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Wellington-Dufferin-Guelph *in motion*

Physical Activity Survey Report

Findings for Children and Youth 5-17 Years of Age

June 2008

University of Guelph

&

Harry Cummings and Associates

Executive Summary

WDG *in motion* conducted a random sample telephone survey to explore the current physical activity levels of Wellington-Dufferin-Guelph residents. The survey was implemented and completed between April 16th and June 5th 2007 by trained interviewers from the University of Guelph using a standard survey instrument that was initially developed by *in motion* Saskatoon and adapted by Harry Cummings and Associates (HCA). Data was collected using a modified Microsoft ACCESS instrument and analyzed using SPSS. The surveyors phoned a total of 8,589 randomly selected households and of the 3,725 adult occupants (18 years of age or older) that were reached, 31% (1,159) completed the survey.

As part of the survey process, a total of 142 children (5 to 12 years of age) and 55 youth (13 to 17 years of age) also provided details on their physical activity. Although the sample of children and youth is too small to be representative of the population in each of the three areas and the study area as a whole, the survey results are an important resource for understanding the physical activity levels of the two age groups. The findings for the children and youth survey are the focus of this report.[1]

The results for children (ages 5 to 12 years) show that approximately 57% of the male respondents and 58% of the female respondents engaged in enough moderate or vigorous physical activity to achieve health benefits. With respect to youth (ages 13 to 17 years) the results show that approximately 58% of the male respondents and 45% of the female respondents engage in enough moderate or vigorous physical activity to achieve health benefits.

Some researchers argue that only moderate and vigorous activities produce health benefits. However, if you include all forms of physical activity; light, moderate and vigorous, analysis shows that 39% of male children and 44% of female children received health benefits while 44% of male youth and 43% of female youth received health benefits.

The most common/popular light physical activities among male and female children and youth are walking and playing outside while the most popular moderate physical activities among male and female children and youth are biking and playing outside. The most popular vigorous physical activities among male children and male youth are soccer and running. The most popular vigorous activities among female children are soccer and running while the most popular vigorous activities among female youth are hockey and running.

The survey results also indicate that vegetable and fruit consumption among male and female children and youth is low (i.e. less than 40% consuming 5 or more vegetables and fruit per day).

The current survey clearly illustrates the need to adopt community-based strategies to increase resident's physical activity levels and consumption of vegetables and fruits recommended by Canada's Physical Activity Guide and Canada's Food Guide. A more comprehensive survey of youth and children is needed to fully understand and plan for effective preventive measures.

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[1] For additional details on the findings for the adult population see the report *Wellington-Dufferin-Guelph* in motion *Physical Activity Survey Report - Findings for Adults 18 Years of Age and Over,* May 2008.

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1.0 Introduction

This report presents the results for the children and youth (5 to 17 years of age) surveyed in the ***in motion*** project in Wellington-Dufferin-Guelph (WDG) region. Children and youth were questioned about their physical activities in the last seven days. Children and youth having energy expenditure greater than or equal to 8 kilocalories per kilogram per day (KKD) are considered physically active and receiving health benefits. For reporting purposes, the results are presented for children 5-12 years of age and youth 13 to 17 years of age.

2.0 Methodology

Survey Design

The WDG ***in motion*** phone survey instrument was developed by HCA through a review of the original survey instrument used by Saskatchewan ***in motion*** and a slightly revised version of the instrument used by Manitoba ***in motion*** and discussions with Karen Armstrong (WDG ***in motion*** Coordinator) and Jim Bonk (Chief Executive Officer YMCA-YWCA of Guelph). A key interest of WDG ***in motion*** was to develop an instrument that would allow the WDG data to be compared with other ***in motion*** projects.

The survey instrument was designed to capture information on the physical activity levels of adults and children including the different types, frequency and duration of light, moderate and vigorous activities that they participated in.

Parents were asked to respond on behalf of children between the ages of 5 and 12 years. For youth between the ages of 13 and 17 the surveyor asked to speak directly with the child. If the child was unavailable or if the parent declined to allow the surveyor to speak to the child the parent was asked to respond on behalf of the child. The survey instrument was also designed to capture lifestyle/health practice data including smoking activity, fruit and vegetable consumption, and the use of recreation/fitness centres.

