

Cost and Affordability of a Nutritious Diet in Nova Scotia

Report of 2007 Food Costing



A project of the Nova Scotia Food Security Network
in partnership with community partners,
the Department of Health Promotion and Protection,
and Mount Saint Vincent University

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Sincerely,
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Affordability of Food

Building Food Security through Participatory Food Costing in Nova Scotia

Food security means that all people, at all times, have access to nutritious, safe, personally acceptable and culturally appropriate foods that are produced, procured and distributed in ways that are sustainable, environmentally sound and socially just.¹ **Food insecurity** is the opposite of food security. One aspect of food insecurity is not having enough money to access enough healthy foods for yourself or your family. This has been an ongoing reality for a significant number of Nova Scotian families. The Nova Scotia Food Security Network, Nova Scotia Nutrition Council (NSNC), and individuals in Family Resource Centre/Projects (FRC/P) and other community-based groups throughout Nova Scotia have been working together to promote and support the development of policies and practices to build food security.

Participatory food costing was first conducted in Nova Scotia in 2002 with funding from Health Canada and was then repeated in 2004/2005 and 2007 with the support of the Nova Scotia Department of Health Promotion and Protection.² This report examines the cost and affordability of a basic nutritious diet in Nova Scotia in 2007. While positive changes have been made since 2002, the findings from our 2007 food costing study indicate that there is still much collaborative and multi-sectoral work to be done to build food security in Nova Scotia.

The reasons for concern about income-related food insecurity can be understood when we examine the following statistics....

- 14.6% of Nova Scotians households (approximately 132,400 households) reported either moderate or severe income-related food insecurity in 2004. Nova Scotia is the only province with significantly higher levels than the national average (9.2%).³
- Although Nova Scotia has seen modest increases in minimum wage and Income Assistance rates in the past couple of years, these rates have consistently been shown to be inadequate to allow individuals and families to meet their basic needs.⁴
- 18,417 Nova Scotia citizens accessed a food bank in March 2007.⁵ Research shows this represents only 1/4 to 1/3 of those experiencing food insecurity.⁶
- Nova Scotian households relying on Income Assistance as their main source of income reported significantly higher levels of household income-related food insecurity (77.8%) in 2004 than those with other income sources.⁷
- In Nova Scotia 33.4% of female led lone-parent families reported experiencing income-related food insecurity in 2004.⁸
- 21% of Nova Scotian families with 3 or more children reported moderate or severe income-related food insecurity in 2004.⁹
- Income-related food insecurity is associated with poor physical, mental and social health status.¹⁰

What is Participatory Food Costing and Why is it Important?

Food costing is used across Canada to monitor the cost of a basic nutritious diet. Food costing involves collecting prices of specified food items that represent a measure of a basic nutritious diet. Participatory food costing is a method of doing food costing that includes the participation of those most involved, affected, or potentially affected by food insecurity.¹¹ The Nova Scotia Food Costing Projects have used a participatory research approach to food costing by involving community partners in decision making, in data collection and analysis, and in the use of research results to influence policy and help build food security in Nova Scotia. People involved in Family Resource Centres/Projects, Women's Centres and other community-based groups throughout Nova Scotia were involved as partners and food costers and support people in their communities.

Researchers and community members need local data to monitor and advocate for food security. Government policy makers need relevant data for evidence-based decision-making. Participatory Food Costing not only provides this evidence,¹² it helps to build capacity at multiple levels -among individuals, communities, organizations and systems- necessary for policy change to build food security.¹³

Using Food Costing to Monitor Food Security in Nova Scotia¹⁴

As part of the 2004/05 participatory food costing project, Nova Scotia's Department of Health Promotion and Protection funded the core partners¹⁵ to develop a model for sustainable food costing as a means to begin to monitor the cost of a basic nutritious diet in the province.¹⁶ This proposed food costing model was funded in support of *Healthy Eating Nova Scotia* (HENS), the government- and stakeholder-developed provincial healthy eating strategy.¹⁷ In this strategy, food security is one of four identified priority areas with a key objective of *increasing the proportion of Nova Scotians who have access to nutritious foods*.¹⁸ Food costing helps to monitor income-related food insecurity by estimating the cost and affordability of a basic nutritious diet. The construction of *affordability scenarios* allows for the identification of segments of the population that may be at risk of income-related food insecurity.

The Survey Tool¹⁹

Food costing uses a standardized tool called the *National Nutritious Food Basket (NNFB)*.²⁰ The NNFB was developed by Health Canada and includes a list of 66 foods that can be used to calculate the cost of a basic nutritious diet for 23 different age and gender groups. The food items within the NNFB are minimally processed foods that are widely available in grocery stores and commonly eaten by most Canadians in amounts that would provide a nutritionally adequate, balanced diet for specific age and gender groups.

Where and When was this Project Completed?

The 2007 food costing study was conducted in 46 grocery stores, located in various communities throughout the nine District Health Authorities (DHAs) in Nova Scotia. A complete list of grocery stores in the province was generated from which a statistician produced a random sample of stores. This sample considered population size, total number of grocery stores, size category of the store, and District Health Authority. Head offices of the major grocery chains were contacted for endorsement of the project and permission to conduct food costing in their stores.²¹ In order to minimize price fluctuations over time, food costing was conducted during the week of June 18th-24th, 2007.

Data Collection by Food Costers

One train-the-trainer session and five regional food costing training sessions were held throughout Nova Scotia in May 2007. With the support of Public Health Services, several collaborating family resource centres, and grocery stores that served as training locations, 63 people attended food costing training sessions. Forty-three people from 15 different community-based organizations throughout Nova Scotia organized and carried out data collection.²² Twenty other people were involved to support food costers in their communities by providing organizational support. Food costers travelled in pairs to the selected grocery stores. Transportation and childcare costs were covered in order to facilitate participation. Honoraria were provided to food costers to recognize their contributions to the data collection process. Food costers recorded the lowest available price of all 66 food items for specific product sizes in the 46 stores and mailed their surveys to the provincial food costing coordinator. Surveys were then checked and re-checked by project staff and students, entered into a spreadsheet, checked for accurate data entry and analyzed with the help of a statistician. For additional information on the methods for 2007 food costing see Appendix C.

Results: The Cost of a Basic Nutritious Diet in Nova Scotia for an Individual

The National Nutritious Food Basket can be used to estimate the costs of eating a basic nutritious diet for any family type.²³ This cost was calculated for 23 different age and gender groups, including pregnant and breastfeeding women. The following tables provide a breakdown of the weekly cost of a basic nutritious diet in June 2007 for specific individuals in Nova Scotia.

