





# Plan of Action for the Prevention of Obesity in Children and Adolescents

 $$53^{\rm rd}$  Directing Council  $$66^{\rm th}$$  Session of the Regional Committe of WHO for the Americas

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# **Table of contents**

Ргетасе	5
Introduction	7
Background	8
Situation Analysis	12
Plan of Action (2014-2019)	16
Goal	16
Strategic Line of Action 1: Primary health care and promotion of breastfeeding and healthy eating	17
Strategic Line of Action 2: Improvement of school nutrition and physical activity environments.	18
Strategic Line of Action 3: Fiscal policies and regulation of food marketing and labelling.	20
Strategic Line of Action 4: Other multisectoral actions	21
Strategic Line of Action 5: Surveillance, research, and evaluation	23
Monitoring and Evaluation	24
Financial Implications	24
Action by the Directing Council	25
Annexes	26
References	26
Annex A	
Resolution	33



# **Preface**

The countries of the Americas took an important step forward in the fight against the rising epidemic of obesity when they unanimously signed a 5-year Plan of Action for the Prevention of Obesity in Children and Adolescents, during the 53<sup>rd</sup> Directing Council of the Pan American Health Organization (PAHO), which was also 66<sup>th</sup> Session of the Regional Committee of the World Health Organization for the Americas. Among other measures, the plan calls for the implementation of fiscal policies, such as taxes on sugar-sweetened beverages and energy-dense nutrient-poor products, regulation of food marketing and labeling, improvement of school nutrition and physical activity environments, and promotion of breastfeeding and healthy eating. Its goal is to halt the rise of the epidemic so that there is no increase in current country prevalence rates of obesity.

In approving the PAHO Plan of Action for the Prevention of Obesity in Children and Adolescents, the Member States of the Americas have set an example of leadership in protecting children and adolescents from one of the most serious threats to the health and well being of current and future generations. It is my hope that this Plan will lead to the creation of environments that foster healthy eating and physical activity for all and especially children and adolescents.

Carissa F. Etienne

Director, Pan American Health Organization

# Introduction

- 1. Obesity among children and adolescents has reached epidemic proportions in the Americas.<sup>1,2</sup> Even if the causes of this epidemic are complex and more research is needed, much is known about the consequences and actions that must be undertaken to halt it. Over the past decade, many countries in the Region, have been putting some of those actions into place and it is now time for the Pan American Health Organization (PAHO) to take the leadership role by unifying these efforts and supporting Member States by launching a regional public health initiative.
- 2. This document provides Member States with the rationale and key strategic lines of action for comprehensive public health interventions to halt the progression of the obesity epidemic in children and adolescents. To that end, this five-year plan sets a goal and proposes five areas of action, including objectives and indicators. Each Member State, as a sovereign entity, may implement policies and regulations proposed in this Plan of Action according to its national needs and objectives.

<sup>1</sup> Birth to age 4 (http://www.who.int/childgrowth/en/):

<sup>•</sup> Overweight: weight-for-height z-score >= 2 SD and < 3 SD

<sup>•</sup> Obese: weight-for-height z-score >= 3 SD

Overweight/obese combined: weight-for-height z-score >=2 SD Ages 5 to 19 (http://www.who.int/growthref/growthref\_who\_bull.pdf):

<sup>•</sup> Overweight: BMI >= 1 SD and < 2 above the WHO growth standard median

<sup>•</sup> Obese: body mass index (BMI) >= 2 SD above the WHO growth standard median

<sup>•</sup> Overweight/obese combined: body mass index (BMI) >= 1 above the WHO growth standard median

<sup>2</sup> The following WHO definition of children and adolescents is used in this Plan of Action: children: 0 to 9 years of age; adolescents: 10 to 19 years of age (www.who.int/topics/adolescent\_health/en/).

# Background

- 3. Authoritative publications, particularly from the World Health Organization (WHO), the Food and Agriculture Organization (FAO), and the World Cancer Research Fund (1, 2) agree that the most important factors that promote weight gain and obesity, as well as associated noncommunicable diseases (NCDs), are: a) high intake of products poor in nutrients and high in sugar, fat, and salt (herewith referred as energy-dense nutrient-poor products), such as salty or sugary snacks and fast foods; b) routine intake of sugar sweetened beverages; and c) insufficient physical activity. These are all part of an obesogenic environment.<sup>3</sup>
- **4.** Physical activity plays an important role in the prevention of obesity, and the levels need to be sufficiently high to counteract excess energy intake. Therefore, preventive efforts should focus on healthy eating and the promotion of physical activity (3).
- 5. The effect of added sugars on health has been the subject of much scientific scrutiny in recent years. Meta-analyses of longitudinal studies (4) and randomized controlled trials (5) have shown positive associations between the consumption of added sugar and weight gain. In addition, the consumption of sugar-sweetened beverages is strongly associated with cardiovascular disease (6), type 2 diabetes, and metabolic syndrome (7). The physiological mechanisms include, among others, hyperinsulinemia, insulin resistance, atherosclerosis, and hypertension (8, 9). It has been suggested that the sugar component causing these physiological changes is fructose (10).

<sup>3</sup> Obesogenic environment is an environment that promotes and supports obesity in individuals or populations through physical, economic, legislative and sociocultural factors.

