

MY HEALTHY HEROES

PILOT REPORT



In collaboration with



財團法人國際合作發展基金會
International Cooperation and Development Fund

Improving health literacy amongst children, parents and teachers

www.myhealthyheroes.com



www.lakehealthandwellbeing.com

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1. Introduction

Childhood obesity is a significant challenge in St Kitts and Nevis. A PAHO report revealed that 33% of secondary school children in the twin-island state were overweight and 14% were obese¹. In 2017, a UNICEF report published that 26% of children in St Kitts and Nevis are obese².

Being obese and overweight in childhood is linked to the development of several health issues such as type 2 diabetes and hypertension, and it also negatively affects a child's mental health. These health issues can follow children into adulthood, with children affected by obesity or who are overweight having an increased risk of becoming overweight or obese adults and developing non-communicable diseases (NCDs) such as cancer and heart disease in later life.

To combat childhood obesity, we must ensure that children adopt a healthy lifestyle and we also have to create a healthy environment at schools, in homes and within society so that children can make healthy choices.

To address the high rate of childhood obesity in St Kitts and Nevis, Lake Health and Wellbeing, in collaboration with the Taiwan International Cooperation and Development Fund (ICDF), aims to focus on improving health literacy amongst children, parents and teachers.

Our approach is to focus on implementing a school-based intervention. This work began with a small pilot project targeting one

primary school, the Immaculate Conception Catholic School (ICCS).

2. Pilot Objectives

The objectives of the pilot were to:

- Improve children's knowledge of what constitutes a healthy diet and the harms of an unhealthy diet
- Test whether our resources are effective at engaging children, teaching them about healthy eating and creating an intention in children to eat a healthier diet
- Test whether the resources we are creating for teachers enhances their lessons on healthy eating
- Test the feasibility, effectiveness and impact of our approach with a view to expand to all schools in St Kitts and Nevis

3. Our Method

Our pilot focused on healthy eating and aligned with the Health and Family Life Education (HFLE) curriculum to ensure consistency with existing regional health messages.

We worked with the Immaculate Conception Catholic School for this pilot, targeting their two grade 4 classes. This gave us access to 33 eight- to ten-year-old children.

For our pilot project, we created a teacher's guide to support a six-week programme of educational sessions utilising the creative arts, specifically creative writing and stop-

1. PAHO, [Health in the Americas, 2012: St Kitts and Nevis](#), PAHO, 2012

2. UNICEF, [Situation Analysis of Children in the Federation of St Kitts and Nevis](#), UNICEF Office for the Eastern Caribbean Area and the Government of St Kitts and Nevis, Christ Church, Barbados, 2017

motion animation. The learning from these sessions was consolidated with promotional and educational material as well as weekly tasks to support students in implementing what they learnt in the health education sessions. Children were rewarded for their achievements.

These achievements included:

- Demonstrating a good level of knowledge of healthy eating concepts
- Demonstrating creative thinking, critical thinking, problem-solving and communication skills through the successful creation of health-related short stories and animations
- Demonstrating a change in their behaviour by adopting healthy eating practices

Specifically, our pilot consisted of the following key elements:

1. Collecting baseline data. To enable us to determine the general health of students, we collected the following data:

- Height
- Weight
- Body fat
- Waist circumference

We also asked children, parents and teachers to complete a pre-intervention questionnaire which explored the types of foods children eat, the reasons for selecting particular foods, children's knowledge of what healthy eating is, and the challenges

that parents may have in ensuring their children eat a healthy diet, and we explored teacher's thoughts on teaching healthy eating in schools and how schools can encourage children to adopt a healthy lifestyle.

2. The creation of 20 fun, creative food characters to allow for an engaging approach to health education. The characters covered both healthy and unhealthy foods to educate children on the impact of consuming both types of foods. The characters fell into the following categories:

- Fruit
- Vegetables
- Drinks
- Snacks

3. The creation of educational material based on the above characters:

- Information cards
- Badges
- Activity sheets
- Worksheets

4. The creation of a book of short stories authored by the students. A core part of this project was the utilisation of creative writing to help consolidate the children's learning and to develop their communication and cognitive skills.

Children were asked to select a food

character and using what they learnt about that food item write a short story, poem or rap. Their piece would aim to develop the selected character (using the key health characteristics of the food item) and create an interesting story that effectively communicates a healthy lifestyle message to young people. To be successful in this task, they have to demonstrate creative thinking, critical thinking, problem solving and communication skills.

The plan was to work with the children to develop ideas for the book cover and title and produce physical copies for the school to use as an educational resource. We have had to revise this due to the project ending early because of the COVID-19 pandemic, but all the short stories, raps and poems will be collated and made available as a PDF book on the My Healthy Heroes website.

We believe that creation of a book provides children with a sense of accomplishment and demonstrates the real-world impact they can have by translating what they have learnt in the classroom into a creative resource that can be used in the community.

5. Creating a healthy lifestyle commercial using stop-motion animation. This formed another core part of the project and further consolidated children's learning and enabled them to develop their cognitive and communication skills. Students were to develop a 30 second to 1 minute educational animated commercial to promote healthy habits in young people. These videos would then have been used as a health promotion resource for TV and social media.

Due to the COVID-19 pandemic, students were only able to complete the brainstorming and planning section of this task.

6. Healthy lifestyle tasks aligned with the school curriculum. As part of this project, children were given regular health challenges so they could acquire the skills to make healthy choices and begin to reduce their risk of developing non-communicable diseases. These challenges included:

- Keeping a regular food diary
- Tracking their drink consumption
- Eating more fruit and vegetables
- Drinking more water

7. Creating a resource pack (physical) for teachers that contained the following information:

- Lesson plan
- Teacher's guide
- Worksheets for children aligned with the school curriculum
- Activity sheets for children aligned with the school curriculum
- Information cards based on the food characters
- Badges based on the food characters that will later be brought to life via augmented reality

- Healthy lifestyle challenges aligned with the school curriculum

4. Monitoring and Evaluation

Outputs

- At least two briefing sessions with teachers
- Educational sessions delivered every week for four weeks with two data collection sessions
- The development of a website for the project
- The creation of healthy lifestyle posters for the classroom and school
- The production of a creative health promotion book by students
- The creation of stop-motion animation videos by students
- Student participation in healthy lifestyle challenges

Outcomes

- Improved knowledge of children of what constitutes a healthy diet
- Our target group shows an intention to change their behaviour and adopt a healthy lifestyle by eating a healthier diet.

Our evaluation plan for this project included assessing our target group's lifestyle and knowledge before our intervention, and we

were due to conduct another assessment immediately after the intervention and then three months after the intervention was completed, but we were unable to complete the post-intervention evaluation due to the COVID-19 pandemic.

We designed surveys to collect this data, which included some demographic information (age and gender) and health information (such as height, weight and BMI). Surveys were designed for teachers, parents and students.

