Safeguarding Our Future Development

Plan of Action for Promoting Healthy Weights in the Caribbean: Prevention and Control of Childhood Obesity

2014 - 2019
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The Caribbean is in the midst of a childhood obesity epidemic. At least 1 in every 5 of our children are carrying unhealthy weights and are at risk of developing non-communicable diseases later in life. Although our region is not facing a unique public health challenge, it has the unenviable distinction of having rates of prevalence that are close to or above the global average.

This problem that has emerged among our young people is a subset of the larger non-communicable disease epidemic which our countries face. The non-communicable disease epidemic is a wholly man-made epidemic fuelled by our regional food insecurity as well as complex economic and socio-cultural factors at home and in the global economy. This is indeed a goliath problem that warrants our urgent attention.

To effectively defeat this epidemiological giant requires sustained multi-sectoral, multi-level action. The responsibility for protecting the future of our children is a responsibility to be shared by all sectors both public and private, all levels of government and by families and civil society at large. Where our children are concerned, this responsibility must be seen as more than a response to a public health priority but rather as our responsibility to provide an adequate standard of living and to protect the vulnerable from abuse and exploitation.

This Plan provides a comprehensive public health response to our problem. It seeks to tackle the underlying variables that produce the obesogenic environments that are fuelling the epidemic but it also supports more direct measures to effect change at the individual and community level as well as to provide clinical, family and psychosocial support for the child who is already affected by overweight/obesity. No response is however complete without giving due consideration to the capacity of the people, systems and institutions that will be called upon to deliver. Our Plan for Action therefore also includes measures to augment capacity in critical area and to effectively monitor progress and measure results.

We have set ourselves an ambitious goal. It is to **halt and reverse the rise in obesity in children and adolescents by 2025**. To achieve this, we will focus on technical cooperation with Member States to support national implementation of a series of measures over 2014 – 2019. These measures aim to ensure that:

1. The environments where Caribbean children live and learn are more supportive of physical activity and healthy eating;
2. Appropriate incentives to discourage unhealthy consumption patterns and to encourage healthier dietary choices are created;
3. Communities are empowered to embrace active living and healthful eating;
4. Parents and children are provided with accurate information about food, nutrition and exercise to enable informed decisions;
5. Our children who are affected by overweight/obesity are provided with the necessary care and support and are safeguarded from bias and stigmatization associated with their condition;
6. Systems within government have the capability to mount effective responses and that multi-sectoral cooperation is fostered;
7. Data are available for tracking the movement of the epidemic and for measuring and assessing results.

We expect that there will be significant return on this collective investment, especially in the areas of systems strengthening and capacity development as these can also be applied to other public health challenges.

I wish to sincerely thank all those who have lent their collective wisdom to the development of this Plan. Special gratitude is extended to the European Union for financial resources to undertake this activity and to our Expert Advisory Group for its stewardship.

I look forward, in collaboration with our partners, to delivering technical support to Member States as we seek to collectively safeguard our future development.

Dr. C. James Hospedales
Director
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>BFHI</td>
<td>Baby Friendly Hospital Initiative</td>
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<td>BMI</td>
<td>Body Mass Index</td>
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<td>BPB</td>
<td>Biennial Program Budget</td>
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<td>CARICOM</td>
<td>Caribbean Community</td>
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<td>CARPHA</td>
<td>Caribbean Public Health Agency</td>
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<td>CFNI</td>
<td>Caribbean Food and Nutrition Institute</td>
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<td>CMS</td>
<td>CARPHA Member States</td>
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<tr>
<td>COHSOD</td>
<td>Council for Human and Social Development</td>
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<td>COMBI</td>
<td>Communication for Behavioural Impact</td>
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<tr>
<td>COTED</td>
<td>Council for Trade and Economic Development</td>
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<td>DOM</td>
<td>Dominica</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>HIC</td>
<td>High income country</td>
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<td>IEC</td>
<td>Information, Education and Communication</td>
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<td>JCA</td>
<td>Jamaica</td>
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<td>LBW</td>
<td>Low Birth Weight</td>
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<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
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<td>MIC</td>
<td>Middle income country</td>
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<td>MONT</td>
<td>Montserrat</td>
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<td>NCD</td>
<td>Non-communicable disease</td>
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<td>PAHO</td>
<td>Pan American Health Organization</td>
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<td>PHNAC</td>
<td>Public Health Nutrition Advisory Committee</td>
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<td>RMPS</td>
<td>Resource Mobilization and Partnership Strategy</td>
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<td>SVG</td>
<td>St. Vincent and the Grenadines</td>
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<td>T&amp;T</td>
<td>Trinidad and Tobago</td>
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<tr>
<td>TBD</td>
<td>To be developed</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children Fund</td>
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<td>University of the West Indies</td>
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EXECUTIVE SUMMARY

Prevalence of Overweight/Obesity
The health status of the region’s children and young people has dramatically improved over the past decades. Infant mortality rates have been moving downwards; improved sanitation has significantly reduced the prevalence of diarrhoeal and infectious diseases and national immunization programmes have contributed to the near elimination of childhood vaccine preventable diseases in most countries. Despite these gains, a new epidemiologic crisis threatens to erode much of the gains that have been made. Available evidence reveals a significant and growing problem of unhealthy weights among the region’s young. Prevalence rates for overweight/obesity are between 28% - 35% in Caribbean countries. Furthermore, trend data also show that the problem has been escalating. A 2003 study that included Body Mass Index (BMI) tracking of children at 7 – 8 years and then at 11 – 12 years in Jamaica revealed obesity rates for study participants increasing from 3.5% to 9.5% after follow-up (Gaskin and Walker 2003). In Trinidad and Tobago, separate studies conducted in 2001, and in 2010 also showed a disturbing increase in prevalence from 5% in 2001 to 26% in 2010 (Batson et al. 2013).

The upward course identified for these two countries is in keeping with the general trajectory previously established in others. In all of the following countries, rates for overweight/obesity over 1990 – 2000 moved upward: In Dominica from 6.0% in 1990 to 9.7% in 1999. In St. Kitts, from 7.1% in 1990 to 10.6% in 1999; in St. Vincent from 6.9% in 1991 to 7.2% in 1998; and in Guyana from 6.7% in 1996 to 12.9% in 2000 (Xuereb et al 2001). Although of little comfort, this public health challenge is not unique to the Caribbean. Globally it was estimated that the worldwide prevalence of overweight/obesity among pre-school children (0 – 5 years) increased from 4.2% in 1990 to 6.7% in 2010. In 2010, however, the prevalence rate for the Caribbean, was placed above the global average and by 2015 it is expected to remain around the global average (De Onis et al 2010). An urgent response is therefore needed to change the course of these projections.

The Double Burden of Malnutrition
It is important to note that nutritional deficiency diseases in children still exist in many Caribbean territories. Low birth weight (LBW) is still a problem especially among children whose families are at the economic margin of society and cannot meet their basic food needs. Like other transitional economies, the Caribbean region is facing a dual burden of under- and over-nutrition and a common and holistic nutrition agenda is required to tackle them both. This Plan of Action for Promoting Healthy Weights: 2014 – 2019 presents the first part of CARPHA’s integrated strategy to deal with nutrition. The Plan focuses on the specific issues, challenges and needs of children and adolescents as it pertains to over-nutrition. It is therefore specifically directed to the prevention and control of overweight and obesity in children and adolescents but will also have wider societal impact.

Determinants of Childhood Obesity in the Caribbean
Falling rates of breastfeeding, unhealthy eating patterns, sedentary lifestyles and advertising and promotion of unhealthy diets are some of the main factors contributing to weight gain in Caribbean children. Although initiation of breastfeeding is high (average of 88%), there are significant variations in exclusive breastfeeding rates for the first six months of life, with the average rate being approximately 39% with some countries recording as low as 5% (UNICEF 2014). Research in the region has also found that consumption of sweetened beverages, limited fruit, vegetable and water intake and low physical activity levels are significantly associated with overweight/obesity (Schwiebbe et al 2011; Blake 2013; Malcom et al 2013; Ross 2013; Mungrue et al 2013). Furthermore, the school environment in some instances also contributes to unhealthy eating. Assessment of meal options offered at schools, indicate that many children are consuming foods high in fats and sugars and low in iron and calcium (CFNI 2012). In addition to this, scientific evidence now confirms that children, in both the developed and developing world, have extensive recall of advertised foods and that aggressive marketing and promotion of pre-sugared breakfast cereals; soft-drinks, confectionary; savoury snacks; and fast-foods influences children’s food preferences and consumption (Hastings et al. 2006). In summary, the current obesity epidemic is being fuelled by a complex interplay of environmental factors at the global, national and community level as well as the personal behaviours of parents and their children.
Consequences of Childhood Obesity
The epidemiologic shift of obesity to the younger Caribbean population has significant ramifications. Apart from the direct impact upon health and wellbeing, there are also significant long-term consequence, the main being its persistence into adulthood. Childhood obesity is heavily associated with adolescent obesity and is a strong predictor of adult obesity which generally comes with a host of related chronic non-communicable diseases (NCDs). It is instructive to note that risk factors for hypertension, diabetes and cardiovascular diseases have already started to emerge in Caribbean children (Walyn et al. 2013; Taylor et al. 2013; Batson et al 2013; Rivers et al.2013; Mungrue et al. 2013). The impact of the epidemic must therefore also be weighed in terms of the healthcare system’s inability to cope with the inevitable future lifetime cost of treatment and care for adults who will suffer from NCDs.

