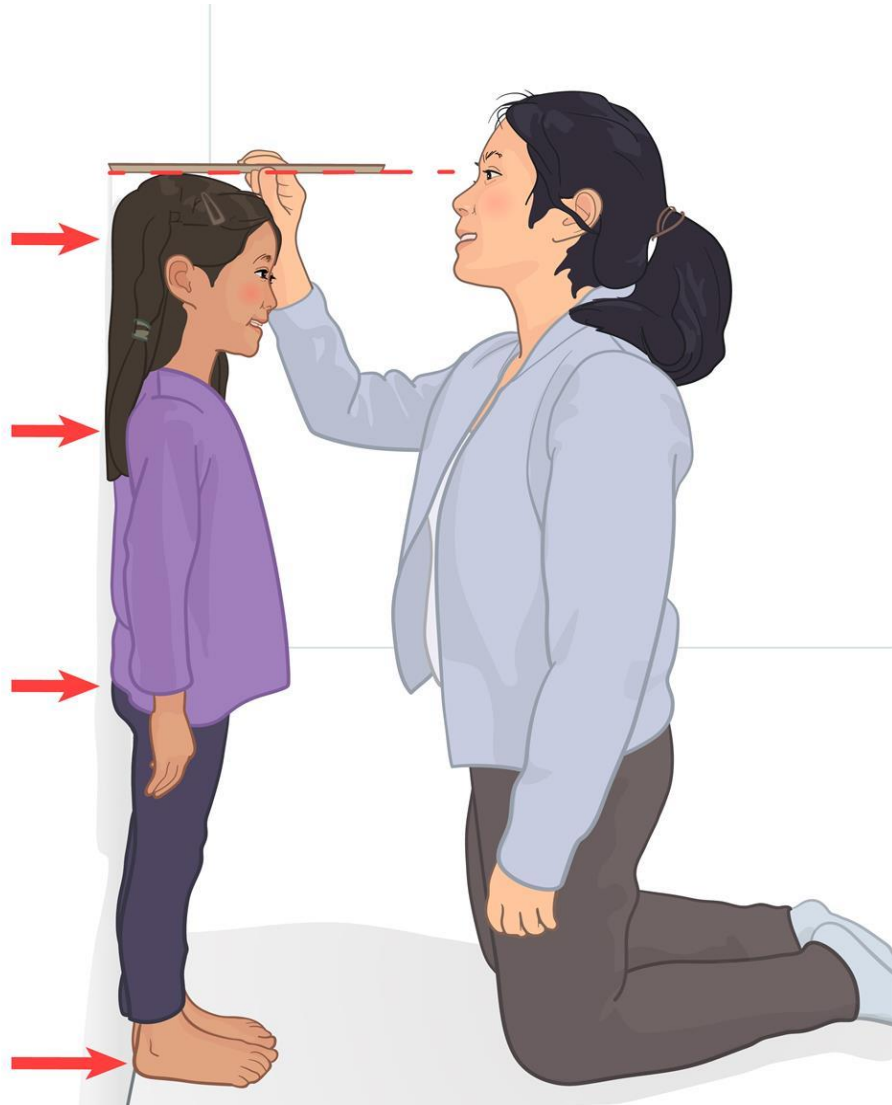


# Grenada Food and Nutrition Council (GFNC)

## Day Care Survey Report 2022



**Surveillance Department**

## **Grenada Food and Nutrition Council (GFNC)**

### **Day Care Survey Report 2022**

The GFNC Day Care Survey 2022 is geared toward assessing the Nutritional status of children attending daycares in Grenada and Carriacou. This survey is conducted annually and is coordinated by GFNC's Surveillance Department and executed by the Nutritionists and Nutrition officers of the Council.

#### **Target Population**

Children in government and private daycares between ages 6 months to 3 years.

#### **GOAL**

The goal of the survey was to monitor the trends in growth patterns within the target population.

#### **Objectives of the Survey**

To assess the health and nutritional status of children in government and private daycares between ages 6 months to 3 years.

#### **INSTRUMENTS USED**

A stadiometer was used to measure standing height in centimeter, for children 2 years of age and older and length was measured for children under 2 years of age using a length board. Also, a Seca digital flat scale that weighs kilograms.

#### **METHODOLOGY**

GFNC Nutrition Officers visited forty-six (46) day care centres (thirty-five (35) private and eleven (11) government/government-assisted) during the months of February to May. Anthropometric (weight and height/length measurement) and personal identifiable data (child's name, sex, day care centre and date of birth) were collected and documented.

