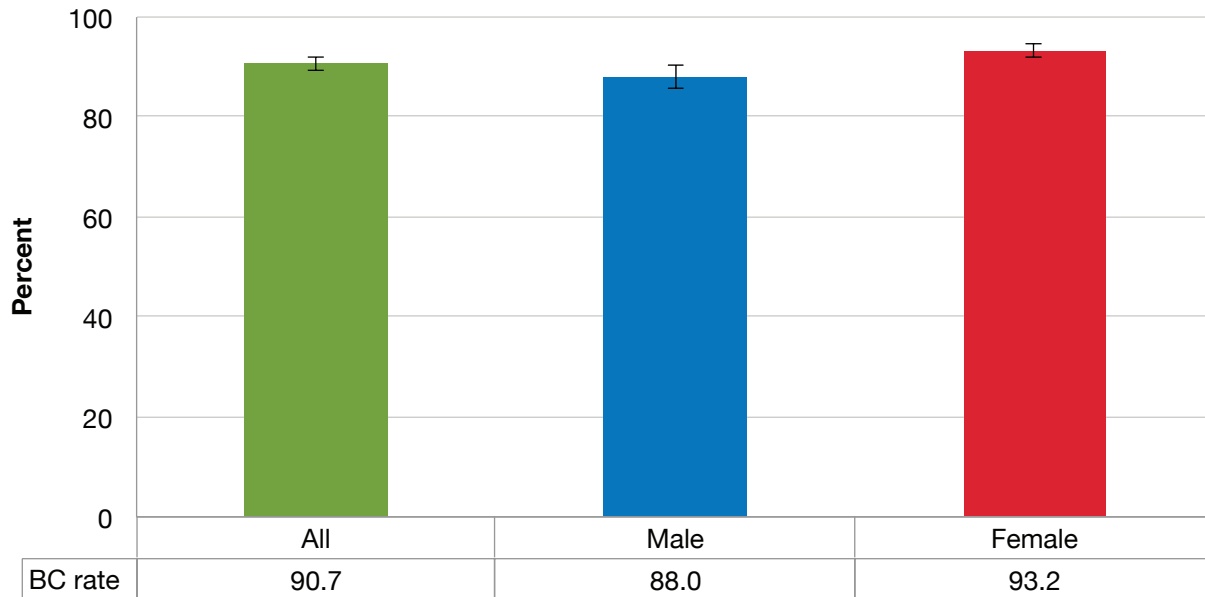
In terms of pre-packaged meals, about forty percent of British Columbians (39.2%) reported eating pre-packaged meals at least once per week. Similar to the pattern reported for processed foods, the younger population group (age 18-34) was more likely to have pre-packaged meals once or more per week than the older age groups (Figure 49-50).

14 Jessica T., Lisa M., and Bing-H. L. (2010). *The Impact of Food Away From Home on Adult Diet Quality*. <http://www.ers.usda.gov/publications/err-economic-research-report/err90.aspx#.U4N0kNLCZ8E> (accessed May 26, 2014)

15 Statistics Canada. (2012). *Guidance for the Food Industry on Reducing Sodium in Processed Foods*. <http://www.hc-sc.gc.ca/fn-an/legislation/guide-ld/2012-sodium-reduction-indust-eng.php#a3> (accessed March 8, 2014)

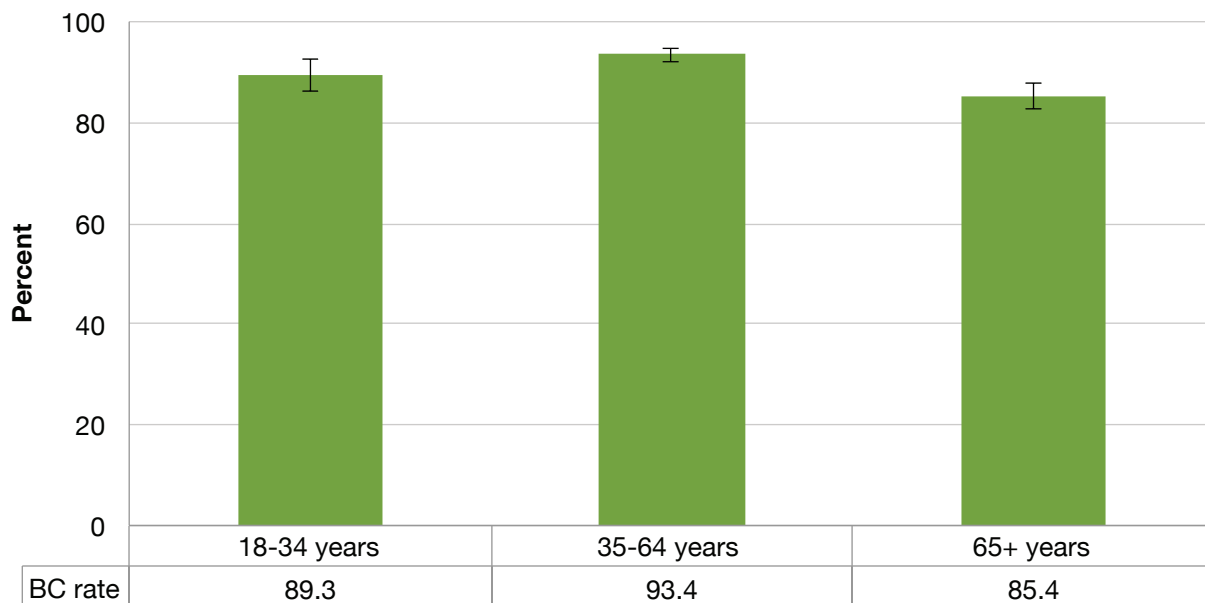
Identify all high-sodium foods correctly

Figure 37. Proportion of people (age 18+) who could identify deli meats, canned soups, and frozen dinners as high-sodium content foods, by gender, B.C., 2013



- 90.7% of British Columbians (age 18+) correctly identified deli meats, canned soups, and frozen dinners as high-sodium content food items. This proportion was significantly higher in females (93.2%) compared to males (88%).

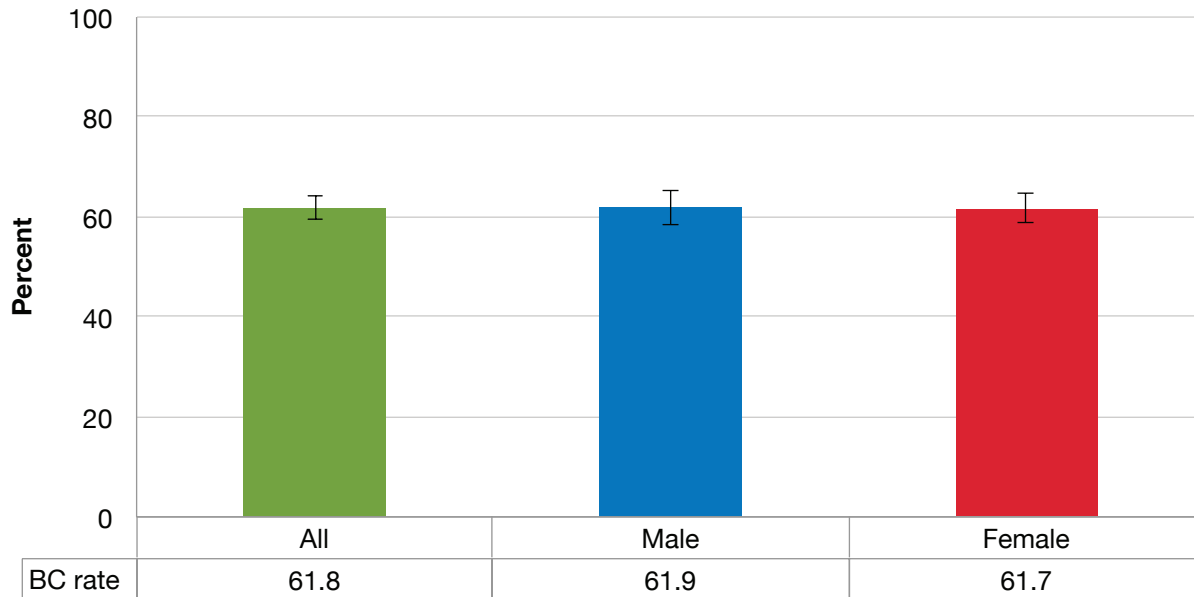
Figure 38. Proportion of people (age 18+) who could identify deli meats, canned soups, and frozen dinners as high-sodium content foods, by age, B.C., 2013



- 89.3% of population (age 18-34) correctly identified deli meats, canned soups, and frozen dinners as high-sodium content food items.

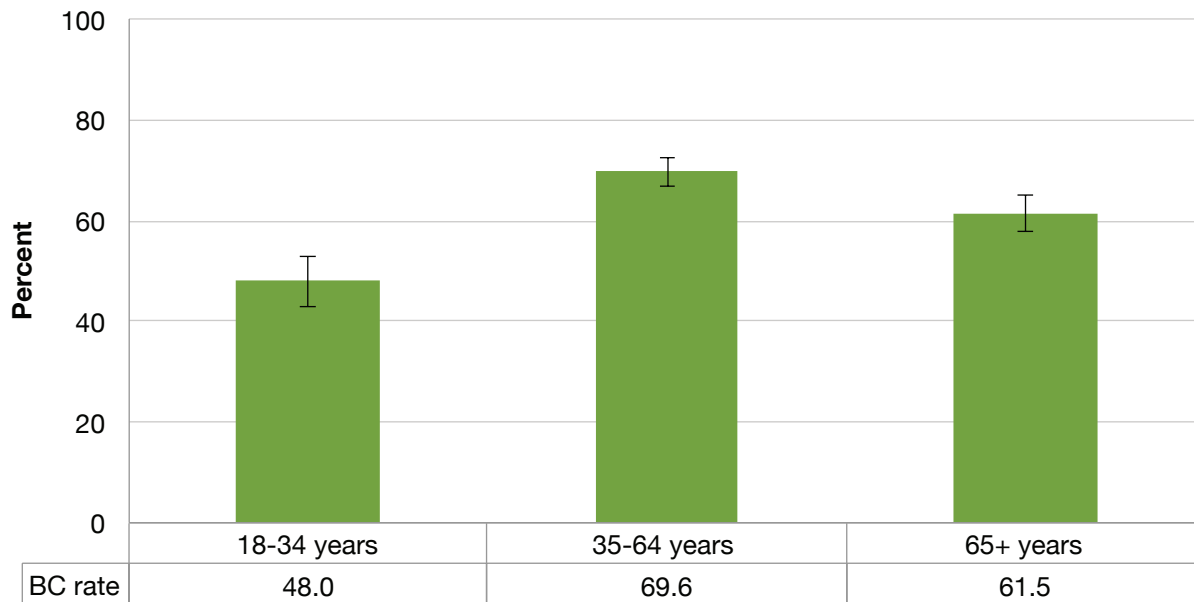
Identify all low-sodium foods correctly

Figure 39. Proportion of people (age 18+) who could correctly identify fresh fish (baked), ground beef (pan-fried), and fresh vegetables as low-sodium content foods, by gender, B.C., 2013



- 61.8% of British Columbians (age 18+) correctly identified fresh fish (baked), ground beef (pan-fried), and fresh vegetables as low-sodium content food items.