In the event a household had more than one child that fit the age criteria, the child with the next birthday was selected to participate in the survey. Only one child or youth was interviewed per household where applicable.[2]

Survey Sample Frame

The survey sample frame was developed based on the total number of private dwellings in each of the three areas. In order to obtain a 95% level of confidence within 5% (+/-) of the estimate in the results for the summary statistics for each of the three regions it was determined that a total of 381 surveys were required for the City of Guelph, 380 for Wellington County and 377 for Dufferin County.

It is important to note that the objective of the survey was to achieve a 95% level of confidence for the <u>adult population</u> only in each of the three areas. The objective for the children and youth population was

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[2] For additional details on the survey methodology and the findings for the adult population see the report *Wellington-Dufferin-Guelph* in motion *Physical Activity Survey Report - Findings for Adults 18 Years of Age and Over,* May 2008.

to complete as many surveys with children and youth (5 to 17 years of age) as possible during the adult survey process.

Survey Implementation

The survey was conducted between April 16 and June 5, 2007. In the process of surveying 1,159 adults across the three areas a total of 251 children and youth were interviewed of which 197 provided sufficient information to be included in the final analysis. As shown in Table 1, a total of 142 children (5 to 12 years of age) and 55 youth (13 to 17 years of age) provided details on their physical activity. The gender split for both age groups was 53% male and 47% female.

Table 1: Children and Youth Survey Respondents by Gender

Gender		Children 5 to 12 years	Youth 13 to 17 years
Male	#	75	29
	%	53%	53%
Female	#	67	26
	%	47%	47%
Total	#	142	55

Although the sample of children and youth is too small to be representative of the population in each of the three areas and the study area as a whole, the survey results are an important resource for understanding the physical activity levels of the two age groups.

For the purpose of this study, the children and youth data has been aggregated for all three areas to facilitate a more detailed and meaningful analysis of the data.

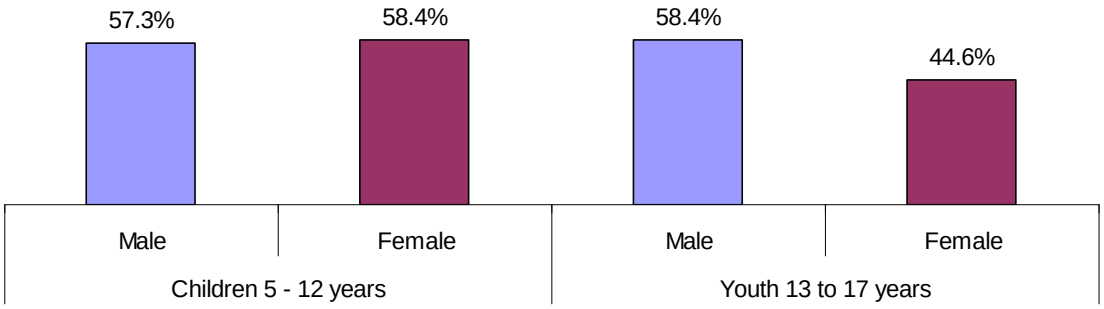
3.0 Physical Activity Overview

3.1 Kilocalories per Kilogram per Day (KKD)

Just over 57% of male children aged 5-12 and 58% of male youth aged 13-17 have energy expenditure greater than or equal to 8 KKD from light, moderate and vigorous physical activity. They therefore are considered to be meeting Canada's Physical Activity Guide recommendation of 60 minutes daily.

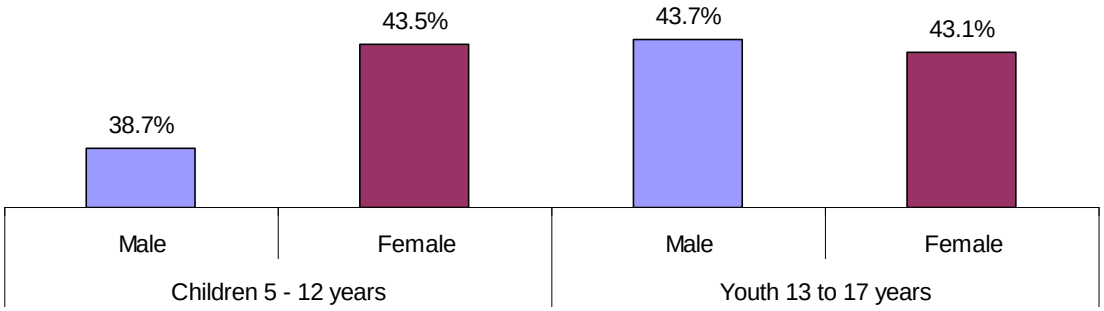
Approximately 58% of female children aged 5-12 years and 45% of female youth aged 13-17 have energy expenditure greater than or equal to 8 KKD from light, moderate and vigorous physical activity. They therefore are considered to be meeting Canada's Physical Activity Guide recommendation of 60 minutes daily (Chart 1).