The data was analyzed using WHO Anthropometric software, and the anthropometric indices; BMI-for-age (BAZ) and height-for-age (HAZ) were used to determine the nutritional status of the children.

BMI-for-age (BAZ) indicator identifies children who are normal weight (2SD to <-2), overweight or obese (>-2 or >-3) and wasted/thin (<-2SD to <-3SD). Height-for-age (HAZ) reflects growth in length/height and would identify children who are stunted/short for their age (<-2SD to <-3SD). It should be noted that stunted can be an indication of malnutrition.

**Table 1: Key used to determine the nutritional status of children**

**Growth indicators**

<b>Z-score</b>	<b>Height-for-age</b>	<b>BMI-for-age</b>
Above 3		Obese
Above 2 below 3		Overweight
Above 1 below 2		Possible risk of being overweight
At -2 through to +2	Normal	Normal
Below -2	Stunted	Wasted
Below -3	Severely stunted	Severely wasted

**RESULTS:**

In total, *seven hundred and sixty-five (765)* children were assessed:

- Three hundred and ninety-four (394) males.
- Three hundred and seventy-one (371) females.
- ***Eighty-nine percent (89.3%)*** or six hundred and eighty-three (683) of the children assessed had a ***'Normal'*** BMI-for-age (BAZ) between -2 and +2).
- Of the children normal:
  - o Three hundred and forty-five (345) or ***50.5 %*** are boys
  - o Three hundred and thirty-eight (338) or ***49.5 %*** are girls
- ***Sixteen percent (16%)*** or one hundred and twenty-three (123) of the children who had normal BAZ are ***'At risk of becoming overweight'*** (above +1 Z-score and below+2 Z-score). Of the Children ***'At Risk of Overweight'***:
  - o Sixty (60) or ***49%*** are boys
  - o Sixty-three (63) or ***51%*** are girls
- ***Ten (10) or 1.3%*** of the children had a BAZ below -2 and above -3 which indicate ***wasted or thin.*** Of the children wasted/thin:
  - o Six (6) or ***60%*** are boys
  - o Four (4) or ***40%*** are girls
- ***Two (2) or 0.3%*** of the children had a BMI below -3 which indicated ***'Severely wasted'***.
  - o Two (2) or ***100%*** are girls

- **Nine percent (9%)** or Seventy (70) of the children had a BAZ above +2 which indicates overweight/obese.
  - o Fifty-one (51) or **six percent (6.7%)** are '**Overweight**'
    - Twenty-nine (29) or **57%** are boys
    - Twenty-two (22) or **43%** are girls
  - o And eighteen (19) or **2.5 %** are '**Obese**'.
    - Fourteen (14) or **74 %** are boys
    - Five (5) or **26 %** are girls
- Twenty-seven (27) or **3.5%** had a HAZ below -2 which indicates '**Stunted/Severely Stunted**'.
  - o twenty (20) or **2.6%** are '**Stunted**' with a BAZ below -2 and above -3
    - Thirteen (13) or **65%** are boys
    - Seven (7) or **35%** are girls
  - o Seven (7) or **0.9%** are '**Severely Stunted**' with a HAZ below -3
    - Four (4) or **57%** are boys
    - Three (3) or **43%** are girls

Additionally,

Two (2) are boys have a nutritional status of both **Obese and Stunted**; One from Carriacou and the other from St. Andrew.

One (1) female, in St. Andrew has a nutritional status of both **Stunted and Overweight**.

One (1) male, in Carriacou is both **Severely Stunted and Obese**

One (1) male in St. George is both **Wasted and Stunted**.

**Table 2: Nutritional Status Assessment by Gender**

Nutritional status	Definition	Boys		Girls		Total		No.	
			%		%		%		
<b>Normal</b>	<i>At -2 through to +2 (BAZ)</i>		50.5		49.5		89%	683	
<b>Obese</b>	<i>Above 3 (BAZ)</i>		74		26		2.5%	19	
<b>Overweight</b>	<i>Between 2 and 3 (BAZ)</i>		57		43		6.7%	51	
<b>Wasted</b>	<i>Between -2 and -3 (BAZ)</i>		60		40		1.3%	10	
<b>Severely wasted</b>	<i>Below -3 (BAZ)</i>		0		100		0.3%	2	
<b>Stunted</b>	<i>Between -2 and -3 (HAZ)</i>		65		35		2.6%	20	
<b>Severely Stunted</b>	<i>Below -3 (HAZ)</i>		57		43		0.9%	7	
<b>At risk of being overweight</b>	<i>Between 1 and 2 (BAZ)</i>		51.2		48.8		16%	123	
<b>Two Abnormal Statuses</b>	Obese and Stunted, Stunted and Overweight, Severely Stunted and Obese, Wasted and Stunted		3.25		0.8		4.6%	5	4.6%