Figure 40. Proportion of people (age 18+) who could correctly identify fresh fish (baked), ground beef (pan-fried), and fresh vegetables as low-sodium content foods, by age, B.C., 2013

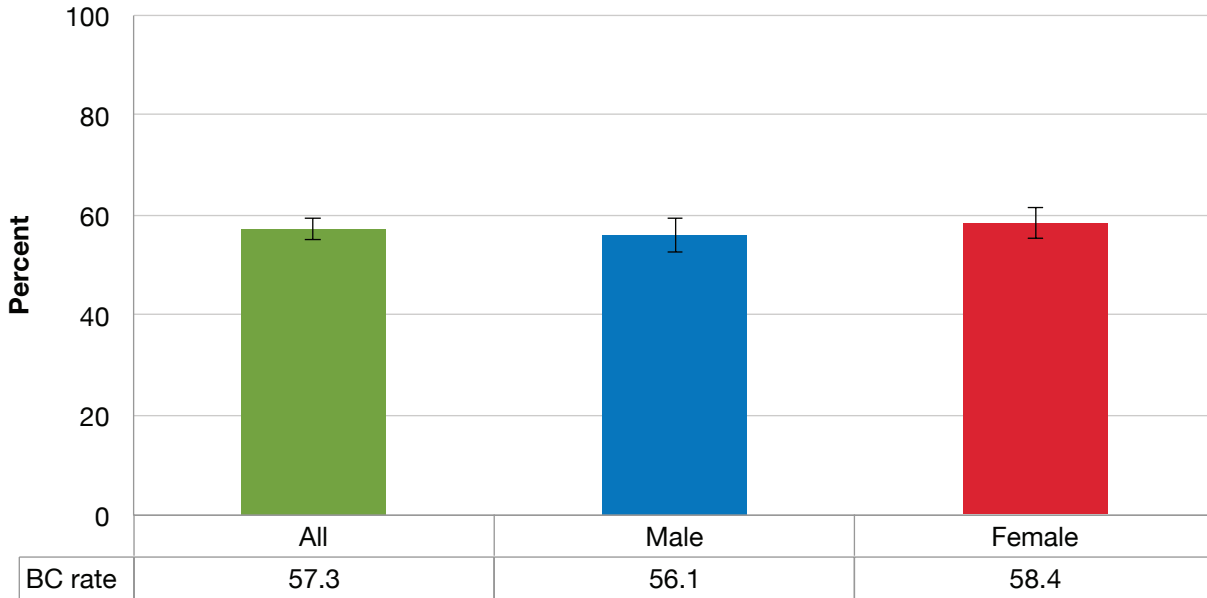


- 48.0% of the population (age 18-34) correctly identified fresh fish (baked), ground beef (pan-fried), and fresh vegetables as low-sodium content food items.

- The proportion of people (age 18-34) who could correctly identify fresh fish (baked), ground beef (pan-fried), and fresh vegetables as low-sodium content food items was significantly lower compared to the other age groups.

Identify all high and low-sodium foods correctly

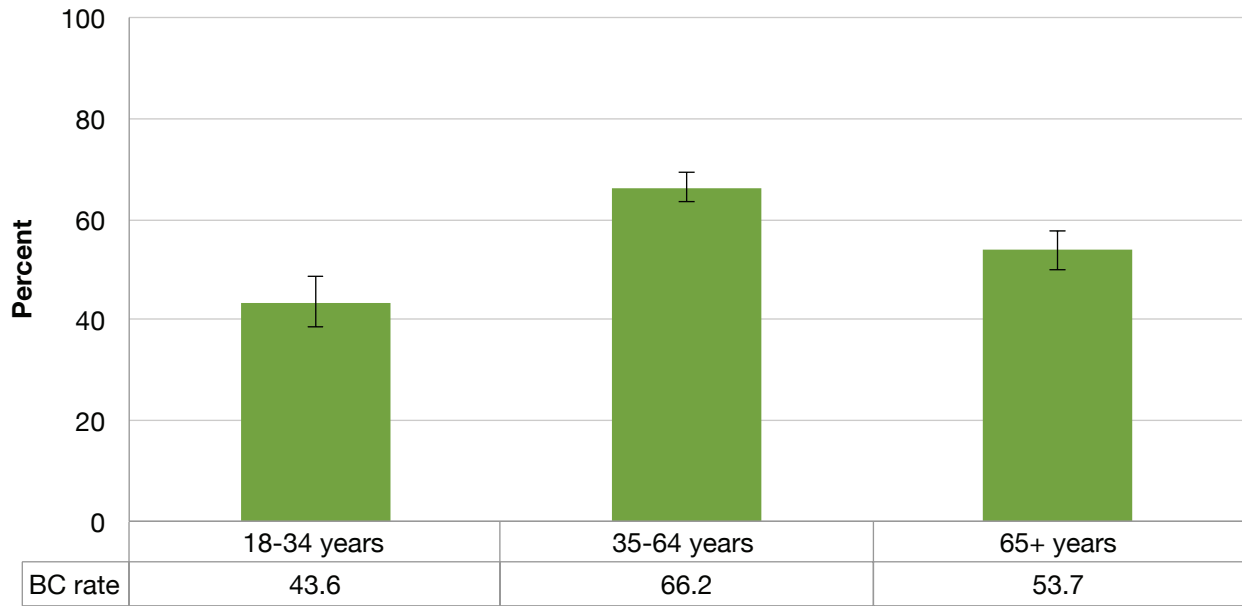
Figure 41. Proportion of people (age 18+) who could identify sodium content of fresh fish (baked), ground beef (pan-fried), fresh vegetables, deli meats, canned soup, and frozen dinners correctly, by gender, B.C., 2013



- 57.3% of British Columbians (age 18+) correctly identified low and high-sodium content food items.

Note: Fresh fish (baked), ground beef (pan-fried), and fresh vegetables were identified as low-sodium content food items. Deli meats, canned soups, and frozen dinners were identified as high-sodium content food items.

Figure 42. Proportion of people (age 18+) who could identify sodium content of fresh fish (baked), ground beef (pan-fried), fresh vegetables, deli meats, canned soup, and frozen dinners correctly, by age, B.C., 2013

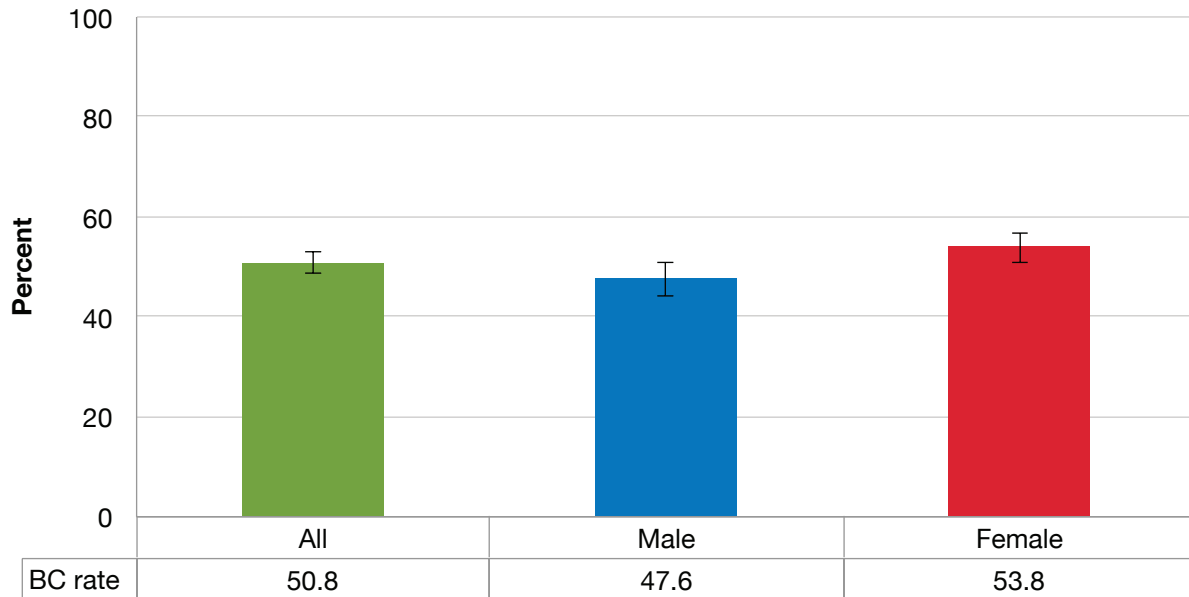


■ 43.6% of the population (age 18-34) correctly identified low and high-sodium content food items. This proportion was significantly lower compared to the other age groups.

Note: Fresh fish (baked), ground beef (pan-fried), and fresh vegetables were identified as low-sodium content food items. Deli meats, canned soups, and frozen dinners were identified as high-sodium content food items.

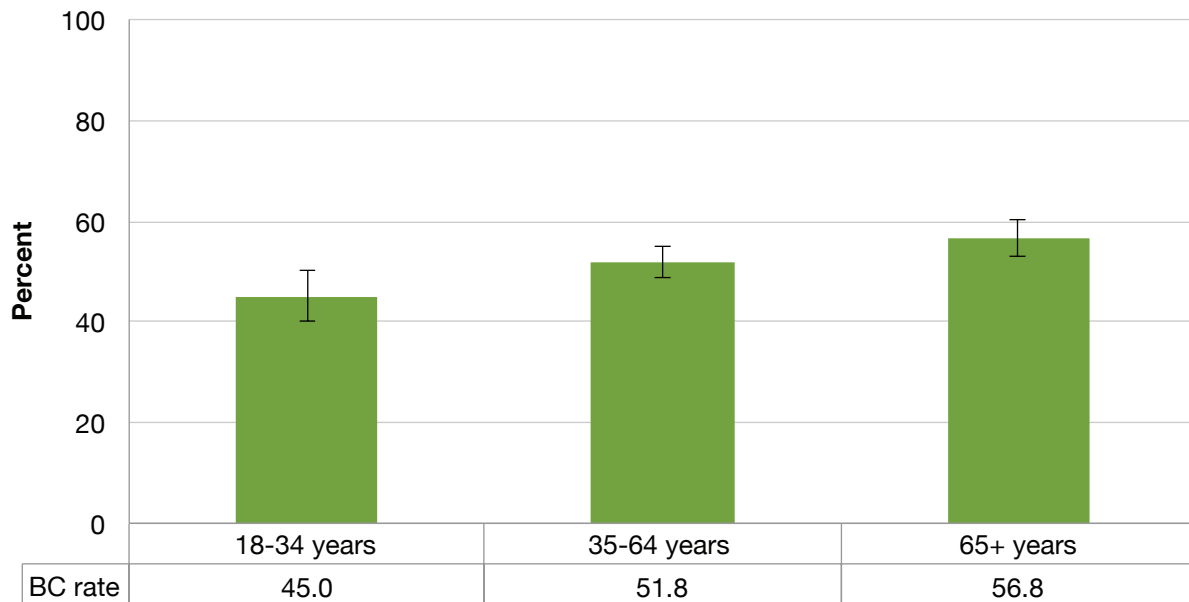
Did not purchase food/drink due to its high sodium content

Figure 43. Proportion of people (age 18+) who did not purchase a food/drink due to its high sodium content at least once in the past month, by gender, B.C., 2013



- 50.8% of people in B.C. (age 18+) reported that they did not purchase a food/drink due to its high sodium content at least once in the past month.

Figure 44. Proportion of people (age 18+) who did not purchase a food/drink due to its high sodium content at least once in the past month, by age, B.C., 2013

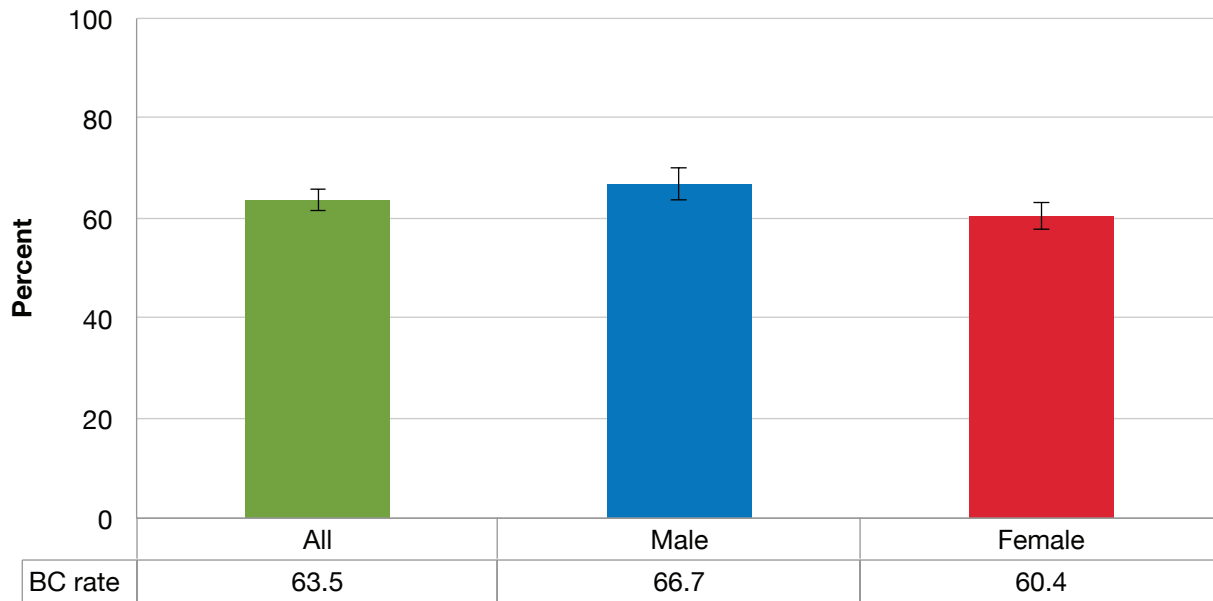


- 45.0% of the population (age 18-34) reported they did not purchase a food/drink due to its high sodium content at least once in the past month.