Table 1: Average Weekly Costs of the National Nutritious Food Basket (NNFB) in Nova Scotia by Age and Gender Groups (June 2007)*

Sex	Age (years)	Cost per Week (\$)
Child	1	18.17
	2-3	19.02
	4-6	27.17
Boy	7-9	29.05
	10-12	36.86
	13-15	43.07
	16-18	49.35
Girl	7-9	28.55
	10-12	34.38
	13-15	36.56
	16-18	34.18
Man	19-24	46.28
	25-49	44.81
	50-74	40.72
	75+	37.14
Woman	19-24	34.88
	25-49	33.30
	50-74	32.68
	75+	31.83

*Based on weekly costs of purchasing a NNFB for individuals shown in each age group and gender category.

Table 2: Average Weekly Costs of the National Nutritious Food Basket (NNFB) in Nova Scotia for Pregnant and Lactating Women (June 2007)*

Stages of Pregnancy or Lactation	Age of Mother (Years)	Cost per Week (\$)
Trimester 1	13-15	40.85
Trimesters 2,3		43.13
Lactation		44.37
Trimester 1	16-18	40.28
Trimesters 2,3		43.52
Lactation		44.63
Trimester 1	19-24	39.39
Trimesters 2,3		41.97
Lactation		42.95
Trimester 1	25-49	37.80
Trimesters 2,3		40.16
Lactation		40.96

*Based on weekly costs of purchasing a NNFB for women at various stages of pregnancy or lactation.

Results: The Cost of a Basic Nutritious Diet in Nova Scotia for the Reference Household of Four (mother and father 25-49, girl 7, and boy 13 years of age.)

Using the figures in Tables 1 and 2, you can estimate the cost of feeding a household of four a basic nutritious diet.

The “Scotia” Family consists of:

Mother and Father both between 25 and 49 years of age and two children, a girl aged 7 and a boy aged 13 years.

Follow the steps below to find out how much a nutritious food basket costs the Scotia family for one week. Go through the steps again, substituting the amounts for members of your household, to determine how much it costs to eat nutritiously.

Step 1: Write down the age and gender of all the people in your household.

The Scotia family ...

Mother: between 25 and 49 years of age;
Father: between 25 and 49 years of age; and
Children: A girl aged 7 and a boy aged 13 years.

Step 2: Use Table 1 on page 4 to figure out the weekly costs of a nutritious diet for the Scotia family, based on the cost of the NNFB for each individual:

Mother:	\$33.30
Father:	\$44.81
Girl aged 7:	\$28.55
Boy aged 13:	\$43.07
Total	\$149.73

Step 3: Since it costs a little more per person to feed small households and a little less to feed larger households, the total cost estimated in Step 2 will need to be adjusted accordingly. Use the following adjustment for household size, as it applies to your situation:

- 1 person: increase costs by 15% (multiply food costs by 1.15)
- 2 persons: increase costs by 10% (multiply food costs by 1.1)
- 3 persons: increase costs by 5% (multiply food costs by 1.05)
- 4 persons: no change
- 5 persons: decrease costs by 5% (multiply food costs by .95)
- 6 persons: decrease costs by 10% (multiply food costs by .90)

Step 4: If you want to determine the monthly cost, multiply the weekly food costs for your household by 4.33 (\$149.73 x 4.33 = \$648.33)

Therefore, it would cost the Scotia family \$648.33 to purchase a basic nutritious diet each month, based on the June, 2007 food costing data. This family will be used as a reference household for examining changes in the cost of food over time, as well as differences in the cost of food based on where you live in the province and the size of store where food is purchased.

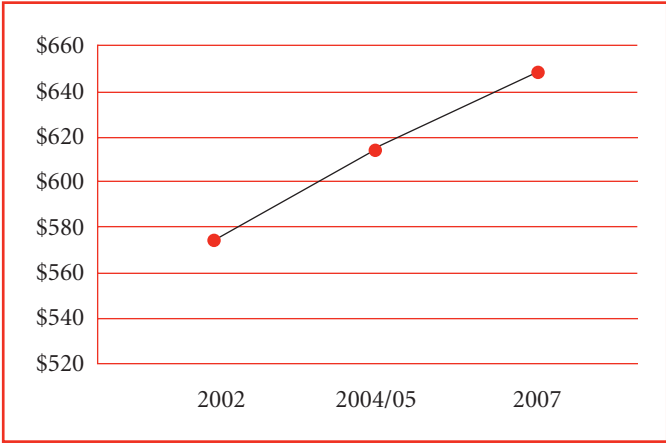
Can Nova Scotians Afford to Purchase a Basic Nutritious Diet?

Income-related food security is about having the income necessary to purchase a healthy diet. The cost of food is only one factor in determining whether Nova Scotians are food secure. In order to assess whether an individual or household has enough money to purchase a basic nutritious diet there are other things we would need to know. What are the costs of basic living expenses? Does it matter if you live in an urban or rural community? Does where you buy your food influence how much it costs?

A Closer Look at Food Costs

The cost of food has increased since participatory food costing was first conducted in 2002 in Nova Scotia. The graph below shows the rise in the cost of the basic nutritious food basket for a reference household of four. Findings from the Participatory Food Costing Projects show that there has been a 13% increase in the cost of the food basket for this reference household from 2002 to 2007. In 2007 the monthly cost of the basic nutritious food basket was \$648.33, up \$75.43 a month, or \$905.16 a year, from the cost in 2002. This increase is consistent with the Consumer Price Index inflation rates for food in Nova Scotia since 2002.²⁴

Figure 1: Monthly cost of the National Nutritious Food Basket for the reference household of four: 2002-2007

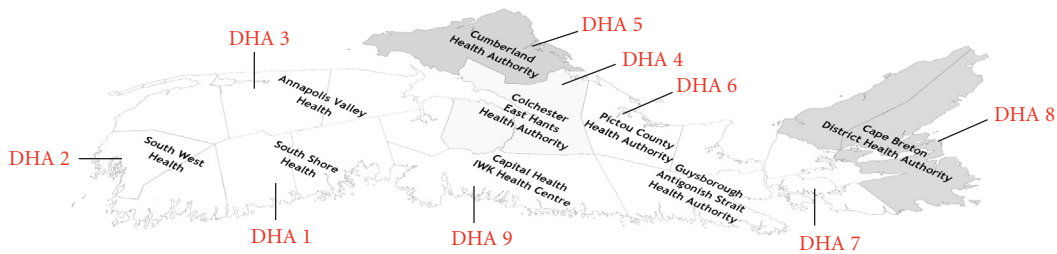


*The reference household of four is comprised of a mother and father between the ages of 25-49, a girl aged 7 and a boy aged 13.