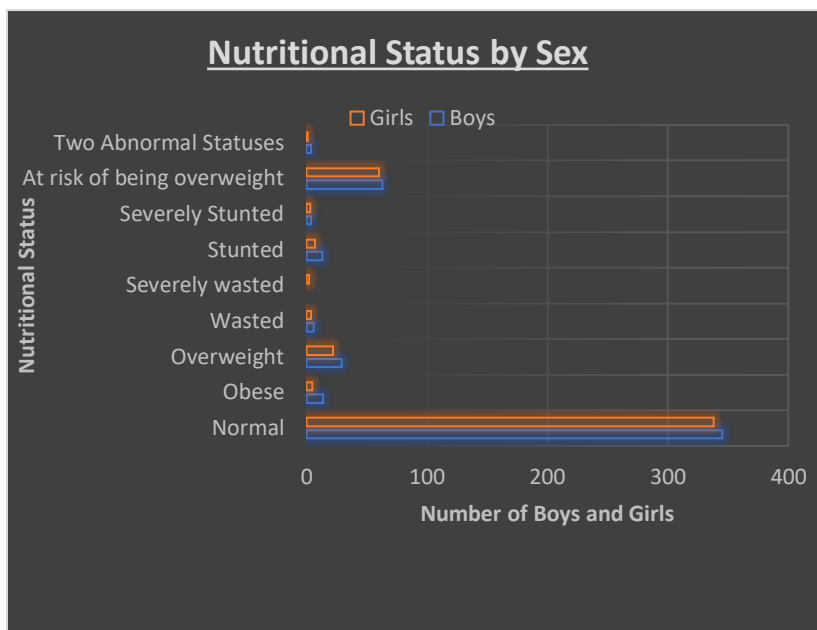
NB: Of the children with an abnormal status, five (5) have more than one (1) Abnormal Nutritional Status, which accounts for 4.6%.

There were twenty-three (23) more boys than girls assessed. Sixteen (16) more boys than girls were ‘obese/ overweight’ and *three (3)* more Males/Boys are ‘At risk of being Overweight’.

Similarly, seven (7) more Males/Boys than Females/Girls are ‘Stunted/ severely Stunted’ with a Z-score HAZ below -2.

Also, two (2) more Males/Boys are wasted than Females/Girls. However,

two (2) Females/Girls are severely wasted. There are no Males/Boys being severely wasted. This result shows that of the children assessed, Males/Boys have a higher percentage of abnormal nutrition statuses.

