

# The Cost of Healthy Eating in Yukon

2017



Yukon Anti-Poverty  
COALITION  
anti-pauvreté du Yukon



CANADIAN  
HOME ECONOMICS  
FOUNDATION

## About the Yukon Anti-Poverty Coalition

The Yukon Anti-Poverty Coalition facilitates the elimination of poverty in Yukon through awareness, advocacy, and action. YAPC's members partner with other community members on issues involving food, shelter, and access to services. By working together and building partnerships with individuals, governments, as well as private and non-profit sectors, real action can be taken to directly and positively affect the lives of everyone in our community. The official mandate of the organization is to:

- Foster development of strategies and activities to reduce poverty in Yukon;
- Increase awareness of poverty in Yukon;
- Provide a voice for Yukoners living in poverty; and
- Coordinate efforts and information regarding poverty among individuals and organizations within and outside Yukon.

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## List of Acronyms

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AICBR	Arctic Institute of Community-Based Research
HSS	Yukon Department of Health and Social Services
NNFB	National Nutritious Food Basket
RNFB	Revised Northern Food Basket
YAPC	Yukon Anti-Poverty Coalition
YG	Yukon Government

## Glossary

**Community Researcher:** A community member with an interest in issues related to food insecurity in Yukon who is trained to collect data on food costs, quality, and availability including the availability of local food at a grocery store in their community. A community researcher may participate in other stages of the research process for the Yukon Participatory Food Cost Monitoring Project. Community researchers were provided an honourarium for their participation.

**Community Spatial Index:** A measure used to compare the cost of defined goods and services in one community to a reference community. The Yukon Bureau of Statistics compares the prices of regularly purchased items in Whitehorse to prices in other Yukon communities (i.e. Carmacks, Dawson City, Faro, Haines Junction, Mayo, Old Crow, Ross River, Teslin, and Watson Lake) in April and October of each year and reports this information in its monthly statistical review.

**Factor:** A unit used to reflect the quantity of each food group consumed by various age and sex groups.

**Food Cost Monitoring:** A way to measure the cost of basic, healthy eating using a survey tool that represents current nutrition recommendations and eating patterns (e.g., the National Nutritious Food Basket and the Revised Northern Food Basket).

**Food Insecurity:** A condition that exists within a household when one or more members do not have access to the variety or quantity of food that they need due to a lack of money.

**Full-Service Retailer:** Any store likely to carry at least half of the food items listed in the Revised Northern Food Basket

**Household Adjustment Factor:** A factor used to account for economies of scale associated with the food expense incurred by households of different sizes.

**Household Food Security Survey Module:** A module of the Canadian Community Health Survey that consists of ten questions specific to the experiences of adults in the household or the household in general (Adult Scale) and eight questions specific to the experiences of children under the age of 18 years in the household (Child Scale) over the previous 12 months. Each question specifies a lack of money or the ability to afford food as the reason for the condition or behaviour. The questions range in severity from worrying about running out of food, to children not eating for an entire day. Based on the number of affirmative responses to the questions posed in the module, households are classified as either food secure or food insecure.

**National Nutritious Food Basket:** A survey tool developed by Health Canada and used by various stakeholders to monitor the cost and affordability of healthy eating. The National Nutritious Food Basket describes the quantity and purchase units of 67 foods that represent a nutritious diet for individuals in various age and gender groups. Stakeholders use this information to collect the price of the items and determine the cost of the basket for each age and gender group. The basket is designed to reflect an example of an eating pattern that meets the recommendations listed in the Canada Food Guide, and eating behaviours consistent with the Canadian Community Health Survey 2.2 results. For more information, visit <https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/national-nutritious-food-basket.html>.

**Nutrition North Canada:** A federal program whereby eligible retailers, suppliers, and traditional or country food processors and distributors in 121 isolated northern communities receive a subsidy to help offset the high cost of food and improve access to healthy food. For more information, visit <http://www.nutritionnorthcanada.gc.ca>.

**Participatory Food Cost Monitoring:** A participatory research approach to food cost monitoring involving community members in important aspects of the research process including research design and data collection.

**Revised Northern Food Basket:** A survey tool developed by Indian Affairs and Northern Development Canada (now Indigenous and Northern Affairs Canada), and used by various stakeholders to monitor the cost and affordability of healthy eating. The basket includes 67 food items intended to reflect the dietary preferences and food consumption patterns of those living in northern communities, based on the findings of food consumption surveys among Indigenous peoples as well as nutrition surveys administered in isolated, northern communities. The basket also reflects the dietary recommendations developed by the Dietary Reference Intakes Committee, a joint Canada-United States committee of nutrition experts, as well as the recommendations listed in the Canada Food Guide and the Aboriginal version of the Canada Food Guide. For more information, visit <http://www.nutritionnorthcanada.gc.ca/eng/1415548276694/1415548329309#tpc3>.

**Scalar:** A factor applied to the purchase price of each item to convert the foods within a food group to a common unit of measure such as kilograms. The purchase price of each item is multiplied by the scalar to determine the scalar price of the item.

**Traditional Food:** All food within a particular culture available from local natural resources and culturally accepted. It also includes the sociocultural meanings, acquisition, processing techniques, use, composition, and nutritional consequences for the people using the food.

**Weight:** A way of showing the relative importance of foods within a food group. The scaled price is multiplied by the weight to determine the weighted price. The sum of the weighted prices for each food in a food group results in a weekly cost per food grouping.

