
TO: Chair and members of the Board of Health

MEETING DATE: November 1, 2017

REPORT NO: **BH.01.NOV0117.R29** Pages: 11

PREPARED BY: Lisa Needham, Public Health Nutritionist

APPROVED BY: Rita Sethi, Director, Community Health and Wellness

Original signed document on file

SUBMITTED BY: Dr. Nicola J. Mercer, MD, MBA, MPH, FRCPC
Medical Officer of Health & CEO

Recommendations

It is recommended that:

1. **The Board of Health share the Wellington-Dufferin-Guelph Nutritious Food Basket (NFB) survey results with the following to increase community awareness of the cost of healthy eating:**
 - consumers through the Public Health website and other media; and
 - local health and social service groups and officials.
2. **The Board of Health forward this report to the Association of Local Public Health Agencies and the Ontario Public Health Association who advocate for those who are food insecure.**

Key Points

- This report provides information on the cost of a Nutritious Food Basket (NFB) in Wellington, Dufferin and Guelph (WDG) for 2017. The NFB is a tool that estimates the basic cost for an individual or household to eat healthy. In 2017, the cost of the NFB in WDG for a reference family (a man and woman each aged 31 to 50 years; a boy, 14 to 18 years of age; and a girl, four to eight years old) is \$211.83 per week.
- In 2017, food costs have remained stable since 2016. Local data shows that since 2009 when the new nutritious food basket protocol was implemented, there has been a 27% increase in the cost of food over an eight year period.

- This report demonstrates that individuals and families with low incomes do not have enough money to pay for their basic needs, including shelter and healthy food (Appendix “A”).
- Food insecurity is a serious public health concern because of its relationship with poor nutrition and negative physical and mental health effects among both adults and children.
- This report highlights the need for Public Health to increase community knowledge on the root causes of food insecurity and to continue to advocate for adequate incomes for families and individuals that allow them to buy nutritious food.

Discussion

The Ontario Public Health Standards, 2008, requires Boards of Health to monitor food affordability in accordance with the Nutritious Food Basket (NFB) guidance document.¹ The NFB is a survey tool that is a measure of the cost of basic healthy eating that represents current nutrition recommendations and average food purchasing patterns. This measure relates the cost of the food basket to the individual and family income to assess food availability and accessibility.

When housing costs and other basic living expenses are considered, many individuals and families with a limited income do not have adequate funds to purchase nutritious food on a consistent basis. In the Canadian context, food Insecurity is defined as the inability of individuals and households to access adequate food because of financial constraints.^{2,3}

Food insecurity is associated with inadequate intake of key nutrients as well as a variety of negative physical and mental health outcomes in adults and children.⁴ Individuals who are food insecure are more likely to have other lifestyle-related risk factors and chronic diseases.^{5,6,7,8} For example, women from marginal and low food security households, are more likely to be overweight and experience weight gain.⁴ Furthermore, research has found that individuals who experience household food insecurity are more likely to report distress and depression, as well as poor social support.⁹ Another study found that suicidal ideation was significantly associated with moderate and severe food insecurity.¹⁰

Food insecurity has an impact on parenting and child health and development outcomes.¹¹ Specifically, parents who experience household food insecurity are more likely to exhibit less positive parenting practices than other adults. When positive parenting practices are compromised, decisions regarding infant feeding practices, food choices, and food habits are also compromised. Ultimately, these parenting and infant feeding practices influence healthy weights in children.¹¹ Food insecurity has also been linked to developmental consequences in girls and boys. Girls who were food insecure were associated with impaired social skills development and reading performance.¹²

It is also important to highlight the challenges and barriers that individuals identify when attempting to access food assistance programs in Wellington and Guelph. These included emotional distress while seeking out food from a food bank, feelings of stigmatization while accessing services and difficulty accessing information about food assistance programs.¹³

Analysis/Rationale

The NFB survey was conducted in May 2017 by a WDGPH Public Health Nutritionist. Food pricing in seven grocery stores including chain and independent stores across WDG was assessed, as instructed in the updated 2014 Nutritious Food Basket Protocol.