- **6.** Reducing the consumption of added sugars is instrumental in preventing serious damage to the population's health, but it is clearly not enough in itself. A healthy diet should be based on the daily consumption of fruit and vegetables, unrefined grains, pulses, milk, lean proteins including fish, and vegetable oils, with low consumption of red and processed meats (11, 12). Ensuring year-round availability, affordability, and access to foods consistent with such a diet requires strong and enabling agriculture and food systems (13, 14). Since natural and whole foods are the mainstay of traditional cuisines in the Americas, these very traditions can be a valuable instrument for promoting healthy eating (15).
- 7. Identifying the drivers of the obesity epidemic is critical to informing and developing sound policies, actions, and health-related laws and regulations. From a dietary perspective, it is now recognized that the individual's food preferences, purchasing decisions, and eating behaviors are shaped by price, marketing, availability, and affordability. These factors are in turn influenced by upstream policies and regulations on trade and agriculture (16).
- 8. A salient current commercial trend associated with the obesity epidemic is the ubiquitous availability and increase in per capita consumption of energy-dense nutrient-poor products and sugar-sweetened beverages in low- and middle-income countries. Consumption of energy-dense nutrient-poor products is five times higher, and of sodas, nearly three times higher compared with developed countries, where consumption is currently reaching market saturation levels (17, 18). The portion sizes of soda and other marketed products have also risen dramatically over recent decades. Advertising of energy-dense nutrient-poor products and sugar-sweetened beverages to children and adolescents has increased in the Region, influencing their food preferences, purchase requests, and eating patterns (19).

- 9. Similarly, opportunities for physical activity have suffered as a result of urban planning approaches that do not facilitate such activity, as well as growing violence and the perception thereof (20, 21). Compounding the situation, electronic entertainment has been increasingly replacing recreational physical activity. Children's screen time, which is an opportunity for food consumption and exposure to food advertising, has increased to three hours a day or more. In addition, many schools have reduced the time allotted for physical education.
- 10. This Plan of Action focuses on children and adolescents for a number of reasons. Firstly, breastfeeding may reduce the prevalence of overweight and obesity by about 10% (22). Breastfeeding can also help mothers to lose weight after pregnancy more quickly. Secondly, the earlier a person becomes overweight or obese, the greater is his or her risk of remaining overweight or obese at older ages (23). Thirdly, obesity has adverse health consequences at early stages of life, as it increases the risk of asthma, type-2 diabetes, sleep apnea, and cardiovascular diseases (24, 25). These conditions, in turn, affect growth and psychosocial development during adolescence (26) and eventually compromise quality of life and longevity (27). Fourthly, since dietary habits are formed early in life, the promotion and consumption of energy-dense nutrient-poor products, sugar sweetened beverages, and fast foods in childhood interfere with the formation of healthy dietary habits (28, 29). Finally, children are unable to discern the persuasive intent of marketing, and advertising of foods and beverages of minimal nutritional value. Such promotional campaigns may raise ethical concerns and diminish children's enjoyment of the highest attainable standard of health. A precedent for action has already been established in the International Code of Marketing of Breastmilk Substitutes (Code) (30).

- 11. A gender and equity approach is also warranted. In high-income countries, obesity tends to concentrate among the poor, whereas in low- and middle-income countries obesity is more prevalent in the affluent population. However, as gross national product increases, obesity spreads out to all strata. This phenomenon is most likely explained by the current non-discerning obesogenic environment. Adding to the complexity of the issue, adolescent girls are more affected by the obesity epidemic, especially in lower-economic strata (31, 32).
- 12. This Plan of Action aligns with: the Regional Declaration on the New Orientations for Primary Health Care (PHC) — Renewing Primary Health Care in the Americas: A Strategic and Programmatic Orientation for the Pan American Health Organization (CD46/13 [2005]); the Strategy and Plan of Action for Integrated Child Health (CSP28/10 [2012]); the Regional Strategy for Improving Adolescent and Youth Health (CD48/8 [2008]); the Regional Strategy and Plan of Action on Nutrition in Health and Development, 2006-2015 (CD47/18 [2006]; the Comprehensive Implementation Plan on Maternal, Infant, and Young Child Nutrition (A65/11 [2012]); the Strategy for the Prevention and Control of Noncommunicable Diseases and the Plan of Action for the Prevention and Control of Noncommunicable Diseases (CSP28/9, Rev. 1 [2012] and CD52/7, Rev. 1 [2013] respectively); the WHO Global Strategy on Diet, Physical Activity, and Health (A57/9 [2004]); the Strategy and Plan of Action on Urban Health (CD51/5 [2011]); the Plan of Action on Road Safety (CD51/7, Rev. 1 [2011]), the report of the Commission on Social Determinants of Health (A62/14 [2009]); and the United Nations Convention of the Rights of the Child [1989].4

<sup>4</sup> See Article 24 of the United Nations Convention on the Rights of the Child

# **Situation Analysis**

- 13. Worldwide obesity nearly doubled between 1980 and 2008. In comparison with other WHO Regions, the prevalence of overweight and obesity is highest in the Americas (62% for overweight in both sexes and 26% for obesity in adults over 20 years of age) (33). In three countries (Mexico, Chile and the United States) obesity and overweight now affect around 7 of every 10 adults (34, 35, 36).
- 14. An increase in the prevalence of overweight and obesity has also been observed in the Region's children aged 0 to 5 years. For example, rates doubled in the Dominican Republic, from 2.2% in 1991 to 5.6% in 2007; rates rose from 1.5% in 1993 to 3% in 2008 in El Salvador; and they increased from 2.5% in 1992 to 3.2% in 2012 in Peru.<sup>5</sup> Similarly, a recent report from seven Eastern Caribbean countries shows that between 2000 and 2010 the rates of overweight and obesity in children aged 0 to 4 years doubled from 7.4% in 2000 to 14.8% (37).
- 15. In adolescents of both sexes (12 to 19 years), obesity rates in the United States increased 20%, from 17.4% in 2003 to 20.5% in 2012 (38). Among adolescent girls (15 to 20 years), overweight and obesity rates have risen steadily over the last two decades—for example: in Bolivia, from 21.1% to 42.7%; in Guatemala, from 19.6% to 29.4%; and in Peru, from 22% to 28.5%.6

<sup>5</sup> Source: PAHO calculations based on data from the Demographic and Health Surveys DHS (1992–2012).

<sup>6</sup> Source: PAHO calculations based on data from the Demographic and Health Surveys DHS (1992–2012).