Rapid Assessment of the Current Regional Response
A survey to assess Member States’ response to the epidemic was recently conducted by CARPHA. Seven countries reported that they had at least one obesity prevention policy either in draft or finalized. Obesity Prevention projects and initiatives were also widely reported. Ten countries reported implementation of a total of 19 obesity prevention projects during 2013. These interventions, were however, largely focused on school-based initiatives with less attention being placed on the involvement of a wide cross-section of stakeholders.

From our analysis, further changes are required at country level in order to impact the epidemic. In the area of primary prevention, these include stronger measures to counter obesogenic environments and to strengthen existing health promotion strategies. Secondary prevention is also important. There is need for clinical care as well as psychosocial support for children and families to deal with overweight/obesity and its impact. The capacity of the health, education and trade sectors to work collaboratively to develop and effect multisectoral strategies needs to be enhanced. Finally, surveillance and monitoring and evaluation systems must also be put in place to track progress. In summary, comprehensive and sustained action is required at multiple levels by multiple players.

Goal of the Plan of Action
To halt and reverse the rise in child and adolescent obesity in the Caribbean by 2025.

Priority Areas, Objectives and Outcomes
P1: Prevention
P1.1. Regulation, Policy and Advocacy

Objectives:
- To make the environments where Caribbean children live and learn more supportive of physical activity and healthy eating.
- To create incentives to discourage unhealthy consumption patterns and to encourage healthier dietary choices.

Outcomes
- Member States enact strong regulatory frameworks for reducing obesogenic environments.
- Evidence-based policies to support production, access and consumption of safe, affordable, nutritious, high quality food commodities implemented in Member States.
- Infant and child feeding policies, programmes and interventions strengthened

P1.2 Education and Behaviour Change Interventions

Objectives:
- To empower communities to embrace active living and healthful eating.
- To provide parents and children with accurate information about food, nutrition and exercise to enable informed decisions

Outcomes
- Strengthened community capacity to provide opportunities for healthful eating and physical activity in their environments (home, schools, places of worship etc.)
- National obesity prevention initiatives scaled up in accordance with the Caribbean Charter for Health Promotion.
• Social Marketing Campaigns for obesity prevention strengthened to integrate traditional and new forms of media.
• Education officials better equipped to strengthen the school curriculum to promote emphasis on nutrition and physical activity.

P2: Management and Control
P2.1. Treatment and Support
Objective:
• To provide children and families who are affected by overweight/obesity with the necessary care and support.
Outcome
• Evidence-based weight management services more available, accessible and acceptable to children.

P2.2 Addressing Stigmatization
Objective:
• To safeguard children who may be affected by overweight/obesity from bias and stigmatization associated with their condition.
Outcome
• National policies and programmes more responsive to the ethical issues concerning childhood obesity and childhood weight management.

P3: Strengthening Systems to support action
P3.1 Strengthening systems within Government
Objective:
• To improve the capability of systems within Government to mount effective responses.
Outcome
• Systems in education, health and trade sectors better equipped to conduct activities in the Plan of Action.

P3.2. Strengthening multi-sectoral action
Objective:
• To foster multi-sectoral cooperation in responding to the epidemic.
Outcome
• National multi-sectoral country teams have the technical capacity to develop and implement multi-sectoral Action Plans for population-based childhood obesity prevention.

P4: Strategic Information
P4.1. Surveillance
Objective:
• To provide core data for tracking the movement and determinants of the epidemic.
Outcome
• Quality comparable data on nutrition status and the food environment available for policy and programming.

P4.2 Monitoring, evaluation and research
Objective:
To provide information for measuring and assessing results of the Plan of Action.

**Outcome**
- Childhood obesity programmes informed by comparable data on the cost and consequences of the epidemic and the impact of prevention measures.

**Resource Mobilization and Partnership Strategy**
The estimated cost of the comprehensive response is US$ 1,824,600 over five years or approximately $365,000 per annum. Resources to support execution will be mobilized from four main streams: i) Project funds mobilized from our Development Partners; ii) cost sharing activities to be funded by Member States outside of their quota contributions; iii) private sector sponsorship, including in-kind resources from civil society organizations; and iv) the CARPHA core budget.
1.1 The Caribbean is in a stage of development characterized by a reduction in malnutrition and infectious diseases and an increase in nutrition-related chronic diseases.

Fundamental changes have occurred in the food economy over the past two centuries and these have significantly influenced global dietary patterns. Food processing, which is now the cornerstone of the modern food industry and trade liberalization, has resulted in mass-production and availability of relatively cheap, highly processed foods and with this, major shifts in the overall structure of diets have occurred in many countries. The essence of these changes include increased consumption of energy dense foods, high in fat and sugars, along with reductions in plant-based high fibre produce. Concomitant with these nutritional transitions, there has also been a generalized decline in activity energy expenditure driven in a large part by the increased availability and use of motorized transport and the replacement of physically demanding manual tasks in the workplace with machine operated processes. Together, these forces have combined to produce the current global epidemic of human obesity to which the Caribbean is not immune.

The emergence of the obesity epidemic in the Caribbean is a feature of the region's state of development. Since 1975, the urban population has been growing faster than the rural population and today it is now much larger (Figure 1). This rural/urban shift has had dire consequences on people's ability to pursue active lifestyles [1]. In addition to this, since the 1960's, dietary energy availability in the Caribbean has been steadily increasing. From the 1970’s the average daily energy supply per caput in the Caribbean has been exceeding the recommended daily allowance. By 2000, this excess was about 17% percent (Figure 2). In Figure 3a and Figure 3b, it can be see that fats and sugars contribute significantly to this excess caloric intake. Latest data for fat and sugar availability in selected Caribbean countries show that in all countries, availability is above the population food goal (Figure 4 and Figure 5) [2].

Consumption of fats and sugars is in stark contrast to the consumption of fruits and vegetables which has consistently been below the recommended daily goal (Figure 3c). While the overall trend in fruit and vegetable intake for the region has been steadily increasing, the actual level is, however, still way below the dietary goal and this is notwithstanding increased importation (Figure 3c).
Over consumption of calories and inactivity result in overweight/obesity which is one of the risk factors for non-communicable diseases (NCDs). Sixty (60) percent or more of deaths in the Caribbean are currently due to NCDs (Figure 6).
The economic burden of NCDs includes higher lifetime health care costs but also the indirect costs such as lost productivity, household poverty and forgone national income. The economic burden of two NCDs—diabetes and hypertension—was estimated for the Caribbean and was found to be high and unsustainable, ranging from 1.4% of GDP in the Bahamas to 8% of GDP in Trinidad and Tobago.

Risk factors for NCDs have traditionally been associated with the ageing populations. In recent years, however, children and young people in our region have also become susceptible to nutrition-related chronic illnesses.

**1.2 Childhood obesity is a public health issue that can erode advances made to improve the health status of children.**

The health status of the region’s children and young people has dramatically improved over the past decades. Infant mortality rates have been moving downwards; improved sanitation has significantly reduced the prevalence of diarrhoeal and infectious diseases and national immunization programmes have contributed to the near elimination of childhood vaccine preventable diseases in most countries. Despite these gains, a new epidemiologic crisis is on the horizon and threatens to erode much of the gains that have been made.

A 2003 study that included BMI tracking of children at 7 – 8 years and then at 11 – 12 years in Jamaica revealed obesity rates for study participants increasing from 3.5% to 9.5% after follow-up. In Trinidad and Tobago, separate studies conducted in 2001, and in 2010 showed a disturbing increase in prevalence from 5% (2001) to 26% (2010). This upward course identified for these two countries is in keeping with the general trajectory previously established in others. In all of the following countries, rates for overweight/obesity over 1990 – 2000 moved upward: in Dominica from 6.0% in 1990 to 9.7% in 1999; in St. Kitts, from 7.1% in 1990 to 10.6% in 1999; in St. Vincent from 6.9% in 1991 to 7.2% in 1998; and in Guyana from 6.7% in 1996 to 12.9% in 2000. Among children in Aruba, estimated prevalence of overweight moved from 15% (2001) to 37% (2004) and obesity among Saint Lucian preschoolers reportedly tripled in 30 years.

**1.3 The Prevalence of Childhood Obesity in the Caribbean is around the global average.**
Although of little comfort, the Caribbean is not facing a unique public health challenge. Globally it was estimated that the worldwide prevalence of overweight/obesity among pre-school children (0 – 5 years) increased from 4.2% in 1990 to 6.7% in 2010 (43 million) (Figure 8). Eighty (80) percent or 35 million of these children were living in developing countries. This trend in prevalence was expected to continue upwards to reach 9.1% or 60 million pre-school children by 2020 (Figure 8). In 2010, the prevalence rate for the Caribbean was estimated to be above the overall global average. By 2015, prevalence in this region is expected to be just about the same as the global average. There is therefore an urgent public health issue to be tackled in our countries if we are to change the course of these projections.

