



# Caribbean health

## Healthy children, healthy nation - tackling the obesity problem

The high and growing incidence of obesity among young children and adolescents, stemming from poor diets and inadequate physical activity, is an alarming trend in the Caribbean. Influencing eating behaviors in early childhood, however, can have a huge impact on children's health, continuing into adulthood, an approach endorsed by the Caribbean Regional Food and Nutrition Security Policy. Evidence suggests, however, that in order to improve children's diets, an integrated approach is needed, including provision of fruit and vegetables in school meals, restriction on sales of unhealthy food and drink in the vicinity of schools, and nutrition education.

Between 2011 and 2014, the *Farm to Fork* project undertook such an approach, with a focus in St Kitts-Nevis and Trinidad and Tobago. The project was based on a partnership led by McGill University, Canada and the University of the West Indies, Trinidad and Tobago, in collaboration with local ministries of agriculture, health and education, and with support from other institutional partners in Guyana and St Lucia. Around 1,100 children were offered increasing amounts of fruit and vegetables as part of a modified menu. In Trinidad, this was

### Did you know?

- The health problem in Caribbean children has recently shifted to one of overweight instead of underweight and stunting.
- Approximately 25% of school aged children in St Kitts-Nevis and Trinidad and Tobago are overweight or obese.
- The cost to the Caribbean economy of diseases linked to obesity, such as diabetes and hypertension, is over US\$1 billion per year.
- Per capita, St Kitts-Nevis spends as much as the US treating diabetes - US\$623 per year.

combined with nutrition education for children and their parents/caregivers, and resulted in children's consumption of fruits and vegetables at lunch increasing from 0.53 to 1.42 servings. If extrapolated over the entire day, this level of vegetable and fruit consumption would approach the recommended daily amount of five servings per day.

The project findings suggest that to tackle childhood obesity, enhanced collaboration between education, agriculture and health ministries is needed, together with a number of recommended policies and strategies. These

include expanding school meal programs, strengthening nutrition education and supporting smallholder production of fruit and vegetables. Looking more widely, the findings re-emphasize the need for each country in the Caribbean Community (CARICOM) to develop and implement its own national food and nutrition security policy.

## What are the issues?

Obesity in children has emerged as one of the most serious public health challenges of the 21st century, threatening population health throughout the Caribbean region. In Trinidad and Tobago, 23-25% of school aged children are overweight or obese; in St Kitts-Nevis the figure is 26%. Such children are likely to stay obese into adulthood and more likely to develop diseases such as diabetes and hypertension at a young age.

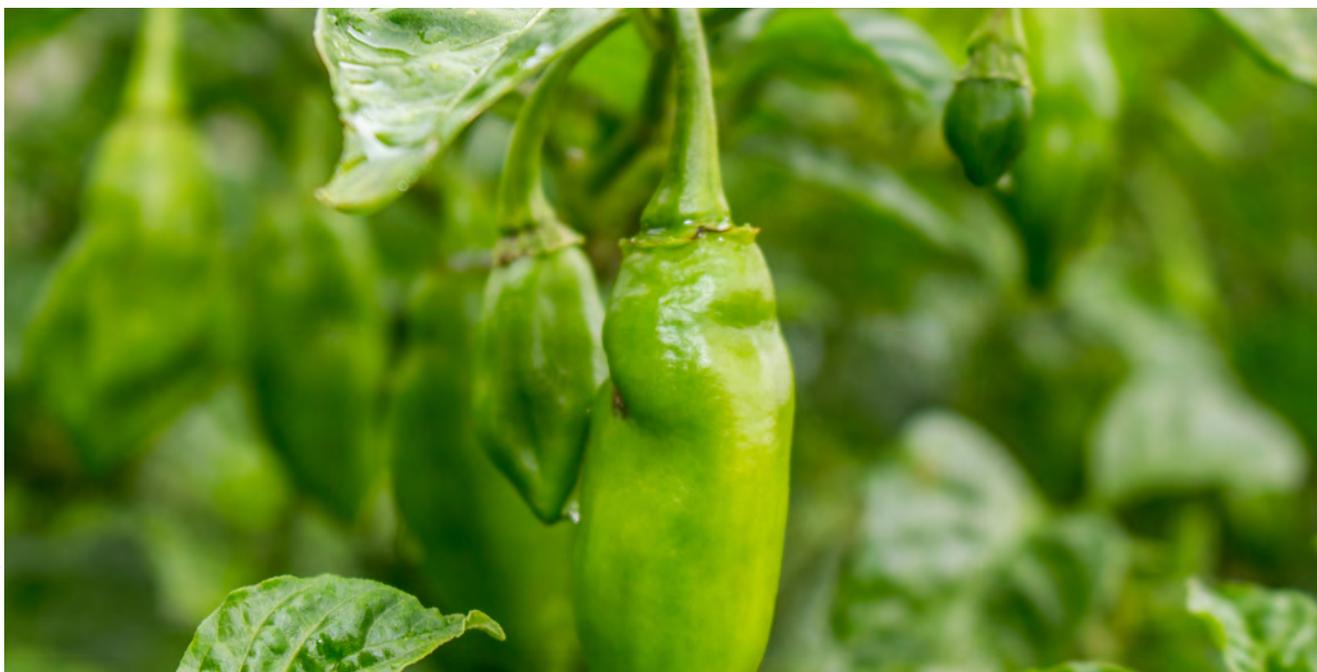
The problem of overweight is often exacerbated by poor availability of nutritious foods such as fruit and vegetables. In St Kitts-Nevis, for example, a historical focus on export crops, such as cane for sugar, has detracted from local horticultural production and encouraged the import of processed foods. Even when fruit and vegetables can be sourced, for example by working with local farmers, simply providing them to children, such as through school lunch programs, isn't sufficient.