## Purpose

The purpose of this report is to outline an estimate of the average weekly cost of a basic, healthy diet for Yukoners living in communities throughout the territory using a standardized survey tool. The standardized survey tool allows for meaningful comparisons across communities and other jurisdictions where similar exercises occur. These population-level estimates do not reflect an ‘ideal’ grocery budget for a specific household as they do not reflect the dietary preferences or requirements of each individual and family in Yukon. These estimates also do not capture the important role of traditional food in the diet of many Yukon people.

## Background

This report presents the average weekly costs of a basic, nutritious diet in Yukon communities based on food price data collected by community researchers at grocery stores throughout the territory between June 12, 2017, and June 21, 2017. These amounts represent estimates of the cost of healthy eating for 2017 and are organized into the following categories: a reference family of four, pregnant and breastfeeding women, and 14 groups specified by age and sex. This report also provides information on the availability of food items in each Yukon community.

## Why measure the cost of healthy eating?

Measuring the cost of a basic, nutritious diet supports greater understanding of the financial realities that may contribute to food insecurity. For example, the cost of a basic, nutritious diet can be compared to household income levels to gain a better understanding of the share of income that would need to be spent, to ensure a healthy diet through local market-based sources. Factoring in additional typical household expenses may provide a sense of whether this is affordable. This information can be used to identify vulnerable populations and may support policy analysis and programming decisions. Food cost monitoring research also can provide an opportunity to measure availability and assess the quality of market-based food.

## Food insecurity in Yukon

According to Health Canada, “food insecurity exists within a household when one or more members do not have access to the variety or quantity of food that they need due to a lack of money.”<sup>1</sup> Experiences of food insecurity range in severity from worrying about running out of food, to children not eating for an entire day.<sup>2</sup> Research shows that those who experience food insecurity are more likely to report poor physical or mental health; chronic conditions such as asthma, depression, and heart disease; and a perceived lack of social support.<sup>3,4</sup> Food insecurity imposes significant costs on society as those who experience food insecurity are more likely to utilize expensive health care services.<sup>5</sup> In 2012, 17.1% of Yukon households experienced some degree of food insecurity over the previous 12 months.<sup>6</sup>

## What is a nutritious food basket?

The contents of a nutritious food basket represent a basic, healthy diet that would meet the nutrient needs of the general population living within a specific region.<sup>7,8,9</sup> The specific items that constitute a nutritious food basket collectively fulfil current nutrition recommendations and reflect the typical food preferences of the target population. Thus, nutritious food basket prices represent population-level estimates of the cost of healthy eating for different age and sex groups within a particular region.<sup>10</sup>

These costs do not reflect actual or ideal food expenditures for specific households or individuals because a nutritious food basket is a population measurement tool that cannot determine a personalized prescription for a healthy eating pattern.<sup>11</sup> Actual individual and household food expenditures vary considerably due to the influence of one or more of the following factors:

- Personal and household food preferences
- Ethno-cultural and religious diet considerations
- Food allergies or sensitivities
- Increased metabolic demands due to physical activity or illness
- Recommended nutrition therapy to help manage acute or chronic health conditions
- Adequate time, energy, skills, and equipment to prepare healthy meals
- Regular and convenient access to full-service grocery stores
- Financial capacity to access healthy and nutritious foods

The National Nutritious Food Basket (NNFB) and the Revised Northern Food Basket (RNFB) are standard tools used by statisticians and governments to monitor the price of food in Canada. The NNFB is a survey tool developed by Health Canada that consists of specific quantities of 67 foods that represent a nutritious diet for individuals in various age and gender groups. The basket is designed to reflect an example of an eating pattern that meets the recommendations listed in the Canada Food Guide, and eating behaviours consistent with the Canadian Community Health Survey 2.2 results.<sup>12</sup>

The RNFB is a survey tool developed by Indigenous and Northern Affairs Canada, in consultation with Health Canada, and is used to monitor the cost of food in 121 remote northern communities eligible for the Nutrition North Canada program subsidy.<sup>13</sup> Currently, Old Crow is the only Yukon community eligible for the subsidy. Researchers have also used the RNFB as a survey tool to measure the cost of healthy eating in both remote fly-in communities and northern communities connected by road.<sup>14,15</sup>

The RNFB consists of 67 items intended to reflect the dietary preferences and food consumption patterns of those living in northern communities, based on the findings of food consumption surveys among Indigenous Peoples as well as nutrition surveys administered in isolated, northern communities. The basket also reflects the dietary recommendations developed by the Dietary Reference Intakes Committee, a joint Canada-United States committee of nutrition experts, as well as the recommendations listed in the Canada Food Guide and the Aboriginal version of the Canada Food Guide.<sup>16</sup>

## What is in the Revised Northern Food Basket?

### Dairy products

2% milk, fresh or UHT (4.76 L)  
Mozzarella cheese (0.485 kg)  
Processed cheese slices (0.385 kg)  
Yogurt (1.67 kg)  
Evaporated 2% milk (1.58 L)  
Skim milk powder (0.09 kg)

### Meat and alternatives

Large eggs (8 eggs)  
Chicken drumsticks (2.68 kg)  
Pork chops, loin centre-cut (1.21 kg)  
Ground beef, lean (1.34 kg)  
T-bone steak (0.47 kg)  
Sliced ham (0.135 kg)  
Frozen fish sticks (0.135 kg)  
Canned pink salmon (0.27 kg)  
Canned sardines in soya oil (0.27 kg)  
Canned ham (0.2 kg)  
Bologna (0.06 kg)  
Wieners (0.1 kg)  
Peanut butter (0.09 kg)  
Canned pork-based luncheon meat (0.05 kg)  
Canned corned beef (0.04 kg)  
Canned beans with pork (0.29 L)  
Canned beef stew (0.18 kg)  
Canned spaghetti sauce with meat (0.155 L)