5. Results

Due to the COVID-19 pandemic, we were able to complete 80% of the project; the activities that remain outstanding are the stop-motion animation activity and the post-intervention assessment.

In this section, we will provide a summary of our results so far.

1. Creation of Education Material

For six months, we worked closely with the Taiwan International Cooperation and Development Fund and teachers at the ICCS to develop a collection of resources that align with the school curriculum, particularly with the healthy eating classes currently delivered to fourth graders as part of Health and Family Life Education (HFLE).

The resources we developed were based on three types of characters. We created 20 characters, and we plan to expand this in the future. The three types of characters were:

My Healthy Heroes

A group of characters that represent fruits and vegetables. To aid children to culturally identify with the characters, we added some localisation. The colours of the St Kitts and Nevis flag was used on some of the characters' shoes—which was noted by the students and received very positively—and we included popular local/regional fruits and vegetables: pumpkin, mango, eggplant and banana.



Sugary Drinks Assassins

A collection of characters that raise awareness of the dangers of sweet drinks. These include the Soda Pop Sniper and Juicer Jones.



Junk Food Villains

A set of characters that educate children about the impact of unhealthy food. (e.g. Greasy Greg Chicken Leg, Zerger the Harmburger etc.)



Using these characters, we then developed a website; lesson plan for teachers; a set of information cards, badges, fridge magnets, activity sheets (food trackers, drinks trackers, food groups, word searches, mazes etc.); and a series of data collection sheets (questionnaires for teachers, students and parents).

My Healthy Heroes Website (www.myhealthyheroes.com)



Teacher's Guide, Word Searches and Posters



Information and Activity Sheets

MY HEALTHY HEROES

FOOD GROUPS

There are six major food groups. Healthy eating means eating from each of the six food groups every day.

CARBOHYDRATES	VEGETABLES	FRUIT	DAIRY, MEAT AND FISH	FATS	NUTS AND LEGUMES

Data Collection Sheets

MY HEALTHY HEROES

CLASS HEALTH MEASUREMENTS

CLASS: _____ DATE: _____

FIRST NAME	SURNAME	AGE	GENDER	HEIGHT	WEIGHT	BODY FAT	WAIST

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Information Cards, Badges and Fridge Magnets

We created 20 information cards, badges and fridge magnets; below are some examples.

WATER

INTERESTING FACTS

About 60% of our bodies are made of water, and we can only survive 3 days without it. Clearly, water is important! It plays many roles in our bodies: it transports nutrients, protects our organs, keeps our body temperature regular and more. We lose water through breathing, sweating, and digesting, so it's important to drink water frequently.

WAYS TO DRINK ME

You can drink plain water, but milk, yoghurt, fruit, and vegetables also contain water. To make plain water more flavourful, you can add fresh fruit like lemon and berries. Carbonated water counts!

DID YOU KNOW?

- Only 1% of the world's water is drinkable.
- Frozen water is lighter than fluid water. This is why ice floats.
- Cucumbers and jellyfish are both 95% water!

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BANANA

INTERESTING FACTS

Bananas are a tasty and convenient fruit. They're high in potassium which keeps your heart and muscles moving regularly. Every time you kick a soccer ball or run, potassium is at play. They also contain fibre and prebiotics, which build healthy bacteria in your intestines. This helps you digest food properly and use the bathroom frequently.

WAYS TO EAT ME

Bananas can be eaten in so many ways - slice it up and mix into oatmeal or cereal or add it into a smoothie for a delicious snack.

DID YOU KNOW?

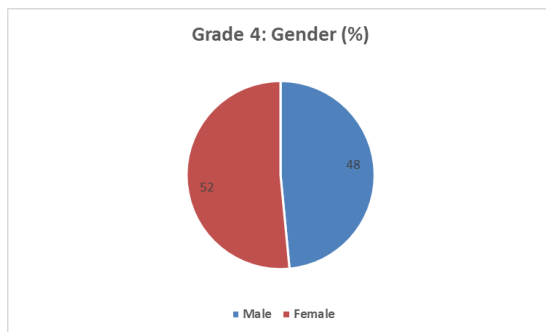
- Bananas float in water.
- Some countries like Japan, use the banana fibres to make fabric.
- The word banana, in scientific terms, means "fruit of the wise man".

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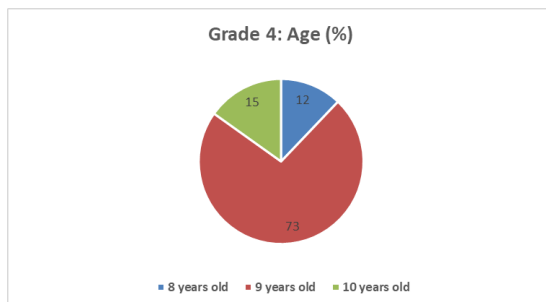
2. Health Measurements

At the beginning of the project, we collected data from 33 children. This information is summarised below.

Gender: The class was evenly split with regard to gender; 52% of the class was female and 48% male.



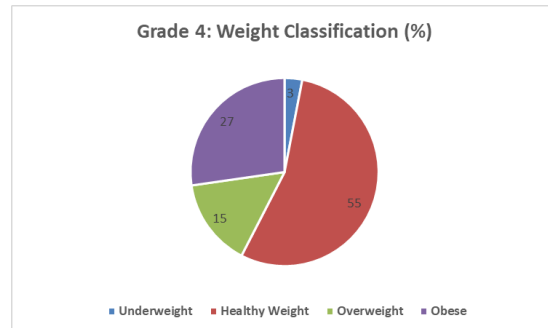
Age: The average age of the class was nine years old. Seventy-three percent of the students were nine years old, 15% were ten years old, and 12% were eight years old.



Weight Classification: Using students' height, weight and age, we calculated their BMI. This calculation was made based on the CDC's growth charts for

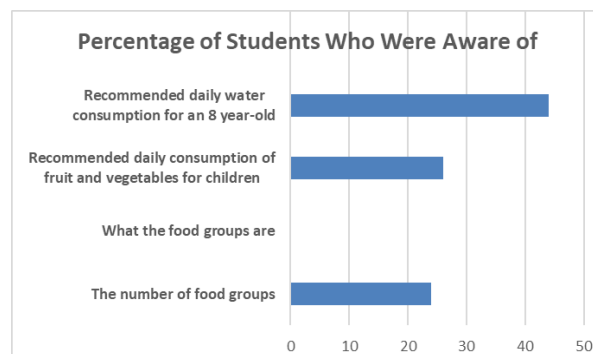
children aged 2 to 19.

The majority of children (55%) were a healthy weight, 27% of children were obese, 15% were overweight, and 3% were underweight.