## Capacity building for farmers and caterers

In St Kitts-Nevis and Trinidad and Tobago, *Farm to Fork* research showed that school children received inadequate levels of some micronutrients in the meals offered at school. In response, the project worked with smallholder farmers to produce fruit and vegetables for the school-feeding program. Over 1,100 primary school children from St Kitts-Nevis (800) and Trinidad (300) benefitted from a change in the school lunch menu. Capacity building for catering staff included training in purchasing, handling and integrating these foods into meals. Around 20 metric tons of fresh produce were supplied to the school meals program by local farmers over a one year period in St Kitts-Nevis. Prior to the project, only small amounts of fruit and vegetables had been used.

Evidence from the *Farm to Fork* project shows that to be effective, diet improvement should be accompanied by nutrition education for children and training for catering staff in how to use these foods to make meals that are attractive to children.

Responding to such complex challenges therefore requires strong collaboration from a number of different institutions. In facilitating such



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Around 20 mt of fresh produce were supplied to school meal programs by local farmers in St Kitts-Nevis



School gardens give children the opportunity to consume their own produce

collaboration as a major part of its approach, the *Farm to Fork* project is able to offer valuable lessons both nationally and regionally. Ministries of health, for example, can promote better diets by changing the foods provided and taking steps to reduce sales of sweetened drinks in schools. By supporting smallholders in supplying fruit and vegetables, ministries of agriculture not only help to improve children's diets, but also assist farmers in securing new markets and may be able to reduce food imports. And by incorporating nutrition education in schools and training institutions, education ministries play a vital part in ensuring that children are healthy, and that their ability to study and learn is enhanced. Working in an integrated way, and ensuring that policies are in place to support such actions, maximizes their benefits, whether for children, farmers or the economy as a whole.

## What are the policy implications?

School meal programs need to be evaluated by nutritionists and, if necessary, revised in order to reinforce the Regional Food and Nutrition Security Policy for the Caribbean and to inform the drafting and developing of national policies. These should include the following elements:

- All meals provided by school meal programs should contain at least one serving of

## Positive influence of nutrition education

During 2012-2013 in Trinidad, 297 children in four primary schools and 134 caregivers received nutrition education. Lessons addressed the six Caribbean food groups, balanced diets and portion sizes, healthy snacking, nutrition label reading, physical activity, home gardening, food safety and hygiene as well as cooking methods. Two schools revived school gardens, providing an opportunity to consume their own produce and learn how to grow vegetables and fruit for themselves.

Project research has shown that nutrition education, combined with the change in school lunch menu, had a positive impact on nutrition knowledge and resulted in more fruit and vegetables being consumed at lunchtime by children in Trinidad.



Nutrition education resulted in more fruit and vegetables being consumed at lunchtime by children

vegetables and one serving of fruit per day. These should be presented in a manner appealing to children, and should supply a third of daily recommended intake of nutrients, while making important reductions in sugar, saturated fat and salt that are currently offered in excess.

- Sales of high energy, non-nutritious foods and drinks in the school setting should be restricted. Measures to control the sale of such foods in the immediate vicinity of schools should also be explored.
- Nutrition education should be a part of the curriculum at primary and secondary schools and teacher education institutions. In-service teacher training on healthy diets and lifestyles needs to be provided.

Ministries of education, agriculture and health should collaborate, potentially through a joint taskforce, to develop and implement a comprehensive framework for promoting healthy school environments, with a particular emphasis on nutritious school lunches, with the overall goal of reducing obesity. Each ministry can take a lead in certain key roles:

### Ministry of Education

- Commission nutritional evaluations of school meals and seek recommendations for healthier meals that are accepted by children.
- Integrate education on food and health into existing school curricula in primary and secondary schools.

### Ministry of Agriculture

- Develop community-based smallholder farmer clusters to meet the demands of school meal

programs for volume, quality and consistency in supply of fruit and vegetables.

- Provide increased technical and non-technical support to producer groups to meet jointly established production targets throughout the different seasons.

### Ministry of Health

- Support the development of specific school feeding guidelines to increase fruit and vegetable consumption, meet micronutrient needs and decrease the use of sweet drinks and high salt/saturated fat meals.
- Conduct regular in-service training for health professionals on healthy local food to increase acceptability of national guidelines.

### References

- FAO. (2013). *The State of Food and Agriculture: Food Systems for Better Nutrition*. Food and Agriculture Organization, Rome, Italy. <http://bit.ly/iiRoBOP>.
- IDRC. *From Farm to Fork: Improving Nutrition in the Caribbean*. <http://bit.ly/1pj7kQr>.
- WHO. (2014). *Global Strategy on Diet, Physical Activity and Health: Childhood Overweight and Obesity*. <http://bit.ly/1uJD6dN>.
- WHO. (2014). *Global Strategy on Diet, Physical Activity and Health: Physical Activity and Young People*. <http://bit.ly/1BbywHt>.

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