



# HEALTHY WEIGHT ACTION PLAN

Tackling Overweight & Obesity  
as part of Well Bermuda,  
the National Health Promotion  
Strategy



Government of Bermuda

Ministry of Health

DEPARTMENT OF HEALTH





GOVERNMENT OF BERMUDA

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Lead Agency  
Health Promotion Office  
Department of Health

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#### **Produced by**

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#### **Reference as**

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## **INTRODUCTION**

Overweight and obesity are a world-wide problem, with health authorities globally concluding that obesity is reaching pandemic proportions. The proportion of obese population has grown by 400% in the last 25 years in many high-income countries. In Bermuda, as in other places, overweight and obesity are a major public health concern.

In 2004 a Department of Health study determined Bermuda's health priorities and identified overweight and obesity as the number one health problem for the country<sup>1</sup>. Following from this, the 2006 National Health Promotion Strategy, Well Bermuda, listed the encouragement of a healthy body weight for height among the primary health promotion goals for the country<sup>2</sup>.

The next steps in the implementation of Well Bermuda is the development of action plans to address the goals in the strategy. The aim of this "Healthy Weight Action Plan", therefore, is to detail the action framework and initiatives that will be implemented to achieve the goal and objectives of the Well Bermuda strategy, with respect to overweight and obesity.

## **BACKGROUND**

Overweight and obesity present major risks to health<sup>3</sup>. The associated consequences range from increased risk of premature death, to serious chronic conditions such as type 2 diabetes, cardiovascular disease, hypertension and stroke, certain forms of cancer (e.g. hormonally related and large-bowel cancers), and other serious chronic diseases. Respiratory difficulties, chronic musculoskeletal problems, skin problems and infertility are among the non-fatal but debilitating conditions associated with obesity.

The 2006 Health Survey found that 63% of adults in Bermuda were above a normal body weight for height, with 38% overweight (BMI 25.0 – 29.9) and 25% obese (BMI >30)<sup>4</sup>. This represents an increase since 1999 when 57% of adults were found to be overweight or obese<sup>5</sup>. The situation for children and adolescents is equally alarming; the 2006 Health Survey found that 36% of 5-10 year olds were overweight or obese, and in 2001 25% of adolescents aged 11 – 17 were found to be overweight<sup>6</sup>. Overweight and obesity and their associated problems also impact significantly on healthcare expenditure, which can range from 4% in the England<sup>7</sup> to 9.4% in the U.S.<sup>8</sup>.

The extent of the problem has made this a major public health challenge for Bermuda. Three factors combine to make it a public health problem: its seriousness, prevalence, and its resistance to change. While obesity is both a medical condition and a lifestyle disorder, it is becoming increasingly accepted that the prevention of obesity is an environmental problem not a medical one.

Egger and Swinburn<sup>9</sup> propose that obesity must be viewed from an ecological approach which "regards obesity as a normal response to an abnormal environment", rather than as a personal disorder. Their ecological paradigm proposes that there are three influences on body fat. These influences are biological, behavioural, and environmental and are manipulated by energy intake and expenditure. Epidemics can only be controlled after the modification of environmental factors. Consequently, the "obesogenic" environment must be modified if obesity is to be prevented.

Bermuda must redress the growth in overweight and obesity as a matter of urgency. The Well Bermuda Strategy aims to "Encourage the maintenance of a healthy body weight for height". This action plan proposes to tackle the problem with a multi-pronged approach placing substantial weight on the role of environmental factors in the promotion of healthier diet and increased physical activity. This approach has demonstrated effectiveness and is the recommended best practice.<sup>10</sup>

## HEALTHY WEIGHT OBJECTIVES OF WELL BERMUDA

The National Health Promotion Strategy, Well Bermuda, identified a number of measurable objectives to work towards in the goal to “Encourage the maintenance of a healthy body weight for height”. These benchmarks and data sources are detailed in table 3, but the original objectives were:

1. Decrease the proportion of overweight or obese adults
2. Decrease the proportion of overweight or obese children and adolescents
3. Increase the proportion of adults doing vigorous physical activity 3 times per week
4. Increase the proportion of adolescents doing vigorous physical activity 5 times per week
5. Decrease the proportion of adults who eat fast food meals once per week or more
6. Decrease the proportion of adolescents who skip breakfast regularly
7. Increase the proportion of schools implementing the Nutrition Policy

The Healthy Weight Action Plan will aim to tackle these seven objectives, with a modification to objective 5 and three further objectives added, which will enhance the existing set by focusing on moderate physical activity, consumption of fruits and vegetables and intake of sugar-sweetened beverages.