- The proportion of people (age 18-34) who reported they did not purchase a food/drink due to its high sodium content at least once in the past month was significantly lower compared to seniors (age 65+).

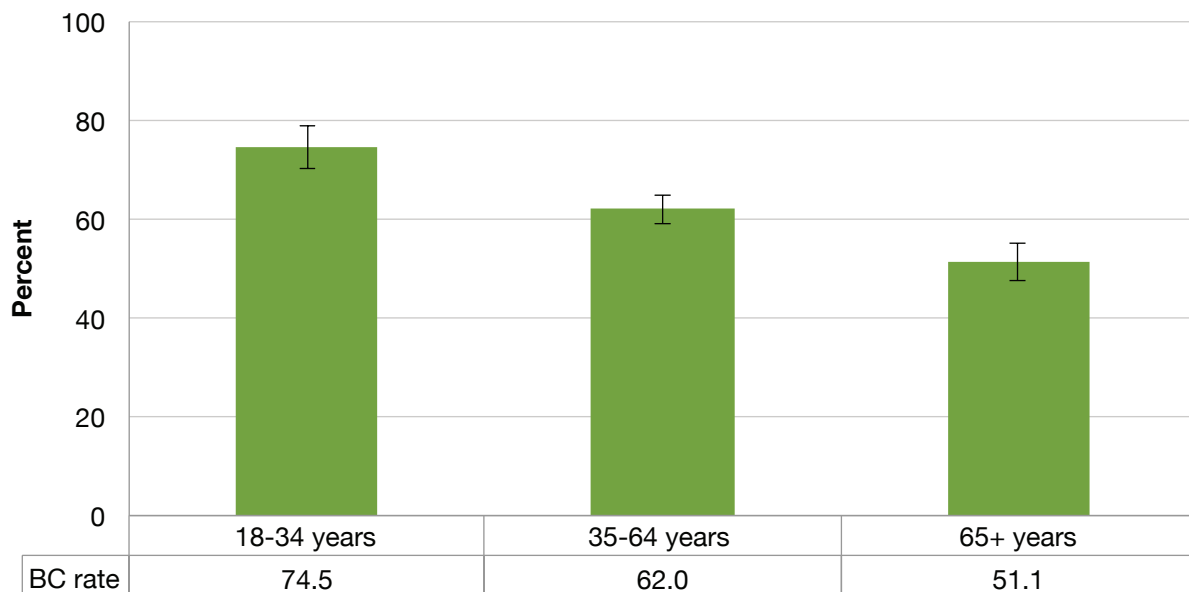
Eating out habits

Figure 45. Proportion of people (age 18+) who ate food from restaurants, cafeterias, or coffee shops one or more times per week, by gender, B.C., 2013



- 63.5% of British Columbians (age 18+) reported eating food from restaurants, cafeterias, or coffee shops at least once per week. This proportion was significantly higher in males (66.7%) compared to females (60.4%).

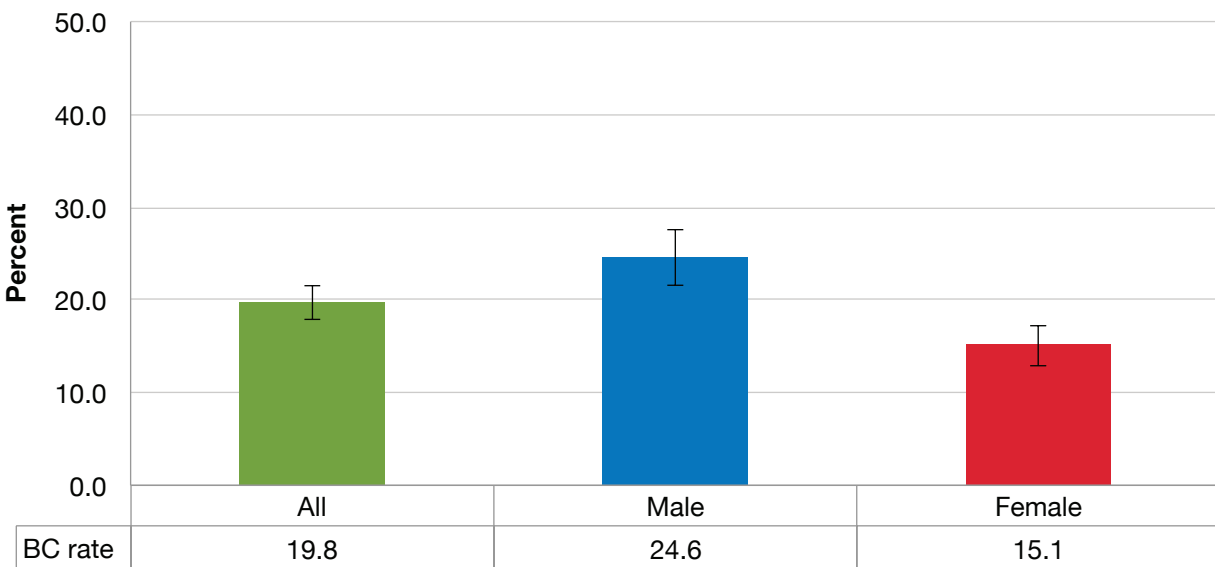
Figure 46. Proportion of people (age 18+) who ate food from restaurants, cafeterias, or coffee shops one or more times per week, by age, B.C., 2013



- 74.5% of the population (age 18-34) ate food from restaurants, cafeterias, or coffee shops at least once per week.
- The proportion of people (age 18-34) who reported eating food from restaurants, cafeterias, or coffee shops at least once per week was significantly higher compared to the other age groups.

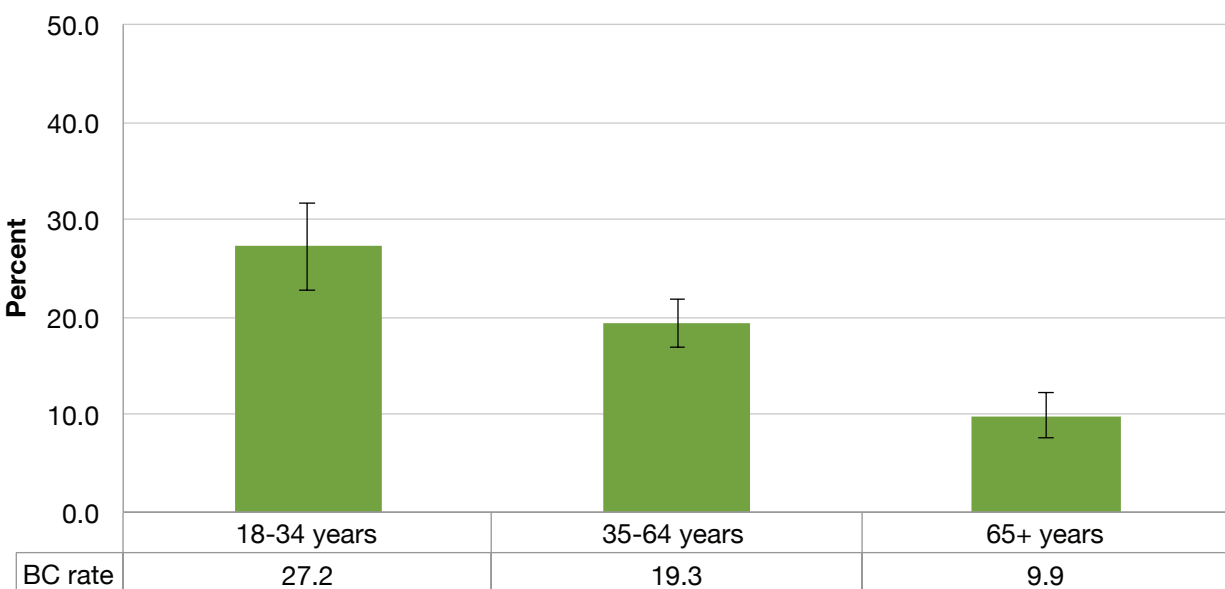
Processed foods consumption

Figure 47. Proportion of people (age 18+) who ate processed foods four or more times per week, by gender, B.C., 2013



- 19.8% of British Columbians (age 18+) reported having processed foods four or more times per week. This proportion was significantly higher in males (24.6%) compared to females (15.1%).

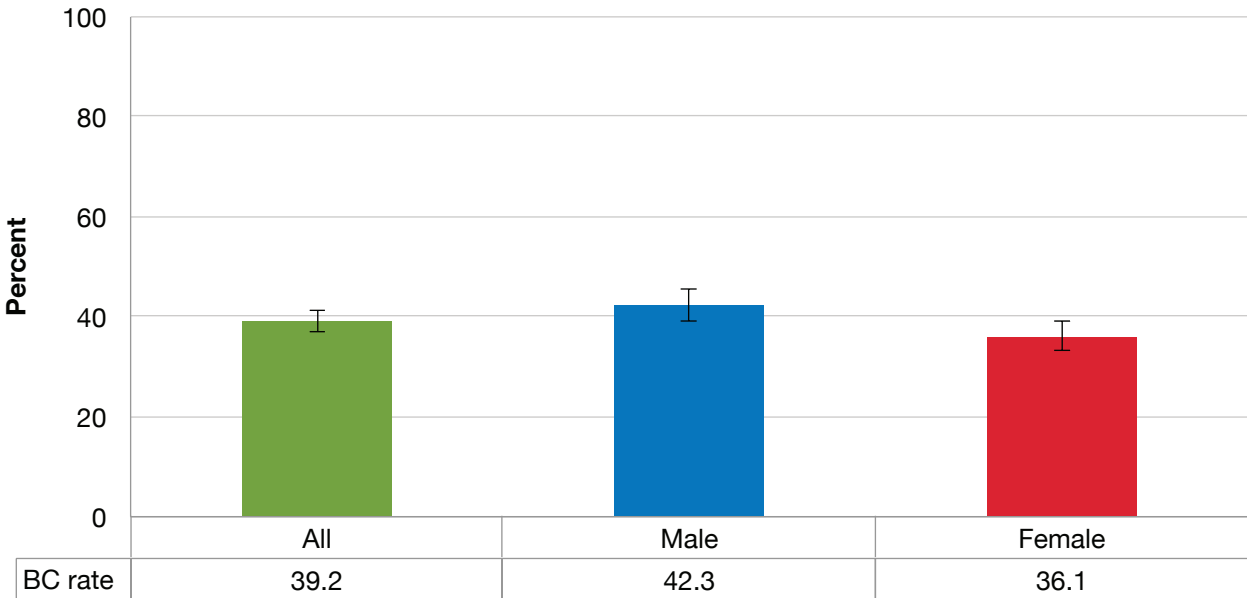
Figure 48. Proportion of people (age 18+) who ate processed foods four or more times per week, by age, B.C., 2013



- 27.2% of the population (age 18-34) reported having processed foods four or more times per week.
- The proportion of people (age 18-34) who reported having processed foods four or more times per week was significantly higher compared to other age groups.