- **16.** Available data show that overall 20% to 25% of the children under 19 years old are affected by overweight and obesity (39). In Latin America, 7% of the children under 5 years of age (3.8 million) are estimated to be overweight or obese (39). Among school-age children (6 to 11 years old), rates range from 15% (Peru) (40) to 34.4% (Mexico) (41), and among adolescents (12 to 19 years old), from 17% (Colombia) (41) to 35% (Mexico) (42). In the United States, 34.2% of children aged 6 to 11 years and 34.5% of adolescents aged 12 to 19 years are overweight or obese (38), while in Canada 32.8% of children 5 to 11 years old and 30.1% of the adolescents aged 12 to 17 years old are affected (44). However, recent data from the United States point to a significant decrease in obesity among children aged 2 to 5 years, from 14% in 2003-2004 to 8% in 2012-2013 (38). This decline might be attributed to such factors as increased breastfeeding rates and changes in food policies under the government's Supplemental Nutrition Program for Women, Infants, and Children (WIC).
- 17. In response to this epidemic, many countries in the Americas have sought to change norms and adopted regulations. Among them are:
  - a) Legislation and national policies to promote breastfeeding as, for example, the Baby Friendly Hospital Initiative, implementation and monitoring of the Code, and protection of breastfeeding in the workplace have been introduced in many countries.
  - **b**) Taxation on sugar-sweetened beverages and energy-dense nutrient-poor products aimed at reducing consumption, in Mexico.<sup>7</sup>

<sup>7</sup> Source: http://www.diputados.gob.mx/LeyesBiblio/pdf/78.pdf

- c) New policies to improve the school food environment, particularly foods sold in schools, as in Brazil, Chile, Colombia, Costa Rica,<sup>8</sup> Ecuador,<sup>9</sup> Mexico,<sup>10</sup> Peru, the United States, and Uruguay.
- **d**) Regulations on food marketing to children, as in Brazil, Chile, <sup>11</sup> and Peru.
- e) Improvements in National School Feeding Programs, as in the case of Brazil, Mexico, and others. Brazil now requires that at least 70% of food provided to students be natural or minimally processed and that a minimum of 30% of the school budget be used to buy foods from local family farmers.
- **f**) Front-of-package labeling that provides simple visual messages to connote various food characteristics, as in Ecuador.
- **g**) National, provincial, and territorial framework to promote healthy weight, as in the case of Canada and the United States, <sup>12</sup> which includes a multisectoral partnership approach.
- **18.**Some of the laws, and the regulations to execute them, have been challenged in the courts, delaying or halting their implementation. Often the development of regulatory mechanisms to implement the laws is a lengthy process, and in some instances the final results have been at odds with the spirit of the laws, thus weakening their implementation.

<sup>8</sup> Source: http://www.paho.org/nutricionydesarrollo/wp-content/uploads/2012/07/Costa-Rica-Regula-ciones-venta-alimentos-en-sodas-estudiantiles.pdf

<sup>9</sup> Source: http://www.fedecguayas.org/uploads/reglamento-bares-escolares.pdf

<sup>10</sup> Source: http://promocion.salud.gob.mx/dgps/descargas1/estrategia/Estrategia\_con\_portada.pdf

<sup>11</sup> Source: http://www.bcn.cl/leyfacil/recurso/etiquetado-de-alimentos

<sup>12</sup> Sources: http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/framework-cadre/index-eng.php (Canada); http://www.surgeongeneral.gov/initiatives/prevention/strategy/healthy-eating.html and http://www.surgeongeneral.gov/initiatives/prevention/strategy/active-living.html (United States).

19. Changes at local, state, and federal levels in the United States in the past 5 to 10 years have modified and improved the nutritional profile of foods and beverages served and available in the school setting. Such changes may have helped to halt the rise of overweight and obesity rates in several states and may even have led to a small decrease in some jurisdictions (45). Moreover, improvements in the WIC program have been associated with reduced obesity rates among children in 18 states (46).

# **Plan of Action (2014-2019)**

## Goal

- 20. The overall goal of this Plan of Action is to halt the rise of the rapidly growing obesity epidemic in children and adolescents, so that there is no increase in current country prevalence rates. This goal requires a multisectoral life-course approach that is based on the social-ecological model (47) and focuses on transforming the current obesogenic environment into opportunities for increased intake of nutritious foods and improved physical activity. This will be accomplished by implementing a set of effective policies, laws, regulations, and interventions, which will take into account the priorities and context of Member States, in the following strategic lines of action:
  - **a**) primary health care and promotion of breastfeeding and healthy eating;
  - **b**) improvement of school food and physical activity environments;
  - c) fiscal policies and regulation of food marketing and labelling;
  - d) other multisectoral actions;
  - e) surveillance, research and evaluation.
- 21. To this end, PAHO will provide: a) evidence-based information for the development of policies and regulations; b) regional guidelines for preschool and school feeding programs; c) regional guidelines for foods and beverages sold in schools (also known as competitive foods); and d) support for the adoption of indicators of obesity. As part of the Plan's implementation, PAHO

<sup>13 &</sup>quot;Competitive foods and beverages are those that are sold at school outside of and in competition with the federally reimbursable meal programs." (Source: http://www.cde.ca.gov/ls/nu/he/compfoods.asp)

will establish these guidelines, develop and maintain a database of nationally representative figures on overweight and obesity prevalence, as well as monitor activities related to the implementation of policies, laws, and programs in the Region.

# Strategic Line of Action 1: Primary health care and promotion of breastfeeding and healthy eating.

22. The main goal of primary health care (PHC) is to ensure equitable access to the services needed to realize the right to the enjoyment of the highest attainable standard of health and, as such, it has an important role on the prevention of obesity in children and adolescents and its long-term consequences. PHC service offers the opportunity to provide integrated health services, including the promotion of breastfeeding, healthy dietary habits and physical activity (48). A longer period of breastfeeding may reduce the prevalence of overweight and obesity by about 10% (22). Exclusive breastfeeding also helps mothers to lose weight postpartum more quickly. Promotion of breastfeeding will require countries to strengthen PHC services, as well as to renew their commitment to fully implement the Code and the Baby Friendly Hospital Initiative (BFHI) (49).