A total of seven different case scenarios were created to compare income and expenses for the purchase of food and rental housing for families and individuals in a variety of settings (Appendix A). The cost of housing is the largest expense for most low income residents. Housing is considered affordable if it costs less than 30% of household income.¹⁴ Six out of the seven scenarios in Appendix A demonstrate that the percentage of income spent on rent is much higher than 30%. In fact, rent ranged from 36 to 93% of income. For a single person on Ontario Works (OW), 93% of their income may go to rent leaving insufficient money (7% of income) left over to purchase food and cover other basic expenses. A single person on OW would require an extra 39% of their income to afford healthy food, excluding other basic living expenses. Local data indicates that the average number of monthly Ontario Works cases has increased in Wellington-Dufferin Guelph from 2008 to 2016.¹⁵

From 2008 to 2015, there was a 76% increase in the number of individuals served in food banks in WDG region.¹⁶ There are 38 agencies providing some type of emergency food service within our region and many of them are not members of the Ontario Association of Food Banks (OAFB).¹⁷ As a result, it is difficult to provide an accurate picture of emergency food service usage and trends. Despite these limitations, it is important to highlight that this is a large number of agencies (38) providing some type of emergency food service in an attempt to meet local needs in Wellington-Dufferin-Guelph.¹⁷

To complement local measures of the Nutritious Food Basket, the Canadian Community Health Survey collects data on food insecurity. This measure captures households that have inadequate access to food due to financial constraints.¹⁸ Food insecurity is measured at marginal, moderate, and severe levels. From 2012 to 2014, approximately 14% of households in Wellington-Dufferin-Guelph experienced food insecurity (5% marginal, 6% moderate and 3% severe).¹⁸ In comparison, Ontario's household food insecurity rate from 2012 to 2014 was 12.1% (3.5% marginal food security, 5.8% moderate food insecurity, 2.8% severe food insecurity).¹⁸

It is important that strategies to address food insecurity go beyond food-based programs to consider the root causes. Income has been found to be the strongest predictor of household food insecurity. Specifically, research that examines household food insecurity in Canada demonstrates that "the probability of food insecurity rises as household income declines."^{19,20,21} As a result, local, provincial and federal governments should continue to address food insecurity with a focus on strategies that improve household income and the broader social determinants of health.^{2,20,21}

Conclusion

Food insecurity is an important public health issue as there are numerous impacts on physical, mental and social health. The root cause of food insecurity is poverty. Charitable food programs have been the traditional response to food insecurity. These support services do not address the root issue of the financial constraints to access food. A shift to strategies that improve the

incomes of families and individuals must occur in order to make a long-term impact on food insecurity. The findings presented in this report highlight the need for Public Health to continue to work collaboratively with local and provincial advocacy groups such as the Guelph and Wellington Task Force for Poverty Elimination (Poverty Task Force), the Ontario Society of Nutrition Professionals in Public Health's Food Security Work Group and Headwaters Food and Farming Alliance (Appendix "B").

Ontario Public Health Standard

Chronic Disease #1. The board of health shall conduct epidemiological analysis of surveillance data, including monitoring of trends over time, emerging trends, and priority populations, in accordance with the Population Health Assessment and Surveillance Protocol, 2008 (or as current), in the areas of healthy eating.

Chronic Disease #2. The board of health shall monitor food affordability in accordance with the Nutritious Food Basket Protocol, 2008 (or as current) and the Population Health Assessment and Surveillance Protocol, 2008 (or as current).

Chronic Disease #7. The board of health shall increase the capacity of community partners to coordinate and develop regional/local programs and services related to healthy eating, including community-based food activities.

Chronic Disease #11: The BOH shall increase public awareness in the area of healthy eating.

Chronic Disease #12. The board of health shall provide advice and information to link people to community programs and services in the area of healthy eating

WDGPH Strategic Direction(s)

Health Equity: We will provide programs and services that integrate health equity principles to reduce or eliminate health differences between population groups.

Organizational Capacity: We will improve our capacity to effectively deliver public health programs and services.

Service Centred Approach: We are committed to providing excellent service to anyone interacting with WDG Public Health.

Building Healthy Communities: We will work with communities to support the health and well-being of everyone.