3. Assessing Children's Knowledge of Nutrition

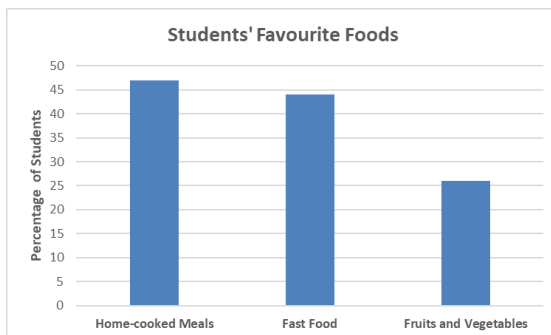
We then explored students' knowledge of healthy eating concepts by asking students about the number of food groups, what the different food groups are, how many portions of fruits and vegetables children should consume daily and how much water the average eight-year-old should consume daily. A summary of the results are below.



There was a low level of awareness of these four areas. Students were most knowledgeable about the amount of water that an eight-year-old should consume; 44% answered this question correctly. Students had the lowest level of knowledge of the different food groups; no one answered this question correctly. Six students were able to provide one, two or three food groups, but none were able to answer the question fully and name all the food groups.

4. Exploring Children's Diet and Food Preferences

We assessed children's diet and food preferences. When it came to food preferences, 47% of students listed home-cooked meals like callaloo soup, mashed potato, pepper pot and cornmeal and fish as their favourite foods; 44% listed fast foods such as pizza, KFC and hot dogs as their favourites, and 24% of students listed fruit and vegetables as their favourites. Many students listed multiple foods as their favourites, so for example a significant percentage listed both home-cooked meals and fast foods as their favourite foods.



When asked why they liked these foods, 59% of students stated because of the taste:

'I love how sweet they are.'

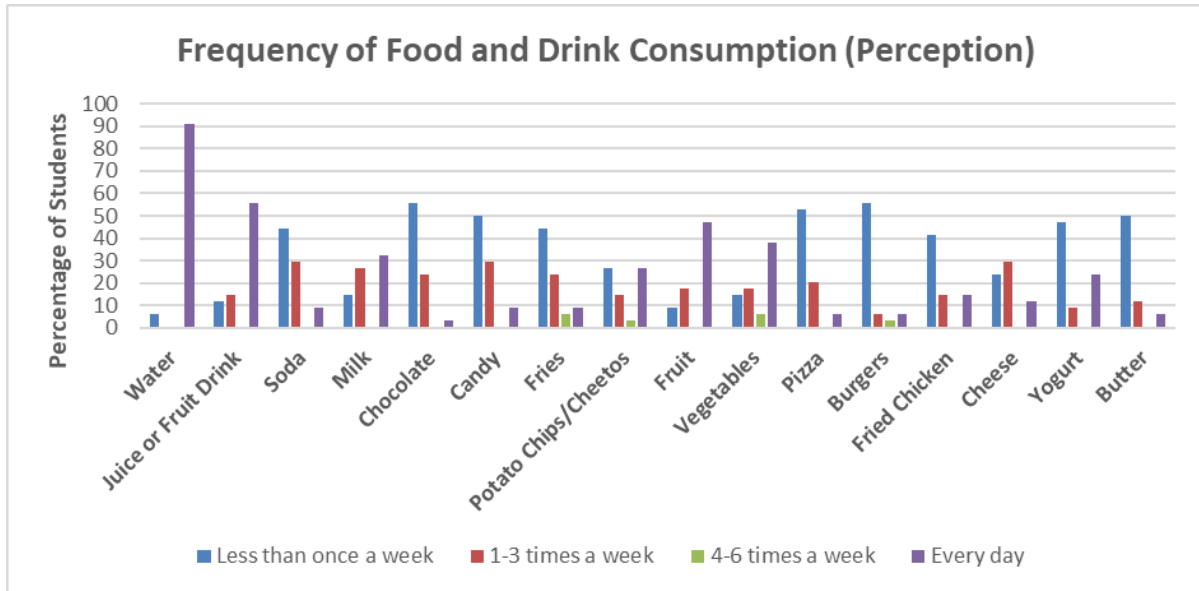
'Because it's tasty.'

'Because it tastes like candy.'

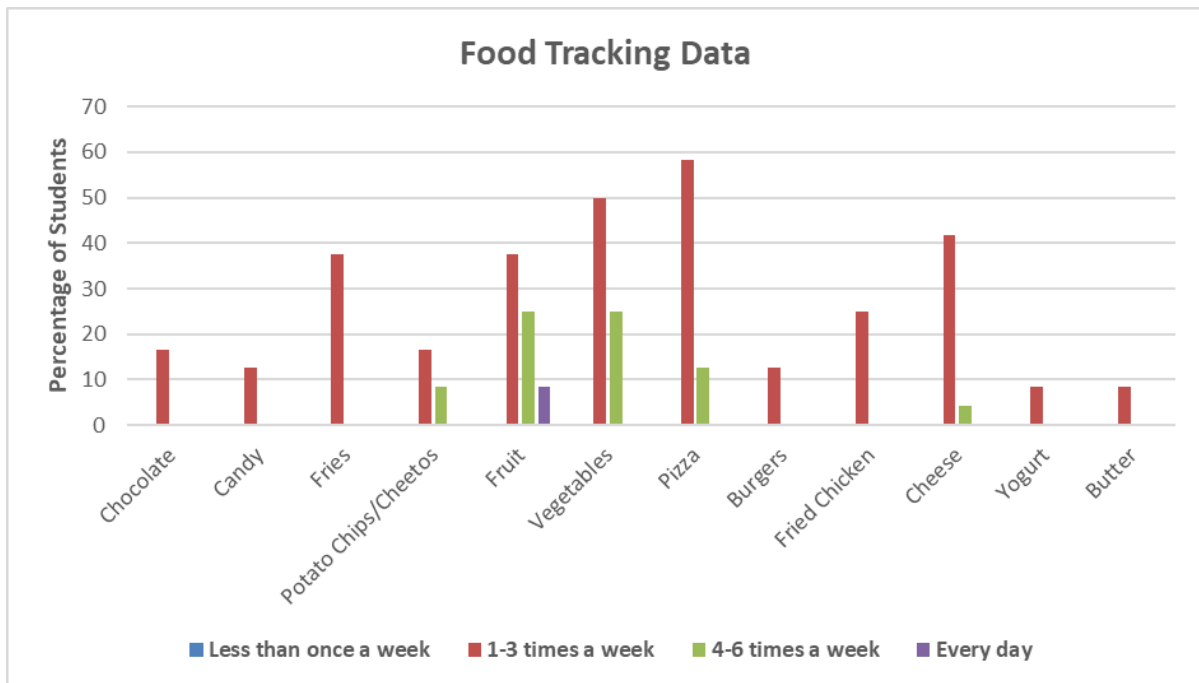
'It is delicious.'