**Objective 1.1:** To include in health care services the promotion of healthy eating based on national food-based dietary guidelines as well as other activities related to the prevention of obesity.

## **Indicator:**

**1.1.1:** Number of countries with primary health care services that have incorporated family-oriented obesity prevention activities, including promotion of healthy eating and physical activity.

(Baseline: 1. Target: 10)

**Objective 1.2:** To reinforce efforts to implement the Global Strategy for Infant and Young Child Feeding.

#### **Indicators:**

**1.2.1:** Number of countries that regularly (at least every three years) publish their results of monitoring of the Code's implementation.

(Baseline: 5. Target: 15)

**1.2.2:** Number of countries that have at least 50% of maternity health services BFHI certified.

(Baseline: 0. Target: 5)

# Strategic Line of Action 2: Improvement of school<sup>14</sup> nutrition and physical activity environments.

23. Current scientific evidence establishes the effectiveness of school-based interventions to change eating behavior and prevent overweight and obesity (50, 51) by providing nutrient-dense meals that meet the dietary needs of children and adolescents (52). For such programs to be successful, they need to be implemented using an approach that is both comprehensive and consistent with nutrition and food safety standards. In addition, the marketing and sale of energy-dense nutrient-poor products and sugar sweetened beverages in schools needs to be regulated, and physical activity should be incorporated into school daily activities.

**Objective 2.1:** To ensure that national school feeding programs as well as the sale of foods and beverages in schools ("competitive foods") comply with norms and/or regulations that promote the consumption of healthy foods and water and prevent the availability of energy-dense nutrient-poor products and sugar-sweetened beverages.

<sup>14</sup> In this Plan of Action, the term "school" includes elementary, middle and high school.

## **Indicators:**

**2.1.1:** Number of countries that have national or subnational<sup>15</sup> school feeding programs that comply with the nutritional needs of children and adolescents, and are in line with the national food-based dietary guidelines.

(Baseline: 3. Target: 12)

**2.1.2:** Number of countries where at least 70% of the schools have norms and/or regulations for the sale of foods and beverages in schools ("competitive foods") that promote the consumption of healthy foods and water and prevent the availability and consumption of energy-dense nutrient-poor products and sugar sweetened beverages.

(Baseline: 8. Target: 16)

**2.1.3:** Number of countries where at least 70% of the schools have a source of clean drinking water.

(Baseline: 3. Target: 12)

**Objective 2.2:** Promote and strengthen school and early learning policies and programs that increase physical activity.

## **Indicator:**

**2.2.1:** Number of countries where at least 70% of schools have implemented a program that includes at least 30 minutes a day of moderate to intense (aerobic) physical activity.

(Baseline: 0. Target: 10)

<sup>15</sup> Some programs may be implemented at subnational level rather than at national level, depending on the country's political-administrative context. Given this situation, when the majority of subnational entities have implemented any specific action recommended in this plan of action, it will be considered that the country has implemented it.

# Strategic Line of Action 3: Fiscal policies and regulation of food marketing and labelling.

24. Fiscal policies and marketing regulations are known to be instrumental in reducing the consumption of tobacco (53) and alcohol. Similar results have been observed with sugar-sweetened beverages in France and Hungary. In the case of foods and beverages, Mexico has enacted taxation legislation for sugar-sweetened beverages and energy-dense nutrient-poor products. Chile and Brazil have launched initiatives to regulate food marketing. Because of children's greater vulnerability to the persuasive power of marketing messages (for example, television and internet commercials, celebrity endorsements, in-store marketing, and toy co-branding), WHO (54) and PAHO (19) have published recommendations to limit the negative impact of food marketing to children and adolescents with a view to reducing consumption of energy-dense nutrient-poor products, fast foods, and sugar-sweetened beverages. In order to promote children's health, governments are urged to consider establishing fiscal policies and regulatory mechanisms among policy levers to reduce childhood obesity, since current voluntary approaches have not yet demonstrated success in reducing childhood obesity (55, 56).

**Objective 3.1:** Implement policies to reduce children and adolescents' consumption of sugar-sweetened beverages and energy-dense nutrient-poor products.

## **Indicator:**

**3.1.1:** Number of countries that have passed legislation to tax sugar-sweetened beverages and energy-dense nutrient-poor products.

(Baseline: 1. Target: 10)

**Objective 3.2:** To enact regulations to protect children and adolescents from the impact of marketing of sugar-sweetened beverages, energy-dense nutrient-poor products, and fast foods.

## **Indicator:**

3.2.1: Number of countries that have implemented regulations to protect children and adolescents from the impact of marketing of sugar-sweetened beverages, energy-dense nutrient-poor products, and fast foods in line with the Recommendations from a Pan American Health Organization Expert Consultation on the Marketing of Food and Non-Alcoholic Beverages to Children in the Americas.

(Baseline: 1. Target: 15)

**Objective 3.3:** To develop and implement norms for front-of-package labeling that promote healthy choices by allowing for quick and easy identification of energy-dense nutrient-poor products.

### **Indicator:**

**3.3.1:** Number of countries that have norms in place for front-of-package labeling that allow for quick and easy identification of energy-dense nutrient-poor products and sugar sweetened beverages, which take into consideration Codex norms.

(Baseline: 1. Target: 15)

# Strategic Line of Action 4: Other multisectoral actions.

**25.** Effectively addressing child and adolescent obesity requires sustained multisectoral actions involving the public and non-governmental sectors, as well as the private sector where appropriate. Two relevant areas addressed by this Plan of Action are the

provision of urban spaces for physical activity and measures to increase the availability of and accessibility to nutritious foods. The creation of public spaces such as parks, implementation of "open streets" 16 programs, and establishment of rapid public transportation systems are initiatives that promote physical activity. Also important are interventions to improve production, storage and distribution systems of natural and whole foods. The family farming initiative is one example of those interventions, since a sizeable proportion of natural whole foods is produced by small and medium size agricultural units in the Region.