Figure 8
Trends in Prevalence of Overweight and Obesity in Children 0 – 5 Years
1990 – 2020

Notwithstanding the problem of overweight/obesity, there is still prevalence of nutritional deficiency diseases in many Caribbean territories. This is particularly the case for children whose families are at the economic margin of society and cannot meet their basic food needs. The prevalence of Low Birth Weight (LBW) remains between 4% and 11%[18]. Like other transitional economies, this region is facing a dual burden of under- and over-nutrition. It does not, however, appear to be an equal double burden as over nutrition is by far the major issue in nearly all CARPHA Member States (CMS).

A common and holistic agenda is required to tackle the dual burden. This Plan represents the first part of CARPHA’s integrated nutrition strategy and is concerned with the specific issues, challenges and needs of children and adolescents as it pertains to over-nutrition. It is therefore specifically directed to the prevention and control of overweight and obesity in children and adolescents.
2. THE CHALLENGE

2.1 Falling rates of breast feeding, unhealthy eating patterns, sedentary lifestyles and advertising and promotion are the main factors that promote weight gain in Caribbean children.

Overweight/obesity is the result of the energy derived from food consumption being in excess of what is required for normal growth, body functioning and physical activity levels. However straightforward this may appear to be, there are many complex factors which are contributing to the existence and intensification of this problem among Caribbean children.

Firstly, inappropriate feeding practices such as early cessation of breastfeeding and early initiation of complementary foods remain the greatest threat to a child’s health. It is well established that breastfeeding offers short-term and long-term protective effects including reduction of morbidity and mortality due to childhood infectious diseases and lower prevalence of overweight/obesity later in life. The protective influence of breastfeeding, however, increasingly being eroded in the Region. While initiation of breastfeeding is high (average of 88%), there are significant variations in exclusive breastfeeding rates for the first 6 months of life with the average rate being approximately 39% and some countries recording as low as 5%.

Secondly, several studies by Caribbean researchers have highlighted the lifestyle and nutritional characteristics of our young people and these draw attention to some troubling unhealthy behaviours. For example, approximately half of the children surveyed in Bonaire consumed less than two pieces of fruit a day and no vegetables. In Jamaica, consumption of sweetened beverages, limited fruit and water intake and low physical activity levels were found to be significantly associated with overweight/obesity.

In the Aruban Childhood Obesity Study conducted in 2004, the eating pattern of children and young people, with regards to breakfast was highlighted. For children between the ages of 6 - 11 years, as much as 71.9% of them did not eat breakfast on a regular basis. In Turks and Caicos, breakfast eaters were less likely to be obese than non-breakfast eaters. Ross (2013) found that there was also a correlation between the money provided to purchase lunch and overweight/obesity among Jamaican school children. A survey of 1,896 adolescents in Trinidad and Tobago, between the ages of 13 – 18 reported that as much as 79.8% of them consumed fast foods while as little as 24.6% reported engaging in physical activity.

Thirdly, with respect to physical activity, the Caribbean region has not been isolated from the revolution in information technology and the availability of media. Screen time for activities such as television viewing, computer/play-station and video gaming have been pushing the levels of inactivity upwards. According to the School Health Survey conducted in several Caribbean countries, more young people are reported to be sedentary than physically active for 60 minutes (Figure 9) with the problem of inactivity appearing to be worse in the countries with higher income. Using the WHO STEPwise approach to surveillance (STEPS) methodology, data for persons 15-21 years from high income countries (HIC) were compared to a middle income countries (MIC) in the region. With respect to physical activity, there was a significant difference in the levels of low physical activity between HIC (45%) and the MIC (28%).

![Figure 9](image)

Physical Activity Levels, Global School-based Student Health Survey, Age 12 – 15 years, 2007 - 2011 (Percentage)

Fourthly, aggressive and creative marketing of energy dense food and beverage products, by manufacturers and retailers, through the use of television advertising, kids meals, toys and other promotional materials directly targeted to children is a very popular strategy not only in the Caribbean but globally. The minds of children are young and impressionable and particularly susceptible to these types of strategies. A
systematic review of the evidence on the extent, nature and effects of food promotion on children was conducted by Hastings et al (2006)\textsuperscript{[27]}. The main findings from this review are provided in Box 1. In summary, scientific evidence has confirmed that children, in both developed and developing countries, have extensive recall of advertised foods and that marketing and promotional activities influence their food preferences and consumption (Box 1).

Fifthly, children spend the greatest amount of their time at schools and the school environment can contribute significantly to unhealthy eating behaviours if it does not provide options for children to make healthy food choices. Assessment of school meal options conducted in several CMS over a period of years indicate that many children are consuming foods high in saturated fats and sugars (sodas and a range of snack items) and low in iron and calcium. The observed availability of fruit, vegetables and to a lesser extent legumes in the school meal was inadequate and as a result fruit and vegetable intake for the majority of children did not meet the recommendation of five servings daily \textsuperscript{[28]}. These findings, coupled with the generalized influences of the demographic and nutrition transitions on parents are contributing to the escalating epidemic in our children. These factors may be summarized as a complex interplay of environmental and behavioural factors at the global, national and community level and at home. Figure 10 illustrates.

\begin{center}
\textbf{Figure 10}
Factors which influence weight gain in children
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\includegraphics[width=0.5\textwidth]{figure10.png}
\end{center}

Source: Author's illustration

\begin{center}
BOX 1
THE NATURE OF FOOD PROMOTION AND ITS EFFECTS ON CHILDREN
\end{center}

Studies showed that food promotion is dominated by television advertising, the great majority of which promotes the Big Five:

- pre-sugared breakfast cereals;
- soft-drinks,
- confectionary;
- savoury snacks; and
- offerings of fast-food outlets

Survey evidence showed that children in both the developed and developing world have extensive recall of food advertising. Food adverts were among their favourite types of advertising, with the most popular being for chocolate, sweets, soft drinks and other foods high in fat, sugar and salt (e.g. snacks and fizzy drinks).

Surveys also found that children are interested in trying advertised foods and often ask their parents to buy them. Parents—especially those from disadvantaged backgrounds—frequently yield to such requests. Disadvantaged mothers also attributed more importance to advertised food products and credibility to food adverts than their more privileged peers.

Evidence from studies capable of establishing causality showed that promotional activity has an effect on children. Whilst it does not seem to influence their general perceptions of what constitutes a healthy diet, it can have an effect on more specific types of nutritional knowledge. Beyond knowledge, food promotion influences children’s food preferences, consumption and other diet-related behaviours and outcomes.

Source \textsuperscript{[27]}
2.2 The most significant impact of childhood obesity is its persistence into adulthood along with the sequelae of non-communicable disease complications and associated increased healthcare costs.

The epidemiologic shift of obesity to the younger Caribbean population has significant ramifications. A relatively large and fairly consistent body of evidence now demonstrates that obese children suffer complications of dyslipidemia, hypertension, fatty liver, early sexual maturation, respiratory problems such as asthma, sleep apnea and psychological consequences including stigmatization, low self-esteem, depression and discrimination [29]. The most important long-term consequence, however, is the persistence of overweight or obesity into adulthood along with all of the related chronic non-communicable disease health problems. Other than obesity, risk factors for hypertension, diabetes and cardiovascular diseases have already started to emerge in Caribbean children. Surveys conducted throughout the region have, for example, established the presence of elevated blood pressure and impaired fasting glucose in children even below the age of 20 years (Table 1 panel (A) and (B)) [6] [7] [13] [30].

Table 1
Prevalence of Risk Factors for Non-communicable diseases in Selected Caribbean countries

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Country</th>
<th>Prevalence</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevated Blood pressure</td>
<td>Antigua</td>
<td>3.4%</td>
<td>4 - 20</td>
</tr>
<tr>
<td></td>
<td>Bahamas</td>
<td>8.9%</td>
<td>15 - 16</td>
</tr>
</tbody>
</table>

Source: [6], [7]

Table 2
Summary of Policies to address Childhood Obesity Reported by CARPHA Member States

<table>
<thead>
<tr>
<th>Country</th>
<th>Title of Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamaica</td>
<td>Food and Nutrition Security Policy</td>
</tr>
<tr>
<td></td>
<td>Infant and Young Child Feeding Policy</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>Childhood Obesity Prevention Policy</td>
</tr>
<tr>
<td>Dominica</td>
<td>School Health Nutrition Policy</td>
</tr>
<tr>
<td>St Vincent and the Grenadines</td>
<td>National Child Nutrition Policy</td>
</tr>
<tr>
<td></td>
<td>Adolescent Health Policy</td>
</tr>
<tr>
<td>Bermuda</td>
<td>Healthy Schools Nutrition Policy</td>
</tr>
<tr>
<td></td>
<td>Vending Machine and Cafeteria Policy</td>
</tr>
<tr>
<td></td>
<td>Physical Activity Policy</td>
</tr>
<tr>
<td>Aruba</td>
<td>Health Policy Health Promotion Aruba</td>
</tr>
<tr>
<td>Montserrat</td>
<td>Healthy Schools and Physical Activity Policy</td>
</tr>
</tbody>
</table>

Source: [32]

In addition to the health and psychosocial costs, child and adolescent obesity places heavy economic burdens on healthcare systems. Obese pre-school children have been found to have 2 to 2.6 times greater risk of becoming obese as adults [31]. Child obesity is also heavily associated with young adult obesity [14]. Obesity in the second decade of life is a strong predictor of adult obesity and this risk increases if either parent was also obese. Part of the impact of the disease therefore relates to the healthcare system’s ability to sustain the inevitable lifetime cost of treatment and care for the obese adults who will fall victim to NCDs.