The 2006 Health Survey found that a high proportion of adults eat fast food meals once per week or more; however, this threshold is felt to be excessively restrictive of individuals’ choice and nutritionally unnecessary. The new wording will be modified to encourage moderation and will thus read: “Decrease the proportion of adults who eat fast food meals three times per week or more”. The 2006 Health Survey found that 13% of adults in Bermuda do so.

The 2006 Health Survey found that 18% of adults were largely sedentary (engaged in less than 10 minutes of moderate activity daily), and only 65% engaged in moderate physical activity at least 5 days of the week. Regular moderate physical activity has extensive health benefits and is often more achievable and likely to be sustained in the longer term. Therefore, the eighth objective will be to “Increase the proportion of adults doing moderate physical activity 5 times per week”.

Likewise, the 2006 Health Survey found that only 17% of adults consume at least three portions of fruits or vegetables per day (est.), compared to 1999 when 34% did so. This is substantially lower than the recommended intake, therefore the action plan will also include a ninth objective to “Increase the proportion of adults who eat 5 portions of fruit and vegetables daily”.

A high intake of sugar-sweetened beverages has been identified as a highly probable ecological factor contributing to the causes of the obesity epidemic<sup>11</sup>. There is no local data on residents’ consumption of sugary drinks; however, given the anecdotal indications of high intake and its contribution to the problem, a tenth objective will be added: “Decrease the intake of sugar-sweetened beverages by adults, adolescents and children”.

## **THE HEALTHY WEIGHT ACTION FRAMEWORK**

Bermuda, like many other countries, has experienced in the past century a change in dietary habits, which now include more energy-dense, nutrient-poor foods with high levels of sugar and saturated fats. Substantial shifts have also occurred globally towards less physically demanding work and increasingly sedentary lifestyles, due to automated transport, technology in the home and more passive leisure activities. The aim of the Action Plan is, therefore, to reduce the prevalence of obesity and associated health problems by encouraging healthy eating and increased physical activity.

Unhealthy foods are too convenient, attractive, cheap, accessible, culturally acceptable and persuasively promoted and marketed. By contrast, physical activity has been on the decline globally, as a result of social, environmental and lifestyle changes. The action plan will seek to counteract these effects and promote healthier food choices and increased physical activity.

At the 2006 symposium to launch Well Bermuda, stakeholders with an interest in the overweight and obesity problem gathered to determine the priority actions needed for the healthy weight goal to be realised (See Appendix 1). These were identified as:

1. Promote the healthy weight message in a simple, accessible, consistent manner that is meaningful to the public
2. Promote policies and legislation that will make healthy choices the easier option
3. Implement Nutrition Policy in schools and promote increased physical activity for students.

In addition, Well Bermuda proposes that the Ottawa Charter for Health Promotion<sup>12</sup> provides a sound foundation for defining the action areas to structure health promotion activities. They are: to build healthy public policy, create supportive environments, strengthen community actions, develop personal skills, re-orient health services, and build alliances. These will provide the basis for an action framework.

The Healthy Weight Action Framework is detailed in Table 1. It adheres to the principles identified as priority actions, and proposes specific initiatives to promote a healthier diet and increased physical activity by addressing each of the Ottawa Health Promotion Charter action areas. The action framework also ensures that all the Well Bermuda Healthy Weight Objectives are addressed. Additional initiatives that may be included in the future are listed in Appendix 2.