**Objective 4.1:** To engage other government institutions and, as appropriate, other sectors.

## **Indicator:**

**4.1.1:** Number of countries in which implementation of this Plan of Action is supported by a multisectoral approach.

**Objective 4.2:** To improve access to urban recreational spaces such as the "open streets" programs.

#### Indicator:

**4.2.1:** Number of countries in which the population in at least five cities has access to "open streets" programs. (Baseline: 6. Target: 15)

**Objective 4.3:** To take measures at national or subnational level to increase the availability of and accessibility to nutritious foods.

### **Indicators:**

**4.3.1:** Number of countries that have created incentives at national level to support family farming programs.

(Baseline: 5. Target: 21)

<sup>16</sup> Ciclovias recreativas; programs that close streets to vehicular traffic periodically for recreational purposes.

**4.3.2:** Number of countries that introduced measures to improve relative prices and/or accessibility to healthy [healthful] foods.

(Baseline: 3. Target: 10)

# Strategic Line of Action 5: Surveillance, research, and evaluation.

26. Surveillance information systems are crucial to informing national and regional policy-making, and data disaggregation is equally important to make these policies sensitive to equity concerns (57). Before a new system is designed, it is useful to assess the country's current capabilities and available data. Some countries have already adapted systems used internationally, such as the World Health Organization's Global School based Student Health Survey (GSHS) and Household Expenditure Surveys, while others have developed their own, like the Behavioral Risk Factors Surveillance System (BRFSS) in the United States and Brazil's telephone survey for the surveillance of risk factors and chronic disease protection, Vigilância de Fatores de Risco e Proteção para Doenças Crônicas por Inquérito Telefônico (VIGITEL), among others. It is critical to integrate the different information systems, as well as to build partnerships and networks with academic and scientific institutions in order to establish comprehensive surveillance systems.

**Objective 5.1:** To strengthen country information systems so that trends and determinants of obesity, disaggregated by at least two equity stratifiers, are routinely available for policy decision-making.

### **Indicator:**

**5.1.1:** Number of countries that have an information system to report on dietary patterns, and overweight and obesity of a nationally representative sample of pregnant women and school-aged children and adolescents, every two years.

(Baseline: 3. Target: 8)

## **Monitoring and Evaluation**

27. Meeting the goal and objectives in this Plan of Action is largely contingent on having reliable and timely information available from surveillance programs, and on ensuring that the information is accompanied by accurate analysis and interpretations, in order to arrive at evidence-based policy recommendations. Data collection to monitor implementation of this Plan of Action will be included as part of the monitoring system for the PAHO Strategic Plan 2014-2019. Accordingly, progress will be evaluated every two years. A baseline survey will be needed in order to establish several of the indicators. For this purpose, PAHO will establish a data collection system to monitor activities and evaluate progress towards achieving the overall goal. The system will be based on the indicators proposed for each area of action.

## **Financial Implications**

**28.** It is estimated that the total expenditure, including both activities and current and additional PAHO Secretariat staff, will be US\$ 3,080,000.<sup>17</sup> The cost of current staff (\$1,710,000) is cov-

<sup>17</sup> Unless otherwise indicated, all monetary figures in this report are expressed in United States dollars.

ered under the PAHO regular budget. Resources will be mobilized to cover the cost of additional staff (\$600,000) and PAHO activities (\$770,000). Activities undertaken by the countries and partners should be funded by multisectoral efforts at the local level.

## **Action by the Directing Council**

**29.** The Directing Council is invited to review the Plan of Action for the Prevention of Obesity in Children and Adolescents and consider the possibility of approving the proposed resolution included in Annex A.

## **Annexes**

## References

- World Health Organization. Diet, nutrition and the prevention of chronic diseases. Report of a joint WHO/FAO expert consultation [Internet].
   Geneva: WHO; 2003 (WHO Technical Report Series; 916) [cited 2014 Feb 26]. Available from: http://whqlibdoc.who.int/trs/WHO\_TRS\_916.pdf
- World Cancer Research Fund/American Institute for Cancer Research.
   Food, nutrition, physical activity, and the prevention of cancer: a global
   perspective [Internet]. Washington (DC): AICR; 2007 [cited 2014 Feb 26].
   Available from:
   http://www.aicr.org/assets/docs/pdf/reports/Second\_Expert\_Report.pdf
- Ebbeling CB, Pawlak DB, Ludwig DS. Childhood obesity: public-health crisis, common sense cure [online]. *The Lancet* 2002 Aug 10; 360 (Issue 9331): 473–482 [cited 2014 Feb 26]. Available from: http://www.sciencedirect.com/science/article/pii/S0140673602096782
- 4. Vartanian LR, Schwartz MB, Brownell KD. Effects of soft drink consumption on nutrition and health: a systematic review and meta-analysis. *Am J Pub Health* 2007 Apr; 97(4):667-675.
- Morenga LT, Mallard S, Mann J. Dietary sugars and body weight: systematic review and meta-analysis of randomised controlled trials and cohort studies [online]. BMJ 2013;346:e7492 [cited 2014 Feb 26]. Available from: http://www.bmj.com/content/346/bmj.e7492
- Fung TT, Malik V, Rexrode KM, et al. Sweetened beverage consumption and risk of coronary heart disease in women. *Am J Clin Nutr* 2009;89(4):1037-1042. doi: 10.3945/ajcn.2008.27140.
- Malik VS, Popkin BM, Bray G, Despres J-P, et al. Sugar sweetened beverages and risk of metabolic syndrome and type-2 diabetes: a meta-analysis [published online 2010 Aug 6]. *Diabetes Care* 2010; 3(11):2477-2484 [cited 2014 Feb 26]. Available from: http://care.diabetesjournals.org/content/33/11/2477