### Grain products

Bread, enriched white (0.66 kg)  
Bread, 100% whole wheat (0.66 kg)  
Flour, all purpose (1.92 kg)  
Pilot biscuits (0.275 kg)  
Macaroni or spaghetti (0.385 kg)  
Rice, long-grain parboiled white (0.33 kg)  
Rolled oats (0.275 kg)  
Corn flakes (0.44 kg)  
Macaroni and cheese dinner (0.55 kg)

### Fruit and vegetables

Oranges (1.23 kg)  
Apple juice, frozen concentrate (0.033 L)  
Orange juice, frozen concentrate (0.282 L)  
Apple juice, TetraPak (0.88 L)  
Orange juice, TetraPak (0.375 L)  
Canned whole tomatoes (0.215 L)  
Canned tomato sauce (0.3 L)  
Apples (4.38 kg)  
Bananas (3.58 kg)  
Grapes (0.5 kg)  
Canned fruit cocktail in juice (0.855 L)  
Canned peaches in juice (0.285 L)  
Canned pineapple in juice (0.285 L)  
Fresh potatoes (3 kg)  
Frozen French fries (0.48 kg)  
Instant potato flakes (0.22 kg)  
Carrots (2 kg)  
Onions (0.695 kg)  
Cabbage (0.52 kg)  
Turnips (0.35 kg)  
Frozen broccoli (0.695 kg)  
Frozen carrots (0.26 kg)  
Frozen corn (0.26 kg)  
Frozen mixed vegetables (1.74 kg)  
Canned green peas (0.9 L)  
Canned kernel corn (1.09 L)  
Canned green beans (0.315 L)  
Canned carrots (0.325 L)  
Canned mixed vegetables (0.545 L)

### Oils, fats and sugar

Margarine, non-hydrogenated (0.715 kg)  
Butter (0.065 kg)  
Canola oil (0.185 L)  
Lard (0.105 kg)  
Sugar, white (0.6 kg)



## Methods

In February 2017, the Yukon Anti-Poverty Coalition (YAPC) and the Yukon Department of Health and Social Services agreed to carry out a territory-wide food cost monitoring project involving community researchers. The initial goals of the project included: (a) determining the cost and affordability of healthy eating in Yukon communities; (b) providing current data and information regarding the availability of food, including the availability of local food, and the quality of food in Yukon communities; (c) engaging with community members on issues related to food insecurity in Yukon; (d) providing decision-makers with data and information to support and promote food security programs and policies in Yukon; and (e) enhancing the capacity to conduct community-level research projects throughout the territory.

YAPC established a Research Team to oversee research design and implementation including the recruitment, engagement, and training of community researchers throughout the territory. The Research Team received support and guidance regarding the logistical challenges associated with conducting community-level research in Yukon from an Information and Advisory Committee consisting of representatives from Health and Social Services and the AICBR. The Research Team also received advice from the Yukon Bureau of Statistics regarding which communities to include in the sample, based on an approximation of the availability of food items at various retailers throughout the territory, as informed by Community Spatial Index data.

All communities with at least one full-service retailer were included in the study. For this project, a full-service retailer was defined as any store likely to carry at least half of the food items listed in the survey basket. The following communities met the inclusion criterion: Carcross, Carmacks, Dawson City, Faro, Haines Junction, Mayo, Old Crow, Pelly Crossing, Ross River, Teslin, Watson Lake, and Whitehorse.



In March 2017, YAPC and the Research Team hosted a community engagement session attended by representatives from the Arctic Institute of Community-Based Research (AICBR), the Whitehorse Food Bank, and interested members of the public, to discuss the project plan and research design. Attendees expressed that community members should be meaningfully engaged in all aspects of the project including the formulation of recommendations to address issues related to food insecurity.

Attendees noted that neither the RNFB nor the NNFB reflect the dietary preferences and food consumption patterns of Yukoners. However, representatives from AICBR expressed that the RNFB better reflects the dietary preferences of Yukoners, particularly First Nations peoples and those living in rural communities. This in large part because the RNFB contains more meat and non-perishable food items than the NNFB. Other feedback included the ability to assess cost of travel to Whitehorse, the importance of hunting, gathering, fishing, and harvesting for Yukon citizens, and a need for clear criteria for community inclusion in the study. Discussion also occurred around whether the groceries should be purchased. It was agreed to purchase the groceries and use them for local consumption.

Following the initial community engagement session, the Research Team led the recruitment of community researchers, with the intention that at least two members from each community would work in pairs to ensure the collection of complete and accurate data. The Research Team reached out to First Nations government employees and individuals throughout the territory who had a demonstrated interest in issues related to food security. In total, 22 researchers were recruited. In four communities (Carcross, Dawson City, Haines Junction, and Old Crow), only one community researcher was identified, so a member of the Research Team supported the community researcher with data collection.

The Project Coordinator and HSS sent a joint letter to each of the 15 retailers in the territory where data collection was planned to inform them about the project, including an approximation of when data collection would occur (Appendix B). Each retailer was also provided additional information about the intent and scope of the project as well as to obtain consent. All retailers agreed to participate in the study.

Throughout May and June 2017, four training sessions were hosted. Community researchers were required to attend at least one and were given the option of attending all four. At the training sessions, community researchers received instructions on how to collect price data using the data collection tool. Community researchers also received a detailed training guide that provided an overview of the data collection process including instructions on how to address common challenges that occur with food cost monitoring projects (e.g., what to do if the preferred item is unavailable).

Community researchers collected data at participating retailers throughout the territory between June 12, 2017, and June 21, 2017. In addition to manually recording the price of food items, community researchers also purchased each food item so that the data could be verified via receipts.