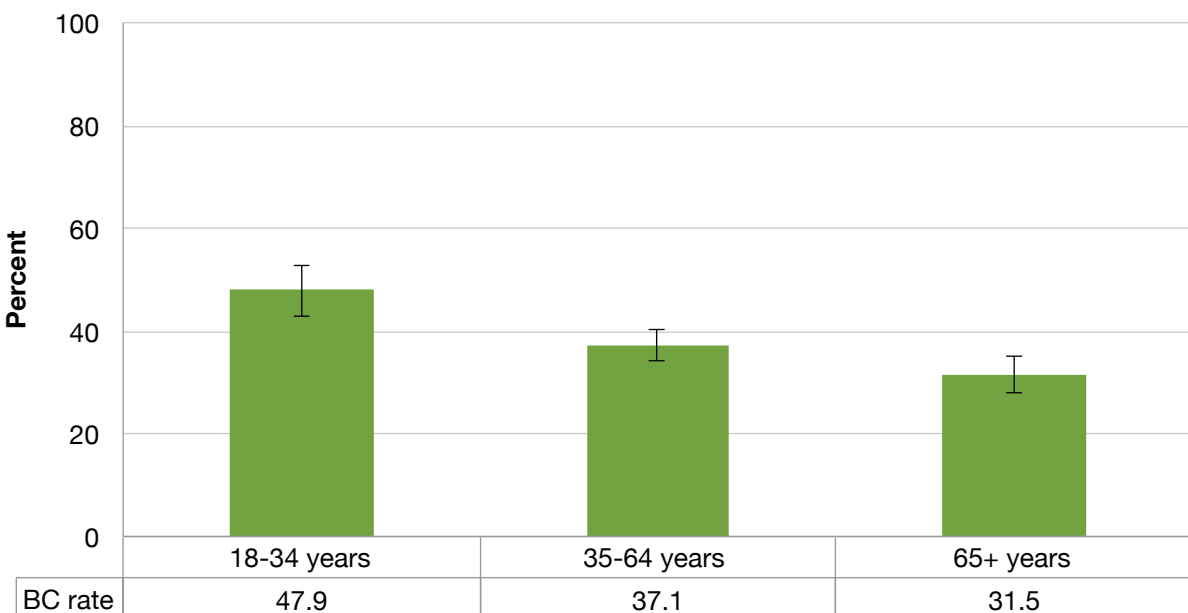
Pre-packaged meals consumption

Figure 49. Proportion of people (age 18+) who reported eating pre-packaged meals one or more times per week, by gender, B.C., 2013



- 39.2% of British Columbians (age 18+) reported having pre-packaged meals at least once per week.

Figure 50. Proportion of people (age 18+) who reported eating pre-packaged meals one or more times per week, by age, B.C., 2013



- 47.9% of the population (age 18-34) having pre-packaged meals at least once per week.
- The proportion of people (age 18-34) who reported having pre-packaged meals at least once per week was significantly higher compared to the other age groups.

Sugary drinks

A number of studies have identified potential linkages between sugary drinks and overweight, obesity, and diabetes.¹⁶ Accumulating evidence shows an excess of calories from sugary drinks can lead to an increase in energy intake, which may contribute to overweight/obesity.¹⁷ In addition, sipping sugary drinks throughout the day can harm the teeth and lead to cavities or pain.¹⁸

In the survey, respondents were asked if they had avoided purchasing a drink due to its high sugar content or high caloric content, and how often they had consumed sugary drinks, and drinks with artificial sweeteners. Sugary drinks were divided into categories:

- regular soda, pop, or slushes;
- specialty coffee or tea drinks with added sugar including sweetened iced tea;
- 100% fruit juice;
- sweetened fruit drinks, punches, or lemonade;
- sports drinks;
- energy drinks;
- vitamin-enhanced water.

In B.C., 67.5% of population (age 18+) reported that they did not purchase a drink due to its high sugar content or high caloric content at least once in the past month. There was no difference between males and females (Figure 51-52).

Figures 53 through 70 present the survey results showing the proportion of the population who rarely consumed sugary drinks/artificially sweetened drinks (less than one drink per week). On the other hand, the survey revealed that a relatively high proportion of the population consumed sugary drinks/artificially sweetened drinks more than rarely (one, or more drinks per week).

A majority of British Columbians (age 18+) (78.1%) expressed that they had consumed one, or more sugary drinks per week. Males (84.5%) were more likely to consume one, or more sugary drinks per week than females (71.9%). Younger population (age 18-34) was more likely to consume one or more sugary drinks per week than the older population (age 65+) (Figure 53-54).

When we looked at the consumption of each of the sugary drinks, British Columbians (age 18+) reported drinking one, or more of each item per week in the following order 100% fruit juice (57.6%); specialty coffee or tea with added sugar (30.6%); regular soda, pop, or slushes (27.5%); sweetened fruit drinks, punches,

¹⁶ US Department of Agriculture. (2012). In adults, what is the association between intake of sugar-sweetened beverages and body weight? *USDA Evidence Analysis Library*

¹⁷ Pan, A. and Hu, R.B. (2011). Effects of carbohydrates on satiety: Differences between liquid and solid food. *Current opinion in Clin Nutr and Metabolic Care* 14:385-390

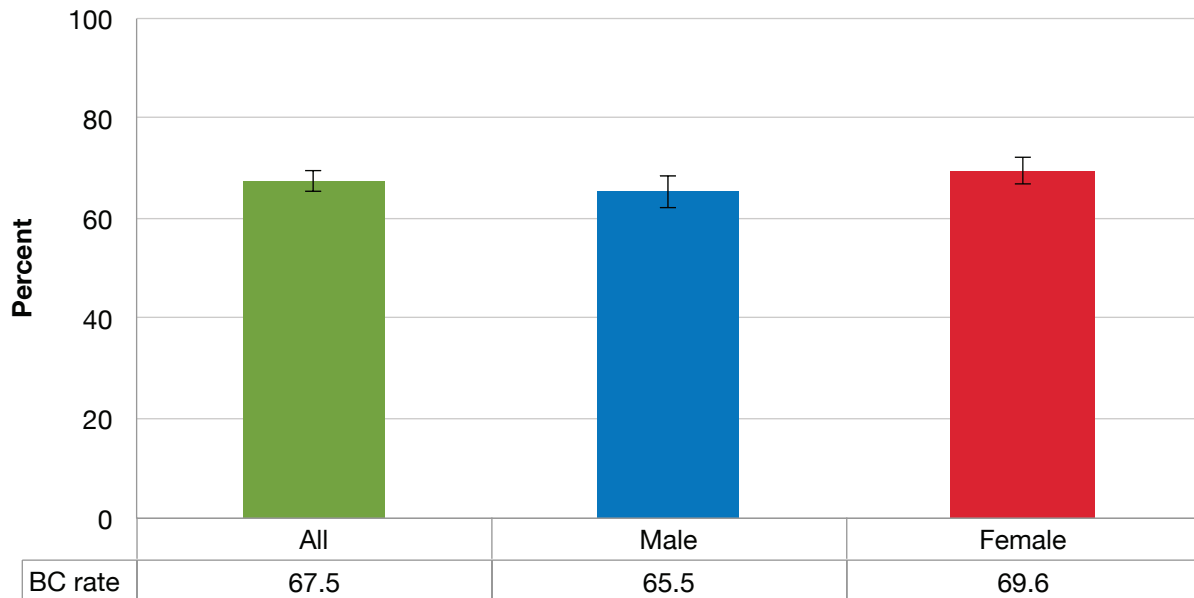
¹⁸ HealthLink B.C.. (2013). *Dental Care for Your Infant and Toddler*. <http://www.healthlinkB.C.ca/healthfiles/hfile19.stm> (accessed May 26, 2014)

or lemonade (24.9%); sports drinks (7.9%); vitamin-enhanced water (6.7%); and energy drinks (4.7%). In general, males were more likely to consume one, or more sugary drinks per week than females except for coffee or tea drinks with added sugar and vitamin-enhanced water. In addition, the B.C. younger population (age 18-34) was more likely to consume one, or more of each type of the sugary drinks mentioned above than older population (age 65+), except for 100% fruit juice (Figure 54-68).

Slightly more than a quarter of British Columbians (26.5%) reported consuming one, or more artificially sweetened drinks per week. Similar to sugary drinks, males (29.9%) were more likely to consume one, or more artificially sweetened drinks per week than females (23.3%) in B.C. (Figure 69).

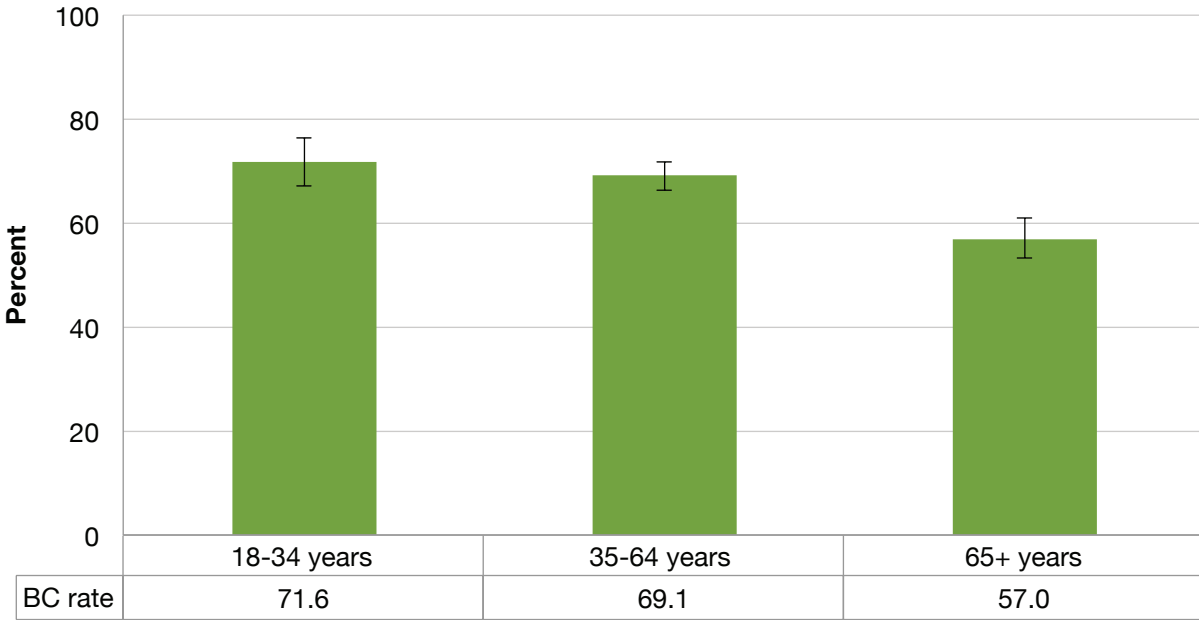
Did not purchase a drink due to its high sugar or high caloric content

Figure 51. Proportion of people (age 18+) who did not purchase a drink due to its high sugar content or high caloric content at least once in the past month, by gender, B.C., 2013



- 67.5% of people in B.C. (age 18+) reported they did not purchase a drink due to its high sugar content or high caloric content at least once in the past month.

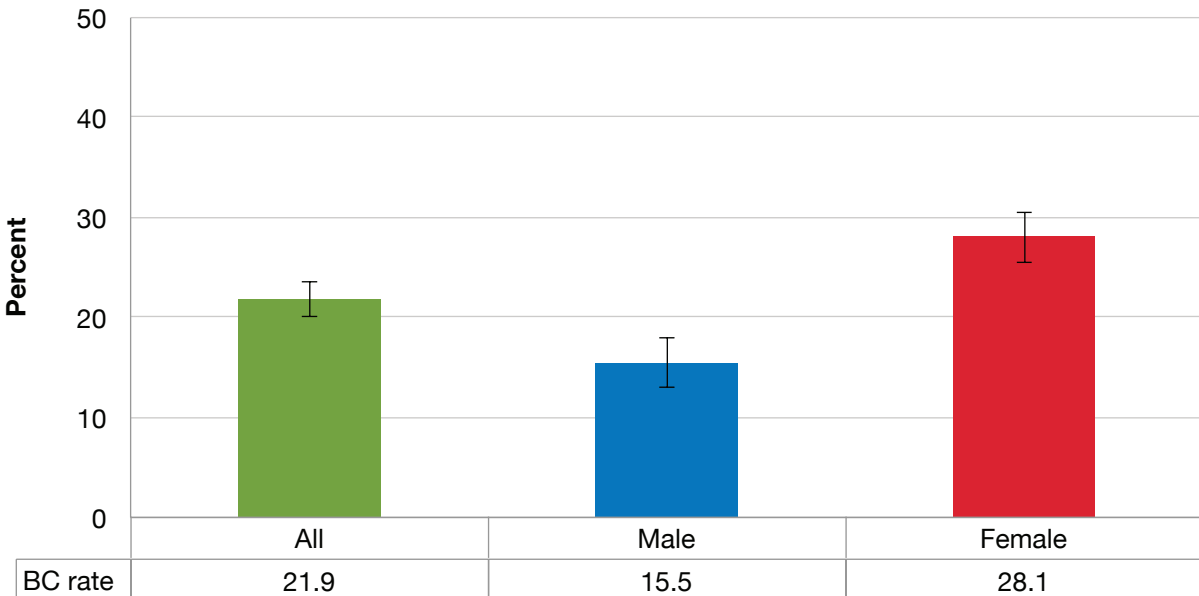
Figure 52. Proportion of people (age 18+) who did not purchase a drink due to its high sugar content or high caloric content at least once in the past month, by age, B.C., 2013



- 71.6% of population (age 18-34) reported they did not purchase a drink due to its high sugar content and calories at least once in the past month.
- The proportion of people (age 18-34) who reported they did not purchase a drink due to its high sugar content and calories at least once in the past month was significantly higher compared to older people (age 65+).