2.3 Obesity prevention efforts in countries in the region have largely been circumscribed to school-based initiatives with lesser focus on mobilization of community-wide actions.

In 2014, CARPHA conducted a survey of CMS to determine the state of the regional response over the previous year [32]. Seven (7) of the 17 reporting countries indicated that they had at least one policy for the prevention of obesity either in draft or finalized (Table 2). Some of these policies broadly addressed food and nutrition security or infant feeding in general while others dealt more narrowly with the food environment in schools.
Obesity Prevention projects and initiatives were also widely reported. Ten (10) countries reported implementation of a total of 19 obesity prevention projects during 2013 (Figure 11) [32]. Some of these combined health education and behaviour change components focusing on both diet and physical activity while others emphasized the sedentary behaviours of the youths. Most, however were delivered in school-based settings with less emphasis on the inclusion of wider interest groups such as parents and community leaders. A large number of these interventions lasted for a duration of less than four weeks (33%) which suggests that they were short projects and did not reflect sustained efforts at behaviour modification for their targeted populations.

Figure 11
Obesity Prevalence Initiatives in Selected Countries, by Type, 2013

Source: [32]

Little attention was also paid to determining the effectiveness of the various projects and initiatives. Outcomes for achievement were not identified for all interventions containing a behaviour change component and in cases where they were, pre and post intervention measurements were not taken. Less emphasis also appeared to be placed on evaluating the effectiveness of messages contained in health education/awareness campaigns.

In a review of the evidence on interventions for preventing childhood obesity, CARPHA (2014) [35] found that interventions that contain some key design characteristics are most effective. Multicomponent interventions, targeting more than one health behaviour, delivered in multiple settings, involving multiple players was the main design associated with effectiveness (Box 2).

Source: [33]

2.4 A comprehensive multi-sector public health response is required to address the current crisis.

The response to the obesity challenge suggests that prevention efforts have focused on school-based initiatives with attention also being placed on policy development to address food and nutrition security. From our analysis, of the current situation and the response, further changes are, however, required at country level in order to impact the epidemic. In the area of primary prevention, these include stronger measures to counter obesogenic environments and to strengthen existing health promotion strategies. Secondary prevention is also important. There is need for clinical care as well as psychosocial support for children and families to deal with overweight/obesity and its impact. In summary, comprehensive, co-ordinated and sustained action is required and as a consequence, the delivery systems in various sectors will also be in need of support in order to enable effective country responses.
3. THE RESPONSE

3.1 Main Pillars

Our goal is to halt and reverse the rise in child and adolescent obesity in the Caribbean by 2025. To achieve our goal will require consistent and concerted multi-sectoral action to transform the existing obesogenic environments in the region and to create increased opportunities for the intake of nutritious foods and improved physical activity. This Plan provides a comprehensive public health response to these challenges. It includes the necessary lines of action for supporting Member States to systematically tackle the broad environmental factors as well as the behavioural, cultural and social dimensions involved in childhood obesity in their countries. Our response is based upon the framework recommended by Sacks et al. (2009) [34] which comprises three main pillars—the socioecological or “upstream” approach, the behavioural or “midstream” approach and the health service or “downstream” approach. We have also added a fourth pillar that relates to creating the enabling systems that will be required to support the response. These pillars will direct our technical cooperation efforts with countries:

Pillar 1: Socio-ecological Approach
Under this pillar we will focus on supporting countries to implement effective measures to transform the environments in which Caribbean children live, learn and play. As a regional institution, we will also use our influence to advocate for enactment and implementation of these measures.

Pillar 2: Lifestyle Perspective
Here we will support the design, and implementation of evidence-based interventions to bring about behaviour change of children, their families and their communities.

Pillar 3: Care and Support
It is imperative that there is adequate availability of youth-friendly healthcare and psychosocial services for the already overweight or obese or for those who are at higher risk. Young people should have access to these interventions when needed. Our Plan will also provide the technical backing for the development of these services to support those who have need in this area.

Pillar 4: Capability and capacity development
The fourth pillar focuses on providing a platform of support to bolster country capacity to undertake the activities identified in Pillars 1 – 3. Here we focus on the delivery systems in the key sectors of health, education and trade. We will also focus on developing capacity to build and maintain strong partnerships among government, civil society and private sector organizations.

3.2 The Theory of Change

The building blocks needed to achieve our goal are illustrated graphically in Figure 12. This theory of change explains how we expect to achieve our results and the underlying assumptions that we have made. The various components of the results chain are as follows:

Inputs: Human, financial and material resources that we will allocate to activities to produce outputs.

Activities: Actions that will be taken by CARPHA or CARPHA collaborating partners, through which inputs will be used to produce outputs.

Outputs: New or revised products and services or changes in skills and abilities that will result from the completion of our activities. Outputs are deliverables to be produced using the identified resources and within the specified time frame. These outputs will be used by CMS to bring about changes in their national systems and services.

Short-Term Outcomes: Short-term outcomes are changes in national systems—including changes in laws, policies, plans, standards and institutional performance—and national services that occur in CMS as a result of the delivery of CARPHA outputs.

Medium-Term Outcomes: Describe the intended changes in economic, social, environmental, behavioural or other underlying factors that determine obesity which occur as a result of changes in national systems and services.
Impacts or Long-Term Outcomes: These are the health effects on the population to which the collective actions in this Plan are expected to contribute. The main expected impacts are:

- Decrease in incidence and prevalence of unhealthy weights among the child and adolescent population in the Caribbean;
- Decrease in health complications due to overweight/obesity in children;

Assumptions: These are the factors that must be in place in order for the expected outcomes to be achieved. They represent the risks to the success of the Plan.

The availability of resources and effective collaboration at the country level are the two key assumptions upon which the delivery of CARPHA outputs are hinged. Once outputs have been delivered, short-term results are expected to be achieved on the assumption that there will be uptake at country level and available resources for continued technical assistance from CARPHA. Likewise, once changes in national systems and services are consistently made, medium term results are expected to occur.

Guiding Principles

Partnership engagement
To effectively address a complex public health issue such as childhood obesity, action on a broad front at different levels is required. CARPHA will engage all relevant sectors, stakeholders and partners within an ethical framework. Partnership and resource mobilization strategies will focus on engaging traditional and non-traditional partners in government, civil society, academia, private sector as well as international partners.

Compassion
Being fully cognizant of the psychological burden of overweight/obesity, we are committed to providing care and support to the child and his/her family already affected by overweight/obesity. We will advocate for and support programmes that seek to manage obesity in a manner where the child or adolescent is protected from any form of stigmatization.

Youth Engagement
It is important to hear the voices of youths and to incorporate their views in shaping their future. We will strive for youth involvement in policy making and programme design and will support evaluating the effectiveness of policies and programmes that are based upon this model.

Strategic and integrated approaches
An Agency-wide, interdisciplinary approach will be taken including policy and advocacy, surveillance and research, communications, training and our other core business areas. A Regional approach that takes account of the diversity of Member States and utilizing CARICOM policy-making mechanisms will also be pursued.
**Figure 12 CHILDHOOD OBESITY PREVENTION AND CONTROL ACTION PLAN – Theory of Change**

**Situation:** Increasing burden of obesity among children driven by myriad environmental, social, cultural and economic factors

**Priority Areas:**
- Prevention
- Management and Control
- Systems Strengthening
- Strategic Information

**Inputs**
- Human, financial, and material resources.
  - Example: Financial resources, human resources.

**Activities**
- Training workshops, consultations or other type of actions through which inputs are used to produce outputs.
  - Example: Series of training workshops on the Baby Friendly Hospital Initiative (BFHI).

**Outputs**
- Changes in skills and abilities or new or revised products or services deliverables from the completion of activities.
  - Example: A cadre of personnel with the technical capacity to implement the BFHI

**Outcomes / Impact**
- Changes in systems (laws, policies, plans, standards, institutional performance etc.) and services that occur in CMS, as a result of the delivery of outputs.
  - Example: Health personnel in CMS implement the BFHI
- Changes in the underlying factors (economic, social, behavioural, environmental) that affect healthy weights of children
  - Example: Improved rates of exclusive breastfeeding.
- Health effects on the population to which the Plan of Action contributes.
  - Example: Childhood over and under nutrition reduced.

**Assumptions**

**Critical Success Factors**

**Evaluation**
Ongoing collection and analysis of data to monitor progress and measure results
4. PRIORITY AREAS AND OBJECTIVES

Goal: To halt and reverse the rise in child and adolescent obesity by 2025

P1: Prevention

P1.1. Regulation, Policy and Advocacy
Objectives:

- To make the environments where Caribbean children live and learn more supportive of physical activity and healthy eating.

- To create incentives to discourage unhealthy consumption patterns and to encourage healthier dietary choices.

P1.2 Education and Behaviour Change Interventions
Objectives:

- To empower communities to embrace active living and healthful eating.

- To provide parents and children with accurate information about food, nutrition and exercise to enable informed decisions.

P2: Management and Control

P2.1. Treatment and Support
Objective:

- To provide children and families who are affected by overweight/obesity with the necessary care and support.

P2.2 Addressing Stigmatization
Objective:

- To safeguard children who may be affected by overweight/obesity from bias and stigmatization associated with their condition.