Does a Basic Nutritious Diet Cost More in Certain Places in Nova Scotia?

While the average costs of the NNFb for the reference household of four are not statistically different between each District Health Authority (DHA), Figure 2 shows how the cost varies somewhat by geographical area within Nova Scotia. Average costs of the NNFb for the reference household ranged from a high of \$672.10/month in South West Nova (DHA 2) to a low of \$627.20/month in Capital (DHA 9).

Figure 2: Monthly cost of the National Nutritious Food Basket by District Health Authority in Nova Scotia (June 2007)²⁷

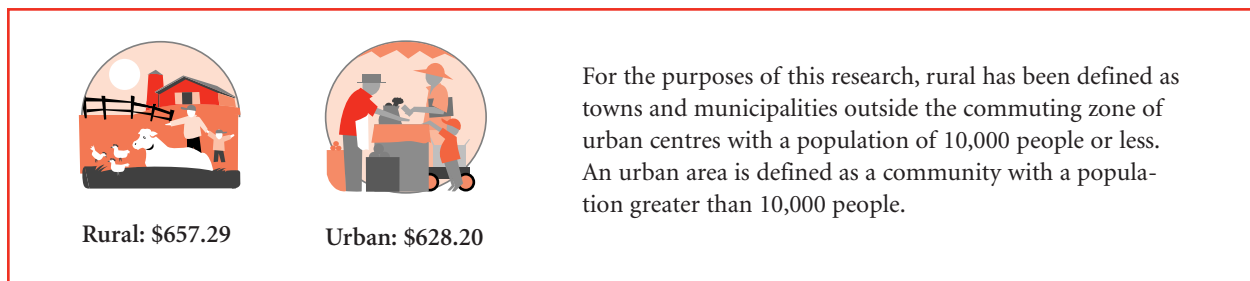


DHA 1	DHA 2	DHA 3	DHA 4	DHA 5 and 6 ²⁵	DHA 7	DHA 8	DHA 9	NS
\$636.42	\$672.10	\$646.69	\$639.80	\$655.04	\$658.46	\$655.00	\$627.20	\$648.33

District Health Authorities (DHA)		
South Shore (DHA 1)	Colchester East Hants (DHA 4)	Guysborough Antigonish Strait (DHA 7)
South West Nova (DHA 2)	Cumberland (DHA 5)	Cape Breton (DHA 8)
Annapolis Valley (DHA 3)	Pictou County (DHA 6)	Capital (DHA 9)

There is, however, a statistically significant difference in the average monthly cost of a basic nutritious diet in grocery stores located in rural (\$657.29) compared with those located in urban areas (\$628.20) within Nova Scotia. This finding is consistent with our previous food costing research in 2002 and 2004/05.²⁶

Figure 3: Monthly costs of purchasing the National Nutritious Food Basket for the reference household of four in rural and urban areas of Nova Scotia (June 2007)²⁷



A basic nutritious diet purchased at smaller grocery stores costs on average \$30.65 more per month than that purchased at larger grocery stores in Nova Scotia (Figure 4). This statistically significant difference is also consistent with findings from 2002 and 2004/05.

Figure 4: Monthly costs of purchasing the National Nutritious Food Basket for the reference household of four in small and large grocery stores in Nova Scotia (June 2007)



Monitoring Food Security: Constructing Affordability Scenarios

Affordability scenarios are constructed using data on the cost of a basic nutritious diet in Nova Scotia and data from other research on the cost of basic living expenses in order to determine if Nova Scotians have sufficient economic resources to purchase a basic nutritious diet. Affordability scenarios provide context to the cost of a healthy diet relative to the cost of other basic expenses. The following scenarios examine three different household types receiving different levels of income: 1) the reference household of four with two adults and two children (ages 7 and 13 years); 2) a household of three with a female lone parent and two children (ages 4 and 7 years); and 3) a household of one consisting of a lone adult male with no children.

The scenarios represent a *monthly breakdown of income and expenses* for each household. For wage earners, incomes were determined by calculating hourly rates of pay for a specific number of hours worked by members of the household. Employee payroll deductions (taxes, insurance premiums) were subtracted to determine a 'disposable' income. For Income Assistance (IA) recipients, incomes were calculated using maximum allowances available from the Employment Support and Income Assistance program of the Nova Scotia Department of Community Services.²⁸ Child Tax benefits and Goods and Services Tax benefits were calculated by using annual income to determine monthly payments to households.

Conservative estimates of basic expenses were determined using the best available data for one month in 2007 on the costs of shelter, utilities, telephone, transportation, clothing and footwear, childcare, personal care expenses and household cleaning supplies. For complete details on how incomes and expenses were calculated refer to Appendix F.

Other Expenses Not Included in Scenarios

The following scenarios include conservative estimates of only basic expenses. They do not include other routine costs such as out of pocket healthcare expenses (e.g. co-pay amounts on prescriptions, over the counter medications, dental care), food purchased outside the home, many routine household operation expenses (e.g. furniture, appliances, maintenance), costs associated with physical activity and recreation, educational expenses or reading material. Average household spending on these "other expenses" was on average, slightly more than \$100/month for households with incomes \$22,345/year and under in Nova Scotia in 2005.²⁹ The scenarios also assume that households have no other extraordinary expenses such as credit card debt, ill family members, or family members with special needs. They also do not allow for the costs associated with family emergencies, life insurance or saving for the future.

Affordability of a Basic Nutritious Diet in Nova Scotia in June, 2007: Reference Household of Four with 2 adults and 2 children

Table 3 presents the potential financial impact of purchasing a basic nutritious diet for the reference family of four living in rural Nova Scotia with four different income scenarios. Our findings show that a basic nutritious diet for this household would cost, on average, \$648.33/month. The first scenario in Table 3 shows that when the monthly costs for food, shelter, and other expenses considered essential for a basic standard of living are subtracted from the average Nova Scotian family income this household would have \$1715.75 left for all other expenses each month. The second scenario in Table 3 shows that the household with a full time and a part time wage earner each working for \$12.45/hr has \$562.80 available for all other expenses each month. In both of these scenarios the households have sufficient income to purchase a basic nutritious diet with money left over for other basic living expenses. The household with an adult working full time and the other working part time for minimum wage, as illustrated by scenario three, would only have \$59.24 left in their monthly budget to cover all other potential expenses after they purchased a basic nutritious food basket. The fourth scenario shows the same household of four relying on Income Assistance would likely face a **deficit of \$79.89** each month if they were to purchase a basic nutritious diet.