**Table 1: The Healthy Weight Action Framework**

ACTION AREA	HEALTHY DIET	PHYSICAL ACTIVITY	OBJECTIVES ADDRESSED <sup>1</sup> (REF. NUMBER)
<b>BUILD HEALTHY POLICY</b>	1. Reformulate taxation structure to favour healthy foods over unhealthy foods 2. Schools to implement Nutrition Policy	3. Partner with Department of Transport to encourage decreased use of cars 4. Partner with the Ministry of Education to promote a schools physical activity policy	(4) Increase the proportion of adolescents doing vigorous physical activity 5x p/w (5) Decrease the proportion of adults who eat fast food meals 3x p/w (7) Increase the proportion of schools implementing the Nutrition Policy (8) Increase the proportion of adults doing moderate physical activity 5x p/w
<b>CREATE SUPPORTIVE ENVIRONMENTS</b>	5. Vending machines in Government buildings to have only healthy options	6. Partner with Dept. of Parks to promote increased use of parks, beaches & railway trails 7. Partner with the Corporation of Hamilton to promote a walking city	(8) Increase the proportion of adults doing moderate physical activity 5x p/w (10) Decrease the intake of sugar-sweetened beverages
<b>STRENGTHEN COMMUNITY ACTIONS</b>	8. Campaign to educate food vendors on benefits of promoting healthier foods <sup>ii</sup>	9. Encourage use of stairs instead of elevators in Government and businesses	(8) Increase the proportion of adults doing moderate physical activity 5x p/w (9) Increase the proportion of adults who eat 5 portions of fruit & vegetables daily
<b>DEVELOP PERSONAL SKILLS</b>	10. Social marketing campaign to educate the public on the dangers of obesity, and the benefits of increased physical activity and healthy eating, and how to achieve this <sup>iii</sup>		(3) Increase the proportion of adults doing vigorous physical activity 3x p/w (4) Increase the proportion of adolescents doing vigorous physical activity 5x p/w (5) Decrease the proportion of adults who eat fast food meals 3x p/w (6) Decrease the proportion of adolescents who skip breakfast regularly (8) Increase the proportion of adults doing moderate physical activity 5x p/w (9) Increase the proportion of adults who eat 5 portions of fruit & vegetables daily (10) Decrease the intake of sugar-sweetened beverages
	11. Promote Wellness Clubs in schools		(7) Increase the proportion of schools implementing the Nutrition Policy (4) Increase the proportion of adolescents doing vigorous physical activity 5x p/w
<b>REORIENT HEALTH SERVICES</b>	12. Train health workers in counselling obese patients <sup>iv</sup> 13. Partner with physicians to promote clinical preventive services <sup>v</sup>		(1 & 2) The 2 primary objectives
<b>BUILD ALLIANCES</b>	14. Develop stronger ties with editors, reporters and personalities in radio, TV and print media		All objectives

<sup>i</sup> All Action Areas seek to address the two primary objectives of the Healthy Weight goal: To decrease the proportion of overweight or obese adults (1) and children and adolescents (2).

<sup>ii</sup> For example, supermarkets not to stock junk food at check outs at children’s eye level; and restaurants to promote small portions more actively

<sup>iii</sup> Include, for example, 5 a day, whole grains, water, sugary drinks, trans fats, reading food labels, sugar and sodium intake, meal preparation, breastfeeding

<sup>iv</sup> For example, public health nurses, family practitioners, paediatricians, health teachers, social workers

<sup>v</sup> Partner with, for example, KEMH Family Practice Department and Bermuda Medical Association

The initiatives proposed in the Healthy Weight Action Framework will need to be operationalised through a varied and extensive range of activities. The key deliverables can be identified at the outset, which will also provide a mechanism to monitor progress with respect to outputs. (Table 2).

**Table 2: Healthy Weight Initiatives and Key Deliverables**

HEALTHY WEIGHT INITIATIVES	KEY DELIVERABLES (DEADLINE)
1. Reformulate taxation structure to favour healthy foods over unhealthy foods	Approved Cabinet Memorandum (2007) Reformulated taxation structure in place (2009)
2. Schools to implement Nutrition Policy	School Nutrition Policy implemented in 100% of government and private schools (primary+) (2008)
3. Partner with Department of Transport to encourage decreased use of cars	Launch Joint campaign (2008)
4. Partner with the Ministry of Education to promote a schools physical activity policy	Physical activity policy for schools approved by Ministries of Education and Health (2008)
5. Vending machines in Government buildings to have only healthy options	Cabinet Office Policy approved (2008) and implemented in 50% of buildings (2009)
6. Partner with Dept. of Parks to promote increased use of parks, beaches and railway trails	Launch Joint campaign (2008)
7. Partner with Corporation of Hamilton to promote a walking city	Launch Joint campaign (2009)
8. Campaign to educate food vendors on benefits of promoting healthier foods	Buy-in from the 3 major supermarkets (2007) Buy-in from Restaurant Division of Chamber of Commerce (2008)
9. Encourage use of stairs instead of elevators in Government and businesses	Cabinet Office policy approved (2007) Buy-in from 7 major employers (2008)
10. Social marketing campaign to educate the public on the dangers of obesity, and the benefits of increased physical activity and healthy eating, and how to achieve this	TV, radio and plasma screens presence (2007) Posters and flyers in public places and households (2007) Education campaign via beauticians & barbers (2007) Screenings in beauticians, barbers & supermarkets (2007) Raised public awareness of risks and benefits (2008)
11. Promote Wellness Clubs in schools	Wellness Clubs in all private and public schools (primary+) with a high incidence of overweight (2009)
12. Train health workers in counselling obese patients	Conduct training workshops (2007) Monitor number of health professionals engaged (2007)
13. Partner with physicians to promote clinical preventive services	Health professionals self-reported evaluation (2008)
14. Develop stronger ties with editors, reporters and personalities in radio, TV and print media	Fortnightly media presence of healthy weight issues (2007)