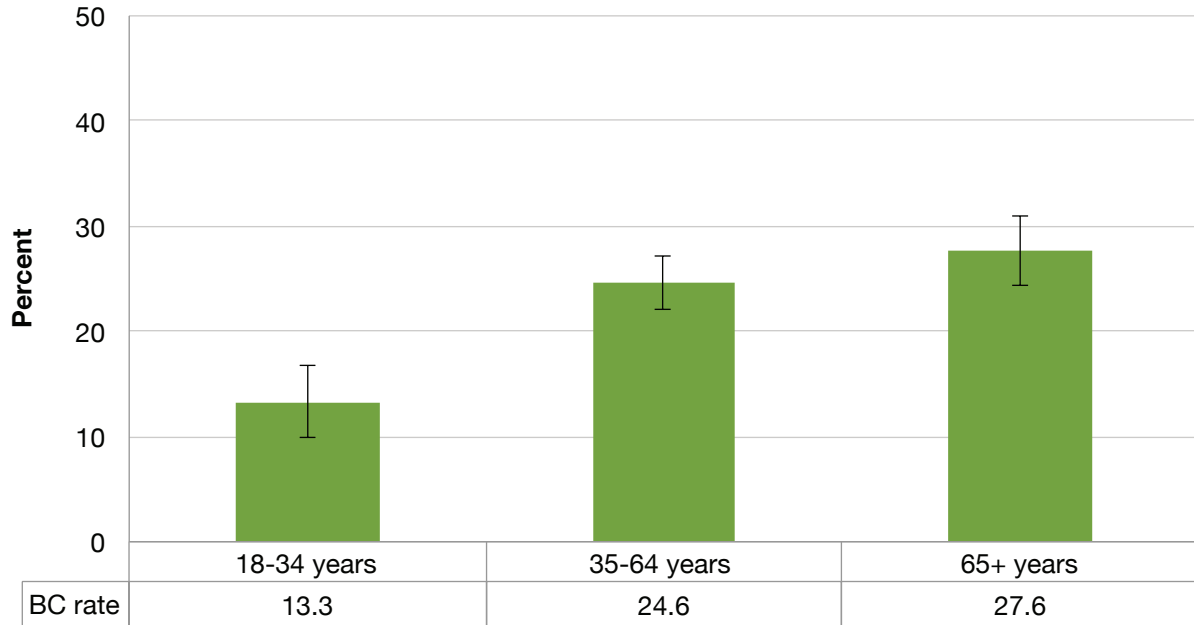
Consumption of sugary drinks

Figure 53. Proportion of people (age 18+) who rarely (less than one drink per week) consumed sugary drinks, by gender, B.C., 2013



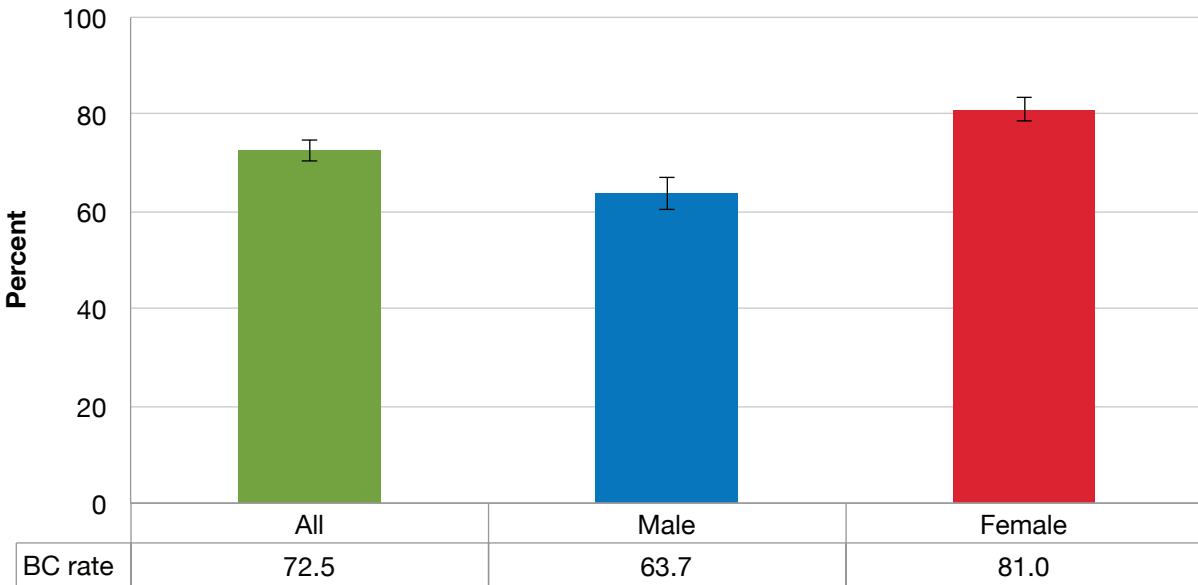
- 21.9% of British Columbians (age 18+) reported consuming less than one sugary drinks per week. This proportion was significantly higher in females (28.1%) compared to males (15.5%). In other words, males were more likely to consume one, or more than one, sugary drinks per week compared to females.

Figure 54. Proportion of people (age 18+) who rarely (less than one drink per week) consumed sugary drinks, by age, B.C., 2013



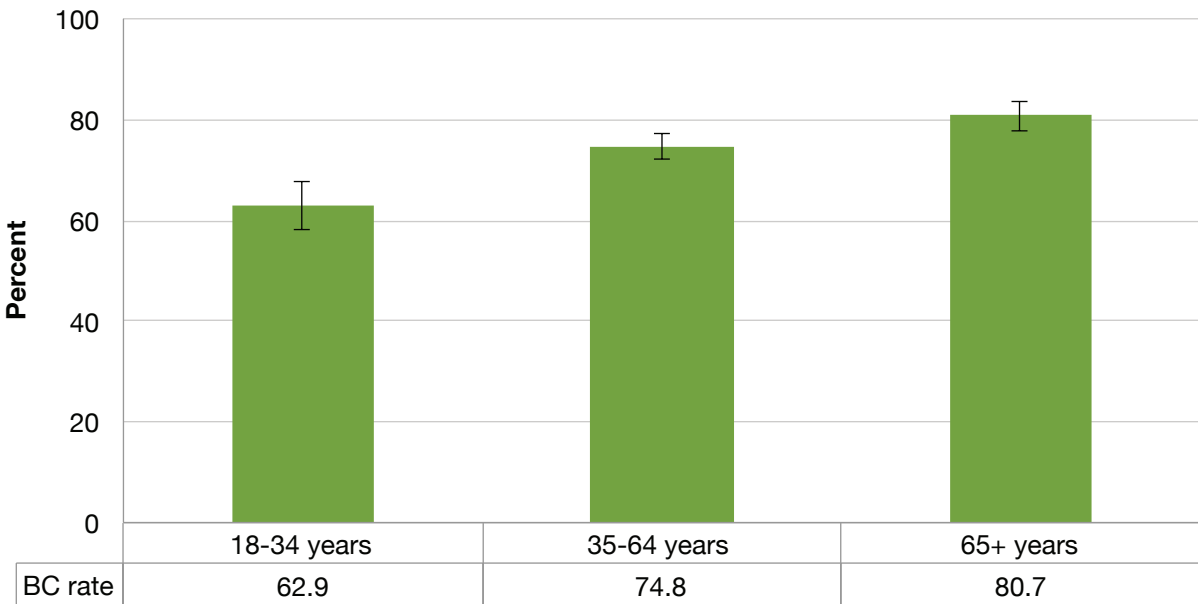
- 13.3% of population (age 18-34) reported consuming less than one drink per week.
- The proportion of people (age 18-34) who reported consuming less than one sugary drink per week was significantly lower compared to other age groups.

Figure 55. Proportion of people (age 18+) who rarely (less than one drink per week) consumed regular soda, pop, or slushes, by gender, B.C., 2013



■ 72.5% of British Columbians (age 18+) reported consuming less than one regular soda, pop, or slushes per week. This proportion was significantly higher in females (81.0%) compared to males (63.7%). In other words, males were more likely to consume one, or more than one, regular soda, pop, or slushes per week compared to females.

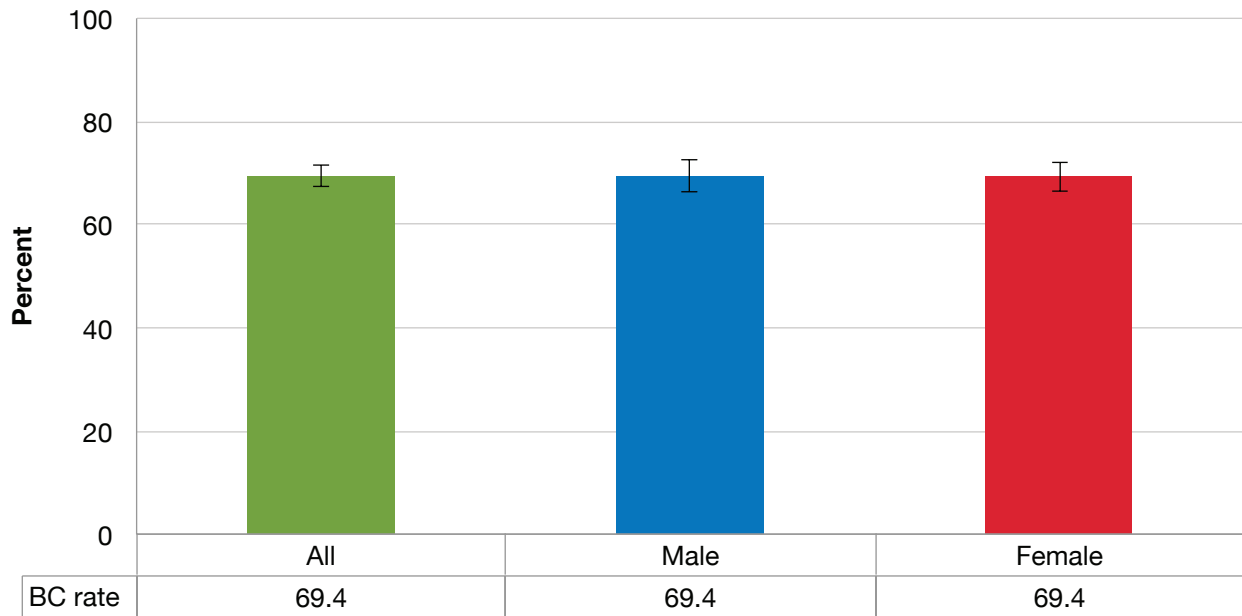
Figure 56. Proportion of people (age 18+) who rarely (less than one drink per week) consumed regular soda, pop, or slushes, by age, B.C., 2013



■ 62.9% of the population (age 18-34) reported consuming less than one regular soda, pop, or slushes per week.