Six percent said the particular food they selected was their favourite because it was healthy, 3% liked the texture, 3% were influenced by a family member, 3% said they didn't know, and 26% didn't answer this question.

We then gave students the opportunity to assess how often they consumed specific foods and drinks, and the table on the next page summarises their assessment. Interesting points to note are that 90% of children say they drink water every day, 56% drink fruit juice or a fruit drink every day, 8% drink a soda every day, and 32% drink milk every day. Looking at unhealthy snacks, only a small percentage of children said they eat these every day; this varies from 3% to 26% depending on the snack. When we explored fast food—pizza, burgers and fries—the data suggests that students consume these less than once a week. When we focus on healthy snacks, 47% of students said they eat fruit every day and 38% said they eat vegetables every day.



To measure whether students’ perception of what they eat aligned with what they actually ate, we asked students to complete a seven-day food tracker. Twenty-four students completed the seven-day food tracker. Additionally, the information provided in the trackers wasn’t comprehensive enough to accurately assess their food and drinks consumption, but despite this, we utilised the information provided to give us an indication of the types of foods they eat.



Some of the conclusions that we can make from comparing what children thought they ate with what they eat in reality include:

- Students overestimated how healthy their diets are
- Students are not eating the recommended 5-7 servings of fruits and vegetables every day. Bearing in mind the food tracking data wasn't comprehensive enough to make any firm conclusion in some cases, it does appear that none of the students consume vegetables every day and only a very small number are eating fruits every day. Most students are eating fruits and vegetables 1-3 times a week. This is a significant deviation from what they perceive. Forty-seven percent thought they ate fruit every day, and 38% felt they ate vegetables every day.

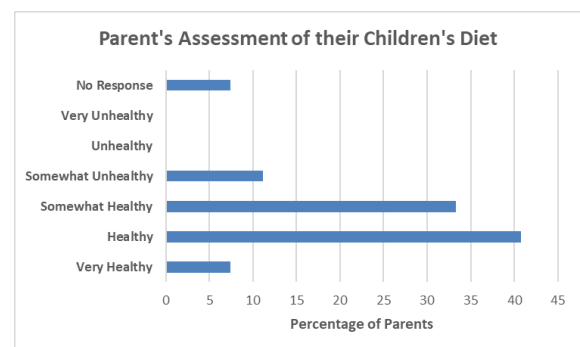
- Students are consuming a significant amount of carbohydrates, fats and proteins.
- Students are eating more unhealthy foods than they perceived. For example, 52% of students said they ate pizza less than once a week, but their food trackers suggested the majority of students were eating pizza 1-3 times a week and a small number of students ate pizza 4-6 times a week.

5. Parents' Perspectives

As well as obtaining information from students, we also asked parents to complete a questionnaire to gain their perspective on their children's eating habits and to explore

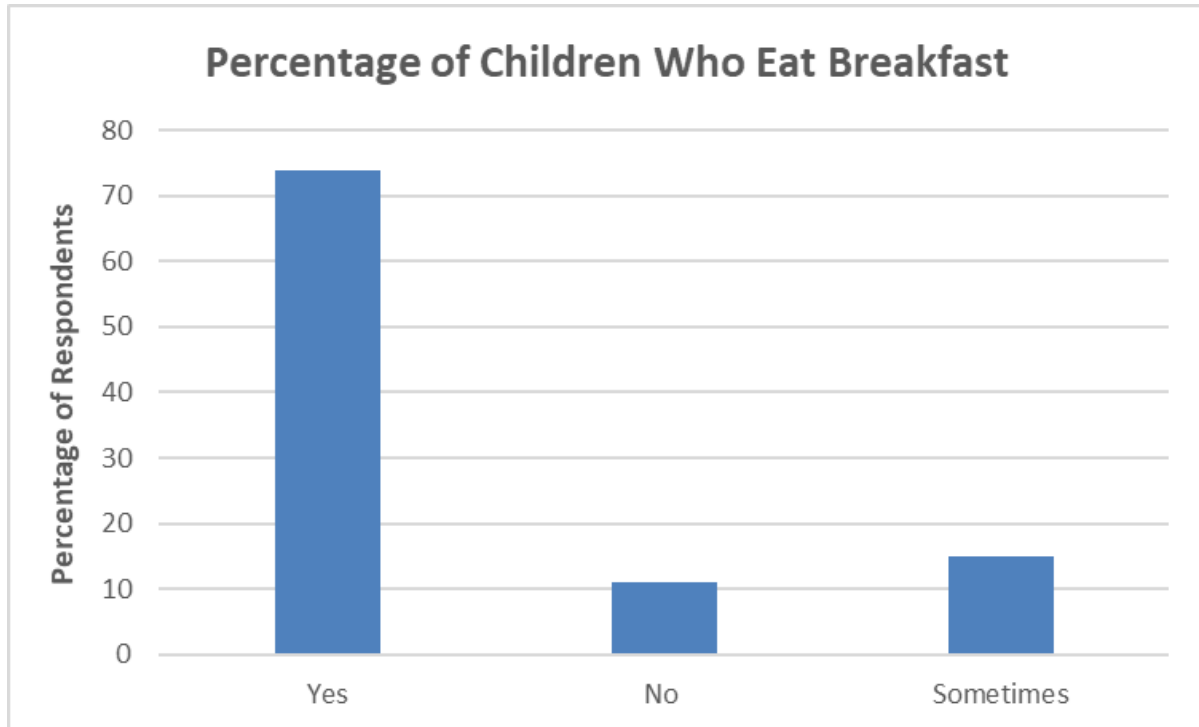
some of the challenges they may encounter in ensuring their children eat a healthy balanced diet. Twenty-seven parents completed a questionnaire.

We first asked parents to assess how healthy their children's diets are, and the graph below summarises their responses.



Forty percent of parents felt that their child's diet was healthy, 33% felt their diet was somewhat healthy, 7% felt it was very healthy, and 7% felt their child's diet was somewhat unhealthy.