Health Equity

Income is one of the most influential social determinants of health. The root issue of food insecurity is a lack of financial resources to buy food. As previously discussed, food insecurity contributes to health inequities. Individuals in food insufficient households are more likely to report poor general health, adverse mental health outcomes, and multiple chronic conditions, including more heart disease, diabetes, and high blood pressure.^{9,22}

Furthermore, food insecurity can create inequities because food insecure households do not have the same opportunity over their personal food purchases. These households are often dependent on services that supply charitable food. There are also barriers when accessing these services including limited options for religious, nutritional or health –related dietary needs.²³

References

1. Ontario. Ministry of Health Promotion. Nutritious food basket guidance document [Internet]. 2010:1-49. [cited 13 August 2015]. Available from: <http://www.mhp.gov.on.ca/en/healthy-communities/public-health/guidance-docs/NutritiousFoodBasket.PDF>
2. Tarasuk V. Implications of a basic income guarantee for household food insecurity. Research Paper no. 24. Thunder Bay: Northern Policy Institute. 2017 June.
3. Tarasuk V, Mitchell A, Dachner N. Household food insecurity in Canada 2012. Toronto: Research to identify policy options to reduce food insecurity (PROOF). Available from: http://proof.utoronto.ca/wpcontent/uploads/2014/05/Household_Food_Insecurity_in_Canada-2012_ENG.pdf
4. Holben D. Position of the American Dietetic Association: food insecurity in the United States. *J Am Diet Assoc.* 2010 Sep;110(9):1368-77.
5. Kirkpatrick S. Food insecurity is associated with nutrient inadequacies among Canadian adults and adolescents. *J Nutr.* 2010;138:604-612.
6. Vogt J, Tarasuk V. Analysis of the Ontario sample in cycle 2.2 of the Canadian community health survey, 2004. [Internet]. 2007 [cited 13 August 2015]. Available from: <http://www.phred-redsp.on.ca/>
7. Eicher-Miller H, Mason A, Weaver C, McCabe G, Boushey C. Food insecurity is associated with diet and bone mass disparities in early adolescent males but not females in the United States. *J. Nutr.* 2011;141(9):1738-1745.
8. Gregory CA, Coleman-Jensen A. Food insecurity, chronic disease, and health among working-age adults, ERR-235. United States Department of Agriculture, Economic Research Service: 2017.
9. Vozoris N, Tarasuk V. Household food insufficiency is associated with poorer health. *J Nutr.* 2003;133:120-126.
10. Davison K, Marshall-Gabien G, Tecson A. Association of moderate and severe food insecurity with suicidal ideation in adults: national survey data from three Canadian provinces. *Soc Psychiatr Epidemiol.* 2015;60(6):963-972.

11. Bronte-Tinkew J, Zaslow M, Capps R, Horowitz A, McNamara M. Food insecurity works through depression, parenting, and infant feeding to influence overweight and health in toddlers. *J. Nutr.* 2007;137(9):2160-2165.
12. Jyoti D, Frongillo E, Jones S. Food insecurity affects school children's academic performance, weight gain, and social skills. *J. Nutr.* 2005;135:2831-2839.
13. Institute for Community Engaged Scholarship (ICES). The community researcher project: exploring economic hardship in Guelph and Wellington [Internet]. 2010 [cited 13 August 2015]. Available from: <http://www.theresearchshop.ca/sites/default/files/The%20Community%20Researcher%20Project.pdf>
14. Canadian Mortgage and Housing Corporation. About affordable housing in Canada. [Internet]. 2015 [cited 17 July 2015]. Available from: http://www.cmhc-schl.gc.ca/en/inpr/afhoce/afhoce_021.cfm
15. County of Wellington. 2016 Ontario Works caseload profile: A demographic analysis of the County of Wellington's Ontario Works caseload. 2016.
16. Food Banks Canada Hunger Count Survey 2008 to 2015, Adult and Child Breakdown for Wellington and Dufferin Counties. [2016]. Available from Larose A. Message to: Lisa Needham. 2016 March 17. [cited 2016 August 26].
17. Guelph & Wellington Task Force for Poverty Elimination. Guelph-Wellington-Dufferin food access guide [Internet]. 2013 [cited 13 August 2015]. Available from: <http://gwpoverty.ca/wp-content/uploads/2013/12/Food-Access-Guide-2013-Updated-July-2013>.
18. Statistics Canada. Canadian Community Health Survey 2012-2014. Share File.
19. Tarasuk V, Mitchell A, Dashner N. Household food insecurity in Canada [Internet]. 2014 [cited 22 July 2016]. Available from: <http://proof.utoronto.ca/wp-content/uploads/2016/04/Household-Food-Insecurity-in-Canada-2014.pdf>
20. Kirkpatrick S, Tarasuk V. Adequacy of food spending is related to housing expenditures among lower-income Canadian households. *Public Health Nutr.* 2007;10(12):1664-1473.
21. Kirkpatrick S, Tarasuk V. Assessing the relevance of neighbourhood characteristics to the household food security of low-income families. *Public Health Nutr.* 2010;13(7):1139-1148.
22. Jessiman-Perreault G, McIntyre L. The household food insecurity gradient and potential reductions in adverse mental health outcomes in Canadian adults. *J SSM-Population Health.* 2017;464-472.
23. Ontario Society of Nutrition Professionals in Public Health (OSNPPH). Position Statement on responses to food Insecurity [Internet]. 2016 [cited 26 August 2016]. Available from: <https://www.osnpnh.on.ca/>