These findings provide evidence that the reference household of four relying on minimum wages may be at risk of food insecurity. The same household relying on Income Assistance simply cannot afford to purchase a basic nutritious diet, placing the health of members of the household at risk.

Table 3: Affordability of a basic nutritious diet in Nova Scotia in June, 2007: Reference household of four with 2 adults and 2 children

Family Composition	Male & Female (25-49yrs) Boy 13yrs, Girl 7yrs	Male & Female (25-49yrs) Boy 13yrs, Girl 7yrs	Male & Female (25-49yrs) Boy 13yrs, Girl 7yrs	Male & Female (25-49yrs) Boy 13yrs, Girl 7yrs
Source of Income	Median NS Family Income ¹	Wages-\$12.45/hr ² (1FT, 1PT) ³	Minimum Wage, \$7.60/hr (1FT, 1PT)	Income Assistance
Monthly Disposable Income				
Gross Wages	\$5,125.00	\$3,234.51	\$1,974.48	\$0.00
Payroll Deductions	\$1,202.57	\$564.05	\$222.25	n/a
Federal Tax	(\$513.55)	(\$215.85)	(\$63.90)	n/a
Provincial Tax	(\$371.95)	(\$158.75)	(\$53.95)	n/a
Canada Pension	(\$224.82)	(\$131.23)	(\$68.86)	n/a
Employment Insurance	(\$92.25)	(\$58.22)	(\$35.54)	n/a
CTB ⁴	\$125.42	\$201.04	\$452.38	\$605.40
GST/HST ⁵	\$0.00	\$23.40	\$59.00	\$59.00
Personal Allowance	n/a	n/a	n/a	\$400.00
Shelter Allowance	n/a	n/a	n/a	\$620.00
Childcare Allowance ⁶	n/a	n/a	n/a	\$140.08
Transportation Allowance ⁷	n/a	n/a	n/a	\$300.00
Disposable Income	\$4,047.85	\$2,894.90	\$2,263.61	\$2,124.48
Basic Monthly Fixed Expenses				
Shelter	\$658.31	\$658.31	\$658.31	\$658.31
Power	\$80.00	\$80.00	\$80.00	\$80.00
Telephone	\$29.21	\$29.21	\$29.21	\$29.21
Other Basic Expenses				
Transportation	\$384.08	\$384.08	\$384.08	\$384.08
Childcare ⁸	\$267.81	\$267.81	\$140.08	\$140.08
Clothing, Footwear	\$182.94	\$182.94	\$182.94	\$182.94
Personal Care Expenses	\$59.92	\$59.92	\$59.92	\$59.92
House-cleaning Supplies	\$21.50	\$21.50	\$21.50	\$21.50
Total Expenses	\$1,683.77	\$1,683.77	\$1,556.04	\$1,556.04
Funds remaining for food	\$2,364.08	\$1,211.13	\$707.57	\$418.44
Cost of NNFB	\$648.33	\$648.33	\$648.33	\$648.33
Funds remaining for other expenses	\$1,715.75	\$562.80	\$59.24	(-\$79.89)

1 Based on median family income in 2006; family income for 2007 was not available at the time of this research.

2 \$12.45/hr has been used as an example of a wage that may allow for the possibility of paying basic monthly expenses with some money left over at the end of the month for other expenses. \$12.45 was the average Canadian call centre hourly wage in 2004.³⁰

3 FT= full time employment of 40 hours/week; PT= part time employment of 20 hours per week.

4 Child Tax Benefits monthly payments

5 Goods and Services tax payments (quarterly payment divided into monthly payments).

6 Income Assistance recipients may be eligible for up to \$400/month as a childcare allowance although only actual costs incurred will be covered. In order to qualify for childcare allowances, the recipient must be looking for work or enrolled in an educational program. This scenario assumes the adults in this household to be in one of these situations and therefore receiving this allowance.

7 Each adult, if both seeking employment and/or enrolled in an educational program, may also qualify for up to \$150/month each to assist with associated transportation costs. This scenario assumes the receipt of a full transportation allowance for both adults.

8 The Childcare expenses for the household with minimum wage earnings and the household receiving Income Assistance assumes a subsidized childcare space for the 7 year old child.

Affordability of a Basic Nutritious Diet in Nova Scotia in June, 2007: Household of Three - Female Led Lone Parent Household with 2 children

Table 4 shows the potential financial impact of purchasing a basic nutritious diet for a female led lone parent household working for minimum wage or receiving Income Assistance. A basic nutritious diet for a female led lone parent household with two children ages 7 and 4 years would cost, on average, \$414.19/month in 2007. Scenario one of Table 4 shows that this household would experience a deficit of at least \$8.31 each month after purchasing a basic nutritious diet on minimum wage earnings. In this household there would be no money to spare for healthcare expenses, food purchased outside the home, costs associated with physical activities and recreation, educational expenses, emergencies or savings for unexpected expenses. Scenario two in Table 4 shows that the household relying on provincial Income Assistance would have \$127.96 at the end of the month for all other expenses after the cost of the NNFB is factored in, assuming the family is receiving full transportation and childcare allowances.

These findings provide evidence that a female led lone parent household relying on minimum wage earnings cannot afford to purchase a basic nutritious diet. While the same family relying on Income Assistance may be less at risk of food insecurity compared with a minimum wage earner, if they are not able to access transportation and childcare allowances they would also be facing a deficit.