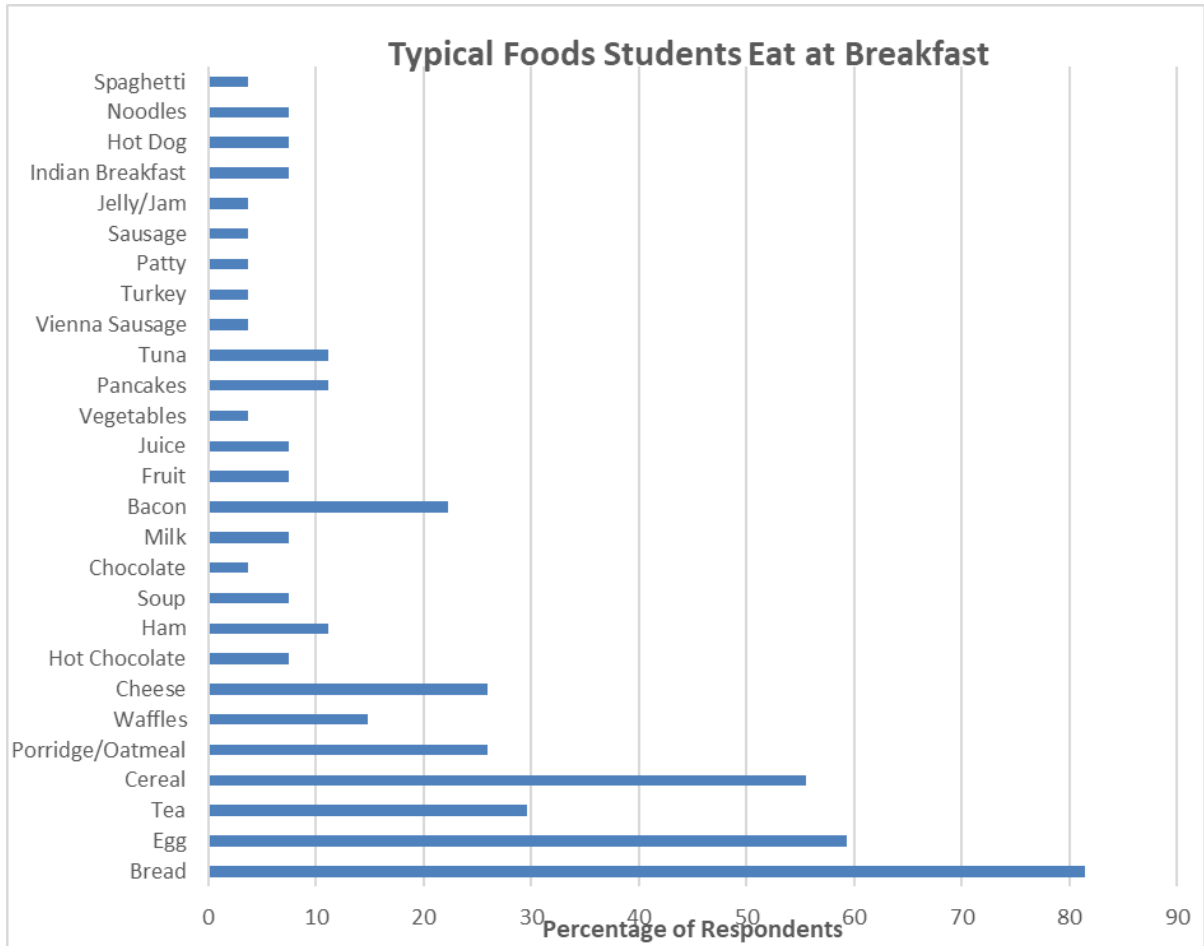
We then looked at how many children ate breakfast before school in the morning and if they had breakfast, what they ate. Seventy-four percent of parents stated that their child eats breakfast, 11% said their child didn't eat breakfast before school, and 15% said their child eats breakfast sometimes.



For those parents who said either their child doesn't eat breakfast or sometimes eats breakfast, the reasons for this include:

- Time constraints
- Their child isn't hungry.
- Their child doesn't want breakfast.
- Their child doesn't want what is provided.
- Their child might not be feeling well that day.

When we assessed what parents typically give their children for breakfast, we found the following (see graph on the next page)

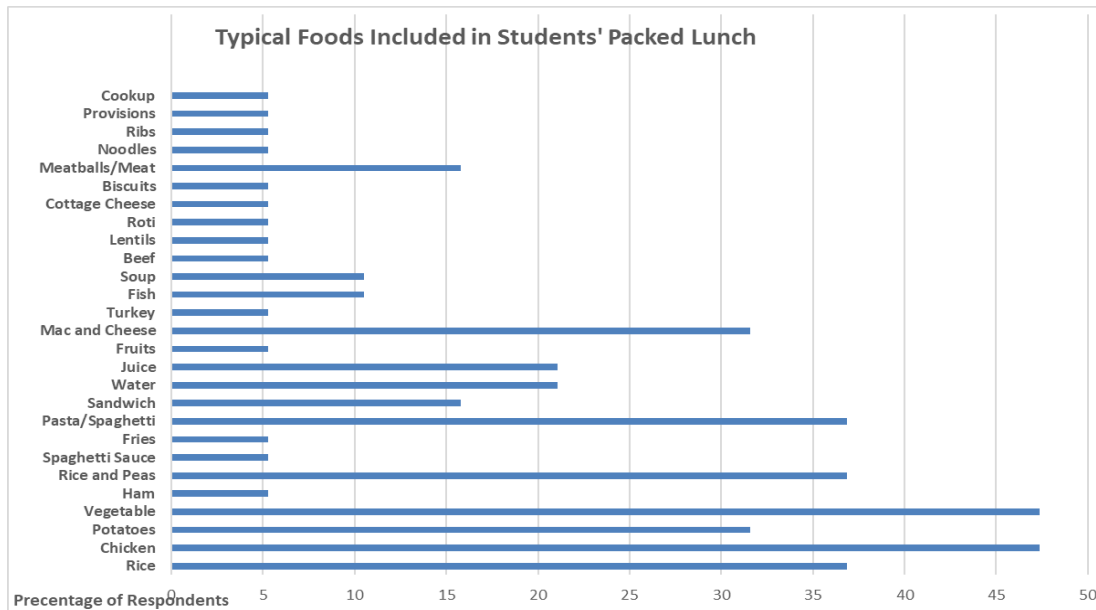


Important points from this assessment include:

- Hardly any children are eating fruits or vegetables as part of their breakfast. Only 7% of parents said their child typically has fruit at breakfast, and 3% said their child eats a vegetable as part of their breakfast.
- Most children are having bread (81%), eggs (59%), cereal with milk (56%), porridge (26%), cheese (26%) and bacon (22%) as part of their breakfast.