Community researchers were instructed to record the price of the lowest cost item in the preferred purchase size, regardless of brand. Researchers were instructed not to record the price of products that were available in bulk at a cheaper per-unit price, as low-income households often do not have the resources or storage space to take advantage of the economies of scale associated with buying in bulk.

If the preferred size was unavailable, the data collection tool listed alternate sizes in order of preference for data collection. The price of the alternate item was converted to the price of the preferred item based on its per-unit price.

If the preferred item was not available, the data collection tool listed alternate items for the community researcher to record the price of instead. A master dataset from Whitehorse that included the prices of all items and alternate items in the available purchase size was created. This supported the conversion of the price of alternate items to the price of the preferred item using the following calculation:

$$\text{PISC} = \text{AISC} \times (\text{PIW}/\text{AIW})$$

<i>Price of the preferred item in the sample community</i>	<i>Price of the alternate item in the sample community</i>	<i>Price of the preferred item in Whitehorse</i>	<i>Price of the alternate item in Whitehorse</i>
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If neither the preferred item nor the alternate item were available in a sample community, the hypothetical cost of the preferred item was estimated by performing the following calculation:

$$\text{PISC} = (\text{KISC}/\text{KIW}) \times \text{PIW}$$

<i>Price of the preferred item in the sample community</i>	<i>Price of known items in sample community</i>	<i>Price of the same known items in Whitehorse</i>	<i>Price of the preferred item in Whitehorse</i>
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After determining the per-unit purchase price of each preferred item, three separate adjustments were conducted to determine the cost of the RNFB. First, a scalar was applied to the purchase price of each item, to convert the foods within a food group to a common unit of measure. Second, each item was weighted, to account for the relative importance of each item within a food group (based on the food preferences of the target population). Third, a factor was applied to each food group based on the nutritional requirements for each of the 23 sex and age groups. An additional 5% was added to the cost of the basket to account for miscellaneous food items not included in the basket.<sup>17</sup>

Using the estimated cost of healthy eating for the 23 age and sex groups, the cost of healthy eating for any household can be estimated by summing the cost of the RNFB for each person in the household and multiplying that sum by the appropriate household adjustment factor to account for economies of scale. **Table 1** provides a breakdown of the household adjustment factors applied to households of various sizes, while **Appendix A** provides age and sex specific cost estimates for each community.

**Table 1:** Household adjustment factor used to account for economies of scale, by household size

<i>Household size</i>	<i>Adjustment factor</i>
Individual	Multiply by 1.20
Two people	Multiply by 1.10
Three people	Multiply by 1.05
Four people	Multiply by 1.00
Five to six people	Multiply by 0.95
Seven or more people	Multiply by 0.90

*Source: Ontario Ministry of Health Promotion, 2010, Nutritious Food Basket Guidance Document, p. 13.*

## Old Crow and Nutrition North Canada

Currently, Old Crow is the only Yukon community eligible for the Nutrition North Canada program subsidy. The subsidy helps offset the cost of food items in remote communities without year-round access to the North American road grid. The findings of this study reflect the cost of healthy eating for people living in Old Crow after accounting for the subsidy. Comparing the cost of healthy eating in Old Crow to other Yukon communities that do not receive the Nutrition North Canada program subsidy offers an indication of the effectiveness of the program in reaching its stated goal to improve access to affordable food items in communities that receive the study.

## Limitations

Communities without access to a full-service retailer, such as Beaver Creek, Burwash Landing, Destruction Bay, and Stewart Crossing, were excluded from the study. Further research that accounts for the time and transportation costs associated with procuring market food is required to understand the cost of healthy eating in communities without access to a full-service retailer.

Some community researchers felt that the RNFB did not adequately reflect the preferences and food consumption patterns of Yukoners. Developing a Yukon-specific food basket would require a comprehensive dietary study and is beyond the scope of this study. A Yukon-specific basket would also prevent comparison of costs in Yukon to those in other jurisdictions.

Other limitations of the RNFB include its exclusion of traditional food items and limited applicability to people with allergies, specific dietary needs, and/or different food preferences. Some community researchers also expressed that the frozen items included in the basket may present storage challenges for some low-income households without adequate freezer space.

The findings of this project reflect the cost and availability of the food items listed in the RNFB in Yukon communities at the time of data collection and, therefore, do not account for seasonal variations in food costs or changes to the market food system, such as in the introduction of new retailers in the territory. Ongoing measurement of the availability and cost would be needed to understand variations in the market food system in communities throughout Yukon. Also, by focussing specifically on full-service retailers, the study does not account for food obtained from other settings, including community gardens, food sharing systems, and traditional activities.

## Findings

The weekly cost of a basic, nutritious diet as outlined in the RNFB for a reference family of four varied considerably among Yukon communities ranging from \$274.78 in Whitehorse to \$500.24 in Old Crow. **Table 2** presents the weekly cost of the basket for a reference family of four by community and the percentage difference between the cost of the basket in each community compared to Whitehorse. **Appendix A** provides a detailed breakdown of the cost of the basket for 23 different age and sex groups in each community.

**Table 2:** Weekly cost of the RNFB for a reference family of four, by community

<i>Community</i>	<i>Weekly cost</i>	<i>Difference from Whitehorse</i>
Carcross	\$426.33	+ 43.23%
Carmacks	\$326.11	+ 17.08%
Dawson	\$303.56	+ 9.95%
Faro	\$379.20	+ 31.93%
Haines Junction	\$380.80	+ 32.34%
Mayo	\$367.60	+ 28.90%
Old Crow	\$500.24	+ 58.18%
Pelly Crossing	\$346.40	+ 23.06%
Ross River	\$346.55	+ 23.10%
Teslin	\$355.75	+ 25.68%
Watson Lake	\$348.86	+ 23.76%
Whitehorse	\$274.78	--

The weekly cost of the RNFB can be determined for any household by summing the cost of the basket for each person and then applying the household adjustment factor to account for economies of scale.