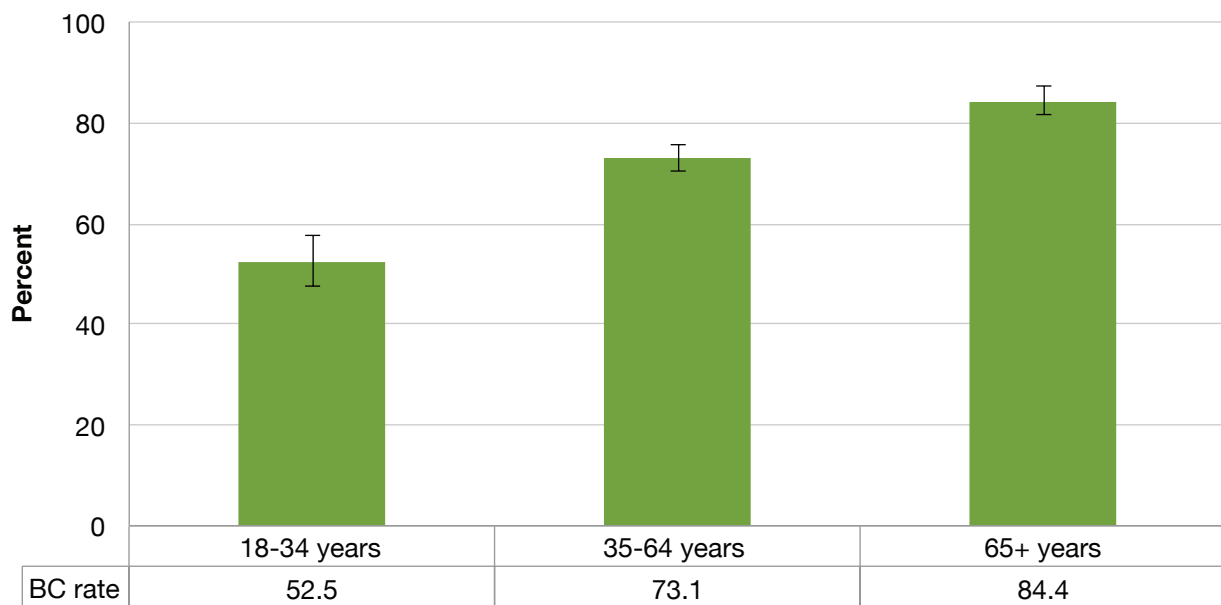
- The proportion of people (age 18-34) who reported consuming less than one regular soda, pop, or slushes per week was significantly lower compared to the other age groups.

Figure 57. Proportion of people (age 18+) who rarely (less than one drink per week) consumed specialty coffee or tea drinks with added sugar including sweetened iced tea, by gender, B.C., 2013



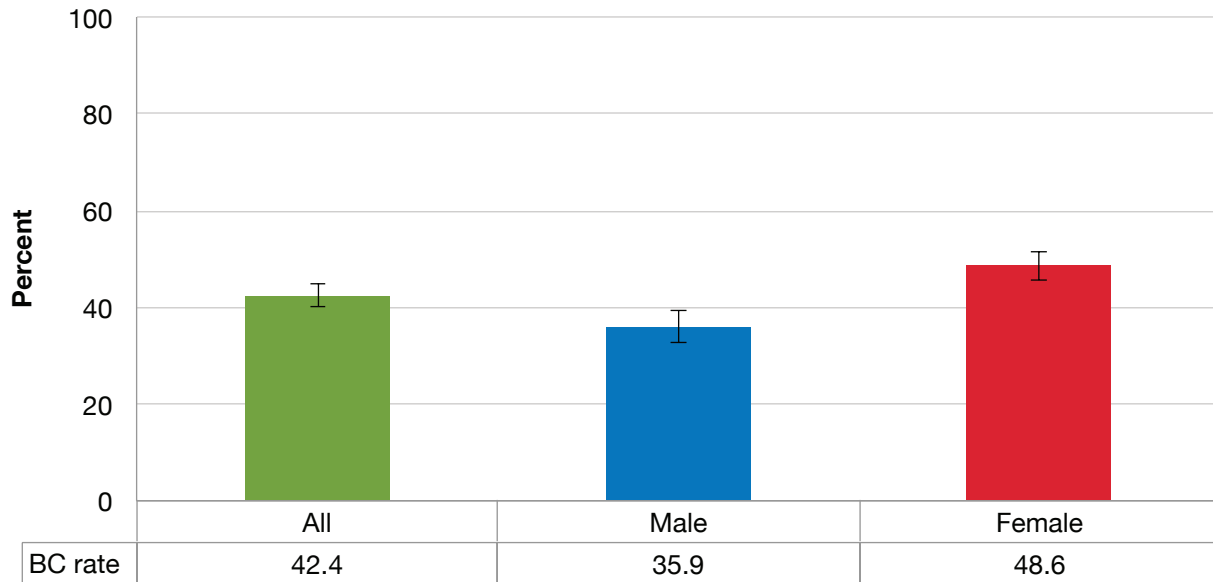
- 69.4% of British Columbians (age 18+) reported consuming less than one specialty coffee or tea drinks with added sugar per week.

Figure 58. Proportion of people (age 18+) who rarely (less than one drink per week) consumed specialty coffee or tea drinks with added sugar including sweetened iced tea, by age, B.C., 2013



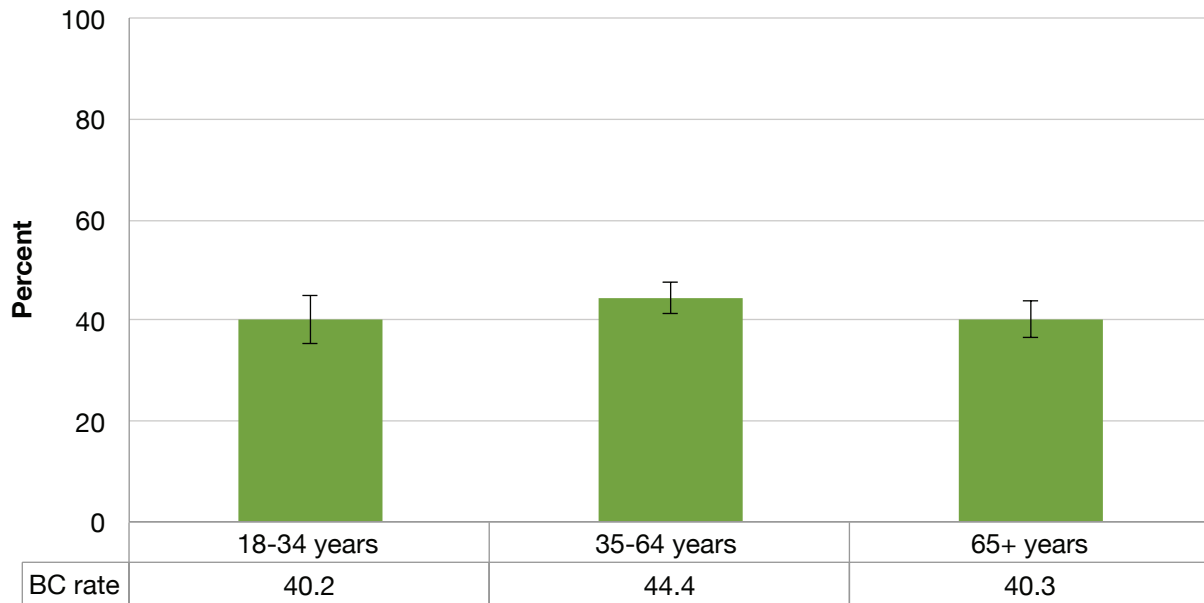
- 52.5% of population (age 18-34) reported consuming less than one specialty coffee or tea drinks with added sugar per week.
- The proportion of people (age 18-34) who reported consuming less than one specialty coffee or tea drinks with added sugar per week was significantly lower compared to the other age groups.

Figure 59. Proportion of people (age 18+) who rarely (less than one drink per week) consumed 100% fruit juice, by gender, B.C., 2013



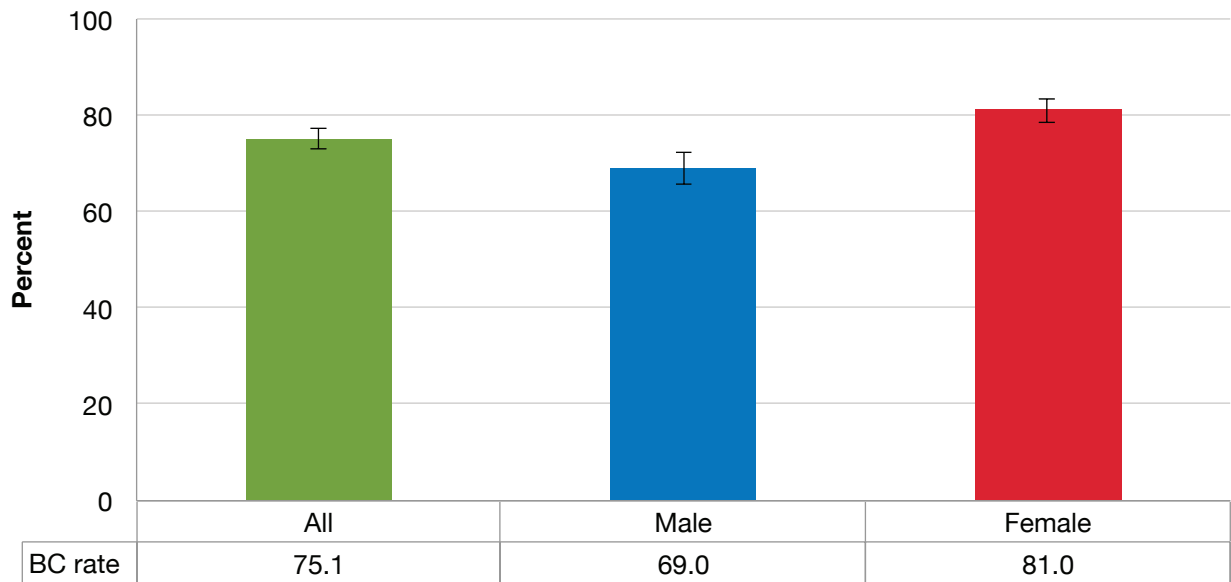
- 42.4% of British Columbians (age 18+) reported consuming less than one 100% fruit juice per week. This proportion was significantly higher in females (48.6%) compared to males (35.9%). In other words, males were more likely to consume one, or more than one, 100% fruit juice per week compared to females.

Figure 60. Proportion of people (age 18+) who rarely (less than one drink per week) consumed 100% fruit juice, by age, B.C., 2013



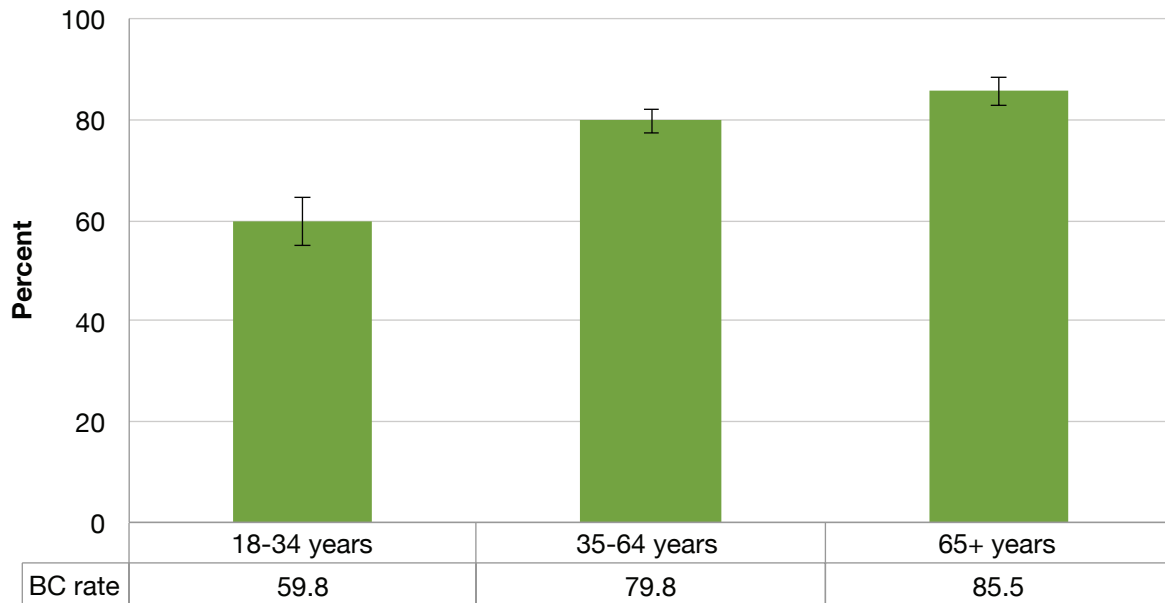
■ 40.2% of the population (age 18-34) reported consuming less than one 100% fruit juice per week. This proportion was comparable to the other age groups.