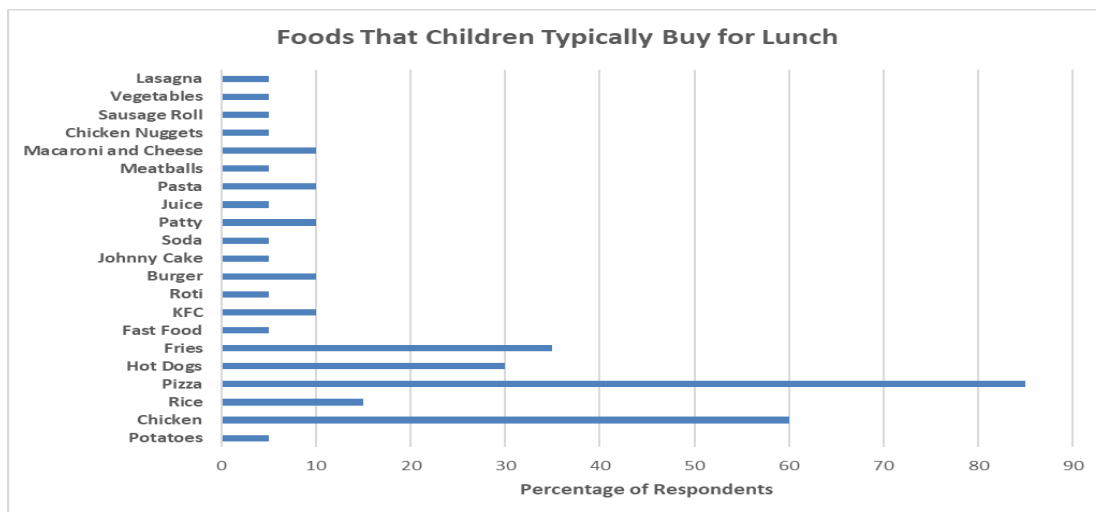
We then explored children's habits at lunchtime, and we found that 26% of students eat a packed lunch, 14% buy lunch from a vendor, 11% go home for lunch and 40% engage in a mixture of these practices during the week.

We then asked parents what their children consume if they have a packed lunch and what they consume if they buy lunch. Below is a summary of what parents said they typically include in their child's packed lunch. Parents tended to include rice, chicken, vegetables, pasta/spaghetti and macaroni and cheese in their packed lunch.

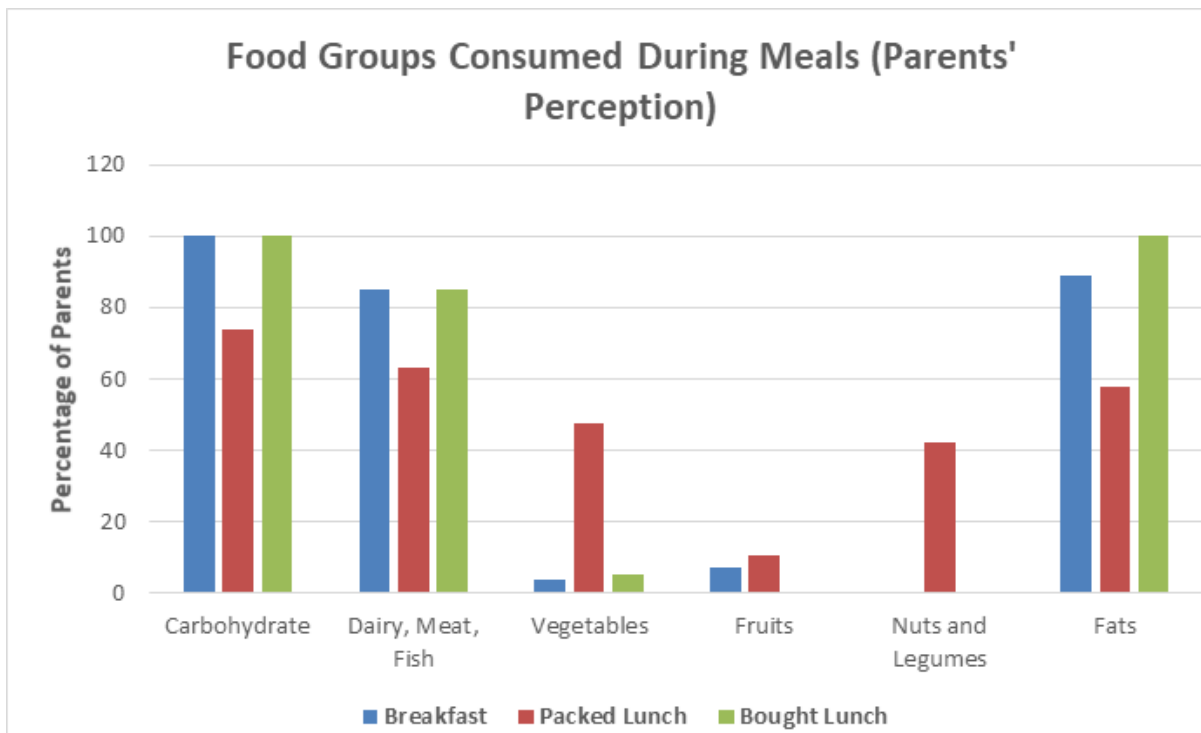


Below is what their child typically buys on the days when they purchase their lunch. Children tended to gravitate towards pizza, fries, chicken and hot dogs.

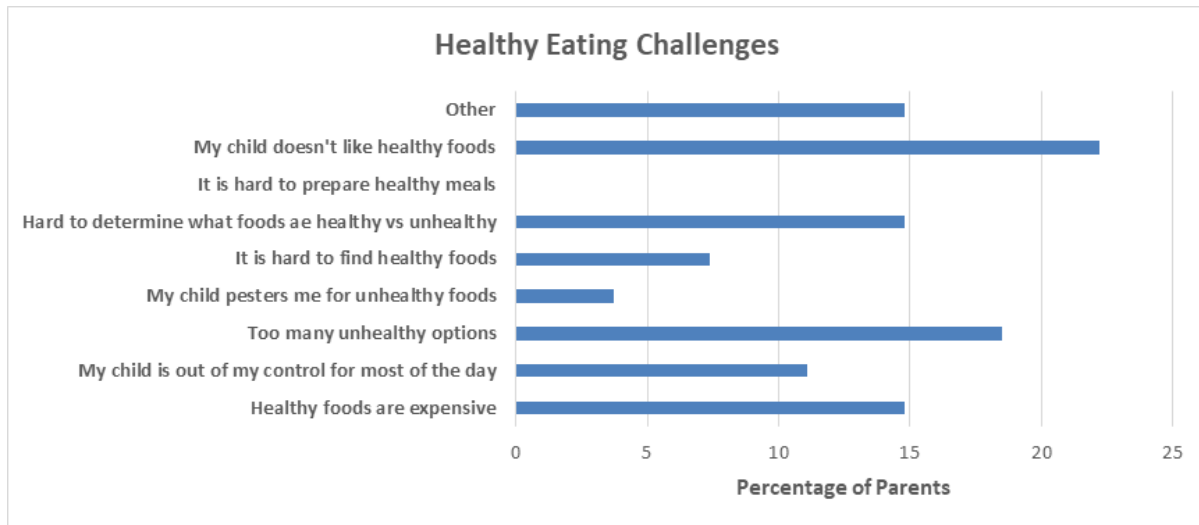
This would suggest that if we are to ensure that children eat healthily, children should consume a packed lunch from home rather than be allowed to purchase lunch.



When we categorise what parents stated their children have for breakfast, lunch and dinner into food groups (the food group classification used is that described by the HFLE curriculum), we can see that fruits and vegetables are not being consumed by the majority of students. We do see that students who do consume vegetables do so at lunch when provided with a packed lunch.