P3: Strengthening Systems to support action

P3.1 Strengthening systems within Government
Objective:

- To improve the capability of systems within Government to mount effective responses.

P3.2. Strengthening multi-sectoral action
Objective:

- To foster multi-sectoral cooperation in responding to the epidemic.

P4: Strategic Information

P4.1. Surveillance
Objective:

- To provide core data for tracking the movement and determinants of the epidemic.

P4.2 Monitoring, evaluation and research
Objective:

- To provide information for measuring and assessing results of the Plan of Action.
5. RESOURCE MOBILIZATION AND PARTNERSHIP STRATEGY

The cost of our holistic regional response is estimated at a total of US$ 1,824,600 over five years or approximately $365,000 per annum. Resources to support execution will be mobilized from four main streams:

- Project Funds from our Development Partners
- Cost sharing: Funds paid by CMS outside of their quota contributions
- Private sector sponsorship
- CARPHA core budget

**Development Partner Project Funds**
Proposals will be developed and Development Agencies approached. Ideally, this source of funding will be restricted to multi country projects. Outputs to be financed by this source of funds are coded red.

**CMS Cost-Sharing**
Countries desirous of pursuing specific activities within the Plan of Action can make payments outside of their quota contributions to support the required activity in their countries. These outputs are coded blue.

**Private Sector Sponsorship**
Action on all fronts is required to achieve healthy weights. In this regard, one of the guiding principles is partnership engagement. Resources from the private sector would be used to finance specific activities in the Plan, guided by CARPHA’s sponsorship policy. Also included in this category is in-kind resources from the private sector, professional and civil society organizations. These outputs are coded green.

**CARPHA Core Budget**
CARPHA’s core funds will continue to support its technical staff in the delivery of technical assistance to countries in accordance with its mandate and given its existing capacity. These outputs are coded brown.

**Resource Mobilization Key:**

<table>
<thead>
<tr>
<th>Development Partner/ Project funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMS cost share</td>
</tr>
<tr>
<td>CARPHA core budget/staff time</td>
</tr>
<tr>
<td>Private sector sponsorship</td>
</tr>
</tbody>
</table>
6. THE FRAMEWORK FOR ACTION 2014 – 2019
Table 3
The Framework for Action 2014-2019

**Priority Area:** P1. Prevention

**P1.1 Regulation, Policy and Advocacy**

**Objectives:**
*To make the environments where Caribbean children live and learn more supportive of physical activity and healthy eating*

*To create incentives to discourage unhealthy consumption patterns and to encourage healthier dietary choices*

<table>
<thead>
<tr>
<th>Short-Term Outcomes</th>
<th>Output</th>
<th>Activities Highest Order</th>
<th>Time Frame</th>
<th>Estimated Resources US$</th>
<th>RMPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1.1.OCM1:</td>
<td>CMS enact strong regulatory frameworks for reducing obesogenic environments.</td>
<td>Engage consultant to develop Model Legislative Brief. Hold high-level advocacy meetings.</td>
<td>2015</td>
<td>70,000</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td>P1.1.OCM1-OPT1:</td>
<td>Model Legislative Brief, outlining regulatory strategy to: protect children from exposure to food marketing; to support accurate and standardized nutritional labelling; and to govern food provision and the built environments in schools, developed.</td>
<td>2015-2019</td>
<td>42,500</td>
<td>Project Proposal TBD</td>
<td></td>
</tr>
<tr>
<td>P1.1.OCM1-OPT2:</td>
<td>National legislators and policy-makers have received technical support to adapt Brief.</td>
<td>Train policy-makers and legislators and provide technical assistance to support the legislative drafting and enactment process.</td>
<td>2015-2017</td>
<td>20,800</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td>P1.1.OCM2:</td>
<td>Evidence-based policies to support production, access and consumption of safe, affordable, nutritious, high quality food commodities implemented in CMS.</td>
<td>Engage Consultant to develop Regional Fiscal Incentives Guidelines.</td>
<td>2015</td>
<td>116,000</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td>P1.1.OCM2-OPT1:</td>
<td>Regional Guidelines to create fiscal incentives for the production and consumption of healthy foods and disincentives for unhealthy consumption choices developed.</td>
<td>Sensitize national teams</td>
<td>2015 - 2017</td>
<td>10,000</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td>P1.1.OCM2-OPT2:</td>
<td>National Finance Teams have received sensitization in the Regional Fiscal Incentives Guidelines.</td>
<td>Respond to technical support requests from CMS</td>
<td>2014-2019</td>
<td>50,000</td>
<td>CARPHA/PAHO BPB</td>
</tr>
<tr>
<td>P1.1.OCM2--OPT3:</td>
<td>CMS have received technical support to develop national Food and Nutrition Security Policies, based on the Regional Policy and Plan of Action.</td>
<td>Engage consultant to conduct research and prepare evidence-based Report</td>
<td>2014</td>
<td>25,000</td>
<td>CARPHA/PAHO BPB</td>
</tr>
<tr>
<td>P1.1.OCM2-OPT4:</td>
<td>Report on Recommended Trade Policies to reduce obesogenic environments prepared for joint CARICOM COTED/COHSOD</td>
<td>Facilitate multisectoral trade and economic development and health</td>
<td>2015-</td>
<td>10,400</td>
<td>Staff time</td>
</tr>
<tr>
<td>P1.1.OCM2-OPT5:</td>
<td>Joint CARICOM COTED/COHSOD meetings have benefited from CARPHA technical support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-Term Outcomes</td>
<td>Output</td>
<td>Activities Highest Order</td>
<td>Time Frame</td>
<td>Estimated Resources US$</td>
<td>RMPS</td>
</tr>
<tr>
<td>---------------------</td>
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</tr>
<tr>
<td>P1.1-OCM3: Infant and child feeding policies, programmes and interventions strengthened.</td>
<td>P1.1-OCM3-OPT1: A cadre of health personnel have received training in the Baby Friendly Hospital Initiative.</td>
<td>Conduct training workshops.</td>
<td>2014-2019</td>
<td>50,000</td>
<td>CARPHA/PAHO BP</td>
</tr>
<tr>
<td></td>
<td>P1.1-OCM3-OPT2: CMS have received technical support to update/develop national standards and guidelines on maternal, infant and young child nutrition and dietary guidelines for school children and adolescents, in accordance with global and regional mandates.</td>
<td>Respond to technical support requests</td>
<td>2014 - 2016</td>
<td>15,000</td>
<td>CARPHA/PAHO BPB</td>
</tr>
<tr>
<td>TOTAL REGULATION, POLICY AND ADVOCACY</td>
<td></td>
<td></td>
<td></td>
<td>409,700</td>
<td></td>
</tr>
</tbody>
</table>
**Priority Area:** P1. Prevention  
**P1.2 Education & Behaviour Change Interventions**

**Objective:** To empower communities to embrace active living and healthful eating.  
To provide parents and children with accurate information about food, nutrition and exercise to enable informed decisions.

<table>
<thead>
<tr>
<th>Short-Term Outcomes</th>
<th>Output</th>
<th>Activities Highest Order</th>
<th>Time Frame</th>
<th>Resources US $</th>
<th>RMPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1.2-OCM1: Strengthened community capacity to provide opportunities for healthful eating and physical activity in their environments (home, schools, places of worship etc.)</td>
<td>P1.2-OCM1-OPT1: Multi-Country Whole-of-Community Behaviour Change Intervention Project designed</td>
<td>Design Quasi-experimental Project based on an adapted best practice model.</td>
<td>2015</td>
<td>70,000</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td></td>
<td>P1.2-OCM1-OPT2: Multisectoral Country Teams have received technical support to implement project.</td>
<td>Support implementation of country projects</td>
<td>2016-2019</td>
<td>50,000</td>
<td>CARPHA/PAHO BPB</td>
</tr>
<tr>
<td>P1.2-OCM2: National obesity prevention initiatives scaled up in accordance with the Caribbean Charter for Health Promotion.</td>
<td>P1.2-OCM2-OPT1: CMS have received technical support to design/re-design and implement national health promotion strategies, programmes and initiatives.</td>
<td>Provide technical support to CMS.</td>
<td>2014-2019</td>
<td>26,000</td>
<td></td>
</tr>
<tr>
<td>P1.2-OCM3: Social Marketing Campaigns for obesity prevention strengthened to integrate traditional and new forms of media.</td>
<td>P1.2-OCM3-OPT1: Regional Social Marketing Campaign, including the use of consumer health informatics designed.</td>
<td>Engage Consultant to design campaign</td>
<td>2016</td>
<td>15,000</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td></td>
<td>P1.2-OCM3-OPT2: CMS have received technical support to adapt and implement campaign.</td>
<td>Engage Consultant to do in-country training.</td>
<td>2016-2019</td>
<td>35,000</td>
<td></td>
</tr>
<tr>
<td>P1.2-OCM4: Education officials better equipped to strengthen the school curriculum to promote emphasis on nutrition and physical activity.</td>
<td>P1.2-OCM4-OPT1: Report prepared to facilitate special meeting of the COSHOD on education.</td>
<td>Engage consultant to prepare background reports.</td>
<td>2016</td>
<td>25,000</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td></td>
<td>P1.2-OCM4-OPT2: National and regional education officials have received technical support for the revision of school curricula.</td>
<td>Provide support to the convening of a the special education meeting</td>
<td>2016</td>
<td>13,000</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Respond to technical assistance requests</td>
<td>2017-2019</td>
<td>13,000</td>
<td></td>
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</tbody>
</table>

**TOTAL EDUCATION AND BEHAVIOUR CHANGE INTERVENTIONS** 234,000
**Objective:** To provide children and families who are affected by overweight/obesity with the necessary care and support.