Chart 1: Percent Meeting 8 KKD from Light, Moderate and Vigorous Physical Activity



If we focus only on moderate and vigorous activities the analysis reveals that close to 39% of male children and 44% of male youth have energy expenditure greater than or equal to 8 KKD. With respect to females, approximately 44% of female children and 43% of female youth have energy expenditure greater than or equal to 8 KKD from moderate and vigorous physical activity (Chart 2).

Chart 2: Percent Meeting 8 KKD from Moderate and Vigorous Physical Activity Only



3.2 Most Common Light, Moderate, and Vigorous Physical Activities

In Guelph-Wellington-Dufferin, the most common/popular light physical activities among male and female children aged 5-12 and male and female youth aged 13 to 17 are walking and playing outside.

The most popular moderate physical activities among male and female children aged 5-12 and male and female youth aged 13 to 17 are biking and playing outside.

The most popular vigorous physical activities among male children and male youth are soccer and running. The most popular vigorous activities among female children are soccer and running while the most popular vigorous activities among female youth are hockey and running (Table 2 and 3).

Table 2: Most Common Light, Moderate and Vigorous Physical Activities Identified by Gender for 5-12 Year Age Group

Activity Level	Male	Female
Light	Walking followed by playing outside	Walking followed by playing outside
Moderate	Biking followed by playing outside	Paying outside followed by biking and dancing
Vigorous	Soccer followed by running and basket ball	Soccer followed by running

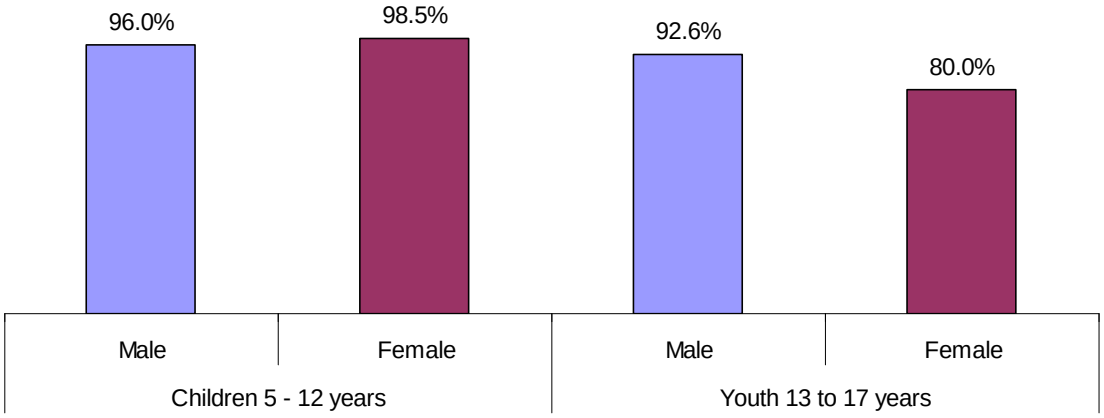
Table 3: Most Common Light, Moderate and Vigorous Physical Activities Identified by Gender for 13-17 Year Age Group

Activity Level	Male	Female
Light	Walking followed by playing outside	Walking followed by playing outside
Moderate	Biking followed by running and playing outside	Paying outside followed by biking
Vigorous	Soccer followed by running	Hockey followed by running and basketball