We then explored some of the challenges that parents experience when trying to provide healthy meals for their children, and below are the answers provided by parents.



The biggest challenges that parents face are:

- Their children not liking healthy foods
- Being exposed to too many unhealthy food options

Other challenges that parents stated they encounter are:

- It's hard to determine what foods are healthy vs what foods are unhealthy.
- It's hard to find healthy food.
- Their child pesters them for unhealthy foods.
- Their child is not under their supervision for most of the day, so they can't control what they eat.
- Healthy foods are expensive.

- Time constraints
- Creating an understanding in their children that healthy eating is good for them
- Overcoming the fact that their children do not like trying new foods
- Portion sizes

Finally, we asked parents to provide any additional comments on their child's diet, their family's eating habits and what can be done to educate children about the importance of a healthy diet.

Regarding their children's diet, parents stated that:

- Their children should and could eat more fruits and vegetables.
- Their children mostly eat what the rest of the family eats.
- Two parents mentioned that their children

are picky eaters.

- One parent mentioned that her child doesn't like to try new foods, and this makes it difficult to include all the required nutrients in each meal.
- Another parent mentioned that her daughter eats fruits and vegetables if they are given to her, but if her daughter had to choose, she wouldn't eat these.
- One parent mentioned that her children eat healthy meals, but in between meals, the children eat unhealthy snacks.

In terms of how best to educate children about the importance of a healthy diet, parents made the following suggestions:

- Educate children on the benefits of fruits and vegetables
- Educate children about the harms of consuming excess sugar
- Both parents and teachers should educate children about nutrition
- Have fresh fruits available as a convenient snack
- Fruits and vegetables should be included in every meal
- Parents should set a good example for their children when it comes to healthy eating
- Parents should change their family's diet
- Have nutrition sessions at school

- Have a fruit and vegetable day at school

6. Teachers' Perspectives

We also asked teachers to complete a questionnaire to gain their perspective on this project, their role in improving the health and wellbeing of students, and how schools can create a healthy environment. As there were only two teachers involved in this project, we have decided not to include their feedback in this report to keep the data they provided confidential, but we will use the information they provided to inform the next phase of our work.

7. Four-Week Healthy Eating Sessions

Having collected the above baseline data from students and their parents in week 0, we then proceeded with a four-week healthy eating interactive educational programme where we used our My Healthy Heroes characters and resources to discuss the following with students:

- Food groups and healthy eating
- Healthy vs unhealthy eating
- Fruits and vegetables
- Colour categories of fruits and vegetables
- Healthy drinking
- The dangers of sweet drinks

We also gave students an assignment of

writing a story, rap or poem based on a selected character (either a Healthy Hero, Sugary Drinks Assassin or Junk Food Villain) and presenting this to the class. We planned to work with students to select the best stories to convert into a stop-motion animation video that could be used to promote healthy eating amongst their peers, but due to the COVID-19 pandemic, we were unable to complete this final activity.



Students getting ready to read their My Healthy Hero stories



Healthy Eating Session with fourth graders

Here is a selection of students' creative writing, which helped consolidate their learning.

A Mangolicious Dream

By: Rainier Martin

In the night, Amelia ate her dinner.
Afterwards, she went to sleep, to wake up
the next morning.

When Amelia was finally asleep, she had a great dream. There were characters, Miss Mangolicious and her healthy fruit and vegetable friends.

Miss Mangolicious and her friends Tommy Tomato and Potato Head Jed were on a great mission.

"We have to save Amelia!" exclaimed Miss Mangolicious.

"Amelia is suffering from a severe case of Lack-of-Healthy-Eating-itis," said Tommy Tomato.

"We need to meet Amelia at her usual eating spot right now. Quick, to my Mangolicious Carriage!" exclaimed Miss Mangolicious.

"There she is, sitting under the shady trees," said Potato Head Jed.

"Amelia!" shouted Miss Mangolicious.

"You need to eat healthy foods," said Tommy Tomato.

"Let us teach you the importance of healthy eating," they all said.

"It is good to eat fruits and vegetables because you get a lot of vitamins and your

bones become stronger,” said Potato Head Jed.

After all that Amelia learned in her dream, she started eating healthy from then on. Every day, Amelia eats fruits, vegetables and of course, mangoes!

The Adventures of Professor Cornilious Cob

By: Kailynn Browne

This story is about Professor Cornilious Cob saving the country of Healthy Land.

One day, the Sugary Drinks Assassins and the Junk Food Villains were trying to take over Healthy Land.

Professor Cornilious Cob said, “Stop right there!”

The Sugary Drinks Assassins and Junk Food Villains exclaimed, “We’re not going to listen to you!”

Professor Cornilious Cob needed some help from his friends. He called Miss Mangolicious, Captain Splash, Potato Head Jed and Mama Eggplant.

Professor Cornilious Cob said, “We are going to fight them with facts.”

They all thought this was a great idea.

Professor Cornilious Cob said, “I am rich in vitamin B12, folic acid and iron.”

With that said, Frenchy the Frier disappeared into thin air.

“I have vitamins A, C, B6 and potassium,” said Miss Mangolicious. Donutter Dennis turned into dust.

Captain Splash exclaimed, “I am very important.” Juicer Jones turned into a puddle.

Mama Eggplant exclaimed, “I have a beautiful colour, which makes people want to eat me!” Greasy Greg Chicken Leg turned raw.

After that day, the Junk Food Villains and Sugary Drinks Assassins went back to Unhealthy Land and never came back.

6. Evaluation of Impact

Due to COVID-19, we were not able to carry out a post-intervention evaluation to measure the impact of our healthy eating programme, but below are some of our observations:

- Students retained a lot of the information we taught them over the four weeks. Every week, they were able to correctly recall the information they learnt in the previous weeks.
- Our characters were extremely important in engaging children and getting them excited about learning about healthy eating and in facilitating a good level of retention of

the information.

- Students responded positively to the characters and were excited to receive the information cards, badges and fridge magnets. Many of them wore the badges to class every week and wanted to be associated with a Healthy Hero and not a Junk Food Villain or Sugary Drinks Assassin. This suggests that if healthy foods are made cool, we can entice children to gravitate towards healthy options.
- The characters motivated children to think of our healthy eating programme outside of the school setting, and there was interest from the children in engaging more with the characters. This suggests that a programme like this can be embedded in the school, home and social environment to further promote a healthy lifestyle in children.
- An issue that we identified was the need to properly explain the harms of unhealthy eating and in a way that resonates with them. There didn't seem to be an appreciation of the long-term effect of unhealthy eating, and we felt that because of this, they didn't see unhealthy eating as something that would impact them significantly. We therefore had to highlight the dangers of unhealthy food and aimed to strike a balance of being honest and informative without causing any unnecessary fear—the aim was to be empowering.
- Children were honest and overall did say that they would try to make healthy choices, but if they had to choose between certain foods, they would still choose the unhealthy

option because they felt it tastes better. Therefore, trying to explore tastier ways of preparing healthy food is very important if we are to change children's eating habits, and we need to ensure that children acquire the taste for healthy foods at a younger age so they develop a preference for healthy eating.