<table>
<thead>
<tr>
<th>Short-Term Outcomes</th>
<th>Output</th>
<th>Activities Highest Order</th>
<th>Time Frame</th>
<th>Resources US$</th>
<th>RMPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2.1.OCM1: Evidence-based weight management services more available, accessible and acceptable to youths.</td>
<td>P2.1.OCM1-OPT1: Clinical Guidelines for Management of Child and Adolescent Obesity, (inclusive of guidelines for patient and family management) developed and communicated to practitioners.</td>
<td>Hold meetings with experts and stakeholders to develop guidelines</td>
<td>2015</td>
<td>30,000</td>
<td>Project Proposal TBD</td>
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<tr>
<td></td>
<td>Communicate and disseminated Guidelines to practitioners</td>
<td></td>
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<tr>
<td></td>
<td>P2.1.OCM1-OPT2: Regional Guidelines for integrating youth friendly weight management services, inclusive of the provision of psychosocial and family support, into primary and secondary health care developed</td>
<td>Engage consultant to develop Guidelines and to sensitize country teams</td>
<td>2016</td>
<td>15,000</td>
<td>Project Proposal TBD</td>
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<td></td>
<td>P2.1.OCM1-OPT3: Multidisciplinary teams (dietitians, physicians, counsellors etc.) have received training in the Guidelines.</td>
<td>Conduct training in use of the Guidelines</td>
<td>2016 - 2018</td>
<td>18,000</td>
<td>Project Proposal TBD</td>
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<td></td>
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<tr>
<td><strong>TOTAL TREATMENT AND SUPPORT</strong></td>
<td></td>
<td></td>
<td></td>
<td>68,000</td>
<td></td>
</tr>
</tbody>
</table>
**Priority Area:** Management and Control

**P2.2 Addressing Bias and Stigmatization**

**Objective:** To safeguard children who may be affected by overweight/obesity from bias and stigmatization associated with their condition.

<table>
<thead>
<tr>
<th>Short-Term Outcomes</th>
<th>Output</th>
<th>Activities Highest Order</th>
<th>Time Frame</th>
<th>Resources US$</th>
<th>RMPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2.2.OCM1: National policies and programmes more responsive to the ethical issues concerning childhood obesity and childhood weight management.</td>
<td>P2.2.OCM1-OPT1: Research Paper on the existence, nature and impact of weight bias and stigmatization in children in the Caribbean produced.</td>
<td>Commission and conduct research</td>
<td>2015-2016</td>
<td>77,000</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td></td>
<td>P2.2.OCM1-OPT2: Draft Regional Policy/ies for addressing weight bias and stigmatization developed.</td>
<td>Engage consultant to develop Draft Policy</td>
<td>2017</td>
<td>15,000</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td></td>
<td>P2.2.OCM1-OPT3: CMS have received technical support to adopt/adapt policy/ies.</td>
<td>Hold meetings with country officials.</td>
<td>2017-2019</td>
<td>50,000</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td></td>
<td>P2.2.OCM1-OPT4: Evidence-based youth-led Information Education and Communication (IEC) strategy to address weight bias and obesity-stigma developed.</td>
<td>Engage consultant to develop IEC campaign</td>
<td>2017</td>
<td>15,000</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td></td>
<td>P2.2.OCM1-OPT5: Youth Organizations have received technical support to lead and monitor implementation of the IEC campaign.</td>
<td>Conduct “Train the Trainer” sessions with Youth Organizations</td>
<td>2017-2019</td>
<td>116,400</td>
<td>Project Proposal TBD</td>
</tr>
</tbody>
</table>

**TOTAL ADDRESSING BIAS AND STIGMATIZATION** 273,400
### Priority Area:

**P3. Strengthening Systems to support action**

**P3.1 Systems Strengthening within Government**

**Objective:** To improve the capability of systems within Government to mount effective responses.

<table>
<thead>
<tr>
<th>Short-Term Outcomes</th>
<th>Output</th>
<th>Activities Highest Order</th>
<th>Time Frame</th>
<th>Resources US$</th>
<th>RMPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>P3.1.OCM1: Systems in education, health and trade sectors better equipped to</td>
<td>A core set of health professionals (Nutrition coordinators and Health</td>
<td>Engage consultant.</td>
<td>2015-2017</td>
<td>26,200</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td>conduct activities in the Plan of Action.</td>
<td>Promotion Officers) have received training in communication for</td>
<td>Conduct training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Behaviour Impact (COMBI).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P3.1.OCM1-OPT2: A core set of policymakers in health, education and trade</td>
<td>Conduct training workshops</td>
<td></td>
<td>2015-2016</td>
<td>59,750</td>
<td></td>
</tr>
<tr>
<td>sectors have received training in policy development.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P3.1.OCM1-OPT3: A core set of programme managers in health, education and trade</td>
<td>Conduct training workshops</td>
<td></td>
<td>2015-2016</td>
<td>59,750</td>
<td></td>
</tr>
<tr>
<td>sectors have received training in monitoring and evaluation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>P3.1.OCM1-OPT4: Leadership Teams in health, education and trade sectors have</td>
<td>Engage consultant.</td>
<td></td>
<td></td>
<td>116,400</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td>received training in networking and partnership building skills</td>
<td>Conduct training</td>
<td></td>
<td>2016-2016</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL SYSTEM STRENGTHENING WITHIN GOVERNMENT**

262,100
### Priority Area: P3. Strengthening Systems to support action

#### P3. 2 Strengthening multi-sectoral action

**Objective:** To foster multi-sectoral cooperation in responding to the epidemic.

<table>
<thead>
<tr>
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<th>Time Frame</th>
<th>Resources US$</th>
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</tr>
</thead>
<tbody>
<tr>
<td>P3.2.OCM1: National multi-sectoral country teams have the technical capacity to develop and implement multi-sectoral Action Plans for population-based childhood obesity prevention.</td>
<td>P3.2.OCM1-OPT1: Multi-sectoral teams have received training to adapt the CARPHA Plan of Action.</td>
<td>Disseminate CARPHA Plan of Action.</td>
<td>2014-2015</td>
<td>5,000</td>
<td>CARPHA/PAHO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2015-2016</td>
<td>35,000</td>
<td>BPB</td>
</tr>
<tr>
<td>P3.2.OCM1-OPT2: Multi-sectoral teams have received technical support to implement their national plans.</td>
<td></td>
<td>Conduct training and respond to technical support requests</td>
<td>2015 - 2019</td>
<td>15,600</td>
<td>BPB</td>
</tr>
</tbody>
</table>

**TOTAL STRENGTHENING MULTI-SECTORAL ACTION**

55,600
**Priority Area:** P4. Strategic Information

**P4.1 Surveillance**

**Objective:** To provide core data for tracking the movement and determinants of the epidemic.

<table>
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<tr>
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<th>RMPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>P4.1.OCM1: Quality comparable data on nutrition status and the food environment available for policy and programming.</td>
<td>P4.1.OCM1-OPT1: Country Reports on the nutritional and anthropometric status of children produced.</td>
<td>Develop and implement nutritional surveillance system</td>
<td>2015</td>
<td>20,000</td>
<td>CARPHA/PAHO BPB</td>
</tr>
<tr>
<td></td>
<td>P4.1.OCM1-OPT2: Model Youth-based Participatory Surveillance system for mapping the food environment developed.</td>
<td>Engage consultant to develop Model</td>
<td>2016</td>
<td>18,500</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td></td>
<td>P4.1.OCM1-OPT3: Youth organizations have received technical capacity to train youths to use the Participatory Surveillance system.</td>
<td>Conduct “train the trainer” workshops for Youth Organizations.</td>
<td>2016-2018</td>
<td>116,400</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td></td>
<td>P4.1.OCM1-OPT4: Food Consumption Survey Proposal and validated data collection instruments developed.</td>
<td>Hold meetings with CMS; develop proposals and data collection instruments.</td>
<td>2015</td>
<td>50,000</td>
<td>CARPHA/PAHO BPB</td>
</tr>
<tr>
<td></td>
<td>P4.1.OCM1-OPT5: Country teams have received technical assistance to conduct Food Consumption Surveys.</td>
<td>Respond to technical assistance requests</td>
<td>2015-2019</td>
<td>10,000</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL SURVEILLANCE** 214,900
### Priority Area: P4.2 Monitoring, Evaluation and Research