3.3 Regular Exercise and Readiness to Exercise

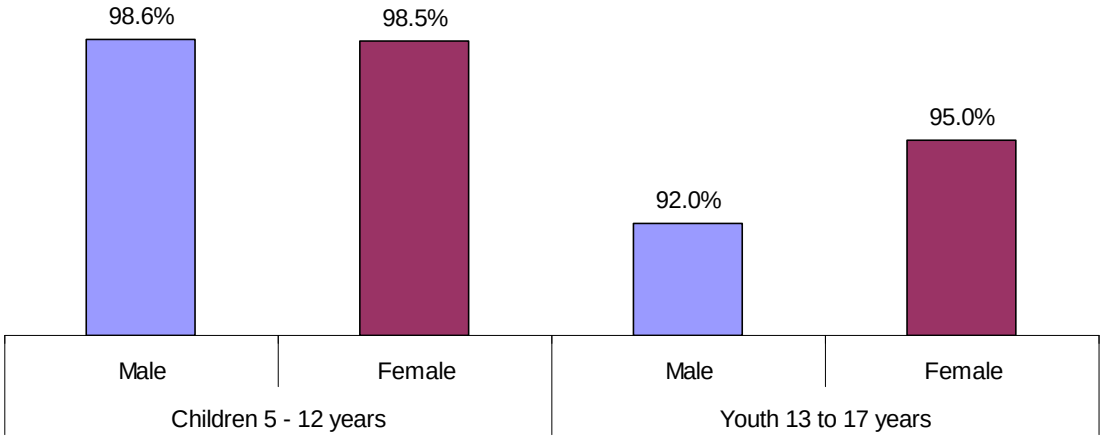
Just over 97% of male and female children aged 5-12 reported exercising regularly while 86% of male and female youth aged 13-17 reported exercising regularly. With respect to males, 96% of male children and 93% of male youth reported that they exercise regularly. With respect to females, 98% of female children and 80% of female youth reported that they exercise regularly (Chart 2).

Chart 2: Percentage of Respondents by Gender that Exercise Regularly



Over 90% of the male and female children and youth that reported that they exercise regularly indicated that they have been exercising regularly for the last 6 months or more (Chart 3).

Chart 3: Percentage of Respondents by Gender that have been Exercising Regularly for 6 Months or More



Of the 3 male children who reported that they were not exercising regularly, only 1 child indicated that he intended to begin to exercise regularly in the next 6 months.

The 1 female child who reported that she was not exercising regularly indicated that she intended to begin to exercise regularly in the next 6 months.

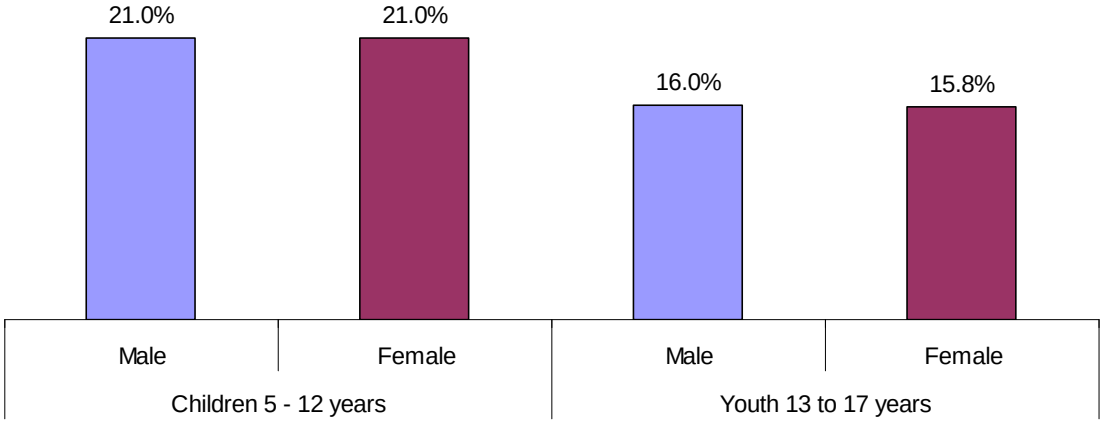
Of the 2 male youth who reported that they were not exercising regularly, 1 youth indicated that he intended to begin to exercise regularly in the next 6 months.

Of the 5 female youth who reported that they were not exercising regularly, 3 youth indicated that they intended to begin to exercise regularly in the next 6 months.