Appendices

Appendix "A" - May 2017 – Nutritious Food Basket Income Scenarios

Appendix "B" - Wellington-Dufferin-Guelph Nutritious Food Basket Infographic

Appendix “A”

May 2017 - Nutritious Food Basket Scenarios ^a

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
	Family of Four, Ontario Works	Family of Four, Full-Time Minimum Wage Earner ^m	Family of Four, Median Income (after tax) ⁿ	Single Parent Household with 2 Children, Ontario Works	One Person Household, Ontario Works	One Person Household, Ontario Disability Support Program	One Person Household, Old Age Security/ Guaranteed Income Supplement
Monthly Calculations							
Income							
Income from Employment		\$ 1,976.00	\$ 7,992.00				
Basic Allowance ^b	\$ 476.00			\$ 347.00	\$ 330.00	\$ 649.00	
Maximum Shelter Allowance ^b	\$ 729.00			\$ 672.00	\$ 376.00	\$ 479.00	
Old Age Security/Guaranteed Income Supplement ^c							\$ 1,443.00
Ontario Guaranteed Annual Income System ^d							\$ 83.00
Canada Child Benefit ^e	\$ 1,126.00	\$ 1,115.00	\$ 387.00	\$ 1,126.00			
GST/HST credit ^f	\$ 70.00	\$ 70.00		\$ 70.00	\$ 23.00	\$ 31.00	\$ 35.00
Ontario Trillium Benefit ^g	\$ 148.00	\$ 148.00		\$ 119.00	\$ 65.00	\$ 67.00	\$ 102.00
Working Income Tax Benefit ^h		\$ 74.00					

Employment Insurance paid		\$ (32.00)	\$ (123.00)				
Canada Pension Plan paid		\$ (83.00)	\$ (360.00)				
Total Income	\$ 2,549.00	\$ 3,268.00	\$ 7,896.00	\$ 2,334.00	\$ 794.00	\$ 1,226.00	\$ 1,663.00
Selected Expenses							
	(3 Bdr.)	(3 Bdr.)	(3 Bdr.)	(2 Bdr.)	(Bachelor)	(1 Bdr.) o	(1 Bdr.)
Average Monthly Rent (may or may not include heat/hydro) k	\$ 1,172.00	\$ 1,172.00	\$ 1,172.00	\$ 1,078.00	\$ 735.00	\$ 952.00	\$ 952.00
Food l	\$ 917.22	\$ 917.22	\$ 917.22	\$ 693.02	\$ 308.59	\$ 308.59	\$ 223.89
Total Selected Expenses	\$ 2,089.22	\$ 2,089.22	\$ 2,089.22	\$ 1,771.02	\$ 1,043.59	\$ 1,260.59	\$ 1,175.89
Funds Remaining (for other basic needs e.g. telephone, transportation, child care, household and personal care items, clothing, school supplies etc.)	\$ 459.78	\$ 1,178.78	\$ 5,806.78	\$ 562.98	\$ (249.59)	\$ (34.59)	\$ 487.11
Percentage of income required for rent	46%	36%	15%	46%	93%	78%	57%
Percentage of income required to purchase healthy food	36%	28%	12%	30%	39%	25%	13%

Note: All dollars rounded to nearest whole number.