**Objective:** To provide information for measuring and assessing results of the Plan of Action

<table>
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<tr>
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<th>Time Frame</th>
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<th>RMPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>P4.2.OCM1:</td>
<td>Childhood obesity programmes informed by comparable data on the cost and consequences of the epidemic and the impact of prevention measures.</td>
<td>P4.2.OCM1-OPT1: Research Agenda developed and implemented</td>
<td>2015 - 2019</td>
<td>70,000</td>
<td>Project Proposal TBD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conduct consultations to develop the Agenda and disseminate research grants.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>P4.2.OCM1-OPT2: CMS have benefited from technical support for development of policy and programmes based on results of research findings.</td>
<td>2016-2019</td>
<td>26,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Respond to technical assistance requests for policy and programme development</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>P4.2.OCM1-OPT3: Evaluation Reports for Obesity Prevention Programmes in CMS produced.</td>
<td>2015 - 2019</td>
<td>125,000</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Conduct evaluations of existing obesity prevention programmes</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>P4.2.OCM1-OPT4: CMS have received technical assistance to implement findings of Evaluation Reports.</td>
<td>2016 - 2019</td>
<td>26,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Respond to technical assistance requests to implement findings</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>P4.2.OCM1-OPT5: M&amp;E Plan for the Plan of Action for Promoting Healthy Weights in the Caribbean developed</td>
<td>2015</td>
<td>49,500</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Develop M&amp;E Plan</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Conduct periodic evaluation and report on ongoing M&amp;E activities.</td>
<td>2015 - 2019</td>
<td>10,400</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL MONITORING, EVALUATION AND RESEARCH**

306,900
7. THE INDICATOR FRAMEWORK
Table 4
Indicator Framework

<table>
<thead>
<tr>
<th>Priority Area:</th>
<th>P1. Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1.1 Regulation, Policy and Advocacy</td>
<td></td>
</tr>
</tbody>
</table>

**Objectives:**

To make the environments where Caribbean children live and learn more supportive of physical activity and healthy eating

To create incentives to discourage unhealthy consumption patterns and to encourage healthier dietary choices

<table>
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<th>Output Indicator</th>
<th>Short-Term Outcomes</th>
<th>Short-Term Outcome Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1.1.OCM1-OPT1: Model Legislative Brief, outlining regulatory strategy to: protect children from exposure to food marketing; to support accurate and standardized nutritional labelling; and to govern food provision and the built environments in schools, developed.</td>
<td># of CMS engaged in the development of the Model Legislative Brief <strong>Target: 24 CMS</strong> Legislative Brief completed and disseminated <strong>Target:1</strong></td>
<td>P1.1-OCM1: CMS enact strong regulatory frameworks for reducing obesogenic environments.</td>
<td>% of CMS passing legislation regulating the marketing, of food and beverages to children; % of CMS passing legislation for nutritional labelling; % of CMS passing legislation regulating the physical activity environment and food sold in schools.</td>
</tr>
<tr>
<td>P1.1.OCM1-OPT2: National legislators and policy-makers have received technical support to adapt Brief.</td>
<td># of CMS that receive technical support for adopting the Model Legislative Brief <strong>Target: 9 OECS States</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1.1.OCM2-OPT1: Regional Guidelines to create fiscal incentives for the production and consumption of healthy foods and disincentives for unhealthy consumption choices developed.</td>
<td># of CMS engaged in the development of the Regional Fiscal Incentives Guidelines <strong>Target: 24 CMS</strong> Regional Fiscal Incentives Guidelines developed and disseminated <strong>Target: 1</strong></td>
<td>P1.1-OCM2: Evidence-based policies to support production, access and consumption of safe, affordable, nutritious, high quality food commodities implemented in CMS.</td>
<td>% of CMS implementing tax measures on energy dense snacks, % of CMS implementing tax measures on sugar sweetened beverages % of CMS implementing tax measures on other common unhealthy products consumed by children. % of CMS implementing fiscal measures for stimulation of agriculture. % of CMS developing/revising their national Food and Nutrition Policies % of CMS implementing revised trade policies</td>
</tr>
<tr>
<td>P1.1.OCM2-OPT2: National Finance Teams have received sensitization in the Regional Fiscal Incentives Guidelines.</td>
<td># of CMS whose Finance Teams have been sensitized in the Regional Fiscal Incentives Guidelines. <strong>Target: 24</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1.1.OCM2-OPT3: CMS have received technical support to develop national Food and Nutrition Security Policies, based on the Regional Policy and Plan of Action.</td>
<td># of CMS whose Nutrition Focal Points have received support to develop food and nutrition policies <strong>Target: 5 CMS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1.1.OCM2-OPT4: Report on Recommended Trade Policies to reduce obesogenic environments prepared for joint CARICOM COTED/COHSOD</td>
<td>Report on Recommended Trade Policies is completed and disseminated at Joint COTED/COHSOD meeting <strong>Target: 1 Report</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1.1.OCM2-OPT5: Joint CARICOM COTED/COHSOD meetings have benefited from CARPHA technical support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>Output Indicator</td>
<td>Short-Term Outcomes</td>
<td>Short-Term Outcome Indicators</td>
</tr>
<tr>
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</tr>
<tr>
<td>P1.1-OCM3-OPT1: A cadre of health personnel have received training in the Baby Friendly Hospital Initiative (BFHI).</td>
<td># CMS with health personnel trained in BFHI <strong>Target: 5</strong></td>
<td>P1.1-OCM3: Infant and child feeding policies, programmes and interventions strengthened.</td>
<td>% of hospitals with staffed trained in BFHI that achieve BFHI status</td>
</tr>
<tr>
<td>P1.1-OCM3-OPT2: CMS have received technical support to update/develop national standards and guidelines on maternal, infant and young child nutrition and dietary guidelines for school children and adolescents, in accordance with global and regional mandates.</td>
<td># CMS that have received technical support to update/develop national standards and guidelines <strong>Target: 5</strong></td>
<td></td>
<td>% CMS that have received training with new or updated policies</td>
</tr>
</tbody>
</table>
### Priority Area: P1. Prevention

#### P1.2 Education and Behaviour Change Interventions

**Objective:**

To empower communities to embrace active living and healthful eating.  
To provide parents and children with accurate information about food, nutrition and exercise to enable informed decisions.

<table>
<thead>
<tr>
<th>Output</th>
<th>Output Indicator</th>
<th>Short-Term Outcomes</th>
<th>Short-Term Outcome Indicator</th>
</tr>
</thead>
</table>
| P1.2-OCM1-OPT1: Multi-Country Whole-of-Community Behaviour Change Intervention Project designed | # of CMS engaged in the development of the Multi-Country Whole-of-Community Behaviour Change Intervention Project  
**Target: 24 CMS**  
Multi-Country Whole-of-Community Behaviour Change Intervention Projects designed and disseminated.  
**Target: 1** | P1.2-OCM1: Strengthened community capacity to provide opportunities for healthful eating and physical activity in their environments (home, schools, places of worship etc.) | % of CMS with trained multi-sectoral country teams that engage at least 1 community to develop a Behaviour Change Intervention Project |
| P1.2-OCM1-OPT2: Multisectoral Country Teams have received technical support to implement project. | # Multi-sectoral country Teams that receive technical support to implement Whole-of-Community Behaviour Change Intervention Project  
**Target: 5** | P1.2-OCM2: National obesity prevention initiatives scaled up in accordance with the Caribbean Charter for Health Promotion. | % of CMS re-designing health promotion initiatives based on technical support guidelines |
| P1.2-OCM2-OPT1: CMS have received technical support to design and implement national health promotion strategies, programmes and initiatives. | # CMS with Health Promotion Focal Points that have received technical support to design and implement national health promotion strategies, programmes and initiatives  
**Target: 5** | P1.2-OCM3: Social Marketing Campaigns for obesity prevention strengthened to integrate traditional and new forms of media. | |
| P1.1-OCM3-OPT1: Regional Social Marketing Campaign, including the use of consumer health informatics designed | # of Regional Social Marketing Campaigns on childhood obesity prevention designed  
**Target: 1** | P1.1-OCM3: Social Marketing Campaigns for obesity prevention strengthened to integrate traditional and new forms of media. | % of CMS adapting and implement a Social Marketing Campaign |
| P1.1-OCM3-OPT2: CMS have received technical support to adapt and implement campaign. | # CMS that that receive technical support to implement a Social Marketing Campaign on childhood obesity prevention  
**Target: 5** | P1.1-OCM4: Education officials better equipped to strengthen the school curriculum to promote emphasis on nutrition and physical activity. | % of CMS revising school curriculum based on recommendations of the Education –COHSOD |
| P1.1-OCM4-OPT1: Report prepared to facilitate special meeting of the Education COSHOD. | Report on the role of education in developing skills that promote healthy weights is completed and disseminated at the Education COHSOD  
**Target: 1** | P1.1-OCM4: Education officials better equipped to strengthen the school curriculum to promote emphasis on nutrition and physical activity. | % of CMS revising school curriculum based on recommendations of the Education –COHSOD |
| P1.1-OCM4-OPT2: National and regional education officials have received technical support for the revision of school curricula. | # CMS with educational officials with responsibility for curriculum development that have received technical support for revision of school curricula.  
**Target: 5** | P1.1-OCM4: Education officials better equipped to strengthen the school curriculum to promote emphasis on nutrition and physical activity. | % of CMS revising school curriculum based on recommendations of the Education –COHSOD |
**Priority Area:** P2. Management and Control

**P2.1 Treatment and Support**

**Objective:** To provide children and families who are affected by overweight/obesity with the necessary care and support.