- 8. Bremer AA, Mietus-Snyder M, Lustig R. Toward a unifying hypothesis of metabolic syndrome [published online 2012 Feb 20]. *Pediatrics* 2012 Mar 1; 129(3): 557 570 [cited 2014 Feb 26]. Available from: http://pediatrics.aappublications.org/content/129/3/557.long
- 9. Lyssiotis CA, Cantley LC. Metabolic syndrome: F stands for fructose and fat [online]. *Nature* 2013 Oct 10; 502:181-182 [cited 2014 Feb 26]. Available from: http://www.nature.com/nature/journal/v502/n7470/full/502181a.html
- 10. Stanhope KL, Schwarz JM, Keim NL, Griffen SC, Bremer AA, Graham JL, Hatcher B, Cox CL, Dyachenko A, Zhang W, et al. Consuming fructose-sweetened, not glucose-sweetened, beverages increases visceral adiposity and lipids and decreases insulin sensitivity in overweight/obese humans [Internet]. J. Clin. Invest 2009 May;119(5):1322–1334 [cited 2014 Apr 28]. Available from:
  - http://www.ncbi.nlm.nih.gov/pubmed/19381015
- 11. Mozaffarian D, Ludwig DS. Dietary guidelines in the 21st century—a time for food (commentary). *J Am Med Assoc* 2010;304(6):681-682.
- 12. World Health Organization. Preparation and use of food-based dietary guidelines: report of a joint WHO/FAO consultation [Internet]. Geneva: WHO; 1998 (WHO technical report series; 880) [cited 2014 Feb 26]. Available from:
  - http://whqlibdoc.who.int/trs/WHO\_TRS\_880.pdf
- 13. Food and Agriculture Organization. The state of food and agriculture: food systems for better nutrition [Internet]. Rome: FAO; 2013 [cited 2014 Feb 26]. Available from:
  - http://www.fao.org/docrep/018/i3300e/i3300e.pdf
- 14. Simopoulos AP, Bourne PG, Faergeman O. Bellagio Report on Healthy Agriculture, Healthy Nutrition, Healthy People. Rev Panam Salud Publica. 2013;33(3):230–6. [cited Apr 28 2014]. Available from:
  - http://www.ncbi.nlm.nih.gov/pubmed/23698143
- Jacoby E. The best food on earth. Peru: As good as it gets (Commentary) [online]. World Nutrition 2012 Jul; 3(7):294-306 [cited 2014 Feb 26]. Available from: http://www.wphna.org/htdocs/downloadsjuly2012/12-07%20 WN3%20Peru%20food%20pdf.pdf

- 16. World Health Organization. Global strategy on diet, physical activity and health [Internet]. Geneva: WHO; 2004 [cited 2014 Feb 26]. Available from: http://www.who.int/dietphysicalactivity/strategy/eb11344/strategy\_english\_web.pdf
- 17. Moodie R, Stuckler D, Monteiro C, Sheron N, Neal B, Thamarangsi T et al. Profits and pandemics: prevention of harmful effects of tobacco, alcohol, and ultra-processed food and drink industries [Internet]. *The Lancet* 2013 Feb 23-Mar 1; Vol. 381, Issue 9867:670-679 [cited 2014 Feb 26]. Available from: http://dx.doi.org/10.1016/S0140-6736(12)62089-3
- Monteiro C, Moubarac JC, Cannon G, Ng SW, Popkin B. Ultra-processed products are becoming dominant in the global food system. *Obes* Rev 2013 Nov;14(Suppl. S2): 21 28.
- Pan American Health Organization. Recommendations from a Pan American Health Organization Expert Consultation on the Marketing of Food and Non Alcoholic Beverages to Children in the Americas [Internet]. Washington DC: PAHO; 2011 [cited 2014 Apr 2]. Available from: <a href="http://bvs.minsa.gob.pe/local/minsa/1734.pdf">http://bvs.minsa.gob.pe/local/minsa/1734.pdf</a>
- Dora C, Hosking J, Mudu P, Fletcher ER. Urban transport and health. Module 5g. Sustainable transport: a sourcebook for policy-makers in developing cities [Internet]. Geneva: WHO/GIZ; 2011 [cited 2014 Feb 26]. Available from: http://www.who.int/hia/green\_economy/giz\_transport.pdf
- 21. Cohen L, Davis R, Lee V, Valdovinos E. Addressing the intersection: preventing violence and promoting healthy eating and active living. Oakland (CA): Prevention Institute; 2010.
- 22. Horta BL, Victora CG. Long-term effects of breastfeeding: a systematic [Internet]. Geneva: WHO; 2013 [cited 2014 Feb 26]. Available from: http://apps.who.int/iris/bitstream/10665/79198/1/9789241505307\_eng.pdf
- Cunningham SA, Kramer MR, Venkat Narayan KM. Incidence of childhood obesity in the United States [online]. N Engl J Med 2014; 370(5):403-411 [cited 2014 Feb 26]. Available from: http://www.nejm.org/doi/abstract/10.1056/NEJMoa1309753
- 24. Daniels SR, Arnett DK, Eckel RH, Gidding SS, Hayman LL, Kumanyika S, et al. Overweight in children and adolescents: pathophysiology, consequences, prevention, and treatment [online]. Circulation 2005;111:1999-2012 (AHA Scientific Statement) [cited 2014 Feb 26]. Available from: http://circ.ahajournals.org/content/111/15/1999.full