**Table 4: Affordability of a basic nutritious diet in Nova Scotia in June, 2007:
Household of three- Female led lone parent family with 2 children**

Family Composition	Lone Female (24yrs) Boy 7yrs, Girl 4yrs	Lone Female (24yrs) Boy 7yrs, Girl 4yrs
Source of Income	Minimum Wage \$7.60/hr (FT) ¹	Income Assistance
Monthly Disposable Income		
Gross Wages	\$1,316.32	\$0.00
Payroll Deductions	\$192.26	n/a
Federal Tax	(63.90)	(n/a)
Provincial Tax	(\$53.95)	(n/a)
Canada Pension	(\$50.72)	(n/a)
Employment Insurance	(\$23.69)	(n/a)
CTB ²	\$626.15	\$626.15
GST/HST ³	\$59.00	\$59.00
UCCB ⁴	\$100.00	\$100.00
Personal Allowance	n/a	\$200.00
Shelter Allowance	n/a	\$620.00
Childcare Allowance ⁵	n/a	\$290.00
Transportation Allowance ⁶	n/a	\$150.00
Disposable Income	\$1,909.21	\$2,045.48
Basic Monthly Fixed Expenses		
Shelter	\$559.56	\$559.56
Power	\$80.00	\$80.00
Telephone	\$29.21	\$29.21
Other Basic Expenses		
Transportation	\$326.48	\$326.48
Childcare ⁷	\$290.33	\$290.33
Clothing, Footwear	\$155.50	\$155.50
Personal Care Expenses	\$45.82	\$45.82
House-cleaning Supplies	\$16.43	\$16.43
Total Expenses	\$1,503.33	\$1,503.33
Funds remaining for food	\$405.88	\$542.15
Cost of NNFB	\$414.19	\$414.19
Funds remaining for other expenses	(-\$8.31)	\$127.96

1 FT= full time employment of 40 hours/week.
 2 Child Tax Credit monthly payments.
 3 Goods and Services tax payments (quarterly payment divided into monthly payments).
 4 Universal Childcare Benefit monthly payment.
 5 Income Assistance recipients may be eligible for up to \$400/month as a childcare allowance although only actual costs incurred will be covered. In order to qualify for childcare allowances, the recipient must be looking for work or enrolled in an educational program. This scenario assumes the adults in this household to be in one of these situations and therefore receiving this allowance.
 6 This adult, if seeking employment and/or enrolled in an educational program may also qualify for up to \$150 / month to assist with associated transportation costs. This scenario assumes the receipt of a transportation allowance.
 7 The childcare expenses for these households assume a subsidized childcare space for both children.

Affordability of a Basic Nutritious Diet in Nova Scotia in June, 2007: Household of One – Lone Adult Male with no Children

The monthly cost of a basic nutritious diet in 2007 for a 30 year old male was \$223.13. Scenario one of Table 5 shows that after the cost of a basic nutritious diet is factored in, a single male with a full time minimum wage job would be left with \$335.35/month to cover all other potential expenses. Scenario two of Table 5 shows that a lone adult male receiving Income Assistance would experience a monthly deficit of \$217.39 if he were to purchase a basic nutritious diet; he would not have money to spare for items such as healthcare expenses, foods purchased outside the home, costs associated with physical activities and recreation, educational expenses, emergencies, or savings for unexpected expenses.

These findings provide evidence that a lone adult male with no children relying on Income Assistance would not be able to afford a basic nutritious diet, placing his health at risk. While the scenario suggests that the same lone male working for minimum wage would have sufficient income to purchase the NNFB with money left over for other basic living expenses, this assumes that he would be able to find shelter for \$329.16/month.

**Table 5: Affordability of a basic nutritious diet in Nova Scotia in June, 2007:
Household of one-lone adult male with no childrens**

Family Composition	Lone Male (30yrs)	Lone Male (30yrs)
Source of Income	Minimum Wage \$7.60/hr(FT) ¹	Income Assistance
Monthly Disposable Income		
Gross Wages	\$1,316.32	\$0.00
Payroll Deductions	\$192.26	n/a
Federal Tax	(63.90)	(n/a)
Provincial Tax	(\$53.95)	(n/a)
Canada Pension	(\$50.72)	(n/a)
Employment Insurance	(\$23.69)	(n/a)
GST/HST ²	\$29.50	\$29.00
Personal Allowance	n/a	\$200.00
Shelter Allowance	n/a	\$300.00
Transportation Allowance ³	n/a	\$71.32
Disposable Income	\$1,153.56	\$600.82
Basic Monthly Fixed Expenses		
Shelter	\$329.16	\$329.16
Power	\$50.00	\$50.00
Telephone	\$29.21	\$29.21
Other Basic Expenses		
Transportation	\$71.32	\$71.32
Clothing, Footwear	\$91.47	\$91.47
Personal Care Expenses	\$17.61	\$17.61
House-cleaning Supplies	\$6.32	\$6.32
Total Expenses	\$595.08	\$595.08
Funds remaining for food	\$558.48	\$5.74
Cost of NNFB	\$223.13	\$223.13
Funds remaining for other expenses	\$335.35	(-\$217.39)

1 FT= full time employment of 40 hours/week.

2 Goods and Services tax payments (quarterly payment divided into monthly payments).

3 This adult, if seeking employment and/or enrolled in an educational program may also qualify for up to \$150/ month to assist with associated transportation costs. This scenario assumes the receipt of a transportation allowance which covers the actual costs incurred by this adult for transportation.

Comparing Affordability Scenarios

As illustrated by Figure 1 on page 6, it is possible to compare the cost of a basic nutritious diet from 2002 to 2007 because the data collection tool and methods over this time frame remained consistent. However, it is not possible to comment on changing trends of affordability of a basic nutritious diet for different household types and income levels and sources. This is due to the fact that in 2007, the methods and data sources used to construct affordability scenarios were updated and changed based on the best available data. Adjustments to the methods used to calculate net incomes, as well as updated data on basic expenses, do not allow for comparisons of the 2007 affordability scenarios to similar scenarios constructed in 2002 and 2004/05.³¹

It is possible, however, to draw conclusions from the 2007 findings regarding the affordability of a basic nutritious diet and the risk of income-related food insecurity for particular household types and income sources based on the affordability scenarios presented above. These scenarios show that the risk of income-related food insecurity in a household is not only shaped by income source and income level but that other household conditions, such as the number of people in a household, age of household members, number of wage earners, and access to both provincial and federal government support programs, all contribute to risk for household food insecurity. Therefore, the extent of the deficits families potentially face if they were to purchase a basic nutritious diet will differ considerably depending on household circumstances. It is clear that while the risk of food insecurity may differ by household circumstances, these findings illustrate that **both Income Assistance rates and minimum wage levels continue to contribute to low income circumstances, in which some families cannot afford to purchase a basic nutritious diet.**

Comparing Various Household Types working for Minimum Wage

Of the three minimum wage scenarios presented, these findings suggest that the female led lone parent household with two children experiences the greatest risk of food insecurity. While the two parent household with two children may also be at risk of food insecurity with only \$59.24 left at the end of the month for all other expenses, the female led lone parent household experiences a deficit of \$8.31 before other expenses are even factored in. Research shows that the food budget is often compromised to ensure that other essential expenses such as shelter and heat are covered.³² Even with lower expenses in a three person household, access to the Universal Childcare Benefit (UCCB) and a higher child tax credit, these conditions do not offset the benefit of a second income in a household.