- Children were very perceptive. They realized that they tend to make unhealthy choices because it is more accessible and they see it being advertised frequently. One student said to us that if he had a food tracker all the time, it would remind him to eat healthily because he doesn't think deeply about the choices he makes during the day when he buys snacks—he buys what is available.
- A project like ours needs to be a long-term programme. Children need constant reminders and nudges to make healthy choices, or else the high volume of marketing of unhealthy foods will capture their attention and influence their behaviour.
- We have a lot of work to do in the field of public health to compete with the food industry, and by expanding this work, we hope to make a small contribution to getting children excited about healthy food and therefore encourage them to make healthier choices.
- Our strategy for this project was to train teachers to deliver the sessions, but due to time constraints of teachers, we delivered the sessions. We recognise that the success of this approach will be based on the

enthusiasm of the instructors, and if teachers aren't able to create the excitement required to engage children, then the supporting material must be even more engaging, for example videos, games etc.

7. Conclusions

Our project was very insightful in helping us understand the knowledge and lifestyle of eight- to ten-year-olds as it pertains to their diet. We were able to establish that:

1. Children accept that they should be eating a healthy diet, but the depth of their knowledge of healthy eating, its benefits and the harms of unhealthy eating is low and therefore means this acceptance doesn't translate into a change in behaviour or a motivation to eat a healthy diet.
2. The major factor that impacts children's choice of what to eat, if they are given a choice, is taste, but children also recognise that some foods are more accessible and that the significant amount of marketing of unhealthy foods impacts their choices.
3. Students' favourite foods vary. They selected both fast food and home-cooked meals as their favourite foods, and these were selected mostly based on taste. This means there is the opportunity to encourage more healthy eating if parents, schools and vendors explore creative ways to prepare healthy foods that children would deem to be tasty.
4. Children and parents overestimate how healthy children's diet are; in reality, children

are not eating a healthy balanced diet. Students are not eating the recommended 5-7 servings of fruits and vegetables, and students are eating more unhealthy foods than they realise.

5. Children need constant reminders and nudges to make healthy choices.
6. A comprehensive marketing strategy for healthy food is required to compete with the marketing of unhealthy foods.
7. Creative approaches are needed to engage children and educate them on healthy eating. Our project has shown characters that children can relate to and are considered 'cool' will be effective at reaching children and creating an intention to change their behaviour. Using these characters to further develop resources like animation, games, merchandise (badges, information cards, fridge magnets, t-shirts), a website, an app, etc. is necessary to engage and educate children.
8. Parents need support regarding time, knowledge and ability with healthy food preparation, and schools can compensate by ensuring there is a healthy environment in schools—healthy breakfast, lunch and snacks available in and around schools.
9. Healthy eating should be a core part of the curriculum in school and go beyond conveying simple facts; the approach should be interactive to create a long-lasting change in attitudes and behaviours towards food.

8. Recommendations and Next Steps

The health of a nation is its most important asset. A healthy population creates a dynamic country where all citizens can actively participate in their family life, community and economy.

A healthy nation starts with a healthy family. Building healthy habits in children means we can be assured of a healthy, strong future for our society. Therefore, we need a society that enables families to be healthy. This includes giving parents the support they need to parent healthily, by providing parents with the time, resources and facilities to engage in healthy behaviours.

Based on this pilot, we recommend that:

- Workplaces enable parents to maintain a good work-life balance so they have the time and flexibility to focus on their children and can create a healthy home environment.
- The Government:
 - Introduces policies that incentivise healthy behaviours (subsidise healthy foods) and discourage unhealthy behaviours (taxes on unhealthy foods and drinks)
 - Ensures that nutritious food is easily accessible to all citizens, particularly those on a low income
 - Ensures that citizens can make informed choices about the foods they purchase by introducing the

mandatory inclusion of nutritional information on all packaged foods; this information should be provided in a way that is easy to understand

Makes the prevention of disease a core part of their approach to improving the nation's health through a comprehensive health education, awareness and screening programme that explains the link between unhealthy diets and disease risk

- The Ministry of Education should make health education a priority in the development of their curriculum. There needs to be a focus on giving children the life skills they need to navigate their future, and healthy behavioural skills is an important component. Healthy eating should be a core part of the curriculum in school and go beyond conveying information; the approach should be interactive to create a long-lasting change in attitudes and behaviours towards food.
- The Ministry of Health and Education should explore the creation of national policies and guidelines to create a healthy school environment that aligns with regional and international approaches. This includes:
 - The restriction of the sale and marketing of unhealthy food and sweet beverages in and around schools
 - The ability for children to purchase healthy foods in and around schools
 - The provision of free, safe drinking water at all schools

- Regular physical education for every child
- Regular physical activity breaks throughout the school day
- The Ministry of Health should develop and implement a comprehensive public engagement strategy that is aimed at children, teenagers and adults to raise awareness of healthy eating, its benefits and the harms of unhealthy foods.
- The Ministry of Health should continue their work to introduce a sugar-sweetened beverage tax and work with the St Kitts Standards Bureau to ensure that all packaged foods in St Kitts and Nevis are adequately labelled with nutritional information. This includes back-of-pack and front-of-pack nutrition labels.
- Schools should create local policies and guidelines that support:
 - The restriction of the sale and marketing of unhealthy food and sweet beverages in and around schools
 - The ability for children to purchase healthy foods in and around schools
 - The provision of free, safe drinking water at all schools
 - Regular physical education for every child
 - Regular physical activity breaks throughout the school day
- Teachers should be trained to deliver healthy lifestyle classes to children and be provided with engaging resources to achieve success in these classes.
- Parents should be aware of what healthy eating is and what foods to avoid, aim to prepare healthy balanced meals for children, provide their children with healthy snacks and educate their children on the importance of healthy eating. The Ministry of Health, the Ministry of Education, doctors and health-related NGOs should provide parents with information and training to enable parents to achieve this.

Lake Health and Wellbeing will:

- Take the learnings from this pilot to further develop our My Healthy Heroes programme, creating more resources for children, teachers and parents as well as a strategy for engaging with more schools and to include churches in our outreach strategy.
- Work in partnership with the ICDF, Ministry of Health and Ministry of Education to develop creative approaches to encouraging a healthy lifestyle in children.

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More Information

For more information about this project, you can email info@lakehealthandwellbeing.com or call 1 869 765 8702.

To find out more about us, you can visit our website: www.lakehealthandwellbeing.com

And you can find us on social media:

- [Facebook](#)
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