## EVALUATION AND MONITORING

Evaluating health promotion initiatives is difficult, at best. Nevertheless, it is essential to identify in advance how we will know if the actions have made a difference, and what kind of difference we have made.

With respect to the former (have the actions made a difference) the Action Framework will be monitored using the key deliverables listed in Table 2. This will ensure that we have a short-term assessment of the extent to which the initiatives are being implemented, in order to make necessary adjustments along the way. Using the key deliverables' deadlines, the Health Promotion Office will seek to understand the extent to which the initiatives are reaching target group and being adopted, implemented and maintained.

With respect to efficacy or outcomes (what kind of difference have we made), our key focus are the healthy weight objectives and benchmarks, which will be measured quantitatively using various data sources. The nature of public health initiatives is such that outcomes can only be expected in the long-term; nevertheless, we will seek to monitor on an ongoing basis using the evaluation data sources detailed in Table 3.

**Table 3: Outcome Evaluation of Healthy Weight Objectives**

OUTCOME EVALUATION VIA OBJECTIVES	BASELINE MEASURE* & SOURCE		EVALUATION DATA SOURCE
1. Decrease the proportion of overweight or obese adults	63%	2006 Health Survey	Well Bermuda Survey 2008
2. Decrease the proportion of overweight or obese children and adolescents	36% (5-10s) 25% (11-17s)	2006 Health Survey 2001 Teen Survey	Annual School Health Assessments
3. Increase the proportion of adults doing vigorous physical activity 3 times per week	20%	2006 Health Survey	Well Bermuda Survey 2008
4. Increase the proportion of adolescents doing vigorous physical activity 5 times per week	29%	2001 Teen Survey	2008 Teen Survey
5. Decrease the proportion of adults who eat fast food meals three times per week or more	13%	2006 Health Survey*	Well Bermuda Survey 2008
6. Decrease the proportion of adolescents who skip breakfast regularly	31%	2001 Teen Survey	2008 Teen Survey
7. Increase the proportion of schools implementing the Nutrition Policy	88%	2007 Budget Book*	2008 Budget Book
8. Increase the proportion of adults doing moderate physical activity 5 times per week	65%	2006 Health Survey*	Well Bermuda Survey 2008
9. Increase the proportion of adults who eat 5 portions of fruit and vegetables daily	17%	2006 Health Survey*	Well Bermuda Survey 2008
10. Decrease the intake of sugar-sweetened beverages by adults, adolescents and children	No data	Not applicable	Well Bermuda Survey 2008

\* Measures have been updated since original Well Bermuda report

## ACTION STAKEHOLDERS

The Healthy Weight Action Plan will seek the endorsement and support of the following stakeholders, who represent our key public health partners in the implementation of this Action Plan and in the achievement of a healthier body weight for height for all Bermuda's residents.