The lone male working for minimum wage has \$335.35 available at the end of the month (assuming he is able to find shelter for just under \$330/month). Comparing this scenario the other one-earner household (the female lone parent scenario) illustrates that there is greater risk of food insecurity for lone parents with children working for minimum wage. Even with federal supports for families with children (Child Tax Benefit), households with children are still at risk of food insecurity. **Overall, of the minimum wage household scenarios presented here, the lone parent household is at greatest risk of income-related food insecurity.**

Comparing Various Household Types Receiving Income Assistance

Of the three Income Assistance scenarios these findings show that two are at particular risk for food insecurity: the two parent household with two children has a monthly deficit of \$79.89 and the lone adult male has a monthly deficit of \$217.39 after basic expenses. The female lone parent household with two children receiving Income Assistance is in a somewhat better situation, with \$127.96 remaining after considering basic expenses. It is important to note that this is mostly due to the age of the two children in this household. One child is 4 years old and therefore eligible for the Universal Childcare Benefit. Once the youngest child in this household turns 6 years of age this benefit will no longer be available to this family. As well, the lone parent household receives slightly higher federal Child Tax Benefits compared with the two parent household.

Of all the scenarios presented, the two parent household with two children receiving Income Assistance and the lone male receiving Income Assistance are at the greater risk of food insecurity. The female led lone parent household receiv-

ing Income Assistance may still be at risk of food insecurity, especially in light of the temporary Universal Childcare Benefit (only available for children up to age 6 years).

Comparing Household Types Working for Minimum Wage to Household Types Receiving Income Assistance

The two parent household with two children and the lone male scenarios indicate that Income Assistance recipients are at greater risk of food insecurity than minimum wage earners. The female led lone parent family scenarios indicate that this household type is at lower risk of food insecurity; as noted above this can be explained by examining the supports available for this household. This Income Assistance scenario assumes receipt of a \$150 transportation allowance and a childcare allowance that covers all applicable childcare costs for this household. Without these allowances, this household would experience a monthly deficit of \$313.00. The lone parent working for minimum wage is eligible for a child care subsidy, but this parent must cover the parental contribution amount of childcare costs (in this case \$290.33/month), and there is no transportation support available. The same supports are assumed in the two parent household with two children receiving Income Assistance; while this family is still facing a deficit, these supports are clearly critical in helping families meet their basic needs.

Policy Implications of Food Costing Findings

The aim of the Nova Scotia Participatory Food Costing Project is to gather evidence that can be used to inform policy and build capacity for policy change to support food security in the province. The affordability scenarios presented show that many Nova Scotians are vulnerable to food insecurity due to low incomes. This is especially evident for families and individuals receiving Income Assistance and workers earning minimum wage, particularly one wage earner families. Being food insecure due to low income is associated with a higher frequency of chronic conditions such as high blood pressure, diabetes and heart disease.³³ Food insecurity can lead to poor physical, mental, and social health – which not only impacts the individuals experiencing food insecurity but also their families, communities and the province as a whole.³⁴ There is evidence concerning the link between higher incomes, nutritional status and better health showing that as family incomes increase so does the quantity and nutritional quality of the food purchased.³⁵

This report examined the cost of a basic nutritious diet within the context of basic living expenses in 2007 in Nova Scotia. This evidence can inform us about the potential risk of income-related food insecurity for Nova Scotians. Many households simply do not have the financial capacity to purchase a nutritious diet. Others might be able to purchase a nutritious diet but may be doing so at the expense of participating in other activities that contribute to overall health and quality of life.

The results of the 2007 food costing research clearly show that there are households in Nova Scotia that simply cannot afford to eat nutritiously. For many households relying on Income Assistance, current rates do not fully cover the costs of a nutritious diet, and therefore may pose a significant risk to health. Those working for minimum wage, particularly female led lone parent families, are also at risk of food insecurity.

These findings support the need for continued review of policies surrounding minimum wage and Income Assistance rates in Nova Scotia. A recent announcement by the Department of Environment and Labour's approval of the Nova Scotia Minimum Wage Review Committee's recommendation of a minimum wage increase to \$9.65/hr by 2010 is encouraging.³⁶ Once these recommendations are enacted, it will be important to monitor the cost of food and other basic living expenses against suggested minimum wage levels to determine the adequacy of these rate increases to address income-related food insecurity over time.

The food costing research also highlights the need for further attention and policy change concerning Income Assistance rates in Nova Scotia. Small increases to the shelter allowance and personal allowance budget amounts have occurred over the last four years.³⁷ However, these increases are clearly not adequate to ensure access to a basic nutritious diet for the family of four or the lone adult male. By comparison, while access to a basic nutritious diet may be possible, in the female led lone parent family scenarios relying on Income Assistance, this was mostly due to a federal initiative that is only accessible to families with children under six.

It is important to recognize that wages, levels of Income Assistance and levels of Federal transfers need to equate to an adequate living wage³⁸ that allows individuals and families to meet their basic needs and participate in other activities that contribute to overall health and quality of life. Food security has been recognized as a key social determinant of health and is closely linked to and influenced by other social determinants of health such as literacy, early childhood development and education.³⁹ Government social policy initiatives should contribute to food security and ultimately health and well being for all citizens. In the spirit of participatory research, Nova Scotians, including all levels of government, need to act on the results from the food costing research and work together to address policy change needed to ensure the socio-economic inclusion and health of ALL Nova Scotians.

What Has Been Accomplished?

Many groups and individuals have been working to build food security in Nova Scotia. Through this commitment, important strides have been taken to achieve the overarching goal of food security for all in Nova Scotia. Some of these accomplishments include:

- Identification of food security as one of four priority areas in the Healthy Eating Nova Scotia strategy.⁴⁰
- Nova Scotia's Department of Health Promotion and Protection has committed to fund sustainable participatory food costing to help to monitor income-related food insecurity and engage partners from diverse backgrounds to work together to build food security in Nova Scotia.
- Creation of a workbook Thought about Food? A Workbook on Food Security and Influencing Policy and accompanying DVD that allows communities to identify root causes and sustainable solutions to food insecurity.⁴¹ These tools have been distributed to 430 Community Action Program for Children and 350 Canada Prenatal Nutrition Program projects across Canada, and in 2007 received a Dietitians of Canada and Kraft Canada sponsored Speaking of Food and Healthy Living Award, Atlantic Region for excellence in nutrition communications.
- Community dialogues have been held across Nova Scotia and Canada to discuss the issue of food insecurity and how communities can address the issue through policy change.
- Local food security action groups have been formed in several communities in Nova Scotia to look at the root causes of food insecurity. Some of these groups have started community gardens and kitchens while others have identified problem policies within their areas and have met with politicians to discuss their concerns.
- A background Paper & Policy lens, entitled, Thought About Food?: Understanding the Relationship between Public Policy and Food Security in Nova Scotia was prepared by the Policy Working Group of the Nova Scotia Food Security Projects.⁴² The document's purpose is to support policy makers across all levels and sectors of government in making policy decisions that contribute to food security.
- The Poverty Reduction Strategy Coalition of Nova Scotia has released a document, Framework for a Poverty Reduction Strategy for Nova Scotia. Goals of the framework include "social policies and programs that enable families and individuals to meet their basic needs, and empower them to participate fully in the social and economic benefits of society" and ensuring that "all residents have a livable income, decent working conditions, and employment benefits".⁴³
- The province of Nova Scotia has begun work on a provincial poverty reduction strategy. The first phase of consultations was held in November 2007. This initiative is being co-led by the Departments of Community Services and Environment and Labour.⁴⁴
- Previous food costing data were used in a submission to the Minimum Wage Review Committee of Nova Scotia's Department of Environment and Labour in 2007, and to inform increases to Income Assistance rates by the Department of Community Services. Income Assistance personal allowance rates have increased 13% from 2002 to 2007. Government is committed to increase the personal allowance portion of Income Assistance rates annually based on the Consumer Price Index.

Next Steps...

Food costing partners want to thank all individuals and organizations who have contributed to to the food costing projects. Through combined efforts, we will continue to build capacity for improving food security at the individual, community, organizational and systems levels. By working together, we can provide ongoing evidence to inform decision-making to support food security in Nova Scotia.

For more information on how you can help to build food security in Nova Scotia see:
www.nsnsc.ca www.ahprc.dal.ca www.foodthoughtful.ca www.hpclearinghouse.ca

Email: foodsecurity@msvu.ca

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Family Matters Annapolis County Family Resource Centre
First Nations and Inuit Health Branch Atlantic Region
Kids Action Program Annapolis Valley-Hants
LEA's Place Women's Centre Sheet Harbour
Lunenburg Community Health Board

Maggie's Place Amherst
Maggie's Place Truro
Memory Lane Sackville
Mount Saint Vincent University
Mulgrave Park Tenancy Association Halifax
Nova Scotia Advisory Commission on AIDS
Nova Scotia Food Security Network
Nova Scotia Fruit Grower Association
Nova Scotia Nutrition Council
Parent and Tot Meeting Place Halifax
Parent's Place Yarmouth County Resource Centre
Kid's First Antigonish and Pictou
Public Health Services in all District Health Authorities
Queen's County Family Resource Centre
St. Francis Xavier University

Endnotes and References

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- ¹⁴ For a full overview of food costing projects in Canada and Nova Scotia see Appendix B.
- ¹⁵ Core partners at this time were the Nova Scotia Nutrition Council, Atlantic Health Promotion Research Centre and collaborating Community Action Program for Children (CAPC) and Canada Prenatal Nutrition Program (CPNP) funded Family Resource Centres/Projects.
- ¹⁶ Food Costing Working Group of the Nova Scotia Participatory Food Security Projects (2005). *Working Together for Ongoing Food Costing and Policy Solutions to Build Food Security: A Proposed Model of Ongoing Food Costing in Nova Scotia*. Report submitted to Nova Scotia Health Promotion and Protection on behalf of Atlantic Health Promotion Research Centre, Collaborating Family Resource Centres/Projects in Nova Scotia, Nova Scotia Nutrition Council. Halifax, Nova Scotia.

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- 18 Another HENS objective concerning food security is to *increase the availability of nutritious, locally produced food throughout the province*. As a component of the 2007 food costing, a modified survey tool was piloted. These modifications allowed for data collection on where the food items were being grown or produced as well as the comparative cost if the product was locally grown or produced. Results from this pilot study will be reported separately.
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- 23 Ibid., Lawn, J. (1998).
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- 25 The average cost of the NNFB in DHA 5 and 6 has been combined because less than 3 stores were surveyed in DHA 6. A minimum of 3 stores in a DHA is required for averaging.
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- 36 News Release March 20, 2008, Department of Environment and Labour, Minister Accepts Minimum Wage Review Committee Recommendations, retrieved from <http://gov.ns.ca/news/details.asp?id=20080320007>
- 37 In October of 2007 an increase of \$4.00 to the personal allowance budget line of Income Assistance occurred. See ESIA Policy Manual at: www.gov.ns.ca/coms/employment/documents/ESIA_Manual/ESIA_Policy_Manual.pdf

³⁸ Lawrence Glickman's defines a Living Wage as, "a wage level that offers workers the ability to support families to maintain self respect and to have both the means and the leisure to participate in the civic life of the nation." in his book, *A Living Wage: American Workers and the Making of Consumer Society*, 1997.

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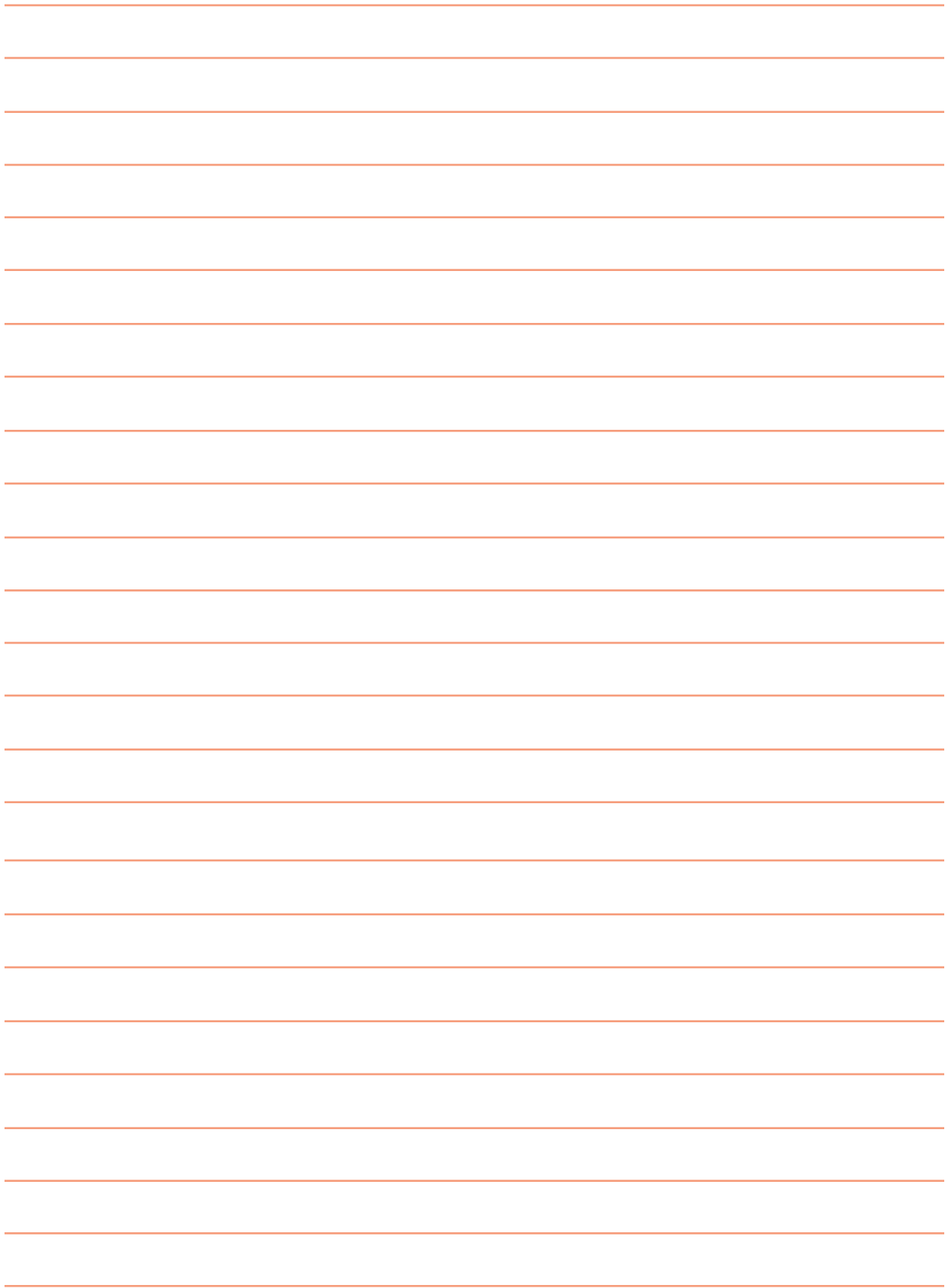
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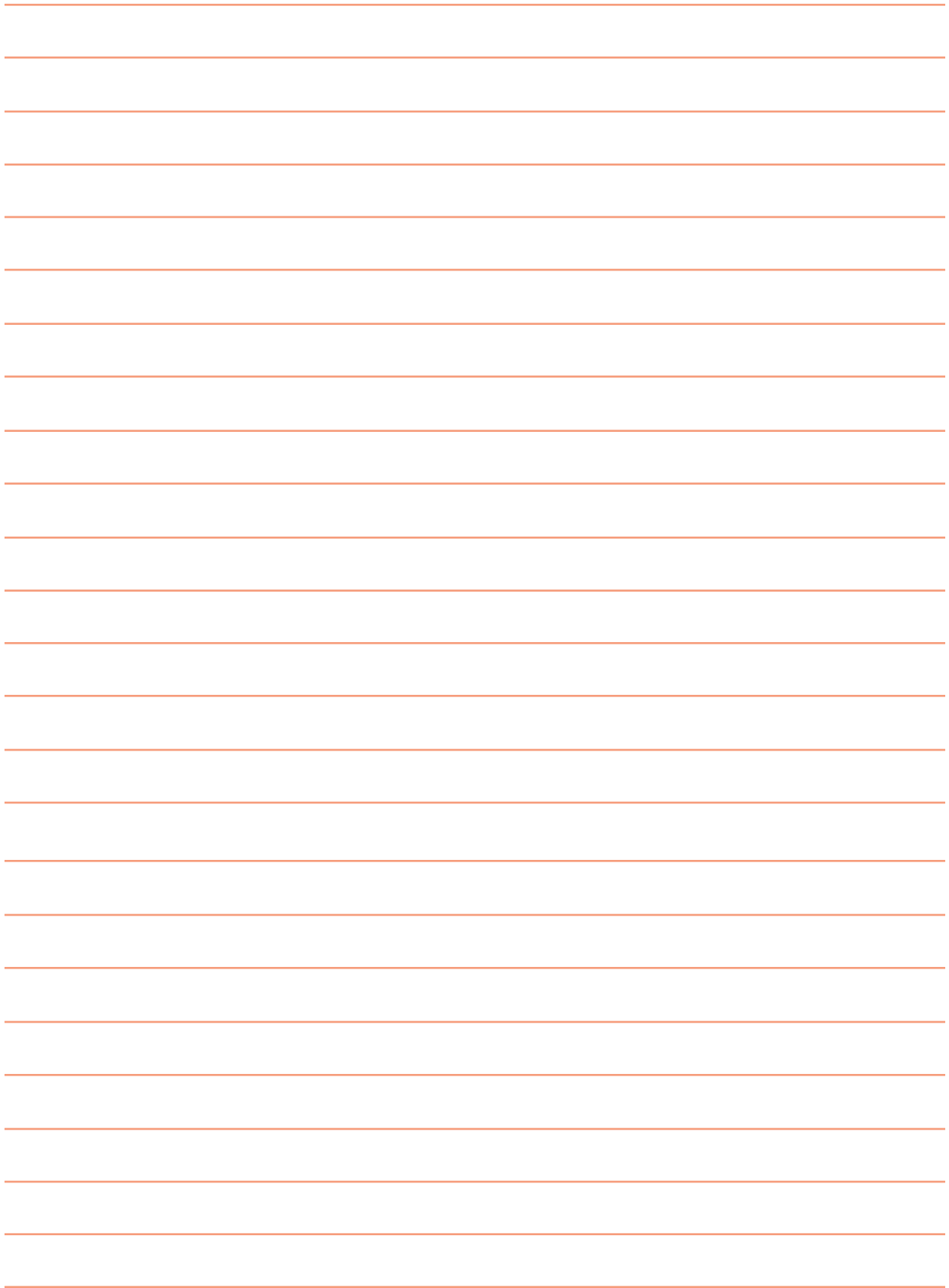
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Cost and Affordability of a Nutritious Diet in Nova Scotia

Report of 2007 Food Costing