3.4 Use of Recreation or Fitness Centre

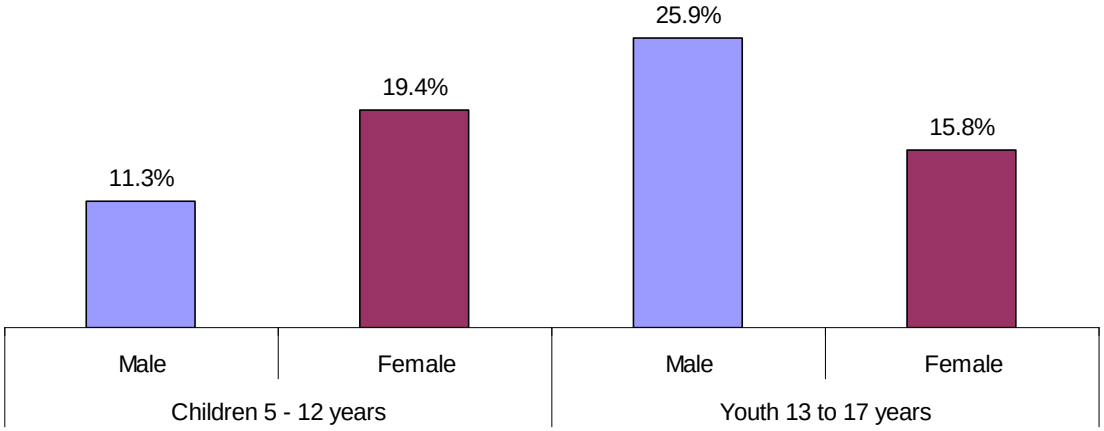
Approximately 21% of male and female children aged 5-12 are members of a recreation or fitness centre while about 16% of male and female youth aged 13-17 are members of a recreation or fitness centre (Chart 4)

Chart 4: Percentage of Respondents by Gender who are Members of a Recreation/Fitness Centre



Just over 11% of the male children and almost 26% of the male youth reported that they exercised at a recreation or fitness centre in the last 7 days while 19% of female children and 16% of female youth reported that they exercised at a recreation or fitness centre in the last 7 days (Chart 5).

Chart 5: Percentage of Respondents by Gender that Exercised at a Recreation/Fitness Centre in the Last 7 Days



Of the 50 male children and 21 male youth who are not members of a recreation/fitness centre, 9 children (18%) and 7 youth (33%) reported that they would consider using a recreation or fitness centre at some time in the next year.

Of the 45 female children and 16 female youth who are not members of a recreation/fitness centre, 5 children (11%) and 3 youth (18%) reported that they would consider using a recreation or fitness centre at some time in the next year.

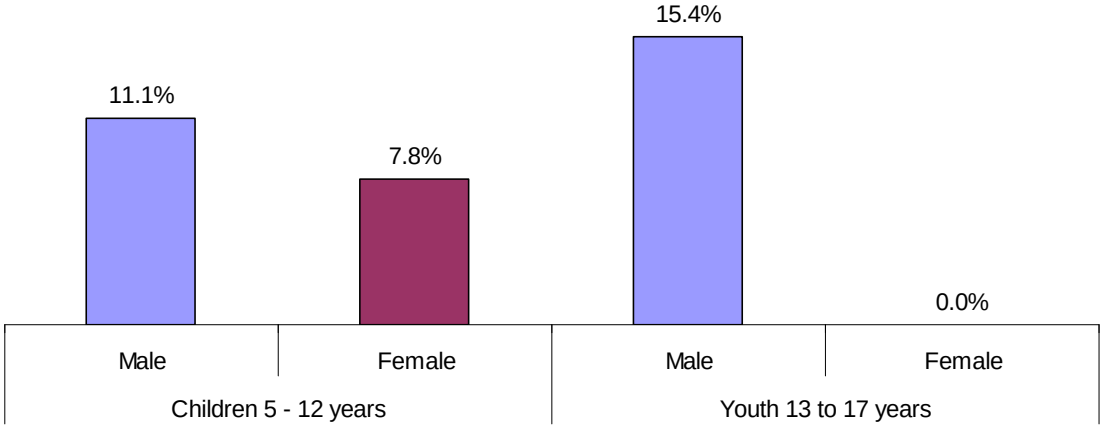
3.5 Physical or Mental Health Condition

Approximately 9% of the male and female children and 8% of the male and female youth reported that they have a physical or mental health condition that has affected their overall health for longer than six months.

Just over 11% of male children and 15% of male youth reported that they have a physical or mental health condition that has affected their overall health for longer than 6 months.

In comparison, only 8% of female children and none of the female youth reported that they have a physical or mental health condition that has affected their overall health for longer than 6 months (Chart 6).

Chart 6: Percentage of Respondents by Gender with a Health Condition that affected their overall Health for longer than 6 Months



Of the health conditions that were reported on, breathing problems represent the most common condition among children and youth.