**Table 3** provides a breakdown of the calculation for the reference family of four in Carmacks.

**Table 3:** Calculation of the weekly cost of the RNFB for a reference family of four in Carmacks

<i>Sex</i>	<i>Age</i>	<i>Weekly cost</i>
Female	31-50 years	\$81.93
Male	31-50 years	\$94.91
Female	9-13 years	\$70.37
Male	9-13 years	\$78.90
<i>Subtotal</i>		\$326.11
<i>Household adjustment factor</i>		1.00
<i>Total</i>		\$326.11

Similarly, the availability of the food items listed in the basket varied among communities at the time of data collection ranging from 76.1% in Pelly Crossing to 98.5% in Whitehorse. **Table 4** provides a breakdown of the availability of the food items listed in the basket by community.

**Table 4:** Availability of food items listed in the RNFB, by community

<i>Community</i>	<i>Availability</i>
Carcross	80.6%
Carmacks	86.6%
Dawson	94.8%
Faro	82.1%
Haines Junction	82.1%
Mayo	97.0%
Old Crow	86.6%
Pelly Crossing	76.1%
Ross River	88.1%
Teslin	91.0%
Watson Lake	97.0%
Whitehorse	98.5%

## What we learned

After completing the data collection process, the Research Team continued to engage community researchers by sharing project findings, seeking feedback regarding their experience discussing the implications of the findings, and considering next steps. First, the Research Team sent a survey to all community researchers in September 2017. The survey consisted of a series of questions about the experiences of community researchers to determine the successes and challenges of the project.

Most respondents indicated that they felt their participation in the food cost monitoring project had been a positive experience and suggested that they would be willing to participate in similar studies in the future. In this respect, the project successfully enhanced the capacity to conduct community-level research projects throughout the territory.

Some respondents indicated that they would have preferred if the training sessions were offered closer to the data collection period to ensure the learnings from the training were top of mind at the time of data collection. Respondents also stated that the training guide developed by the Research Team to support data collection was too long and that they would have preferred it if the guide contained more images. In particular, respondents expressed that visual examples would have helped them assess the quality of food items included in the RNFB. Data collection errors by some community researchers prevented the release of project findings related to food quality.

Future studies to assess the quality of market-based food involving community researchers should ensure that researchers are fully supported to assess food quality. This can be achieved by providing visual examples during training sessions and/or by offering training sessions at local grocery stores where examples of the quality of different food items could be discussed in detail. Logistical and geographic challenges associated with conducting a territory-wide community research project prevented the Research Team from offering training sessions at local grocery stores.

Some community researchers noted several irregularities that occurred during the data collection process. In one community, researchers were asked by the local retailer to delay data collection to accommodate their delivery schedule. This may have skewed the results regarding the availability of food items in this community; however, the researchers in this community noted that most residents are aware of the delivery schedule. In two other communities, researchers noted that store staff seemingly made up prices on the spot when a specific item did not scan or was not entered in the system. A data collection process whereby community researchers did not identify themselves to the retailer would have helped determine the extent to which these types of practices apply to members of the public. It was agreed at the outset that retailers would be notified that data collection would occur and that community researchers would identify themselves when collecting data. Others suggested the development of a broader research agenda that focuses on the role of the non-market food system (including traditional food, community gardens, and informal sharing networks) to gain a better understanding of how people living in Yukon obtain and access healthy food.

Whereas similar studies have resulted in strained relationships between retailers and the community, all community researchers noted that they had a positive interaction with the retailer in their community during the data collection process. This is in part due to the success of past experiences where price data was collected by the Yukon Bureau of Statistics. A clear goal of the project was to ensure that retailers and researchers were aware of the purpose and scope of the project and when data collection was scheduled to occur.

Community researchers also noted their participation in the project improved relations with other parts of the community. By purchasing the food items, community researchers were able to donate the items to people experiencing food insecurity and/or organizations serving vulnerable populations in their community. Many researchers noted that informal food networks (e.g., community meals) play a significant role in people gaining access to food in their community.

Most community researchers expressed that their involvement in the food cost monitoring project had raised their awareness of issues related to food insecurity and the dynamics of the market-based food system in their community. For example, several researchers mentioned that they were surprised about where many food items available at their local retailer were grown, processed, or produced.

In October 2017, YAPC hosted a community forum attended by community researchers and interested members of the public. At the forum, the Research Team presented the project findings and community researchers shared their experiences with the project. Some attendees expressed their surprise at the extent to which the cost of healthy eating varied throughout the territory, particularly among communities that are similar in size and distance from Whitehorse.

The Research Team also asked attendees to discuss the significance of the project findings and propose some next steps to addressing food insecurity and affordability challenges. Many community members agreed that the high cost of basic needs, especially housing, in communities throughout the territory adversely impacts the ability of low- and modest-income Yukoners to afford to eat a healthy diet. Members also agreed that policies that significantly reduce the cost of housing and boost incomes would alleviate food insecurity and make it easier for Yukoners to meet their nutritional needs.

Attendees expressed a desire for additional information to further improve their understanding of the territorial food system. Several community researchers indicated that they would be willing to participate in food cost monitoring exercises on an ongoing basis to monitor trends and to determine the extent to which seasonal variation exists relating to cost, availability, and quality of food items. For example, future measurements of the cost of healthy eating would provide some insight into how different changes in the market-based food system (such as the entry of new retailers into the market) affect food prices. Many shared a desire to determine the percentage of food consumed by Yukoners that is grown or produced locally.