Figure 61. Proportion of people (age 18+) who rarely (less than one drink per week) consumed sweetened fruit drinks, punches, or lemonades, by gender, B.C., 2013



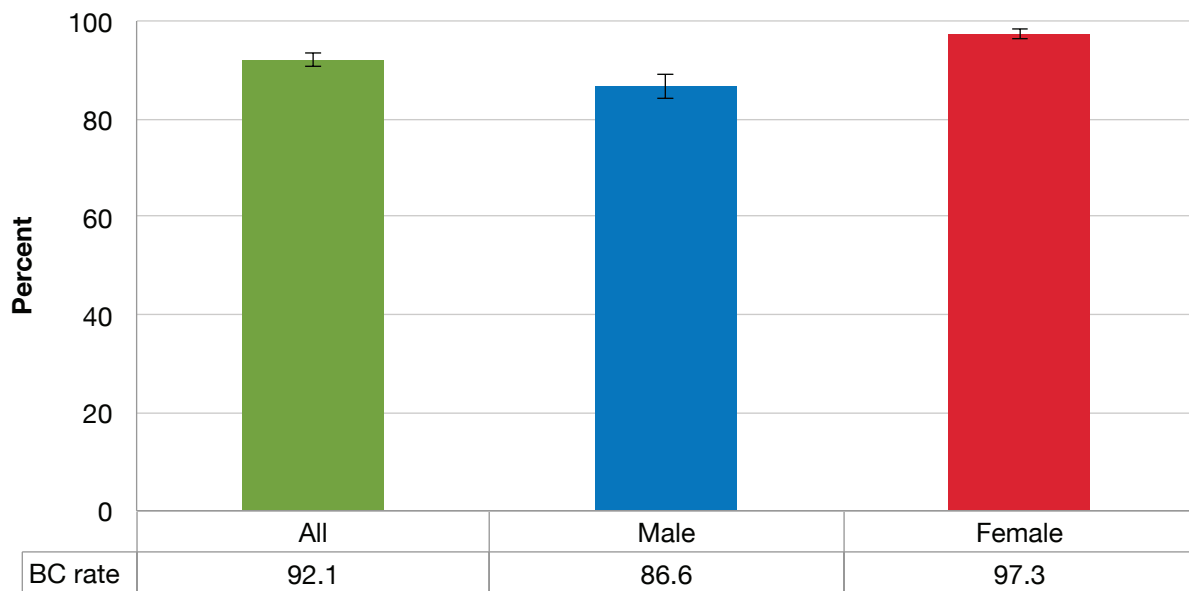
■ 75.1% of British Columbians (age 18+) reported consuming less than one sweetened fruit drinks, punches, or lemonades per week. This proportion was significantly higher in females (81.0%) compared to males (69.0%). In other words, males were more likely to consume one, or more than one, sweetened fruit drinks, punches, or lemonades per week compared to females.

Figure 62. Proportion of people (age 18+) who rarely (less than one drink per week) consumed sweetened fruit drinks, punches, or lemonades, by age, B.C., 2013



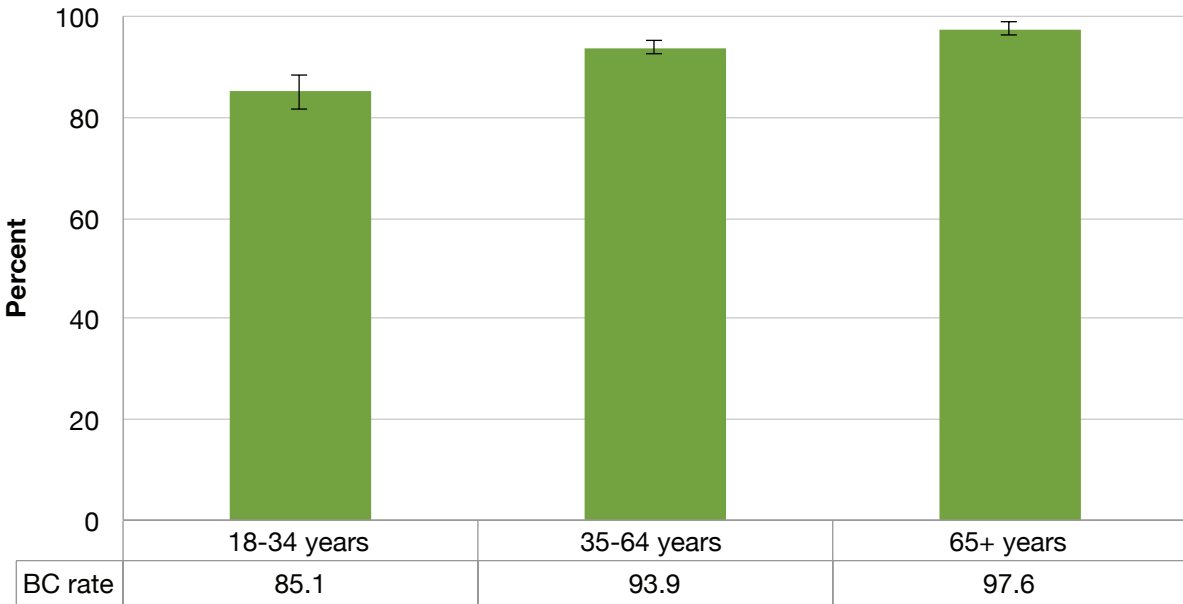
- 59.8% of the population (age 18-34) reported consuming less than one sweetened fruit drinks, punches, or lemonades per week. The proportion of population (age 18-34) who reported consuming less than one sweetened fruit drinks, punches, or lemonades per week was significantly lower compared to the other age groups.

Figure 63. Proportion of people (age 18+) who rarely (less than one drink per week) consumed sports drinks, by gender, B.C., 2013



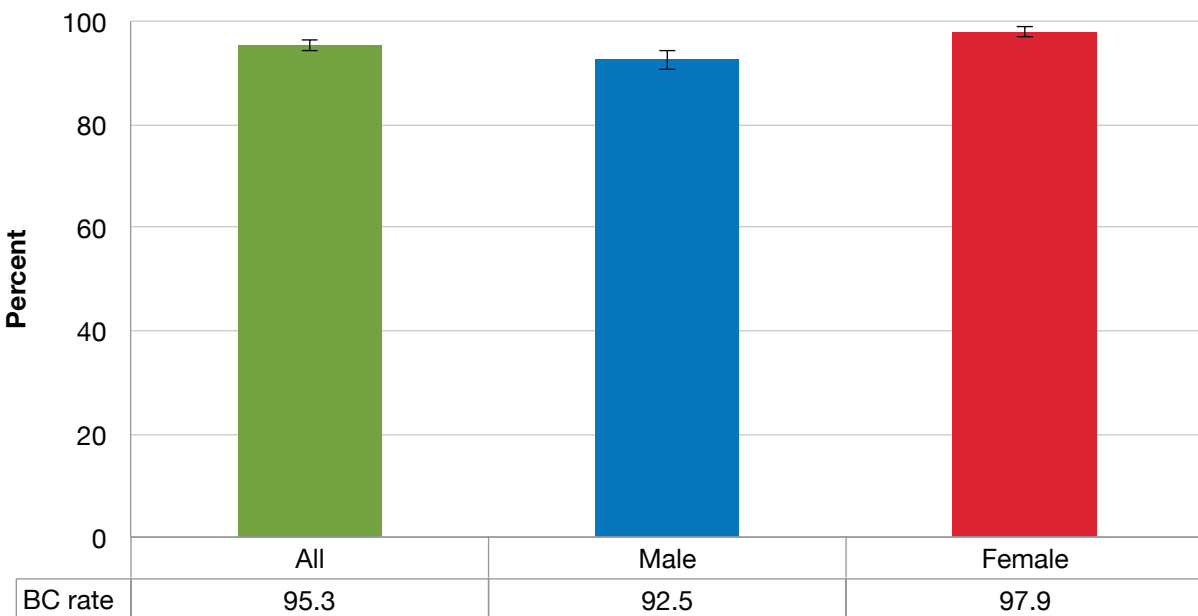
- 92.1% of British Columbians (age 18+) reported consuming less than one sports drinks per week. This proportion was significantly higher in females (97.3%) compared to males (86.6%). In other words, males were more likely to consume one, or more than one, sports drink per week compared to females.

Figure 64. Proportion of people (age 18+) who rarely (less than one drink per week) consumed sports drinks, by age, B.C., 2013



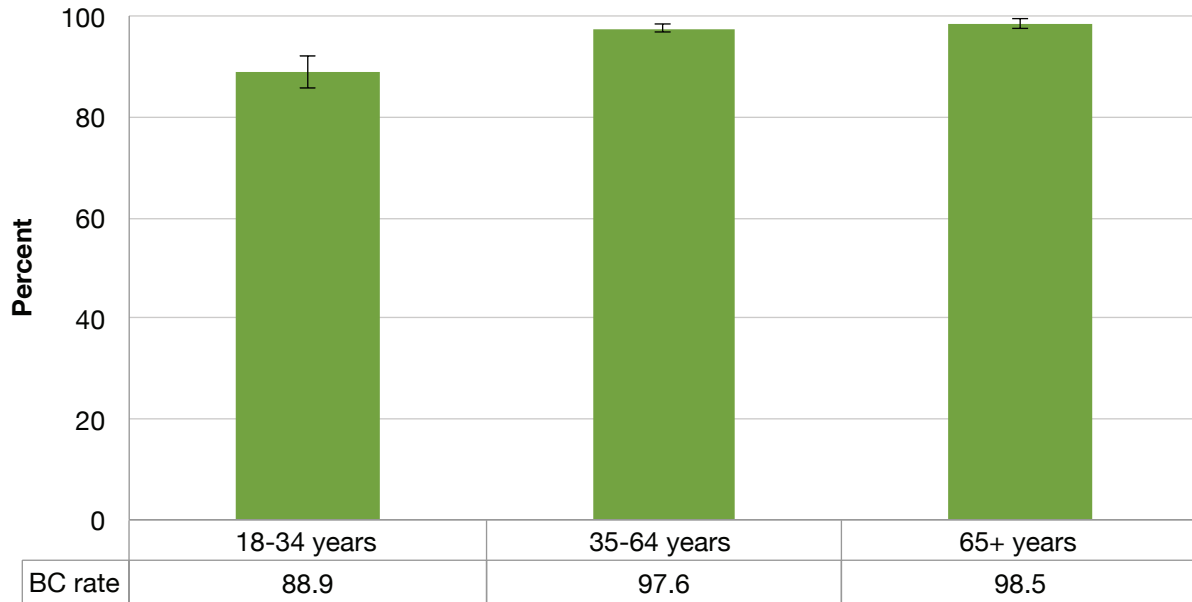
- 85.1% of population (age 18-34) reported consuming less than one sports drink per week.
- The proportion of people (age 18-34) who reported consuming less than one sports drink per week was significantly lower compared to the other age groups.