Of the 7 male children who reported a health condition, only 1 child indicated that the condition affected his overall health for longer than 6 months.

Of the 4 male youth who reported a health condition, 3 of the youth indicated that the condition affected their overall health for longer than 6 months.

Of the 5 female children who reported a health condition, only 1 child indicated that the condition affected her overall health for longer than 6 months.

3.6 Tobacco Use

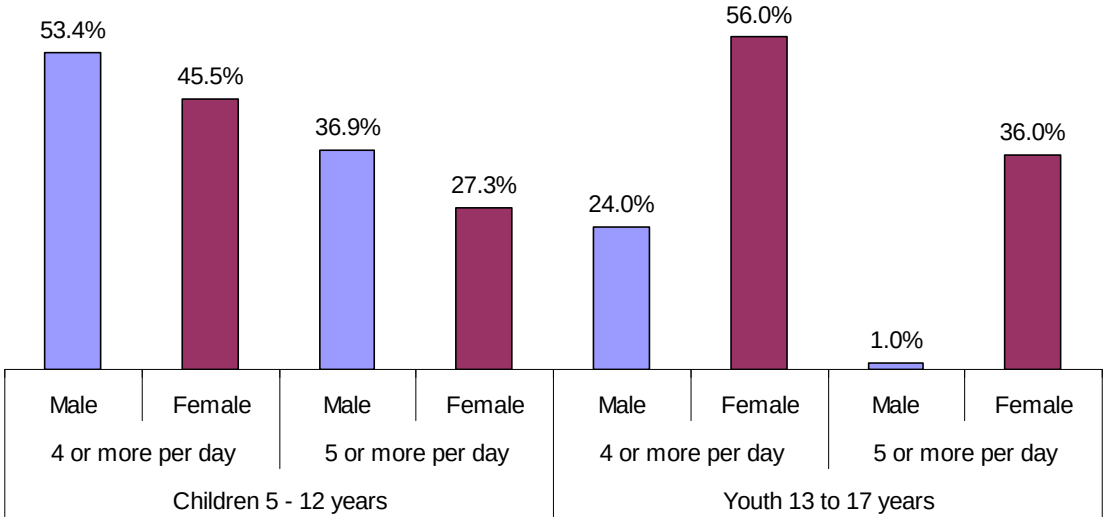
Approximately 3% of male youth and 14% of female youth reported that they have used tobacco and/or tobacco products at some point in their life. Just over 3% of male youth and almost 4% of female youth indicated that they are currently using tobacco and/or tobacco products.

3.7 Vegetable and Fruit Consumption

Approximately 53% of male children and 46% of female children reported consuming vegetables and fruit 4 or more times each day. However, the percentage of male and female children consuming 5 or more vegetables and fruit each day was 37% and 27% respectively.

With respect to youth, approximately 24% of male youth and 56% of female youth reported consuming vegetables and fruit 4 or more times each day. However, the percentage of male and female youth consuming 5 or more vegetables and fruit each day was 1% and 36% respectively (Chart 7).

Chart 7: Percentage of Respondents by Gender that Consume Vegetables and Fruits 5 or More Times/Day



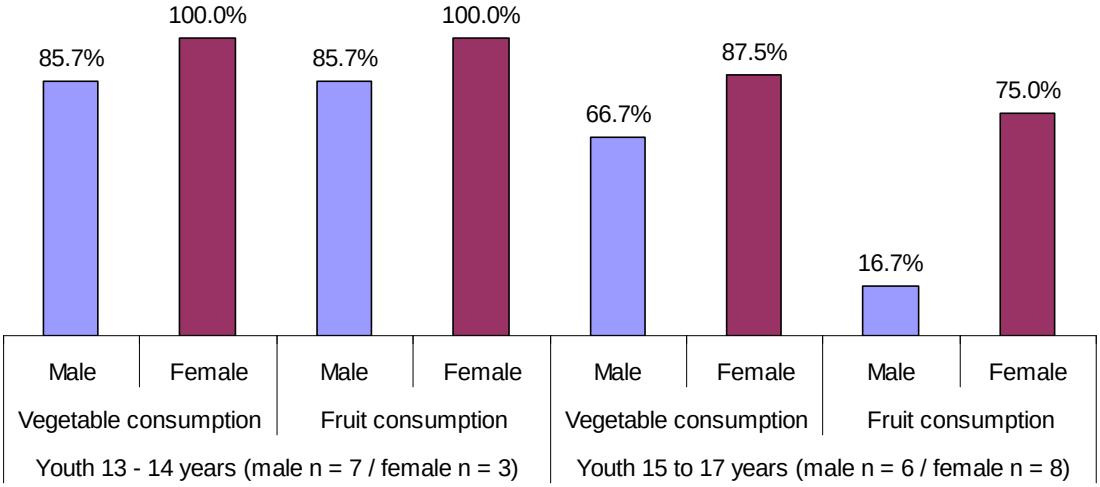
3.8 Attitude toward Vegetable and Fruit Consumption in Relation to Disease