Association of School Principals	Department of Youth, Sport & Recreation
Bermuda Diabetes Association	Diabetes Education Centre
Bermuda Dieticians Association	Epidemiology & Surveillance Unit, DoH
Bermuda Heart Foundation	Family Practice Department, KEMH
Bermuda Hospitals Board	Health Insurers' Association
Bermuda National Centre	Healthy Schools Programme, DoH
Bermuda Medical Association	Media
Bermuda Union of Teachers	Ministry of Education
Child Health Programme, DoH	Ministry of Health
Child & Family Services	Ministry of Transport
Community Health Nursing Programme, DoH	National Office for Seniors & the Physically Challenged
Corporation of Hamilton	Nutrition Services, DoH
Department of Parks	Physicians
Department of Planning	Statistics Department

## NOTES & REFERENCES

- <sup>1</sup> Department of Health (2005a) *Health Priorities Report*. Government of Bermuda.
- <sup>2</sup> Attride-Stirling, J. (2006) *Well Bermuda: A National Health Promotion Strategy*. Government of Bermuda: Department of Health.
- <sup>3</sup> WHO (2004) *Global Strategy on Diet, Physical Activity and Health*. WHO: Geneva.
- <sup>4</sup> Attride-Stirling, J., Boney, C., Trott, C. & DeRoza, D. (2007) *Health Survey of Adults and Children in Bermuda 2006*. Department of Health: Government of Bermuda. (forthcoming)
- <sup>5</sup> Department of Health (1999) *Adult Wellness Survey*. Health Promotion Office: Government of Bermuda.
- <sup>6</sup> Department of Health (2001) *Personal Wellness Report: Teen Edition. Group Reports and Executive Summaries*. Government of Bermuda.
- <sup>7</sup> NICE (2001) *Nice issues guidance on orlistat for obesity*. Press Release by UK National Institute for Clinical Excellence - NICE 2001/ 010 Issued: 09 March 2001.
- <sup>8</sup> Visscher, T. and Seidell, J. (2001) *The Public Health Impact of Obesity. Annual Review of Public Health, 22: 355-375*.
- <sup>9</sup> Egger, G. and Swinburn, B. (1997) *An ecological approach to the obesity pandemic. British Medical Journal, 315:477-480*.
- <sup>10</sup> Jain, A. (2004) *What works for Obesity? A summary of the research behind obesity interventions*. BMJ Publishing Group: London (available at [www.clinicalevidence.com](http://www.clinicalevidence.com))
- <sup>11</sup> Jain, A. (2004) *Op. cit.*
- <sup>12</sup> *Ottawa Charter for Health Promotion (1986)* WHO. Geneva.

**APPENDIX I: OBESITY ACTION PLAN DRAFTED AT WELL BERMUDA SYMPOSIUM**

**BREAKOUT EXERCISE AT WELL BERMUDA SYMPOSIUM**

**GOAL:** Encourage maintenance of a healthy body weight for height

**This goal is about:** Prevention of weight gain and achievable reduction of weight (5-10%)

<b>ACTIONS</b> <i>Identify three priority action areas for this goal</i>	<b>OUTCOMES</b> <i>Describe how to evaluate progress on each action area</i>
1. Promote the healthy weight message in a simple, accessible, consistent manner that is meaningful to the public (e.g. offer screenings at sporting events, national celebrations, supermarkets, etc.)	Monitor awareness of healthy weight message
2. Promote policies and legislation that will make healthy choices the easier option (e.g. taxation to favour healthy foods, remove junk from supermarket check-out counters, restaurants to promote reduced portions more)	Government vending machines will have only healthy options Public report eating less unhealthy foods
3. Implement Nutrition Policy in schools and promote increased physical activity for students	Reduce childhood overweight as measured by five, ten and fifteen year old school health assessments

**Lead agency:** Health Promotion Office                      **Contact:** Jennifer Attride-Stirling

## **APPENDIX 2: ACTION AREAS FOR FURTHER CONSIDERATION**

Through the consultation process a number of very worthwhile initiatives were proposed. Many fell beyond the scope of the action plan due to timelines, available resources for implementation and scope as defined by the targeted healthy weight objectives of the action plan. Nevertheless, these initiatives merit ongoing consideration and are recorded here for future inclusion in the action plan, as the proposed two year plan rolls forward.

Initiatives to increase physical activity and improve diet

1. Amend legal framework regarding the importation of carrots to Bermuda to facilitate access to high quality carrots throughout the year
2. Partner with the Community Education Programme to introduce a course on healthy family cooking
3. Partner with the Department of Planning to promote:
  - 3.1. Improvements in sidewalk availability and pedestrian crossings
  - 3.2. Inclusion of sidewalks on all new construction throughout the Island
  - 3.3. Inclusion of showers in new office buildings
4. Promote improvements to railway trails (e.g. lighting, surfaces, benches)
5. Promote introduction of “walking bus” for school children