- 25. Whitaker RC, Wright JA, Pepe MS, Seidel KD, Dietz WH. Predicting obesity in young adulthood from childhood and parental obesity [online]. N Engl J Med 1997;337:869–873 [cited 2014 Feb 26]. Available from: http://www.nejm.org/doi/full/10.1056/NEJM199709253371301
- 26. Michaud P-A, Suris JC, Viner R. The adolescent with a chronic condition: epidemiology, developmental issues and health care provision [Internet]. Geneva: WHO; 2007 (WHO discussion papers on adolescence) [cited 2014 Feb 26]. Available from: http://whqlibdoc.who.int/publications/2007/9789241595704\_eng.pdf
- Olshansky SJ, Passaro DJ, Hershow RC, Layden J, Carnes BA, Brody J, et al. A potential decline in life expectancy in the United States in the 21st century [online]. N Engl J Med 2005; 352;1138-1145 [cited 2014 Feb 26]. Available from: http://www.nejm.org/doi/full/10.1056/NEJMsr043743
- 28. National Research Council. Preventing Childhood Obesity: Health in the Balance. Washington (DC): The National Academies Press; 2005.
- Birch LL and Doub AE. Learning to eat: birth to age 2 [online]. *Am J Clin Nutr* 2014 Mar: 99(3):723S-8S. [Epub ahead of print] [cited 2014 Feb 26]. Available from: http://www.ncbi.nlm.nih.gov/pubmed/24452235
- World Health Organization. International code of marketing of breast-milk substitutes [Internet]. Geneva: WHO; 1981 [cited 2014 Feb 26]. Available from: http://www.who.int/nutrition/publications/code\_english.pdf
- 31. McLaren L. Socioeconomic Status and obesity [online]. *Epidemiol Rev* 2007; 29(1):29 48 [cited 2014 Feb 26]. Available from: http://epirev.oxfordjournals.org/content/29/1/29.long
- 32. Monteiro CA, Moura EC, Conde WL, Popkin B. Socioeconomic status and obesity in adult populations of developing countries: a review [online] *Bull World Health Organ.* 2004 Dec; 82(12): 940–946 [cited 2014 Feb 26]. Available from: http://www.scielosp.org/scielo.php?script=sci\_arttex-t&pid=S0042-96862004001200011&lng=en&nrm=iso&tlng=en
- 33. World Health Organization. Global status report on noncommunicable diseases 2010. [Internet]. Geneva: WHO; 2011 [cited 2014 Feb 26]. Available from: http://www.who.int/nmh/publications/ncd\_report\_full\_en.pdf

- 34. Rivera J, Avila M, Salinas C et al. Obesidad en México. Recomendaciones para una política de estado. Mexico City: Universidad Nacional Autónoma de México, Grupo Multidisciplinario sobre la Obesidad de la Academia Nacional de Medicina; 2013.
- 35. Ministerio de Salud de Chile [Ministry of Health of Chile]. Encuesta Nacional de Salud 2010 [Internet]. Santiago: Subsecretaría de Salud Pública, Departamento de Epidemiología [cited 2014 Feb 26]. Available from: http://epi.minsal.cl/estudios-y-encuestas-poblacionales/encuestas-poblacionales/descarga-ens/
- National Center for Health Statistics. Health, United States, 2012: With special feature on emergency care [Internet]. Hyattsville (MD): CDC NCHS;
   2013 [cited 2014 Feb 26]. Available from: http://www.cdc.gov/nchs/data/hus/hus12.pdf
- 37. Caribbean Food and Nutrition Institute. Report on the anthropometry of children 0 to 4 years old in the Caribbean. Kingston: CFNI; 2012.
- Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of childhood and adult obesity in the United States, 2011-2012 [online]. JAMA. 2014;311(8):806-814 [cited 2014 Feb 26]. Available from: http://jama.jamanetwork.com/article.aspx?articleid=1832542
- Rivera JA, González de Cossio T, Pedraza LS, Aburto TC, Sánchez TG, Martorell R. Childhood and adolescent overweight and obesity in Latin America: a systematic review [online]. *The Lancet Diabetes-Endocrinology* 2013; Vol. 2, Issue 4, 2014 Apr p. 321-332 [cited 2014 Feb 26]. Available from: http://dx.doi.org/10.1016/S2213-8587(13)70173-6
- 40. Instituto Nacional de Estadística e Informática. Encuesta Nacional de Hogares, 2008 [Internet]. Lima: INEI, 2008 [cited 2014 Feb 26]. Available from: http://www.inei.gob.pe/biblioteca-virtual/boletines/condiciones-de-vida/3/
- Instituto Colombiano de Bienestar Familiar. ENSIN Encuesta nacional de situación nutricional en Colombia [Internet]. Bogota: ICBF; 2010 [cited 2014 Feb 26]. Available from: http://www.icbf.gov.co/portal/page/portal/PortalICBF/NormatividadC/ENSIN1
- Instituto Nacional de Salud Pública. Encuesta nacional de salud y nutrición (ENSANUT) [Internet]. Cuernavaca (Mexico): INSP; 2012 [cited 2014 Feb 26]. Available from: http://ensanut.insp.mx/

- 43. Ogden CL, Carroll MD, Curtin LR, Lamb MM, Flegal KM. Prevalence of high body mass index among US children and adolescents, 2007-2008 [online]. JAMA 2010 Jan 20;303(3):275-276 [cited 2014 Feb 26]. Available from: http://jama.jamanetwork.com/article.aspx?articleid=185233
- 44. Roberts KC, Shields M, de Groh M, et al. Overweight and obesity in children and adolesents: Results from the 2009 to 2011 Canadian Health Measures Survey. *Health Reports*. 2012;23(3):1-5 [cited 2014 Jun 24]. Available from: http://www.statcan.gc.ca/pub/82-003-x/2012003/article/11706-eng.pdf.
- 45. Robert Wood Johnson Foundation. Health Policy Snapshot. Childhood Obesity. [Internet]. Princeton (NJ): RWJF c2012 (Issue Brief 2012 Sep) [cited 2014 Feb 26]. Available from: http://www.rwjf.org/content/dam/farm/reports/issue\_briefs/2012/rwjf401163.
- 46. Centers for Disease Control and Prevention. Mortality and Morbidity Weekly Report (MMWR). Vital signs: obesity among low-income, preschool-aged children United States, 2008–2011 [Internet]. Atlanta (GA): CDC; 2013 Aug 9; 62(31);629 634 [cited 2014 Feb 26]. Available from: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6231a4.htm
- 47. Pérez-Escamilla R and Kac G. Childhood obesity prevention: a life-course framework. *International Journal of Obesity Supplements* (2013) 3:S3–S5.
- 48. Pan American Health Organization. Renewing primary health care in the Americas: A position paper of the Pan American Health Organization/ World Health Organization (PAHO/WHO). Washington (DC): PAHO; c2007 [cited 2014 Jul 2]. Available from: http://apps.who.int/medicinedocs/ en/d/Js19055en/
- 49. Lutter CK, Lutter R. Fetal and early childhood undernutrition, mortality and lifelong health [online]. *Science* 2012;337:1495-1499 [cited 2014 Feb 26]. Available from: http://www.sciencemag.org/content/337/6101/1495
- 50. Lobelo F, Garcia de Quevedo I, Holub CK, Nagle BJ, Arredondo EM, Barquera S, et al. School-based programs aimed at the prevention and treatment of obesity: evidence-based interventions for youth in Latin America. *J* Sch Health 2013;83(9):668-7.

