Food and Nutrition Analysis in Mauritius
based on
Household Budget Survey 2017

Are Mauritians eating healthy for a healthier tomorrow?

July 2025

1. Introduction

The Household Budget Survey (HBS) 2017 has been used to report on the recommendations of the Mauritius Healthy Eating Guidelines as well as on other food and nutrition analysis indicators. The intent has been to produce statistics and analysis that are relevant for national policy makers and planners (stakeholders).

Below is a summary of some statistics which will later be presented in more details:

Table 1. Summary of food and nutritional statistics produced from HBS 2017

Type of indicators under different Mauritius Healthy Eating Guidelines	Lowest quintile	Highest quintile	Overall
Average calories per capita per day	1847	2598	2261
Average required calories per capita per day	2040	2092	2086
-> Eat a healthy diet			
% of households having a Balanced diet	35	18.6	26.9
-> Eat a healthy diet: Choose minimally processed foods when possible			
Average share of calories from processed foods (%)	21.3	16.5	18.9
Average share of calories from ultra-processed foods (%)	11.8	16.4	13.8
-> Enjoy fruit and vegetables: WHO recommends 400 grams per capita per day			
% of households with less than 400g of vegetables and fruits	93.5	67.3	81.2
-> Eat a healthy diet - Strive for a Healthy Weight: FAO/WHO recommends less than 75% of carbohydrates			
% of households with more than 75% of carbohydrates	1.4	0.2	0.5
-> Build up with protein: WHO recommends more than 15% of protein			
% of households with less than 10% of protein	6.1	3.6	4.5
-> Watch your fat intake: WHO recommends less than 30% of fat in your diet			
% of households with more than 30% of fat	43.9	60.6	53
-> Be mindful of your nutrient needs: WHO recommends at least 25 g of fibre per capita per day			
% of households with less than 25g of fibre	85.7	51.9	67.5
-> Go easy on the salt: WHO recommends less than 5g of salt per capita per day			
% of households with more than 5g of salt	31.7	35.4	35.5
-> Shift your sweet tooth: WHO recommends less than 45 g of sugar			
% of households with more than 45g of sugar	17.8	23.5	22.3

Note: A **quintile** is a statistical value that divides a dataset into **five equal parts**, each representing 20% of the population.

1.1 About the Household Budget Survey (HBS)

The HBS is representative at regional level, covering 7000 households in the Republic of Mauritius. The survey is conducted every 5 years and over a period of 12 months. The 2017 survey was implemented from January to December 2017. The objective of the HBS is mainly to cover several dimensions of living standards such as household income, expenditure patterns, consumption of goods and services, housing conditions, and ownership of durable goods.

For additional information on the HBS, refer to link below where the results are accessible:

https://statsmauritius.govmu.org/Pages/Censuses%20and%20Surveys/Surveys/HBS.aspx

1.1.1 How was HBS 2017 data used to compute food and nutrition analysis indicators?

The comprehensive 30-day diary which was used to record food purchase and, own production and gifts served as the basis to calculate food and nutritional indicators on quantities (grams, energy and macronutrients) and monetary values.

Although the HBS is a rich source of information, it is however important to be mindful of the following caveats when using it for food and nutrition analysis.

a) Firstly, food purchased in a given period is not necessarily consumed. Because households can buy in bulk and consume from stock; foods may be given to animals; foods may be used for other purposes (e.g., salt for preserving fish).
b) Further, the survey does not provide information at individual level. There is no information on how foods are shared among members with the household, and there is no information on the number of guests in households or whether household members ate at other households.

1.2 Key facts on Non-Communicable Diseases in Mauritius

Mauritius is currently facing a high burden of non-communicable diseases (NCDs), mainly explained by an ageing population coupled with a high prevalence of non-communicable diseases among the adult population.

Some statistics on the prevalence rate of risk factors of specific Non-Communicable Diseases (NCDs) among adults aged 25-74 years, are given as follows:

Prevalence rate (%) of risk factors of Non-Communicable Diseases (NCDs) in :	2015	2021
Diabetes	22.9	19.9
Hypertension	27.3	27.2
Obesity	45.5	36.2
Elevated Cholesterol (≥ 5.2 mmol/L)	44.1	34.8
Smoking	19.3	18.1

Source: Ministry of Health and Wellness

From the above results, given the increasing trends in the prevalence rate of risk factors of NCDs, it becomes imperative for Mauritians to review their eating lifestyles.

1.3 Some interesting self-perceived[1] health statistics from Living Conditions Survey 2018/2019

The **Living Conditions Survey (LCS) 2018/2019** was a sub-sample of the 2017 Household Budget Survey. The objective is to assess the quality of life of individuals based on subjective wellbeing indicators encompassing life satisfaction, leisure, mental health, activities of daily living, etc.

Some findings with regards to '*How do Mauritians feel about their health?*' were:

a) 7 out of 10 Mauritians reported their health status as 'good or very good'.
b) 71% of Mauritians aged 16 years and over reported their health to be 'good or very good'. Only 5% rated their health as 'bad or very bad'.
c) At younger age (16-39 years), men and women rated high level of health status - 89% described their health as 'good or very good'. However, as they enter their 40's, women's health tends to worsen faster than men. The share of women aged 40 – 59 years reporting their health as 'good or very good' (64%) is lower than that of men of same age group (73%). The gap widens at 60 years and over.
d) More than half of the population reported eating in eateries or purchased food outside home – of whom 83% described their health as 'good or very good'. In contrast, among persons who reported not eating food outside home, the corresponding share is relatively low (57%). This holds true for all age groups. However, the true impact of food consumption away from home on health depends on other numerous factors such as socio-economic status of consumers (e.g., age, level of education, income), type of food, type of outlets and location, etc.