Youth (ages 13 to 17) who were directly interviewed were asked to provide their opinion on the relationship between vegetable and fruit consumption and incidence of diseases. A total of 24 youth agreed to respond to this question.

With respect to youth aged 13-14, the large majority of the male (86%) and all of the female youth in this age group believe that vegetable and fruit consumption reduces the incidence of certain diseases such as diabetes, cancer, and cardiovascular diseases.

With respect to youth aged 15-17, the majority of the male (67%) and the female (88%) youth in this age group believe that vegetable consumption reduces the incidence of certain diseases such as diabetes, cancer, and cardiovascular diseases. While the majority of the female youth (75%) in this age group believe that fruit consumption also reduces the incidence of certain diseases, only 17% of the male youth believe this to be the case (Chart 8).

Chart 8: Percentage of Respondents by Gender that Believe Vegetable and Fruit Consumption Reduces the Incidence of Certain Diseases (13-14 and 15-17 Age Groups)



3.9 Attitude toward Physical Activity and Smoking in Relation to Disease

Youth (ages 13 to 17) who were directly interviewed were asked to provide their opinion on the relationship between physical activity and smoking and incidence of diseases. A total of 24 youth agreed to respond to this question.

With respect to youth aged 13-14, all of the male and female youth in this age category believe that physical activity reduces the incidence of certain diseases such as diabetes, cancer, and cardiovascular diseases. While all of the female youth in this age group believe that stopping tobacco usage reduces the incidence of certain diseases, 71% of male youth believe this to be the case.

With respect to youth aged 15-17, the majority of male (83%) and female (88%) youth in this age group believe that physical activity reduces the incidence of certain diseases such as diabetes, cancer, and cardiovascular diseases. While all of the male youth in this age group believe that stopping tobacco usage reduces the incidence of certain diseases, 88% of the female youth believe this to be the case (Chart 9).

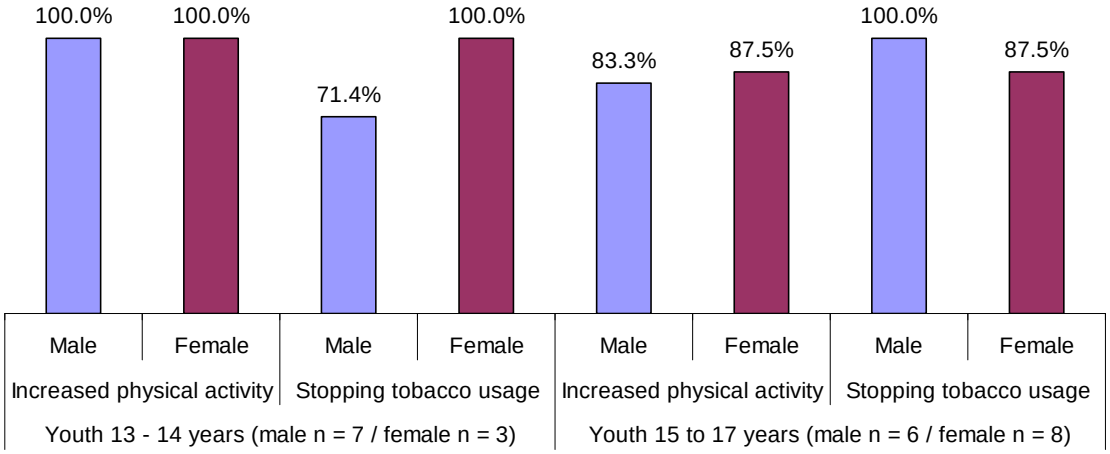



Chart 9: Percentage of Respondents that Believe Increased Physical Activity and Stopping Tobacco Usage Reduces the Incidence of Certain Diseases