<table>
<thead>
<tr>
<th>Output</th>
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<th>Short-Term Outcomes</th>
<th>Short-Term Outcome Indicator</th>
</tr>
</thead>
</table>
| P2.1.OCM1-OPT1: Clinical Guidelines for Management of Child and Adolescent Obesity, (inclusive of guidelines for patient and family management) developed and communicated to practitioners. | # Clinical Guidelines for Management of Child and Adolescent Obesity developed and disseminated  
**Target: 1** | P2.1.OCM1: Evidence-based weight management services more available, accessible and acceptable to youths. | # CMS reporting use of guidelines  
# of health care units reporting availability of weight management clinics for adolescents  
% youth weight management clinics that use multi-disciplinary teams |
| P2.1.OCM1-OPT2: Regional Guidelines for integrating youth friendly weight management services, inclusive of the provision of psychosocial and family support, into primary health care developed | # CMS with representatives that participate in the development of Regional Guidelines for weight management services for children and adolescents.  
**Target: 24**  
# Regional Guidelines for weight management services for children and adolescents developed |  
**Target: 1** |  
| P2.1.OCM1-OPT3: Multidisciplinary teams (dietitians, physicians, counsellors etc) have received training in the Guidelines. | # CMS with multidisciplinary teams that have received training in the Regional Guidelines for weight management services for children and adolescents  
**Target: 5** |  
|
## Priority Area: Management and Control

### P2.2 Addressing Bias and Stigmatization

**Objective:** To safeguard children who may be affected by overweight/obesity from bias and stigmatization associated with their condition.

<table>
<thead>
<tr>
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<th>Short-Term Outcome Indicator</th>
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</table>
| P2.2.OCM1-OPT1: Research Paper on the existence, nature and impact of weight bias and stigmatization in children in the Caribbean produced. | # of research papers on the impact of weight bias and stigmatization completed and disseminated  
**Target:** 1 | P2.2.OCM1: National policies and programmes more responsive to the ethical issues concerning childhood obesity and childhood weight management. | % of CMS with Government institutions that have implemented weight-bias policies based on the Regional Policy guidelines |
| P2.2.OCM1-OPT2: Draft Regional Policy/ies for addressing weight bias and stigmatization developed. | # Regional Policies weight bias and stigmatization developed and disseminated  
**Baseline:** TBD  
**Target:** at least 1 |  | % of Youth Organizations that have received technical support and have implemented weight bias and obesity-stigma campaigns. |
| P2.2.OCM1-OPT3: CMS receive technical support to adopt/adapt policy/ies. | # CMS that receive technical support to adopt/adapt weight bias and stigmatization policies  
**Target:** 5 |  |  |
| P2.2.OCM1-OPT4: Evidence-based youth-led Information Education and Communication (IEC) strategy to address weight bias and obesity-stigma developed. | # of youth organizations engaged in the development of IEC strategy for weight bias and obesity stigma  
**Target:** 24 |  |  |
| P2.2.OCM1-OPT5: Youth Organizations have received technical support to lead and monitor implementation of the IEC campaign. | # Youth Organizations receiving technical support to implement IEC campaign on weight bias and obesity stigma  
**Target:** 24 |  |  |
**Priority Area:** P3. Strengthening Systems to support action

**P3.1 Systems Strengthening within Government**

**Objective:** To improve the capability of systems within Government to mount effective responses.

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<tr>
<td>P3.1.OCM1-OPT1: A core set of health professionals (Nutrition coordinators and Health Promotion Officers) have received training in communication for Behaviour Impact (COMBI).</td>
<td># of CMS with at least 2 health professionals trained in communication for Behaviour Impact <strong>Target: 15</strong></td>
<td>P3.1.OCM1: Systems in education, health and trade sectors better equipped to conduct activities in the Plan of Action.</td>
<td>% CMS with staff that are trained and have implemented Health Promotion messages and interventions using the COMBI methodology.</td>
</tr>
<tr>
<td>P3.1.OCM1-OPT2: A core set of policymakers in health, education and trade sectors have received training in policy development.</td>
<td># of CMS with at least 1 policy maker in the health, education and trade sectors trained in policy development <strong>Target: 5</strong></td>
<td></td>
<td>% of CMS with staff that are trained and have developed obesity-prevention policies using the evidence informed methodology.</td>
</tr>
<tr>
<td>P3.1.OCM1-OPT3: A core set of programme managers in health, education and trade sectors have received training in monitoring and evaluation.</td>
<td># of CMS with at least 1 programme manager in the health, education and trade sectors trained in M&amp;E <strong>Target: 5</strong></td>
<td></td>
<td>% of CMS with staff that are trained and have implemented obesity prevention plans that incorporate M&amp;E chapters.</td>
</tr>
<tr>
<td>P3.1.OCM1-OPT4: Leadership Teams in health, education and trade sectors have received training in networking and partnership building skills</td>
<td># of CMS with at least 2 members of the leadership team in the health, education and trade sectors trained in networking and partnership building <strong>Target:</strong></td>
<td></td>
<td>% of CMS with trained leaders that have engaged in deliberative networking and partnership activities.</td>
</tr>
</tbody>
</table>

**Priority Area:** P3. Strengthening multi-sectoral action

**P3.2 Strengthening multi-sectoral action**

**Objective:** To foster multi-sectoral cooperation in responding to the epidemic.

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</thead>
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<tr>
<td>P3.2.OCM1-OPT1: Multi-sectoral teams have received training to adapt the CARPHA Plan of Action.</td>
<td># of CMS Multi-sectoral Teams trained in developing National Action Plans for population-based childhood obesity prevention <strong>Target: 10</strong></td>
<td>P3.3.OCM1: National multi-sectoral country teams have the technical capacity to develop and implement multi-sectoral Action Plans for population-based childhood obesity prevention.</td>
<td>% of trained Multi-sectoral Teams that have developed and implemented national Action Plans</td>
</tr>
<tr>
<td>P3.2.OCM1-OPT2: Multi-sectoral teams have received technical support to implement their national plans.</td>
<td># of CMS with multi-sectoral teams receiving technical support to implement national action plans <strong>Target: 10</strong></td>
<td></td>
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</tbody>
</table>
**Priority Area:** P4. Strategic Information

**P4.1 Surveillance**

**Objective:** To provide core data for tracking the movement and determinants of the epidemic.

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<tr>
<td>P4.1.OCM1-OPT1: Country Reports on the nutritional and anthropometric status of children produced.</td>
</tr>
<tr>
<td>P4.1.OCM1-OPT3: Model Youth-based Participatory Surveillance system for mapping the food environment developed.</td>
</tr>
<tr>
<td>P4.1.OCM1-OPT4: Youth organizations have received technical capacity to train youths to implement the Participatory Surveillance system.</td>
</tr>
<tr>
<td>P4.1.OCM1-OPT5: Food Consumption Survey Proposal and validated data collection instruments developed.</td>
</tr>
<tr>
<td>P4.1.OCM1-OPT6: Country teams have received technical assistance to conduct Food Consumption Surveys.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td># Country Reports produced on the nutritional and anthropometric status of children</td>
</tr>
<tr>
<td># Surveillance system designed and implemented</td>
</tr>
<tr>
<td># Youth organizations that have received “train-the-trainer” training for the Participatory Surveillance system</td>
</tr>
<tr>
<td># CMS with Survey Proposals and data collection instruments for Food Consumption Survey developed</td>
</tr>
<tr>
<td># CMS with country teams that have received technical assistance to conduct Food Consumption Surveys</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Short-Term Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>P4.1.OCM1: Quality comparable data on nutrition status and the food environment available for policy and programming.</td>
</tr>
<tr>
<td>Target: 24</td>
</tr>
<tr>
<td>% of trained Youth Organizations training membership to implement the Participatory Surveillance System</td>
</tr>
<tr>
<td>% CMS that have conducted a Food Consumption Survey</td>
</tr>
<tr>
<td>% CMS that collect nutrition and anthropometric data on a regular basis.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Short-Term Outcome Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target: 24</td>
</tr>
<tr>
<td>Target: 5</td>
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<tr>
<td>Target: 5</td>
</tr>
</tbody>
</table>
**Objective:** To provide information for measuring and assessing results of the Plan of Action

<table>
<thead>
<tr>
<th>Output</th>
<th>Output indicators</th>
<th>Short-Term Outcomes</th>
<th>Short-Term Outcome Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>P4.2.OCM1-OPT1: Research Agenda developed and implemented</td>
<td># of Research grants awarded</td>
<td>P4.4.OCM1: Childhood obesity programmes informed by comparable data on the cost and consequences of the epidemic and the impact of prevention measures.</td>
<td>% of CMS using results of research studies for obesity prevention advocacy and for programme planning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>% of CMS implementing recommendations of their Obesity Prevention Programme Evaluations.</td>
</tr>
<tr>
<td>P4.2.OCM1-OPT2: CMS have benefited from technical support for development of policy and programmes based on results of research findings.</td>
<td># CMS that have received technical support for development of policies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P4.2.OCM1-OPT3: Multi-country Obesity Prevention Programme Evaluation study conducted</td>
<td># of CMS that have had their Obesity Prevention Programmes evaluated and have disseminated the findings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P4.2.OCM1-OPT4: CMS have received technical assistance to implement findings of Evaluation Reports.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P4.2.OCM1-OPT5: M&amp;E Plan for the Plan of Action for Promoting Healthy Weights in the Caribbean developed</td>
<td># of annual M&amp;E Reports on the Plan of Action produced and disseminated</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- **Target 7**
- **Target 5**
8. References