- 51. Verstraeten R, Roberfroid D, Lachat C, Leroy JL, Holdsworth M, Maes L, et al. Effectiveness of preventive school-based obesity interventions in low-and middle income countries: a systematic review. *Am J Clin Nutr* 2012 Aug;96(2): 415 38.
- 52. United States Department of Agriculture. Nutrition standards in the national school lunch and school breakfast programs; Final rule. Federal Register. 77(17). 2012 Jan 26 [cited 2014 Jul 2]. Available from: http://www.gpo.gov/fdsys/pkg/FR-2012-01-26/pdf/2012-1010.pdf
- World Health Organization. WHO framework convention on tobacco control [Internet]. Geneva: WHO; 2003 [cited 2014 Feb 26]. Available from: http://whqlibdoc.who.int/publications/2003/9241591013.pdf.
- 54. World Health Organization. A framework for implementing the set of recommendations on the marketing of foods and non-alcoholic beverages to children [Internet]. Geneva: WHO;2012 [cited 2014 Feb 26]. Available from: http://www.who.int/dietphysicalactivity/MarketingFramework2012.pdf
- 55. Galbraith-Emami S, Lobstein T. The impact of initiatives to limit the advertising of food and beverage products to children: a systematic review. *Obes Rev* 2013;14(12):960-974.
- 56. Hawkes C, Harris JL. An analysis of the content of food industry pledges on marketing to children. *Public Health Nutr* 2011;14(8):1403-14.
- 57. World Health Organization. Handbook on health inequality monitoring, with special focus on low- and middle-income countries [Internet]. Geneva: WHO; 2013 [cited 2014 Feb 28]. Available from: http://apps.who.int/iris/bitstream/10665/85345/1/9789241548632\_eng.pdf

# **Annex A**

# Resolution

## The 53rd Directing Council,

Having reviewed the *Plan of Action for the Prevention of Obesity in Children and Adolescents* for 2014-2019 (Document CD53/9, Rev. 2);

Recalling the right of children to the enjoyment of the highest attainable standard of health, as set forth in the Constitution of the World Health Organization, and the United Nations Convention on the Rights of the Child;

Mindful that overweight and obesity have reached epidemic proportions among children and adolescents in the Americas and that the problem is already prompting diverse control efforts at the local as well as national levels by Member States;

Recognizing that the scientific and public health knowledge about the mechanisms involved in the current obesity epidemic and the public action required to control it is vast and robust;

Cognizant that the present Plan of Action aligns with international mandates emerging from the World Health Assembly, in particular the WHO Global Strategy on Diet, Physical Activity, and Health (WHA57.17 [2004]) and the Comprehensive Implementation Plan on Maternal, Infant, and Young Child Nutrition (WHA65.6 [2012]), in addition to mandates by PAHO Governing Bodies, including the Strategy and Plan of Action for Integrated Child Health (CSP28/10 [2012]), the Regional Strategy for

Improving Adolescent and Youth Health (CD48.R5 [2008]), the Regional Strategy and Plan of Action on Nutrition in Health and Development, 2006-2015 (CD47/18 [2006]), and the Strategy and the Plan of Action for the Prevention and Control of Noncommunicable Diseases (Documents CSP28/9, Rev. 1 [2012] and CD52/7, Rev. 1 [2013]), as well as with the United Nations Convention on the Rights of the Child (1989),

## **Resolves:**

- 1. To approve the *Plan of Action for the Prevention of Obesity in Children and Adolescents* for 2014-2019.
- 2. To urge Member States to:
  - a) give priority and advocate at the highest levels for the implementation of this Plan of Action;
  - b) promote coordination between ministries and public institutions, primarily in the sectors of education, agriculture, finance, trade, transportation, and urban planning, as well as with local city authorities, to achieve national consensus and synergize actions to halt progression of the obesity epidemic among children;
  - c) support and lead joint efforts between the public and private sectors and civil society organizations around the Plan of Action;
  - d) develop evidence-informed mass communication plans and programs to disseminate the Plan of Action and educate the public on matters of physical activity, food, healthy eating, and the value of local culinary traditions consistent with healthy eating;

- e) establish an integrated monitoring, evaluation, and accountability system for policies, plans, programs, legislation, and interventions that will make it possible to determine the impact of implementing the Plan of Action;
- f) ensure that processes are established with multiple sectors and stakeholders to review and analyze the Plan's implementation based on national priorities, needs, and capabilities.

## **3**. To request the Director to:

- a) provide support to the Member States in collaboration with other UN agencies and committees such as the Food and Agriculture Organization, the United Nations Children's Fund, the World Food Programme, and the United Nations Committee on the Rights of the Child, other stakeholders and donors, as well as national sectors, to work collectively on the Plan of Action, particularly its activities at the subregional and country levels;
- b) promote implementation and coordination of the Plan of Action to ensure that activities cut across the Organization's various program areas and different regional and subregional contexts;
- c) promote and consolidate cooperation with and among countries, with sharing of the experiences and lessons learned;
- **d**) report periodically to the Governing Bodies on progress and constraints in implementation of the Plan of Action, as well as on its adaptation to new contexts and needs.