Figure 65. Proportion of people (age 18+) who rarely (less than one drink per week) consumed energy drinks, by gender, B.C., 2013



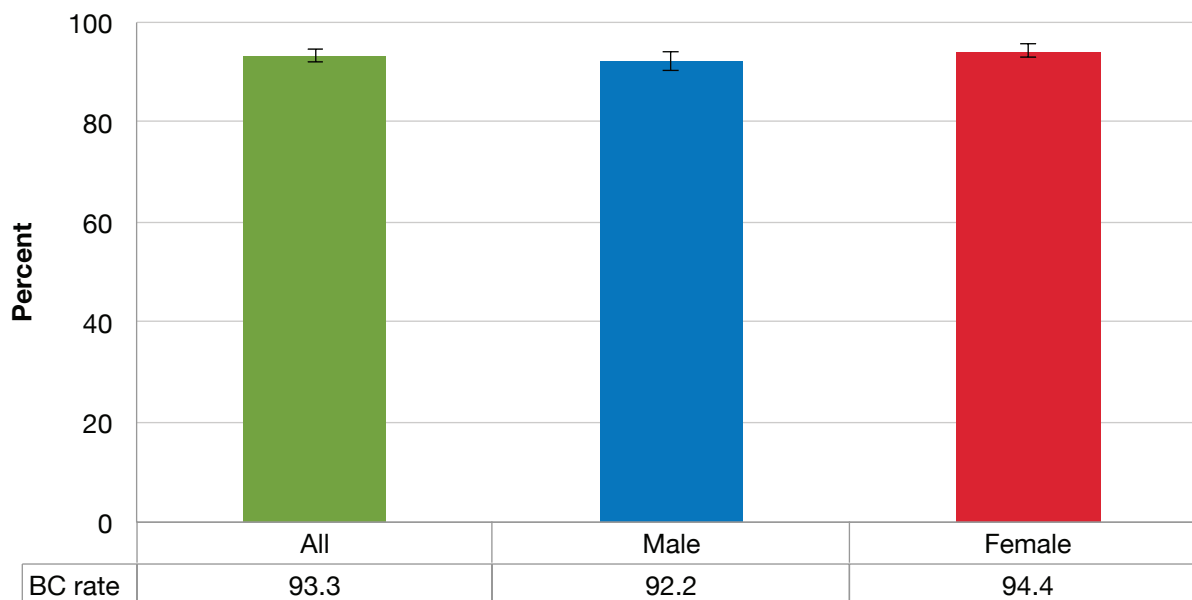
- 95.3% of British Columbians (age 18+) reported consuming less than one energy drink per week. This proportion was significantly higher in females (97.9%) compared to males (92.5%). In other words, males were more likely to consume one, or more than one, energy drink per week compared to females.

Figure 66. Proportion of people (age 18+) who rarely (less than one drink per week) consumed energy drinks, by age, B.C., 2013



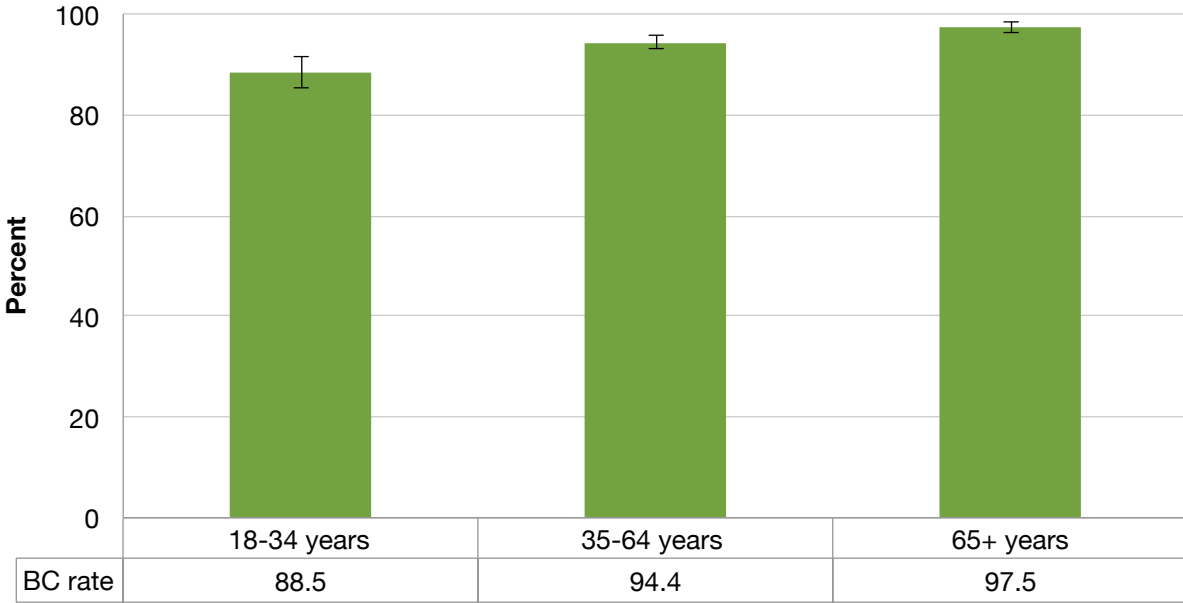
- 88.9% of population (age 18-34) reported consuming less than one energy drink per week.
- The proportion of people (age 18-34) who reported consuming less than one energy drink per week was significantly lower compared to other age groups.

Figure 67. Proportion of people (age 18+) who rarely (less than one drink per week) consumed vitamin enhanced water, by gender, B.C., 2013



- 93.3% of British Columbians (age 18+) reported consuming less than one vitamin enhanced water per week.

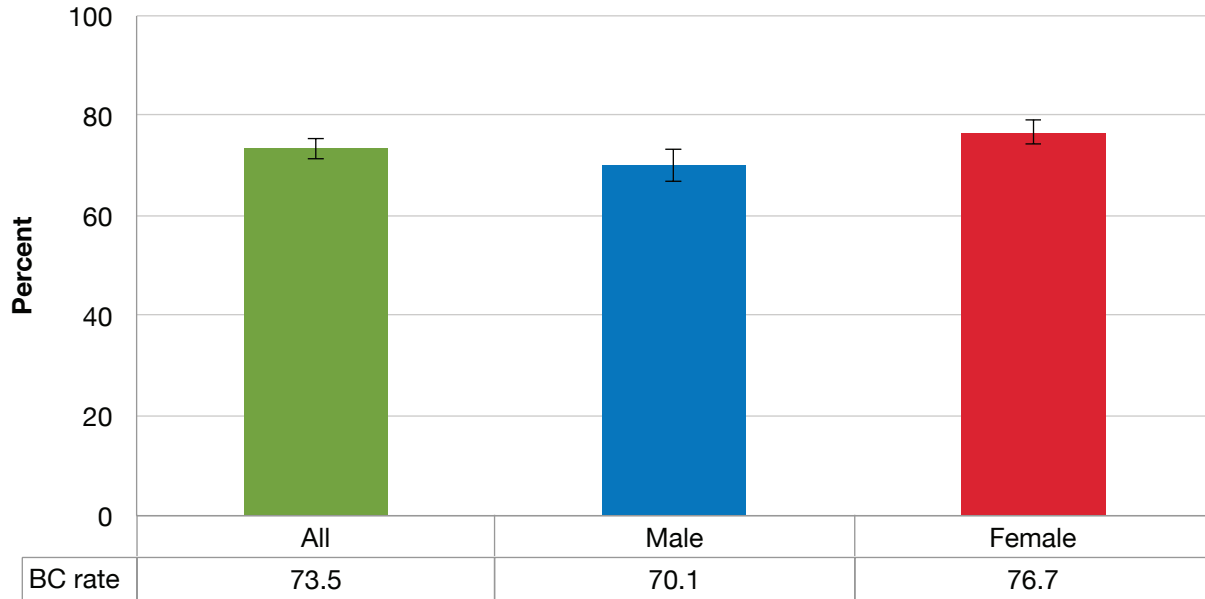
Figure 68. Proportion of people (age 18+) who rarely (less than one drink per week) consumed vitamin enhanced water, by age, B.C., 2013



- 88.5% of the population (age 18-34) reported consuming less than one vitamin enhanced water per week.
- The proportion of people (age 18-34) who reported consuming less than one vitamin enhanced water per week was significantly lower compared to the other age groups.

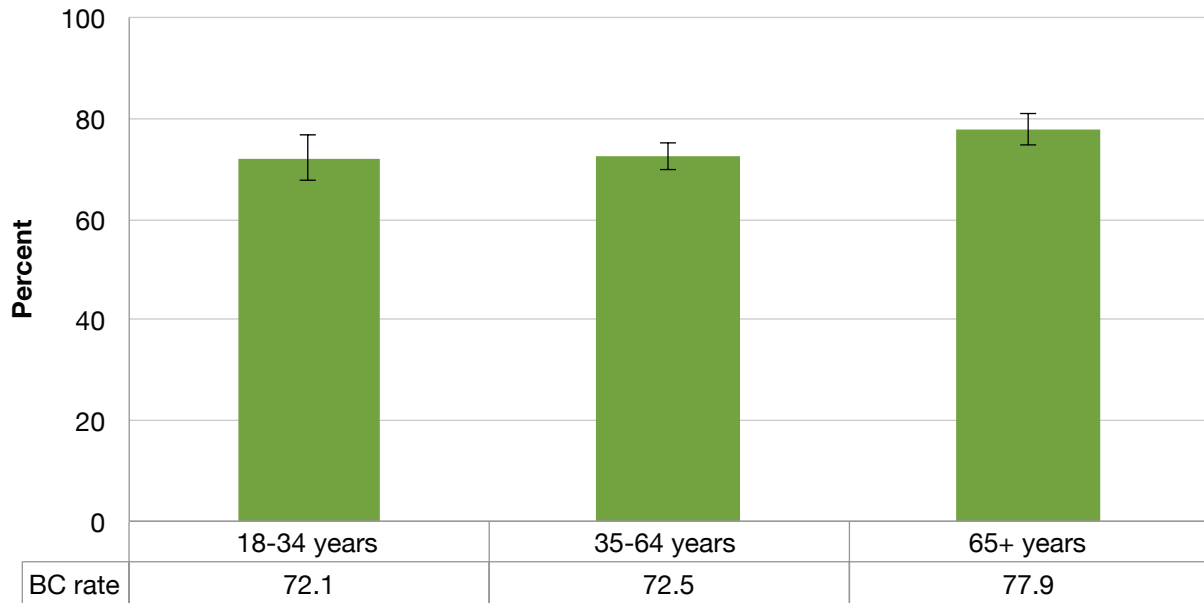
Consumption of artificially sweetened drinks

Figure 69. Proportion of people (age 18+) who rarely (less than one drink per week) consumed drinks with artificial sweeteners, by gender, B.C., 2013



- 73.5% of British Columbians (age 18+) reported consuming less than one artificially sweetened drinks per week. This proportion was significantly higher in females (76.7%) compared to males (70.1%). In other words, males were more likely to consume one, or more than one, artificially sweetened drink compared to females.

Figure 70. Proportion of people (age 18+) who rarely (less than one drink per week) consumed drinks with artificial sweeteners, by age, B.C., 2013



- 72.1% of population (age 18-34) reported consuming less than one artificially sweetened drink per week.
- The proportion of people (age 18-34) who reported consuming less than one artificially sweetened drink was comparable to the other age groups.

Conclusion

The *BC Healthy Eating Population Health Survey, 2013: Technical Report* has provided new and informative data about healthy eating practices and beliefs of British Columbians. Generally, the survey shows that a majority of British Columbians reported having good to very good healthy eating habits, had sufficient cooking and shopping skills, had working knowledge of high sodium foods, were motivated to make changes in their diet, and had access to healthy foods. However, questions related to specific eating behaviours revealed that many British Columbians might not be eating as healthily as they think they are. For example, only about one-third of British Columbians consumed adequate fruits and vegetables daily.

In general, females were more likely to have better healthy eating knowledge, and behaviours than males. For example, females reported better sodium knowledge and food skills, were more likely to consume adequate fruits and vegetables daily, and were less likely to eat out at restaurants or consume sugary drinks weekly.

Approximately 10-20% of British Columbians reported having difficulty accessing healthy foods, including insufficient time to eat healthy foods, the lack of availability or affordability of healthy food options, and mobility or transportation issues. British Columbians (age 18-34) were more likely to experience insufficient time to eat healthy foods, and the lack of availability and affordability of healthy food options compared to seniors (age 65+). Meanwhile, seniors (age 65+) were more likely to experience mobility issues or lack of transportation compared to the younger population (age 18-34).

The Healthy Eating Population Health Survey, 2013 questionnaire was adapted from a variety of existing national and provincial health surveys and revised in consultation with expert stakeholders to address the specific needs of the HFBC Healthy Eating Strategy. Therefore, this survey's results may not necessarily be comparable with the results of other similar surveys due to variation in specific survey questions.

The report is primarily intended to support the Healthy Eating Strategy of HFBC through surveillance and monitoring of healthy eating status across the province. This data can inform policy makers and program planners of the BC Ministry of Health and regional health authorities, in addition to other stakeholders who are engaged in improving population health across the province.