Others suggested the development of a broader researcher agenda that focuses on the non-market food system (including the role of traditional food and community gardens) would be interesting and important.

## Recommendations

1. Explore options to address affordability challenges related to the high cost of basic needs including adequate housing facing many people living in Yukon that limit the ability of people to access healthy food.
2. Assess options to reduce the cost of healthy eating in Old Crow relative to other Yukon communities.
3. Explore research options to better understand the cost of healthy eating in Beaver Creek, Burwash Landing, Destruction Bay, and Stewart Crossing and the barriers people living in these communities face in accessing healthy food.
4. Conduct a comprehensive dietary study to better understand the food preferences and food consumption patterns of people living in Yukon so that policies intended to improve access to nutritional food items meet the needs of people in communities throughout the territory.
5. Measure the cost of healthy eating in Yukon communities on a regular basis to monitor changes in the cost of food and to gain a better understanding of any seasonal variations in the market-based food system (e.g., changes to cost and availability).
6. Improve capacity to measure the quality of food items in Yukon communities obtained through the market system and the location where food items are grown, produced, or processed. Ensure that community researchers receive sufficient support to collect this information accurately.
7. Continue and enhance research efforts such as the Hunter Effort Survey conducted by the Yukon Bureau of Statistics that provide valuable insight into the role of traditional food and informal food sharing networks in helping people living in Yukon meet their nutritional needs.



## APPENDIX A: Food costs by community

### CARCROSS

<i>Child</i>	
1-3 years	\$60.51
4-8 years	\$75.96

<i>Males</i>	
9-13 years	\$101.12
14-18 years	\$133.34
19-30 years	\$128.45
31-50 years	\$225.89
51-70 years	\$116.87
Over 70 years	\$116.95

<i>Females</i>	
9-13 years	\$89.00
14-18 years	\$110.27
19-30 years	\$115.21
31-50 years	\$110.32
51-70 years	\$101.08
Over 70 years	\$97.07

<i>Pregnancy</i>	
Under 19 years	\$133.03
19-30 years	\$131.55
31-50 years	\$128.38

<i>Lactation first six months</i>	
Under 19 years	\$134.25
19-30 years	\$140.58
31-50 years	\$136.61

<i>Lactation second six months</i>	
Under 19 years	\$140.55
19-30 years	\$140.90
31-50 years	\$139.05

### CARMACKS

<i>Child</i>	
1-3 years	\$46.32
4-8 years	\$58.51

<i>Males</i>	
9-13 years	\$78.90
14-18 years	\$101.16
19-30 years	\$97.31
31-50 years	\$94.91
51-70 years	\$88.12
Over 70 years	\$88.09

<i>Females</i>	
9-13 years	\$70.37
14-18 years	\$83.50
19-30 years	\$84.82
31-50 years	\$81.93
51-70 years	\$76.31
Over 70 years	\$73.41

<i>Pregnancy</i>	
Under 19 years	\$98.14
19-30 years	\$97.29
31-50 years	\$94.42

<i>Lactation first six months</i>	
Under 19 years	\$98.71
19-30 years	\$101.62
31-50 years	\$98.19

<i>Lactation second six months</i>	
Under 19 years	\$102.15
19-30 years	\$101.94
31-50 years	\$100.19

### DAWSON CITY

<i>Child</i>	
1-3 years	\$43.74
4-8 years	\$54.87

<i>Males</i>	
9-13 years	\$73.27
14-18 years	\$94.28
19-30 years	\$90.23
31-50 years	\$88.21
51-70 years	\$82.07
Over 70 years	\$82.00

<i>Females</i>	
9-13 years	\$65.23
14-18 years	\$78.47
19-30 years	\$79.76
31-50 years	\$76.85
51-70 years	\$71.20
Over 70 years	\$68.70

<i>Pregnancy</i>	
Under 19 years	\$92.24
19-30 years	\$90.94
31-50 years	\$88.50

<i>Lactation first six months</i>	
Under 19 years	\$93.32
19-30 years	\$96.19
31-50 years	\$93.01

<i>Lactation second six months</i>	
Under 19 years	\$96.65
19-30 years	\$96.46
31-50 years	\$95.03

**FARO**

<i>Child</i>	
1-3 years	\$53.47
4-8 years	\$67.29

<i>Males</i>	
9-13 years	\$90.07
14-18 years	\$117.81
19-30 years	\$113.91
31-50 years	\$111.65
51-70 years	\$103.58
Over 70 years	\$103.92

<i>Females</i>	
9-13 years	\$79.62
14-18 years	\$97.62
19-30 years	\$101.90
31-50 years	\$97.85
51-70 years	\$90.04
Over 70 years	\$86.43

<i>Pregnancy</i>	
Under 19 years	\$117.61
19-30 years	\$116.60
31-50 years	\$113.63

<i>Lactation first six months</i>	
Under 19 years	\$118.36
19-30 years	\$123.63
31-50 years	\$120.02

<i>Lactation second six months</i>	
Under 19 years	\$123.71
19-30 years	\$123.91
31-50 years	\$122.01

**HAINES JUNCTION**

<i>Child</i>	
1-3 years	\$54.28
4-8 years	\$68.98

<i>Males</i>	
9-13 years	\$92.28
14-18 years	\$118.06
19-30 years	\$113.72
31-50 years	\$110.65
51-70 years	\$103.05
Over 70 years	\$102.83

<i>Females</i>	
9-13 years	\$82.23
14-18 years	\$97.66
19-30 years	\$98.81
31-50 years	\$95.64
51-70 years	\$89.31
Over 70 years	\$86.25