Scenario References:

Scenario 1 - 2 adults (male and female ages 31-50), 2 children (girl age 8, boy age 14); Ontario Works (OW).

Scenario 2 - 2 adults (male and female ages 31-50), 2 children (girl age 8, boy age 14); income is based on one minimum wage earner, 40hr/wk, \$11.40/hr (minimum wage in May 2017).

Scenario 3 - 2 adults (male and female ages 31-50), 2 children (girl age 8, boy age 14).

NOTE: Income from employment is based on median after-tax income- couples with children; however, EI and CPP contributions are calculated using median total income- couples with children. Assumption of a dual income family with a split of 65% / 35% between partners.

Scenario 4 - 1 adult (female age 31-50), 2 children (girl age 8, boy age 14); Ontario Works.

Scenario 5 - 1 adult (male age 31-50); Ontario Works.

Scenario 6 - 1 adult (male age 31-50); Ontario Disability Support Program (ODSP).

Scenario 7 - 1 adult (female age 70+); income based on Old Age Security and Guaranteed Income Supplement (OAS/GIS).

a- Due to the Northern Ontario Energy Credit portion of the Ontario Trillium Benefit (OTB), this worksheet is applicable for Ontario excluding the districts of Algoma, Cochrane, Kenora, Manitoulin, Nipissing, Parry Sound, Rainy River, Sudbury (including the City of Greater Sudbury), Thunder Bay, and Timiskaming.

b - Basic and maximum shelter allowance. OW rates effective October 2016 and Ontario Disability Support Payment (ODSP) rates effective September 2016. Source: Social Assistance, Pension and Tax Credit Rates April to June 2017, Ministry of Community and Social Services http://www.communitylegalcentre.ca/legal_information/Tips/IM/SA-pension-rate-Apr-Jun-2017.pdf (accessed July 11, 2017).

c - Old Age Security and Guaranteed Income Supplement (OAS/GIS) rates. Source: Social Assistance, Pension and Tax Credit Rates April to June 2017, Ministry of Community and Social Services. http://www.communitylegalcentre.ca/legal_information/Tips/IM/SA-pension-rate-Apr-Jun-2017.pdf (accessed July 11, 2017).

d - Ontario Guaranteed Annual Income System (GAINS) rates. Source: Social Assistance, Pension and Tax Credit Rates April to June 2017, Ministry of Community and Social Services. http://www.communitylegalcentre.ca/legal_information/Tips/IM/SA-pension-rate-Apr-Jun-2017.pdf (accessed July 11, 2017).

e - Canada Child Benefit (CCB) includes Basic monthly amount, National Child Benefit Supplement monthly amount, and Ontario Child Benefit monthly amount. Effective July 2016 to June 2017. <http://www.cra-arc.gc.ca/bnfts/clcltr/cfbc-eng.html> (accessed July 10, 2017).

f - Based on net annual income. GST/HST is issued on a quarterly basis, but calculated on a monthly basis. Figures derived from GST/HST and related provincial programs calculator. Effective July 2016 to June 2017. <http://www.cra-arc.gc.ca/bnfts/clcltr/cfbc-eng.html> (accessed July 10, 2017).

g - Ontario Trillium Benefit (OTB) includes Ontario Energy and Property Tax Credit, the Northern Ontario Energy Credit, and Ontario Sales Tax Credit. Based on average apartment rental rates for Ontario (see k) and net annual income. Benefit is issued on a monthly basis. Figures derived from Ontario Trillium Benefit and related provincial programs calculator. Effective July 2016 to June 2017. <http://www.cra-arc.gc.ca/bnfts/clcltr/cfbc-eng.html> (accessed July 10, 2017).