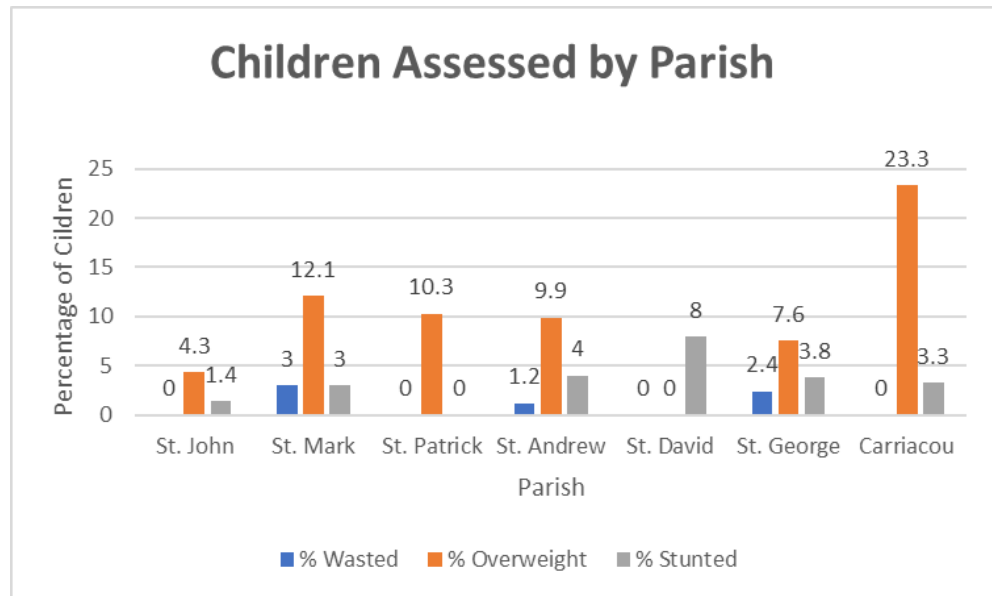


**Table 3: Nutritional Status Assessment by Parish**

Parish	No. of Centres	No. of Children Assessed	No. Wasted (BAZ <-2)	% Wasted	No. Overweight/ Obese (BAZ >2)	% Overweight/ Obese	No. Stunted (HAZ<-2)	% Stunted
St. John	3	69	0	0	3	4.3	1	1.4
St. Mark	1	33	1	3	4	12.1	1	3
St. Patrick	3	39	0	0	4	10.3	0	0
St. Andrew	11	171	2	1.2	17	9.9	7	4
St. David	1	25	0	0	0	0	2	8
St. George	24	368	9	2.4	28	7.6	14	3.8
Carriacou	3	60	0	0	14	23.3	2	3.3
<b>Total</b>	<b>46</b>	<b>765</b>	<b>12</b>	<b>1.6</b>	<b>70</b>	<b>9.2</b>	<b>27</b>	<b>3.53</b>

### Analysis by Parish

St. George accounts for 48% of the children assessed. Followed by St. Andrew at 22%, St. John at 9%, Carriacou at 8%, St. Patrick at 5.1% and St. Mark at 4%.



### Obese/Overweight

Carriacou has the highest percent of ‘Obese/Overweight’ (23.3%), followed by St. Mark (12.1%) and St. Patrick (10.3%), St. Andrew (9.9%), St. George (7.6%) and St. John (4.3%).

### Wasted/ Severely Wasted

St. Mark has the highest percentage of (3%), followed by St. George at (2.4%) then St. Andrew at (1.2%). The parishes of St. John, St. Patrick, St. David and Carriacou recorded no wasted/thin children.

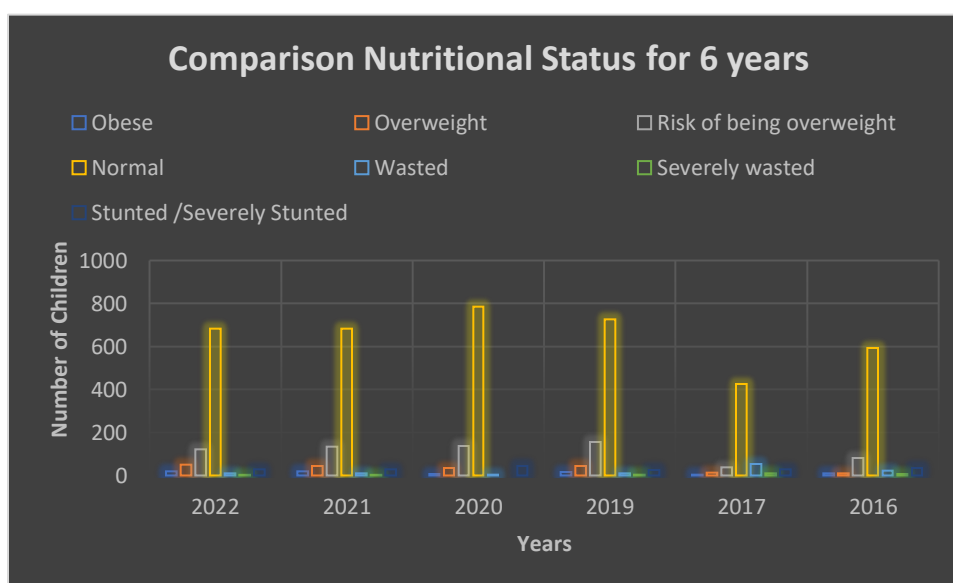
### Stunted/ Severely Stunted

St. David has the highest percent of ‘Stunted/ Severely Stunted’ with (8%), St. Andrew at (4%), St. George at (3.8%), Carriacou at (3.3%), St. Mark at (3%) and St. John (1.4%), respectively. St. Patrick did not record any stunted children.



**Table 4: Nutritional Status of Children over Six (6) years, Z-score (BAZ and HAZ)**

	2022		2021		2020		2019		2017 (newly enrolled only)		2016		N o.	No .
	%		%		%		%		%		%			
Obese	2.5		2.5		0.7		1.8		0.9		1.5		5	11
Overweight	6.7		5.7		4.3		4.7		2.5		1.4		14	10
Risk of being overweight	16		17.7		16.3		16.3		6.9		11.3		38	82
Normal	89.3		90.5		94.4		75.7		78.0		81.7		427	594
Wasted	1.3		1.2		0.6		1.1		9.7		3.0		53	22
Severely wasted	0.3		0.1		0		0.4		2.0		1.1		11	8
Stunted /Severely Stunted	3.5		3.8		5.4		2.5		5.3		4.7		29	34