<i>Pregnancy</i>	
Under 19 years	\$113.90
19-30 years	\$113.03
31-50 years	\$109.37

<i>Lactation first six months</i>	
Under 19 years	\$115.45
19-30 years	\$118.63
31-50 years	\$114.92

<i>Lactation second six months</i>	
Under 19 years	\$119.54
19-30 years	\$119.02
31-50 years	\$117.23

**MAYO**

<i>Child</i>	
1-3 years	\$52.35
4-8 years	\$65.93

<i>Males</i>	
9-13 years	\$88.30
14-18 years	\$114.03
19-30 years	\$109.72
31-50 years	\$107.38
51-70 years	\$99.79
Over 70 years	\$99.99

<i>Females</i>	
9-13 years	\$78.39
14-18 years	\$94.69
19-30 years	\$97.04
31-50 years	\$93.54
51-70 years	\$86.67
Over 70 years	\$83.62

<i>Pregnancy</i>	
Under 19 years	\$112.40
19-30 years	\$111.27
31-50 years	\$108.26

<i>Lactation first six months</i>	
Under 19 years	\$113.10
19-30 years	\$117.22
31-50 years	\$113.48

<i>Lactation second six months</i>	
Under 19 years	\$117.65
19-30 years	\$117.51
31-50 years	\$115.63

## OLD CROW

<i>Child</i>	
1-3 years	\$72.14
4-8 years	\$91.39

<i>Males</i>	
9-13 years	\$122.69
14-18 years	\$154.14
19-30 years	\$147.07
31-50 years	\$143.31
51-70 years	\$134.10
Over 70 years	\$133.91

<i>Females</i>	
9-13 years	\$109.94
14-18 years	\$129.34
19-30 years	\$128.08
31-50 years	\$124.30
51-70 years	\$116.65
Over 70 years	\$113.14

<i>Pregnancy</i>	
Under 19 years	\$148.32
19-30 years	\$146.20
31-50 years	\$141.77

<i>Lactation first six months</i>	
Under 19 years	\$150.41
19-30 years	\$153.23
31-50 years	\$147.50

<i>Lactation second six months</i>	
Under 19 years	\$154.79
19-30 years	\$153.68
31-50 years	\$151.06

## PELLY CROSSING

<i>Child</i>	
1-3 years	\$49.68
4-8 years	\$62.78

<i>Males</i>	
9-13 years	\$84.30
14-18 years	\$106.77
19-30 years	\$102.51
31-50 years	\$99.99
51-70 years	\$92.96
Over 70 years	\$93.06

<i>Females</i>	
9-13 years	\$75.58
14-18 years	\$88.87
19-30 years	\$89.30
31-50 years	\$86.54
51-70 years	\$81.07
Over 70 years	\$78.33

<i>Pregnancy</i>	
Under 19 years	\$103.26
19-30 years	\$102.18
31-50 years	\$99.08

<i>Lactation first six months</i>	
Under 19 years	\$104.28
19-30 years	\$106.54
31-50 years	\$102.80

<i>Lactation second six months</i>	
Under 19 years	\$107.43
19-30 years	\$106.89
31-50 years	\$105.02

## ROSS RIVER

<i>Child</i>	
1-3 years	\$48.96
4-8 years	\$62.05

<i>Males</i>	
9-13 years	\$83.44
14-18 years	\$106.90
19-30 years	\$103.21
31-50 years	\$100.85
51-70 years	\$93.96
Over 70 years	\$94.18

<i>Females</i>	
9-13 years	\$74.22
14-18 years	\$89.05
19-30 years	\$91.10
31-50 years	\$88.03
51-70 years	\$81.84
Over 70 years	\$78.87

<i>Pregnancy</i>	
Under 19 years	\$105.05
19-30 years	\$104.23
31-50 years	\$101.14

<i>Lactation first six months</i>	
Under 19 years	\$106.04
19-30 years	\$109.60
31-50 years	\$106.18

<i>Lactation second six months</i>	
Under 19 years	\$110.16
19-30 years	\$109.88
31-50 years	\$108.09

**TESLIN****Child**

1-3 years	\$50.45
4-8 years	\$63.40

**Males**

9-13 years	\$85.11
14-18 years	\$111.23
19-30 years	\$107.08
31-50 years	\$104.57
51-70 years	\$96.87
Over 70 years	\$96.97

**Females**

9-13 years	\$75.27
14-18 years	\$91.45
19-30 years	\$94.54
31-50 years	\$90.80
51-70 years	\$83.86
Over 70 years	\$80.40

**Pregnancy**

Under 19 years	\$109.38
19-30 years	\$108.34
31-50 years	\$105.37

**Lactation first six months**

Under 19 years	\$110.16
19-30 years	\$114.52
31-50 years	\$111.01

**Lactation second six months**

Under 19 years	\$114.72
19-30 years	\$114.86
31-50 years	\$113.15

**WATSON LAKE****Child**

1-3 years	\$49.12
4-8 years	\$62.01

**Males**

9-13 years	\$83.09
14-18 years	\$109.41
19-30 years	\$105.49
31-50 years	\$103.13
51-70 years	\$95.78
Over 70 years	\$95.59

**Females**

9-13 years	\$73.11
14-18 years	\$89.80
19-30 years	\$93.35
31-50 years	\$89.54
51-70 years	\$82.24
Over 70 years	\$78.89

**Pregnancy**

Under 19 years	\$107.93
19-30 years	\$107.04
31-50 years	\$104.29

**Lactation first six months**

Under 19 years	\$108.52
19-30 years	\$113.62
31-50 years	\$110.29

**Lactation second six months**

Under 19 years	\$113.65
19-30 years	\$113.90
31-50 years	\$112.27

**WHITEHORSE****Child**

1-3 years	\$39.11
4-8 years	\$49.07

**Males**

9-13 years	\$65.47
14-18 years	\$85.70
19-30 years	\$82.40
31-50 years	\$80.76
51-70 years	\$75.00
Over 70 years	\$75.15