h - Reference: Working Income Tax Benefit Calculation Sheet. http://www.cra-arc.gc.ca/bnfts/wtb/cdn_clc_fm_17-eng.html base amounts for 2017 benefits found at <http://www.taxtips.ca/filing/witb/witb-2015.htm> (accessed July 14, 2017).

i - Reference: EI premium rates and maximums. <http://www.cra-arc.gc.ca/tx/bsnss/tpcs/pyrll/clcltng/ei/cnt-chrt-pf-eng.html> (accessed July 10, 2017).

j - Reference: CPP contribution rates, maximums and exemptions. <http://www.cra-arc.gc.ca/tx/bsnss/tpcs/pyrll/clcltng/cpp-rpc/cnt-chrt-pf-eng.html> (accessed July 10, 2017).

k - Rental costs calculations are from the Rental Market Report: Ontario Highlights. Canada Mortgage and Housing Corporation, Fall 2016. Some communities may need to add utility costs. <https://www03.cmhc-schl.gc.ca/catalog/productDetail.cfm?lang=en&cat=102&itm=1&fr=1472132413287> (accessed [INSERT DATE HERE]).

l - Reference: Nutritious Food Basket Data Results 2017 for [INSERT HEALTH UNIT NAME HERE] - Includes Family size adjustment factors.

m - Reference: Minimum wage. <http://www.labour.gov.on.ca/english/es/pubs/guide/minwage.php> (accessed July 10, 2017).

n - Source: Statistics Canada. Market income, government transfers, total income, income tax and after-tax income, by economic family type, Canada, provinces and selected census metropolitan areas (CMAs). <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=2060011&tabMode=dataTable&srchLan=-1&p1=-1&p2=9> (accessed July 10, 2017).

o- Housing for Scenario 6 was changed from a Bachelor apartment in 2010 to 1-bedroom in 2011. This change reflects a more accurate housing need for persons with a disability. This change will need to be recognized when attempting to compare year over year results.

For information purposes and internal use only.

Table adapted from Ministry of Health Promotion. (2010). Nutritious food basket guidance document. Retrieved from <http://www.mhp.gov.on.ca/en/healthy-communities/public-health/guidance-docs/NutritiousFoodBasket.PDF>

Excel document developed by the North Bay Parry Sound District Health Unit.


Updated for 2017 by the Sudbury & District Health Unit

Appendix “B”

Wellington-Dufferin-Guelph Nutritious Food Basket Infographic

Wellington-Dufferin-Guelph Nutritious Food Basket (NFB)

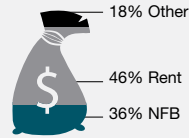
Boards of Health are required to monitor food affordability in accordance with the NFB guidance document. The NFB is a survey tool that is a measure of the basic cost to purchase healthy foods and is used to monitor food availability and accessibility by relating the cost of the food basket to the individual/family income.



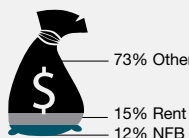
In 2017, the weekly cost of a Nutritious Food Basket in WDG for a family of four was **\$211.83** (monthly \$917.22)

Percentage of income required to purchase the NFB, and the percentage of income remaining for other basic needs:


Family of Four, Ontario Works



Family of Four, Median Ontario Income (after tax)




Income is one of the best predictors of health.




Limited income affects an individual's ability to purchase a sufficient amount of nutritious food to achieve positive health and quality of life.

FOOD INSECURITY = Inadequate access to food because of financial constraints


Health impacts of food insecurity




Inadequate intake of nutrients




Increase risk for various chronic diseases




Increased risk for negative pregnancy outcomes



Long-term deficits in children's socio-emotional, cognitive and motor functioning



Increase risk for negative mental health impacts (including depression, suicide, substance misuse, etc)



Total healthcare costs increase steadily with increased severity of household food insecurity

Barriers to emergency food access:

-  restrictive eligibility requirements
-  difficulty accessing information about food assistance programs
-  emotional distress having to seek out food from a food bank
-  feelings of stigmatization while accessing services
-  irregular hours to access services

How is WDG Public Health helping?

Collaborates

with community groups who are working to increase awareness and to take action in addressing the root issue of food insecurity.