**Table 5: Government and Private Daycare Assessment Table**

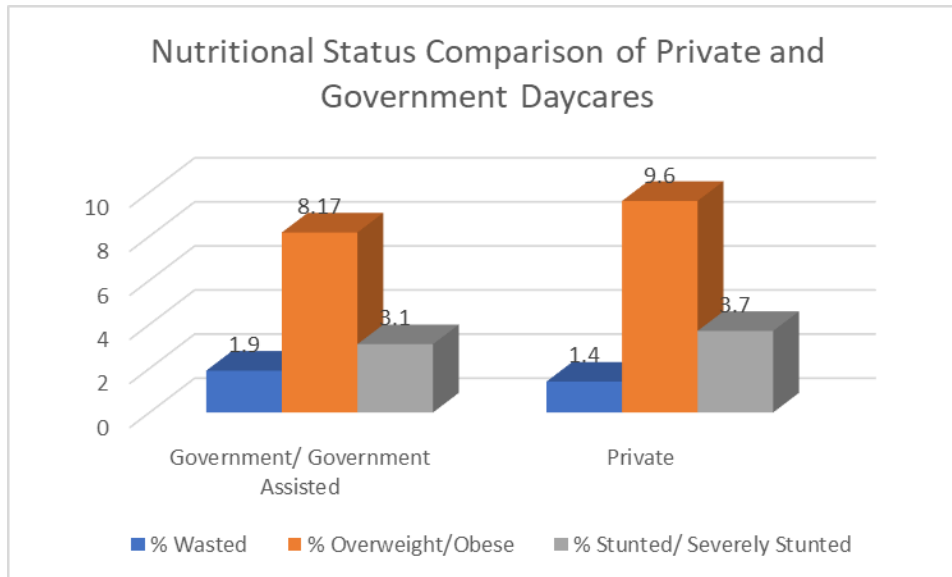
Centers	No. of Centers	No. Assessed	% Assessed	No. Wasted/ severely Wasted	% Wasted	No. Over-weight/ Obese	% Over-weight/ Obese	No. Stunted	% Stunted
Government/ Government Assisted	11	257	34	5	1.9	21	8.17	8	3.1
Private	35	508	66	7	1.4	49	9.6	19	3.7
<b>TOTALS</b>	46	765	100	12	1.6	70	9.2	27	3.5

**Comparison of Government and Private Daycares**

There were more Private than Government/ Government Assisted Daycares assessed. The Private Daycares accounted sixty-six percent (66%) and Government thirty-four percent (34%) the children assessed.

At the Government Daycares 1.9 % are ‘Wasted/severely wasted’ whereas a smaller percentage of 1.4% are from the Private Daycares.

Private Daycares show a higher percent of ‘Overweight/ Obese’ (9.6%) opposed to Government Daycares (8.17%). Similarly, Private Daycares have a higher percentage of ‘Stunted/ Severely Stunted’ (3.7) compared to Government Daycares (3.1%).



## **Summary**

Overall, there is a slight *decrease* in the percentage of children labelled ‘Normal,’ from 90.5% in 2021 to 89.3% in 2022. There is an *increase* in ‘Overweight’ from 5.7% in 2021 to **6.7%** in 2022. Similarly, the percentage of ‘Wasted/Severely Wasted’ also *increased* in 2022 to 1.6% compared to 1.3% in 2021.

Additionally, the percentage of children being ‘Obese’ *remains the same* as in 2021, at 2.5%.

Fortunately, there is a *decrease* in children 'At Risk of being overweight' in 2022 to 89.3% from 2021's 90.5%. Also, ‘Stunted/Severely Stunted’ *decrease* from 3.8% in 2021 to 3.5% in 2022.

## **Challenges**

The continuation of COVID-19 and the flu season has significantly impacted the attendance of children at daycares. Therefore, most Daycares were visited a second time to assess those that were missed in the first visit. However, despite a second visit, approximately eighty (80) children were missed.

## **Recommendations\_**

- Nutrition Officers to recheck and follow-up with all children identified with abnormal status in their respective parishes.
- Nutrition Officers to discuss findings with caregivers and give guidance to address identified problems.
- Nutrition Officers schedule discussions with parents of children identified with abnormal status.
- Plan training sessions with caregivers in day care centers to assist with meal planning and portioning.
- Monitor private centers to supervise and assist with meal planning and preparation of meals served, with an emphasis on preparation for overweight/obese children
- Standardize the time to conduct survey.
- Share this information with relative stakeholders to plan for collaborative intervention.