**Females**

9-13 years	\$57.79
14-18 years	\$71.10
19-30 years	\$73.80
31-50 years	\$70.77
51-70 years	\$65.03
Over 70 years	\$62.55

**Pregnancy**

Under 19 years	\$85.38
19-30 years	\$84.33
31-50 years	\$82.27

**Lactation first six months**

Under 19 years	\$86.07
19-30 years	\$89.81
31-50 years	\$87.16

**Lactation second six months**

Under 19 years	\$89.87
19-30 years	\$90.01
31-50 years	\$88.79

## APPENDIX B: Letter to Retailers

We are writing to let you know about an exciting research project that the Yukon Anti-Poverty Coalition and Department of Health and Social Services, Government of Yukon, are undertaking this June.

Community members will be purchasing food in communities across Yukon based on a list of healthy food items identified in the Revised Northern Food Basket (RNFB). The RNFB was developed by Indigenous and Northern Affairs Canada, and is used to monitor trends in the cost of healthy eating in isolated northern communities eligible for Nutrition North Canada.

We will be collecting this data at 15 retailers in total, including your own, from the communities of Carmacks, Pelly Crossing, Carcross, Watson Lake, Whitehorse, Teslin, Faro, Mayo, Dawson City, Old Crow, Haines Junction and Ross River. The Yukon Anti-Poverty Coalition will use this information to produce a report on the cost of nutritious eating in the territory, while the Government of Yukon may use the results to inform public health and social programs.

Food costing takes approximately one to two hours per store with a team of two people; the researchers will be purchasing the food from your store that is on the RNFB list. We will ensure that our community-based researchers report to customer service when they arrive at your store. Data collection will occur throughout the territory during the month of June.

We are looking forward to working with you. If you'd like more information or have any questions or concerns, please do not hesitate to contact me by phone at 334-9310 or by email at [yapcfood@gmail.ca](mailto:yapcfood@gmail.ca).

Yours sincerely,

Renée Young  
Project Coordinator  
Yukon Anti-Poverty Coalition

Christine Tapp  
A/ADM, Social Services  
Department of Health and Social Services

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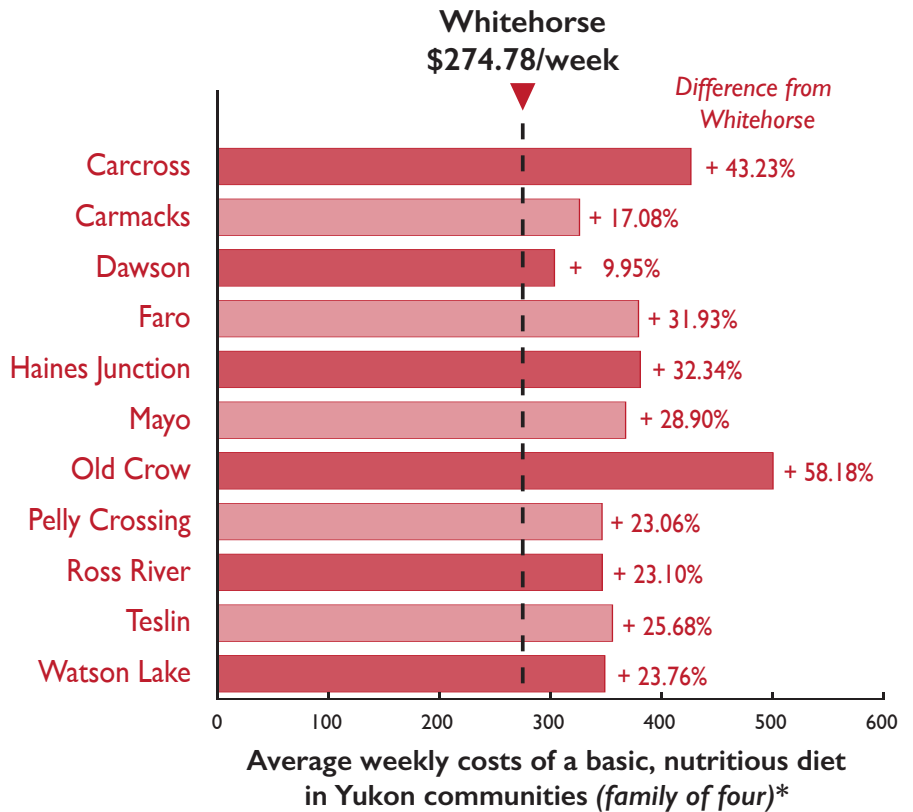
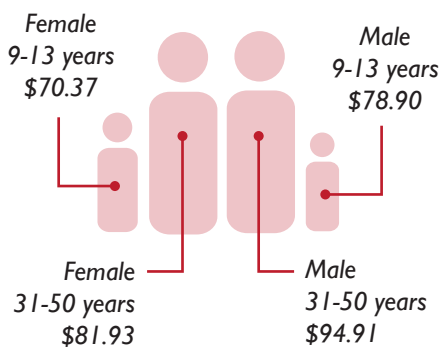
# The Cost of Healthy Eating in Yukon 2017



\* based on food price data collected by community researchers at grocery stores throughout the territory between June 12, 2017, and June 21, 2017.

The cost of healthy eating varies with age and gender. For this study, a reference family of 4 was used.

### eg. Carmacks Reference Family:



### Weekly cost of healthy eating by community:

