

The Cost of Healthy Eating in Saskatchewan

What is the situation in Saskatchewan?

Healthy eating is central to a healthy life. A nutritious diet is the foundation of healthy growth and development of infants, children and youth; and is linked to reduced risks of many diseases such as type 2 diabetes, heart disease, certain cancers, osteoporosis and bowel diseases.

One barrier to healthy eating is not having sufficient income to purchase nutritious foods. Food affordability is one piece of the food security puzzle. Food security is the “fundamental right of everyone to be free of hunger” and “it exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”¹

People, especially children, living in families with low income, are most vulnerable to the effects of food insecurity. These 2001 statistics help to illustrate the cause for concern in Saskatchewan:

- One in six (42,000) children live in poverty;² higher than the Canadian average.
- 16.8% of Canadians have had some food insecurity in the past 12 months.³
- Almost 50% of children in female lone parent families experience poverty.⁴
- 13,065 people visited a food bank within the last 12 months; an increase of 11% in the past five years.⁵
- 55.8% of food bank users received social assistance.⁶

¹ Agriculture and Agri-Food Canada. (1998). *Canada's Action Plan for Food Security*.

² Social Policy Research Unit, University of Regina. (2003). *Saskatchewan Child Poverty Report, (Based on LICO)*.

³ Statistics Canada. (2001). *Canadian Community Health Survey*.

⁴ Social Policy Research Unit, University of Regina. (2003). *Saskatchewan Child Poverty Report*.

⁵ Canadian Association of Food Banks. (2001). *Hunger Count*.

⁶ Canadian Association of Food Banks. (2003). *Hunger Count*.

Why calculate food costs?

Calculating food costs provides information to help examine the financial barriers some Saskatchewan residents face to purchasing healthy foods.

When was food costing conducted?

In June 2001, food costing was performed in a total of 71 stores throughout Saskatchewan. Locations included large and small cities, towns and villages as well as northern Saskatchewan communities. This report presents these survey results with recommendations for next steps.

Who was involved in the food costing?

The provincial food costing initiative was a partnership between the Public Health Nutritionists of Saskatchewan Working Group, the Regina Home Economics for Living Project (HELP) and Saskatoon Public Health Services – Population Health Surveillance Department Epidemiologist.

How are food costs calculated?

The Nutritious Food Basket is a food costing tool that measures the cost of healthy eating.⁷ It consists of a list of foods that are frequently purchased and make up a healthy diet based upon current nutrition recommendations such as *Canada's Food Guide to Healthy Eating*. This “food basket” includes 66 foods used to estimate a basic nutritious diet for individuals and families.



⁷ Ontario Ministry of Health. (1998). *Monitoring the Cost of A Nutritious Food Basket Protocol, Chronic Disease Prevention Program*.

What can food costing tell us?

Costing of a nutritious food basket can help:

- assess the affordability of a nutritious diet for individuals or families.
- assist health and social agencies to monitor the cost and affordability of a nutritious basket of food for people of all ages including pregnant and breastfeeding women.
- assist policy and decision makers to develop health, nutrition and social policies.
- provide an effective educational tool for budget planning.⁸

In 2001, how much did it cost to purchase a Nutritious Food Basket in Saskatchewan?

On average, it costs \$149.79 per week or \$648.57 per month to feed a family of four a nutritious diet in Saskatchewan (see Table 1). There is an additional cost if a woman is pregnant or breastfeeding (see Table 2).

Table 1: Average Weekly and Monthly Costs of a Nutritious Food Basket in Saskatchewan by Age and Gender, 2001

Age (years) and Gender		Cost per week	Cost per month
Child	1	\$17.43	\$75.48
	2-3	18.50	80.12
	4-6	24.67	106.80
Boy	7-9	29.64	128.36
	10-12	36.56	158.29
	13-15*	42.75	185.13
	16-18	49.53	214.47
Girl	7-9*	28.40	123.07
	10-12	33.61	145.53
	13-15	36.05	156.10
	16-18	34.24	148.28
Man	19-24	46.94	203.25
	25-49*	45.38	196.51
	50-74	41.03	177.67
	75+	37.09	160.59
Women	19-24	34.99	151.50
	25-49*	33.23	143.87
	50-74	32.55	140.96
	75+	31.59	136.78
Family of Four*		149.79	648.57

Source: H.E.L.P survey data, 2001

Cost per month uses a factor of 4.33 weeks/month.

*Family of Four includes two adults ages 25-49 and two children ages 7-15yrs.

Table 2: Average Weekly and Monthly Costs of a Nutritious Food Basket in Saskatchewan by Mother's Age and Stage of Pregnancy, 2001.

Mother's age (yrs)	Stage of Pregnancy	Cost per week	Cost per month
13-15	Trimester 1	\$39.52	\$171.14
	Trimester 2-3	41.64	180.29
	Breastfeeding	42.98	186.09
16-18	Trimester 1	39.32	170.28
	Trimester 2-3	42.21	182.75
	Breastfeeding	43.36	187.75
19-24	Trimester 1	38.43	166.38
	Trimester 2-3	40.95	177.32
	Breastfeeding	41.96	181.67
25-49	Trimester 1	36.76	159.18
	Trimester 2-3	39.04	169.03
	Breastfeeding	39.86	172.58

Source: H.E.L.P survey data, 2001

Cost per month uses a factor of 4.33 weeks/month

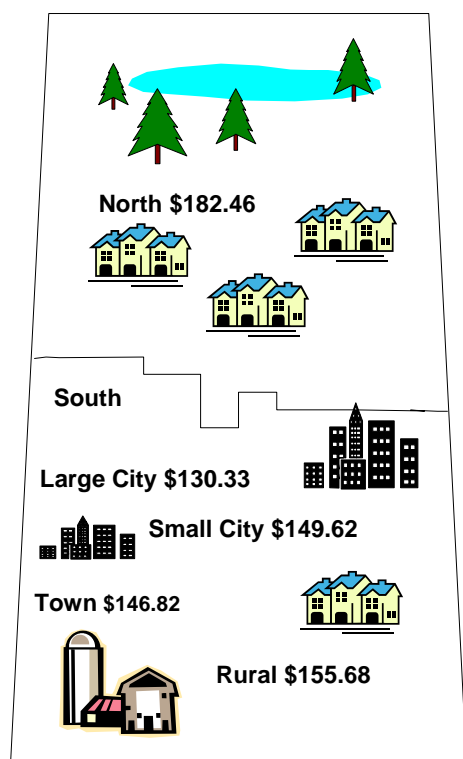


⁸ Health Canada. (1998). *National Nutritious Food Basket*.

Did geography affect food costs?

- *Figure 1* shows the marked difference in food costs by geography. The Northern part of the province (\$182.46) had the highest food costs followed by the rural areas (\$155.68). Large cities (\$130.33) had the lowest food costs.
- A study performed in the northern part of the province showed that there is also marked difference in food costs between various regions of the North.⁹
- See *Appendices 1 and 2* for additional information.

Figure 1: Average weekly costs of a Nutritious Food Basket for a “Family of Four” in Saskatchewan by Geography, 2001.



Large city includes: Regina and Saskatoon

Small City: >5000 population

Town: 500 – 5000 population

Rural (Village) : <500 population

North includes: Keewatin Yatthé and Mamawetan Churchill River Regional Health Authorities and Athabasca Health Authority

⁹ Irvine, Dr. James and Hendrickson, A. (2002). *The Cost of Healthy Store-Bought Foods in Various Locations in Northern Saskatchewan*. Keewatin Yatthé & Mamawetan Churchill River Regional Health Authority & the Athabasca Health Authority.

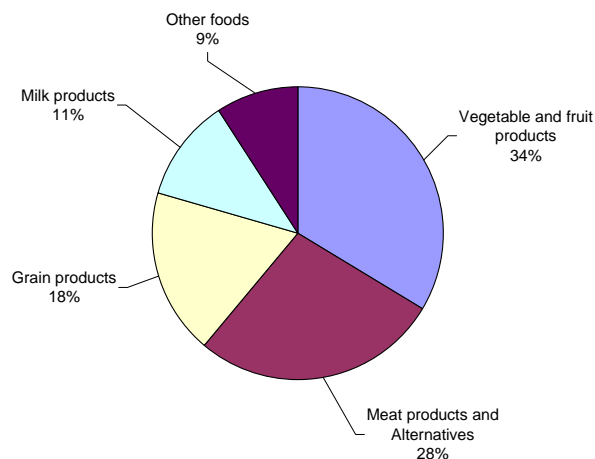
¹⁰ Dietitians of Canada. (2005). *Position of Dietitians of Canada, Individual and Household Food Insecurity in Canada*.

¹¹ Misskey, Eunice and Berenbaum, S. (2003). *Voices on Food Insecurity*. A Collaborative Research Project of the University of Saskatchewan and Regina Qu'Appelle Health Region.

How does limited access to sufficient nutritious food impact food choices and health?

Even though food is necessary for survival, consumers may view food as the most flexible portion of a budget when faced with budget shortfalls.¹⁰ Recent research indicates that in order to make ends meet, shoppers may choose items perceived as expensive (fruit, vegetables, and meat) less often.¹¹ This puts individuals at risk of inadequate nutrient intake given that 73% of the cost of the Nutritious Food Basket is made up of these items (see *Figure 2*).

Figure 2: Percent Cost Breakdown of the Nutritious Food Basket according to Canada's Food Guide to Healthy Eating Food Groups, Saskatchewan 2001.



Source data: H.E.L.P., 2001

“Other Foods” category includes fats & oils and a small amount of sugar and jam.

The trade-off between food quantity and quality as a coping strategy means while families may get enough food to avoid feeling hungry, they may also be poorly nourished because they cannot afford a consistently adequate diet that promotes health and averts obesity.¹² This inadequate low cost diet is very often composed of refined grains and added sugars or fats which carry high palatability. A diet based on these energy dense foods versus a prudent diet based on lean meats, fish, vegetables and fruit has been linked closely with obesity.¹³ Being overweight increases the chances of developing chronic illnesses such as heart disease and diabetes.¹⁴

¹² Centre on Hunger and Poverty and Food Research and Action Centre. (2003). *The Paradox of Hunger and Obesity in America*.

¹³ Drewnowski, A. and Specter, S.E. (2004). *Poverty and Obesity: The Role of Energy Density and Energy Costs*. *American Journal of Clinical Nutrition*, 79:6-16.

¹⁴ Health Canada. (2003). *Canadian Guidelines for Body Weight Classification in Adults*.

Limitations of the Nutritious Food Basket:

- The Nutritious Food Basket does not account for individual differences in activity levels, cultural food choices or special dietary needs.
- It measures low cost healthy foods and not pre-packaged convenience foods or restaurant foods. Therefore, if these convenience foods had been included the food costs would have been higher. (According to a 2001 food survey, Canadians spend \$0.30 of every designated food dollar on restaurant meals.¹⁵ This same survey found an increase in the use of convenience foods.)
- It does not account for other barriers to food; such as transportation, knowledge and food storage.

Although there are limitations to this tool, the purpose of the Nutritious Food Basket tool is to provide a benchmark cost for **healthy** eating.

What are the next steps?

People tend to eat what they enjoy and what is easily available and affordable.

However, attaining accessible nutritious foods involves reducing economic, geographic, social and cultural barriers that limit healthy eating habits. This requires numerous strategies and partners from many sectors.¹⁶



The Public Health Nutritionists Working Group of Saskatchewan supports individual and collective action on a variety of levels to increase awareness of the outcome of this survey.

How can you become involved?

Develop Personal Skills

- Use the “Food Cost Calculator for Saskatchewan” (Insert) to help others estimate food costs for their own situation. Use the results individually for personal advocacy.

- Assist individuals in making economically and nutritiously sound food choices to expand their purchasing power.
- Provide education for families on a fixed income on how to make healthy choices on a limited budget such as baby food workshops, sessions on cooking and grocery shopping and canning and freezing foods.
- Develop lists of suggested foods that are nutritious and affordable to include in food hampers that are distributed by food banks. Share lists with food banks, grocery stores and community groups.

Create Supportive Environments

- Learn about and get involved in collective kitchens, good food box programs, or community gardens.
- Advocate for grocery stores to be situated in locations that are accessible to people with limited access to transportation.
- Increase access to healthy food choices in schools, recreational facilities and worksites.
- Offer point of purchase education to assist consumers to make the most economical and nutritious food choices.
- Decide to purchase local foods when available and encourage local institutions to do likewise. Buying local boosts the local economy.
- Support breastfeeding by creating environments that allow mothers to feed their infants in comfort at work or in the community.
- Support cooperative and low cost housing projects.

Strengthen Community Action

- Educate yourself about poverty issues in your community. Connect with local poverty groups, social planning committees and local agencies that work with individuals on low incomes.
- Lobby government officials and community leaders to make policy changes that address food insecurity issues such as accessibility and affordability.

Build Healthy Public Policies

- Work with others to develop a food charter to direct community decision makers to take action
- Work towards fair income assistance rates and food security programs.
- Develop policies that promote, support and protect breastfeeding.

Resource: “Thought About Food –A Workbook on Food Security and Influencing Policy” @

www.foodthoughtful.ca

¹⁵ Statistics Canada. (2001). *Food Expenditure in Canada*.

¹⁶ Saskatchewan Health. (2004). *A Population Health Promotion Strategy for Saskatchewan-Healthier Places to Live, Work and Play*.

For More Information

Contact your local Public Health Nutritionist or the report authors.

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*On behalf of the Public Health Nutritionists of Saskatchewan,
we gratefully acknowledge the project partnership of HELP.
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Appendix 1: Average Weekly and Monthly Food Costs of a Nutritious Food Basket in Saskatchewan by Age, Gender and Geography, 2001

Age (Years)		Weekly Costs, South	Monthly Costs, South	Weekly Costs, North	Monthly Costs, North	Weekly Costs, Saskatchewan
Child	1	\$16.58	\$71.79	\$21.61	\$93.55	\$17.43
	2 to 3	17.68	76.55	22.87	99.04	18.50
	4 to 6	23.56	102.01	30.47	131.94	24.67
Boy	7 to 9	28.58	123.74	36.40	157.61	29.64
	10 to 12	35.29	152.79	44.80	193.98	36.56
	13 to 15*	41.38	179.17	52.30	226.45	42.75
	16 to 18	48.43	209.72	60.13	260.36	49.53
Girl	7 to 9*	27.36	118.45	34.86	150.94	28.42
	10 to 12	32.21	139.49	41.36	179.08	33.61
	13 to 15	34.66	150.07	44.30	191.81	36.05
	16 to 18	33.20	143.74	41.78	180.92	34.24
Men	19 to 24	46.07	199.48	56.76	245.77	46.94
	25 to 49*	44.58	193.04	54.86	237.55	45.38
	50 to 74	40.26	174.34	49.63	214.88	41.03
	75 +	36.31	157.22	44.89	194.39	37.09
Woman	19 to 24	33.99	147.18	42.64	184.63	34.99
	25 to 49*	32.29	139.83	40.44	175.13	33.23
	50 to 74	31.65	137.05	39.61	171.52	32.55
	75+	30.72	133.04	38.44	166.45	31.59
Family of Four*		145.61	630.49	182.46	790.06	149.79

- *Family of Four includes two adults ages 25-49 years and two children ages 7-15 years.
- Monthly costs were calculated using a factor of 4.33 weeks/month.
- Weekly and monthly values for stores surveyed across Saskatchewan and South and North regions are based on averages.
- The South includes large and small cities, towns and rural (villages) (see Figure 1).
- The North includes the regions: Keewatin Yatthé and Mamawetan Churchill River Regional Health Authorities and Athabasca Health Authority.

Appendix 1: Average Weekly and Monthly Food Costs by Age, Gender and Geography, 2001 continued

Age (Years)		Monthly Costs, Saskatchewan	Weekly Costs, Rural (Village)	Weekly Costs, Town	Weekly Costs, Small City	Weekly Costs, Large City
Child	1	\$75.48	\$17.45	\$16.89	\$16.79	\$15.19
	2 to 3	80.12	18.78	18.02	17.88	16.04
	4 to 6	106.80	25.08	24.04	23.73	21.38
Boy	7 to 9	128.36	30.73	29.04	28.93	25.61
	10 to 12	158.29	37.71	35.77	35.94	31.73
	13 to 15*	185.13	44.14	41.81	42.32	37.24
	16 to 18	214.47	51.82	48.69	50.12	43.10
Girl	7 to 9*	123.07	29.23	27.77	27.74	24.69
	10 to 12	154.53	34.25	32.74	32.63	29.24
	13 to 15	156.10	37.03	35.16	35.11	31.34
	16 to 18	148.28	35.57	33.55	33.93	29.73
Man	19 to 24	203.25	49.35	46.26	47.85	40.82
	25 to 49*	196.51	47.73	44.70	46.41	39.49
	50 to 74	177.67	43.06	40.35	41.90	35.74
	75+	160.59	38.83	36.41	37.65	32.34
Woman	19 to 24	151.50	36.40	34.30	34.87	30.39
	25 to 49*	143.87	34.57	32.54	33.14	28.93
	50 to 74	140.96	33.84	31.87	32.53	28.36
	75+	136.78	32.83	30.93	31.64	27.51
Family of Four*		648.57	155.68	146.82	149.62	130.33

- **Family of Four includes two adults ages 25-49 years and two children ages 7-15 years.*
- *Monthly costs were calculated using a factor of 4.33 weeks/month.*
- *Weekly and monthly values for stores surveyed across Saskatchewan and South and North regions are based on averages*
- *The South includes large and small cities, towns and rural (villages) (see Figure 1).*
- *The North includes the regions: Keewatin Yatthé and Mamawetan Churchill River Regional Health Authorities and Athabasca Health Authority.*

Appendix 2: Average Weekly and Monthly Costs during Pregnancy and Breastfeeding by Mothers' Age, Stage of Pregnancy and Geography, 2001

Mother's age (yrs)	Stage of Pregnancy	Weekly Costs, South	Monthly Costs, South	Weekly Costs, North	Monthly Costs, North	Weekly Costs, Saskatchewan
13 – 15	Trimester 1	\$37.89	\$164.07	\$48.69	\$210.82	\$39.52
	Trimester 2-3	39.93	172.88	51.28	222.03	41.64
	Breastfeeding	41.21	178.45	52.94	229.25	42.98
16 – 18	Trimester 1	37.98	164.44	48.16	208.53	39.32
	Trimester 2-3	40.68	176.15	51.80	224.29	42.21
	Breastfeeding	41.78	180.92	53.23	230.48	43.36
19 – 24	Trimester 1	37.03	160.35	47.13	204.06	38.43
	Trimester 2-3	39.53	171.18	50.20	217.38	40.95
	Breastfeeding	40.49	175.33	51.45	222.76	41.96
25 – 49	Trimester 1	35.43	153.40	45.07	195.16	36.76
	Trimester 2-3	37.61	162.86	47.90	207.42	39.04
	Breastfeeding	38.39	166.24	48.92	211.80	39.86

Mother's age (yrs)	Stage of Pregnancy	Monthly Costs, Saskatchewan	Weekly Costs, Rural (Village)	Weekly Costs, Town	Weekly Costs, Small City	Weekly Costs, Large City
13 – 15	Trimester 1	\$171.14	\$40.27	\$38.38	\$38.39	\$34.52
	Trimester 2-3	180.29	42.40	40.43	40.49	36.39
	Breastfeeding	186.09	43.86	41.76	41.71	37.52
16 – 18	Trimester 1	170.28	40.40	38.32	38.85	34.33
	Trimester 2-3	182.75	43.26	41.07	41.52	36.87
	Breastfeeding	187.75	44.49	42.22	42.58	37.84
19 – 24	Trimester 1	166.38	39.42	37.42	37.75	33.54
	Trimester 2-3	177.32	42.17	39.91	40.33	35.73
	Breastfeeding	181.67	43.24	40.91	41.25	36.58
25 – 49	Trimester 1	159.18	37.73	35.79	36.11	32.09
	Trimester 2-3	169.03	40.05	37.99	38.33	34.07
	Breastfeeding	172.58	40.91	38.81	39.08	34.76

- Monthly costs were calculated using a factor of 4.33 weeks/month.
- Weekly and monthly values for stores surveyed across Saskatchewan and South and North regions are based on averages.
- The South includes large and small cities, towns and rural (villages) (see Figure 1).
- The North includes the regions: Keewatin Yatthé and Mamawetan Churchill River Regional Health Authorities and Athabasca Health Authority.

Food Cost Calculator for Saskatchewan

(Based on The Cost of Healthy Eating in Saskatchewan report)

We all know that it costs money to eat. But how much does it cost to eat well? This calculator will help you estimate how much it would cost to feed your family healthy meals for a week or a month.

To calculate food costs in Saskatchewan, the “Nutritious Food Basket” is used. The Nutritious Food Basket contains 66 foods that are tasty, economical and nutritious. Using these foods, you could meet the recommendations of *Canada’s Food Guide to Healthy Eating*. In 2001, the prices of these foods were collected in many stores throughout Saskatchewan. Though it may not be exactly how your family would eat, it does provide a minimum amount that it would cost to eat well in Saskatchewan.

To calculate the price of a nutritious food basket for an individual, family or group use the following steps and record the results in Table #1.

Step 1: On *Table #1*, write down the age and gender of all the people you are feeding.

Step 2: Refer to *Table #2*, to find the cost of feeding each person, per week. (Pregnant or breastfeeding mothers use *Table #3*.) Record these amounts on *Table 1 – Step 2*.

Step 3: Add these costs together to find your subtotal.

Step 4: It costs a little more to feed a small group of people and less to feed a large group. Use the following adjustment factors for household size:

- 1 person – multiply by 1.15
- 2 people – multiply by 1.10
- 3 people – multiply by 1.05
- 4 people – make no change
- 5 people – multiply by 0.95
- 6+ people – multiply by 0.90

Step 5: To determine the cost per month, multiply by 4.33.

Table #1 Your household			
Step 1	Age (years)	Gender	Step 2 Cost per Week (\$)
Step 3 Weekly Food Cost Subtotal =			
Step 4 Multiply your subtotal by the adjustment factor ____ (as shown above in Step 4) Calculate your Total Weekly Food Costs =			
Step 5 Multiply your Total Weekly Food Cost from Step 4 by 4.33 Calculate your Total Monthly Food Costs =			

Table #2: Weekly Cost of the Nutritious Food Basket in Saskatchewan (June, 2001)

Age and Gender		Cost per week
Child	1	\$17.43
	2 – 3	18.50
	4 - 6	24.67
Boy	7 – 9	29.64
	10 – 12	36.56
	13 – 15	42.75
	16 – 18	49.53
Girl	7 – 9	28.42
	10 – 12	33.61
	13 – 15	36.05
	16 - 18	34.24
Man	19 – 24	46.94
	25 – 49	45.38
	50 – 74	41.03
	75+	37.09
Woman	19 – 24	34.99
	25 – 49	33.23
	50 – 74	32.55
	75+	31.59

Table #3: Weekly Cost of Nutritious Food Basket for Pregnant or Breastfeeding Women in Saskatchewan (June, 2001)

Mother's age (yrs)	Sate of Pregnancy	Cost per week
13 - 15	Trimester 1	\$39.52
	Trimester 2,3	41.64
	Breastfeeding	42.98
16 - 18	Trimester 1	39.32
	Trimester 2,3	42.21
	Breastfeeding	43.36
19 - 24	Trimester 1	38.43
	Trimester 2,3	40.95
	Breastfeeding	41.96
25 - 49	Trimester 1	36.76
	Trimester 2,3	39.04
	Breastfeeding	39.86

Questions and Answers:

- 1. Does my monthly food basket cost include everything that I would buy from a grocery store in one month?**

No - the basket does not include higher-priced convenience foods. Non-food items such as cleaning supplies, toilet paper and personal hygiene items are not included.

- 2. If I follow a special diet; do these food costs apply to me?**

It depends on the restrictions of the special diet. Your public health nutritionist or dietitian can help you figure out if you would expect extra costs.

- 3. What if I eat out a lot?**

The Nutritious Food Basket doesn't include restaurant foods. Eating out would add extra cost to your monthly food bill.

- 4. Why are the costs less for women than for men?**

Women are generally smaller than men are and so need less food to meet their energy and nutrient needs. Breastfeeding and pregnant women will have greater needs to help their baby grow or to produce milk.

You may also be surprised at the cost of feeding children and teens. They need a higher quantity of food to support their growth and development.