More information on LCS is available at:

https://statsmauritius.govmu.org/Pages/Statistics/By_Subject/QoLSD/SB_QoLSD.aspx

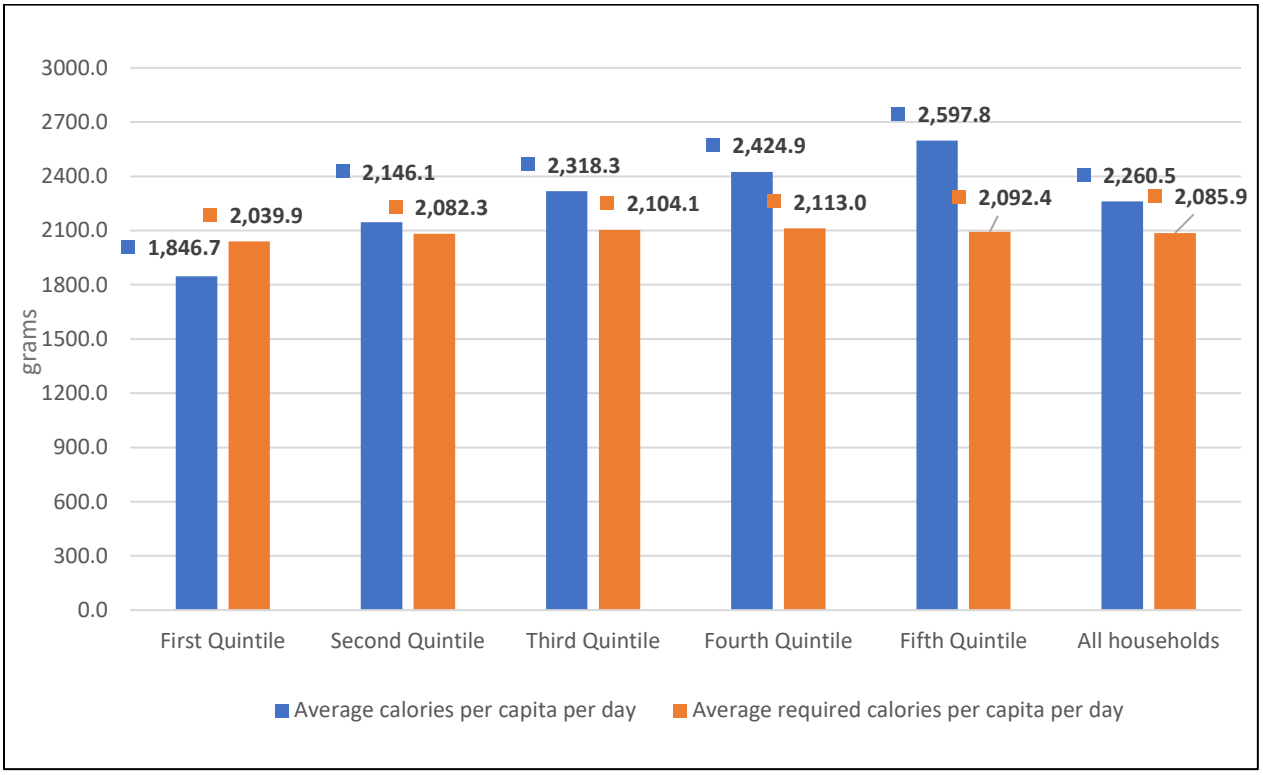
[1] *Self-perceived health, also known as self-assessed/ rated health is a subjective assessment by individuals on their health.*

2. Food and Nutrition Analysis using HBS 2017 data

2.1 Daily energy consumption

Low-income households consume on average less calories per capita than the high-income households. The lowest income households consume fewer calories on average than their mean requirement - 1847 against 2040 calories per capita per day, whilst highest income households consume more calories than the mean requirement – 2261 against 2086 calories per capita per day.

Figure 2.1.1: Average daily energy consumption and daily energy requirement, by quintiles

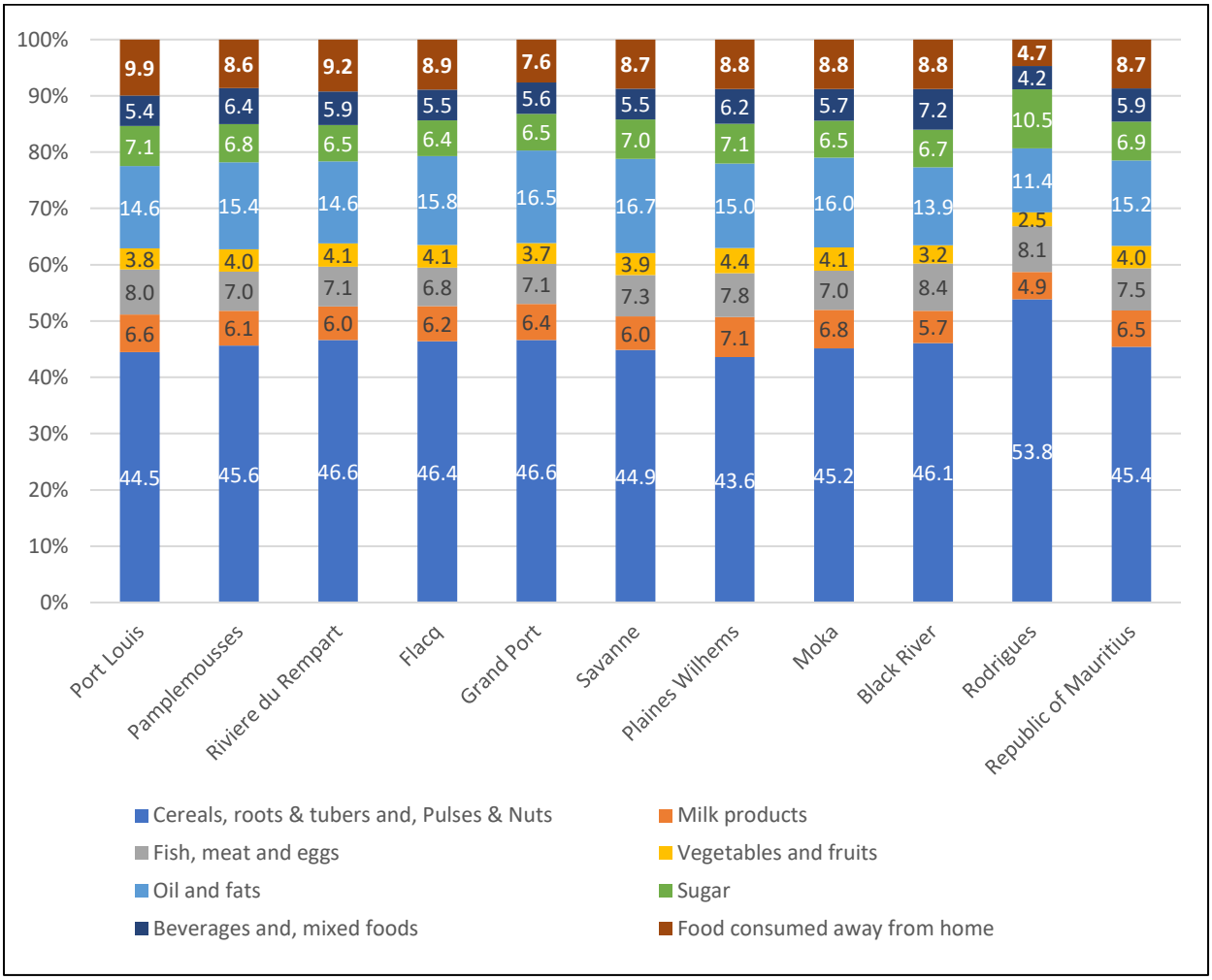


From Figure 2.1.2, for Rodrigues, a larger share of calories (53.8%) is obtained from 'Cereals, Roots & Tubers and, Pulses & Nuts' whilst a relatively low share of calories is from 'Food consumed away from home'. In Port-Louis, the share of calories from 'Food consumed away from home' is high at 9.9%, followed by Rivière du Rempart at 9.2%.

Compared to other regions, in Plaines Wilhems, it can be concluded that the share of calories in vegetables and fruits is higher at 4.4%. Households in Plaines Wilhems also consumed a lower share of calories from 'Oil and fats'.

For the Republic of Mauritius, a share of 45.4% of calories is obtained from 'Cereals, Roots & Tubers and, Pulses & Nuts', followed by 'Oil and fats' and, 'Food consumed away from home'.

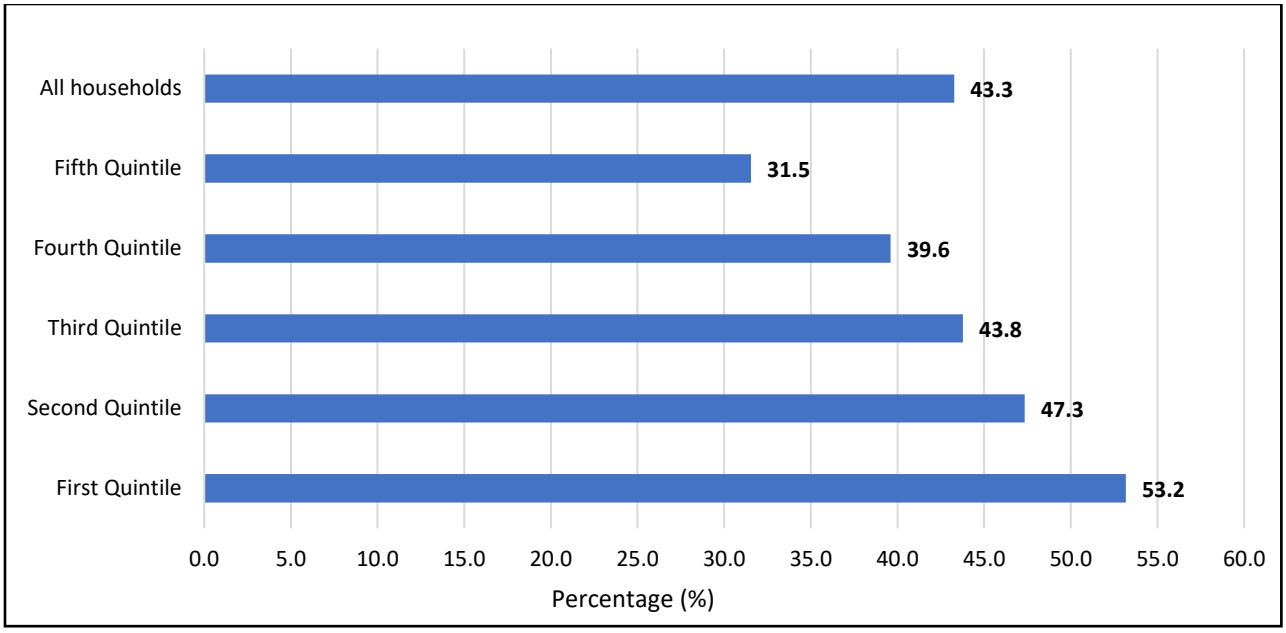
Figure 2.1.2: Share of daily energy consumption per capita, by food groups and regions



2.2 Cost of food

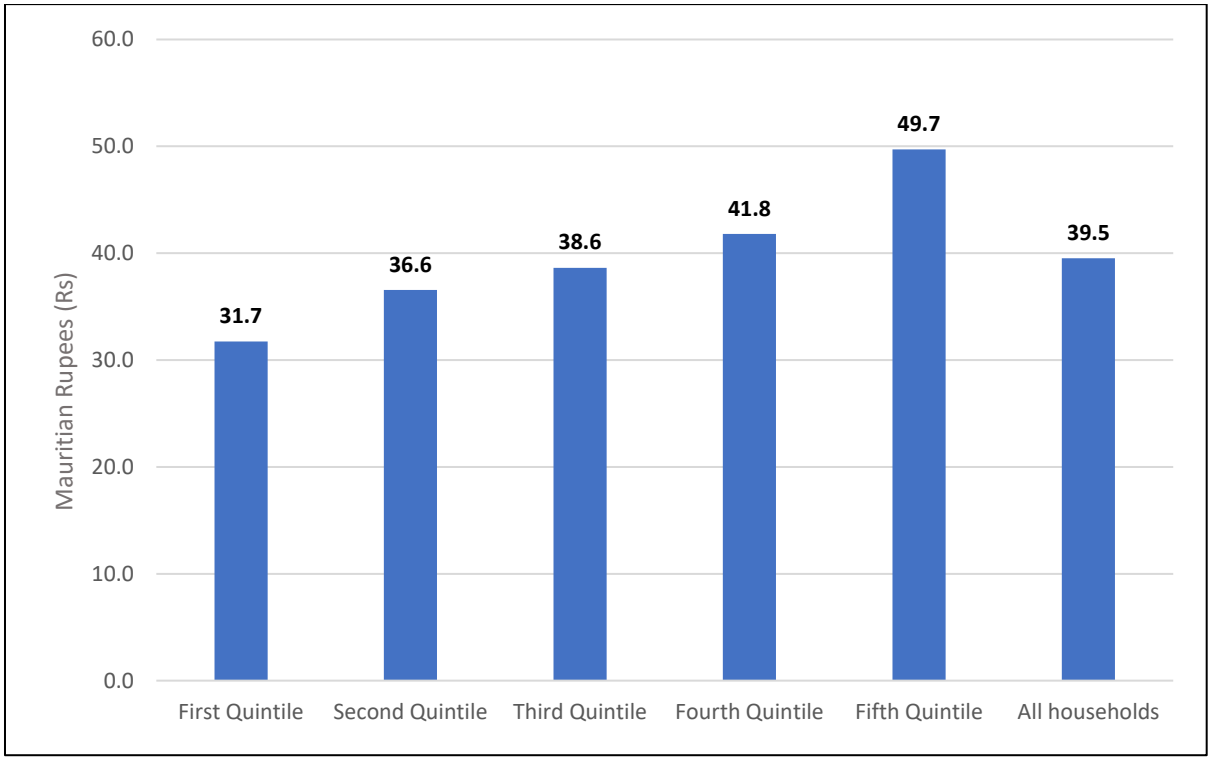
More than half of the budget among lowest income households is spent on food and beverages, compared to about a third in highest income households.

Figure 2.2.1. Share of food in total expenditure, by quintiles



In terms of average cost per 1000 calories, households in the lowest income quintile spent on average about Rs 32 whilst those in the highest quintile spent around Rs 50. Thus, the lower income households are more economic vulnerable, with higher share spent on food while at the same time buying cheaper food compared to the higher income counterparts.

Figure 2.2.2. Average Cost per 1000 calories, by quintiles



3.1 Food and nutritional analysis indicators based on HBS 2017 responding to Healthy Eating Guidelines for Mauritius

Mauritius Healthy Eating Guidelines provides 10 recommendations for healthy eating.

The Household Budget Survey (HBS) data for the Republic of Mauritius can inform us on nine of the following aspects:

- **Eat a healthy diet**
- **Enjoy fruits and vegetables**
- **The carbohydrate advantages**
- **Build up with protein**
- **Watch your fat intake**
- **Be mindful of your nutrient needs**
- **Go easy on the salt**
- **Shift your sweet tooth**
- **Strive for a Healthy Weight**

The rest of the analysis responds to the recommendation in the Guidelines from various perspectives.

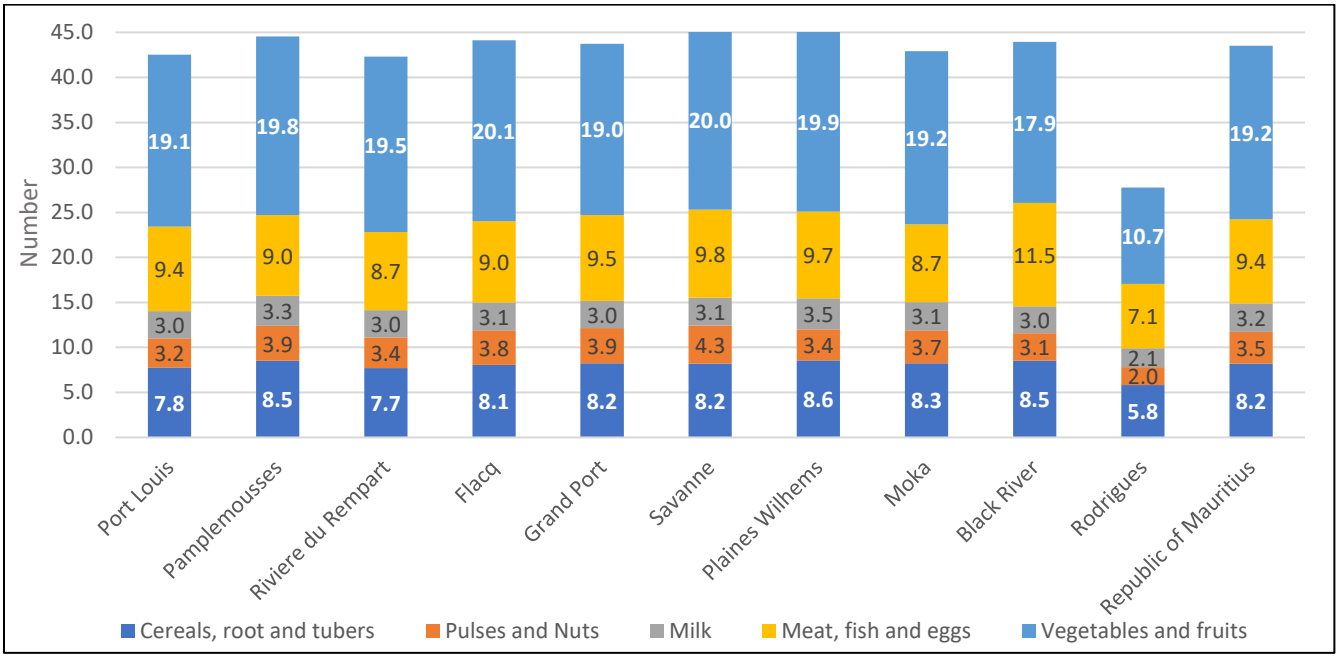
MAURITIUS FOOD STANDARDS AGENCY

A HEALTHY NATION THROUGH SAFE AND NUTRITIOUS FOOD

Eat a healthy diet: Eat a variety of food, including vegetables, fruits, whole grains, cereals, protein, and low-fat or fat-free dairy or fortified dairy alternatives.

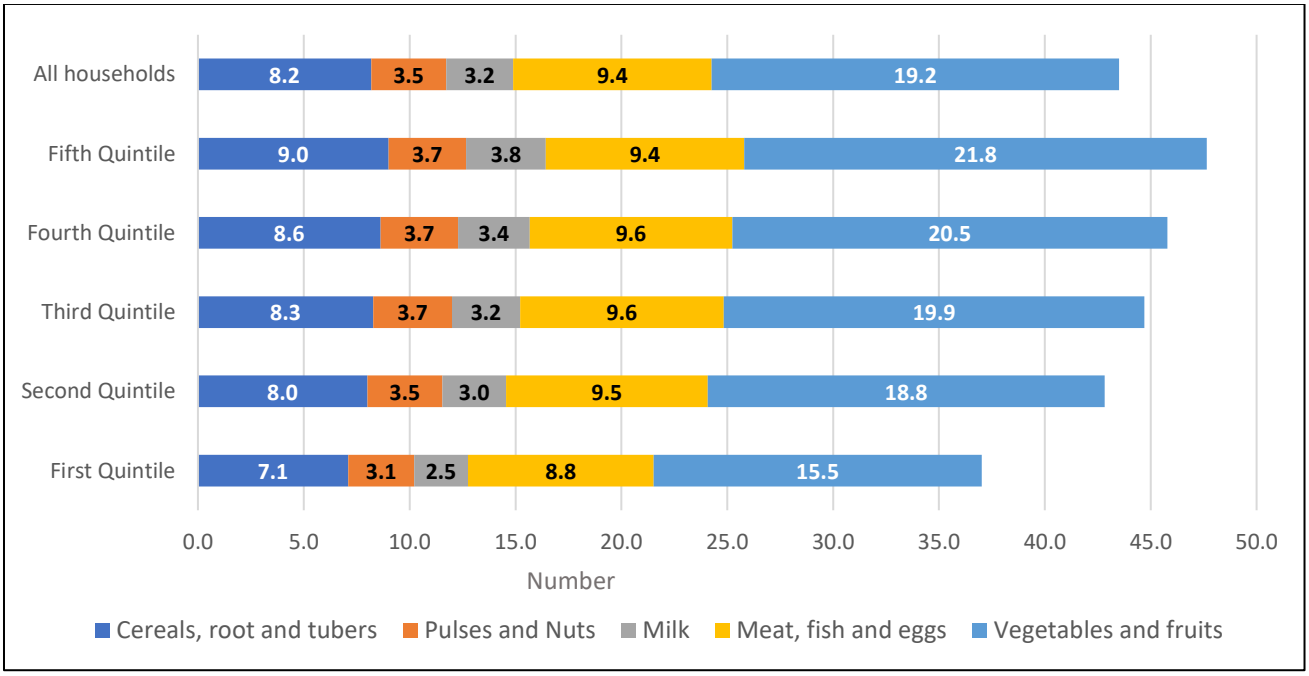
Variety can be analysed by the number of food items consumed. Rodrigues stands out with less variation in the average number of food items compared to other regions. The most average number of food items by most households was "Cereals, root and tubers", followed by "Pulses and Nuts". "Milk", conversely, is the food item with a lower proportion across most regions.

Figure 3.1.1 Average number of food items by selected food groups and region



High income quintiles have a larger variation compared to other quintiles. "Cereals, root and tubers" remains the highest average number food items across all quintiles, followed by "Meat, fish and eggs".

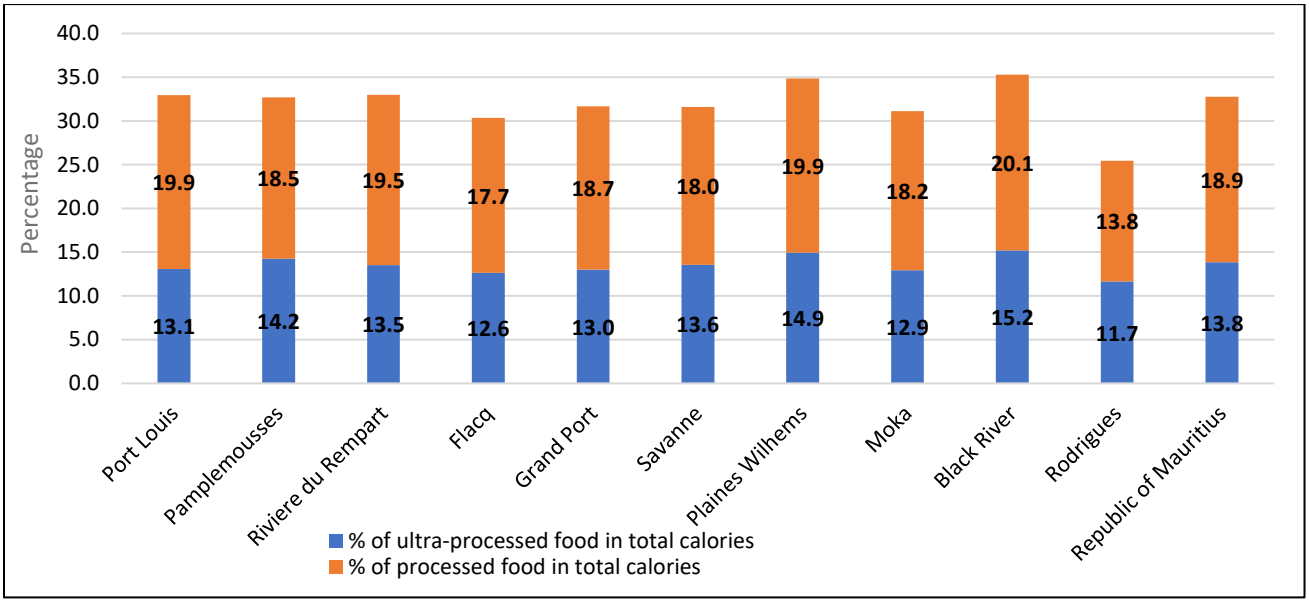
Figure 3.1.2 Average number of food items by selected food groups and income quintiles



On average, a third of all calories is from processed or ultra-processed foods.

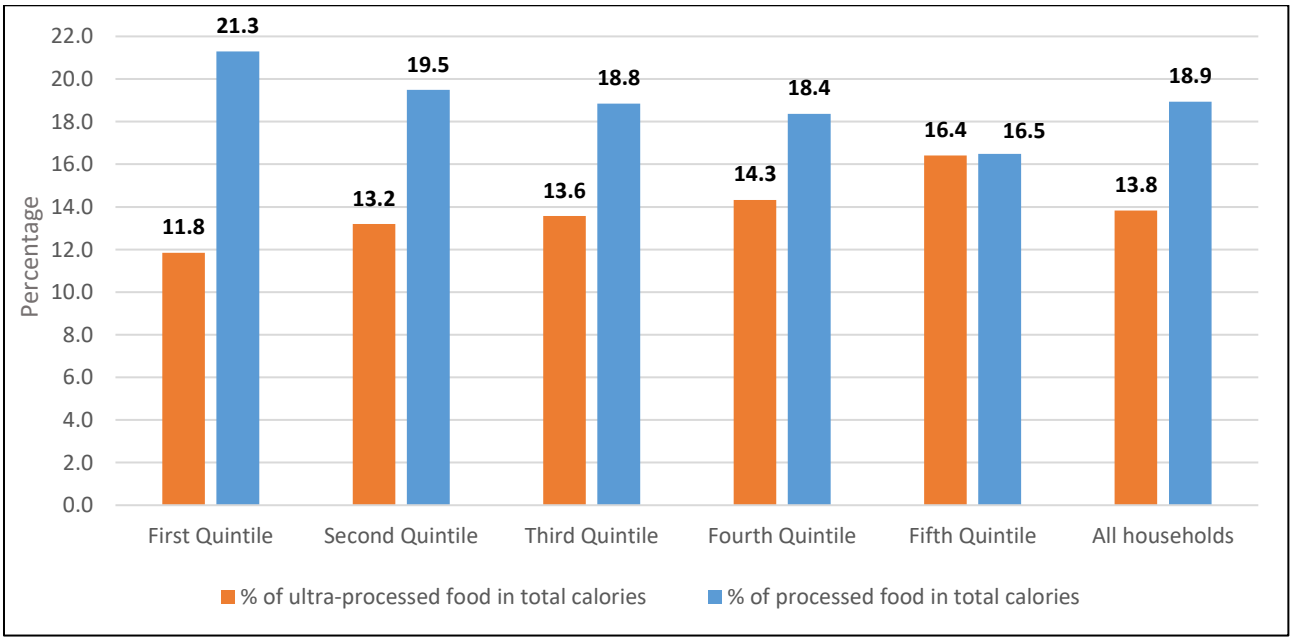
Rodrigues has the lowest average share of 24.8% for both processed and ultra-processed foods in total calories, compared to the overall share of 32.7% for the Republic of Mauritius.

Figure 3.1.3 Average share of processed and ultra-processed foods in total calories by region



The first quintile has an average greater share of processed foods in total calories but a relatively lower share of ultra-processed foods in total calories. The share of processed and ultra-processed food in total calories for the higher quintile, is almost at the same level.

Figure 3.1.4 Average share of processed and ultra-processed foods in total calories by income quintile

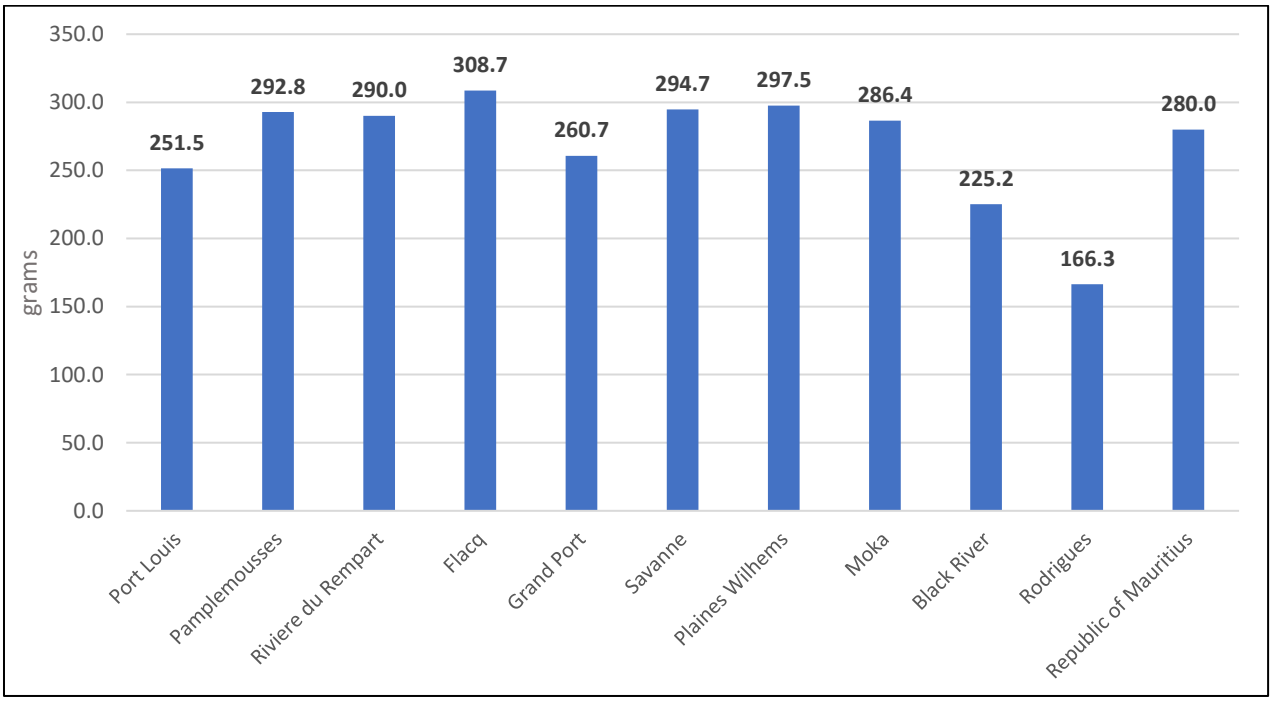


Note that the ultra-processed and processed have been classified using the NOVA classification and local expert assessment. A conservation classification approach was used i.e. – in case of doubt on where to classify a food, the strategy was to classify it with the lower degree of processing.

Enjoy fruit and vegetables: WHO recommends 400 grams per capita per day

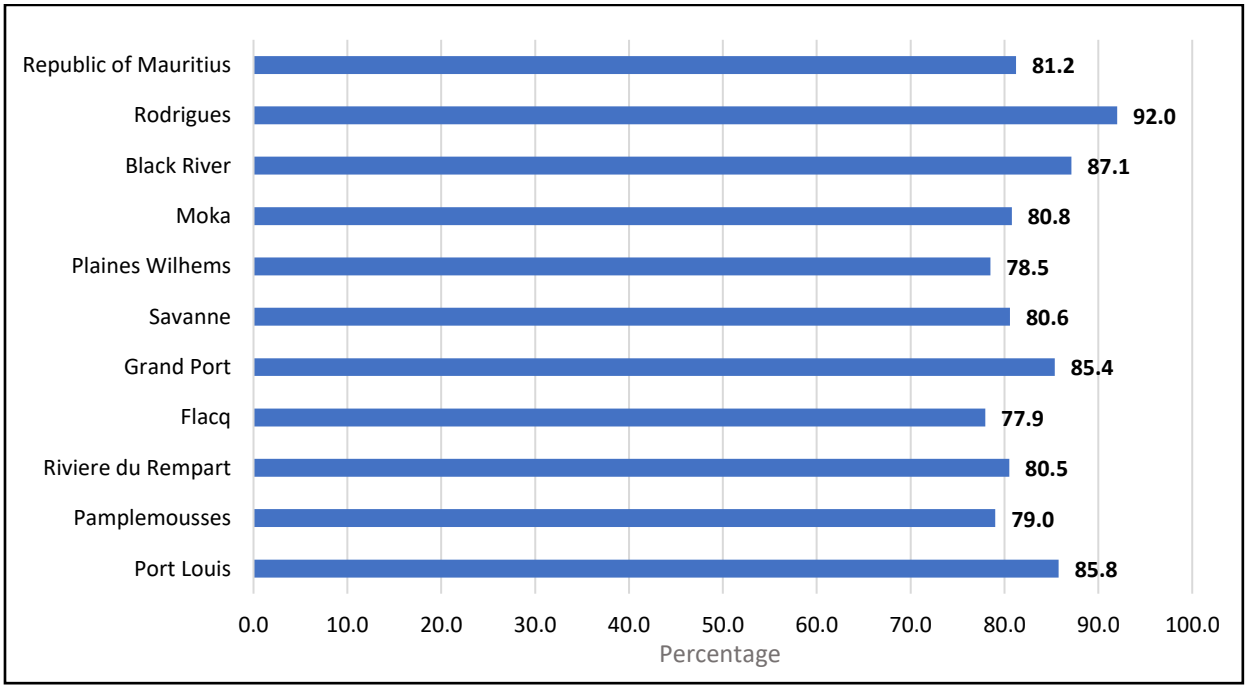
The Flacq region shows comparatively higher average grams of fruits and vegetables per capita per day at 308.7 grams, compared to Black River with 225.2 grams.

Figure 3.1.5 Average grams of fruit and vegetables per capita per day, by region



Overall, in the Republic of Mauritius, around 81% of the population have less than 400 grams of vegetables and fruits per capita, per day. Rodrigues shows a comparatively higher percentage of around 92%.

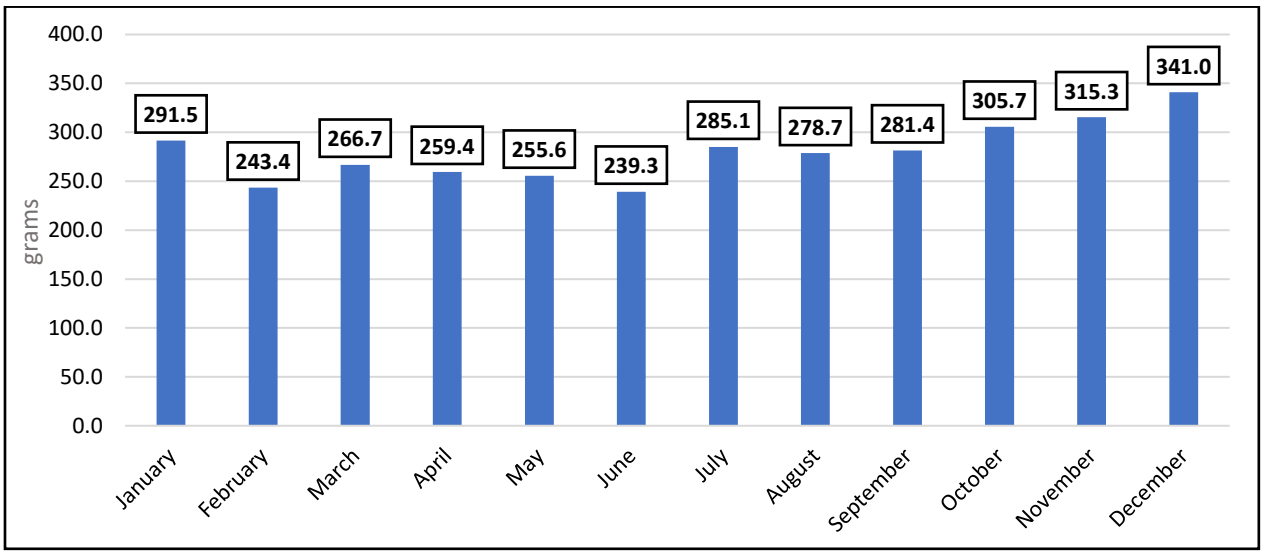
Figure 3.1.6 Percentage of population with less than 400 grams per capita per day of fruit and vegetables



Enjoy fruit and vegetables: Seasonality

From the figure below, we can see the monthly seasonality in the average grams of fruit and vegetables per capita per day – From October to December, that is during peak summer periods, there are high demand for fruits and vegetables, due to large supply of tropical fruits and vegetables on the local markets but in June, as the winter season approaches, we can observe a relative lower average gram of fruits and vegetables per capita per day.

Figure 3.1.7 Average grams of fruit and vegetables per capita per day, by month

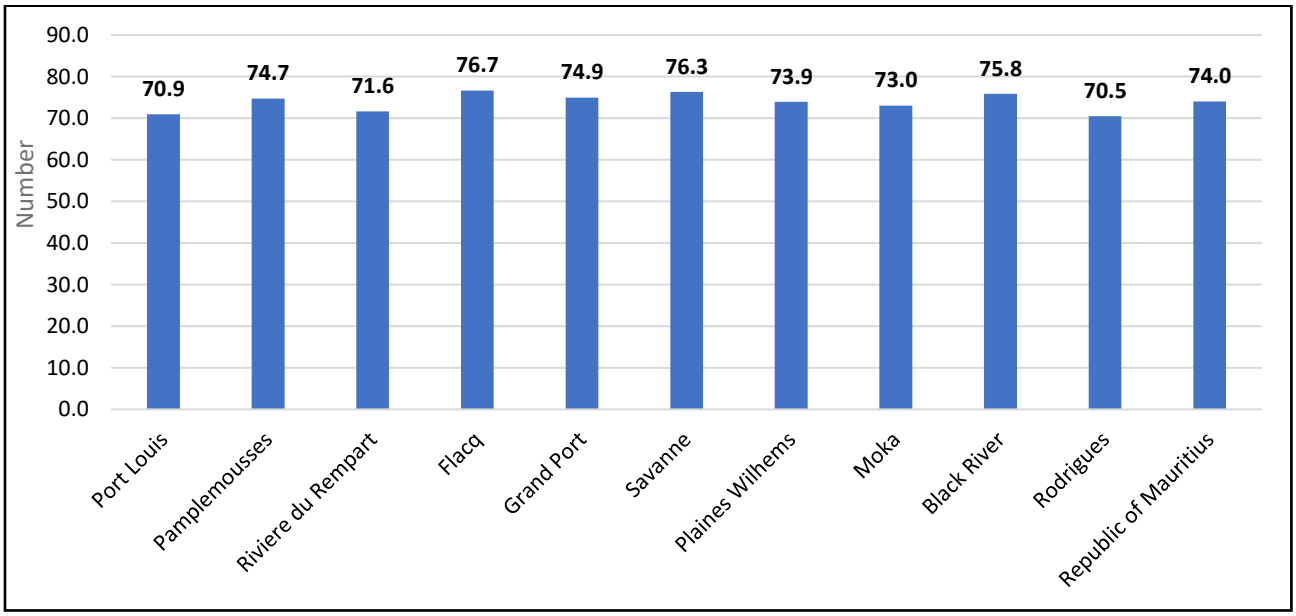


Build up on protein: Include a variety of protein rich foods

The average number of protein-rich foods across regions ranges from 70 to 77, with the lowest number in Port-Louis and the highest in Flacq. Rodrigues shows an average number of 70.5. Overall, for the Republic of Mauritius, the average number of protein-rich foods per capita per day for households, stood at around 74 grams.

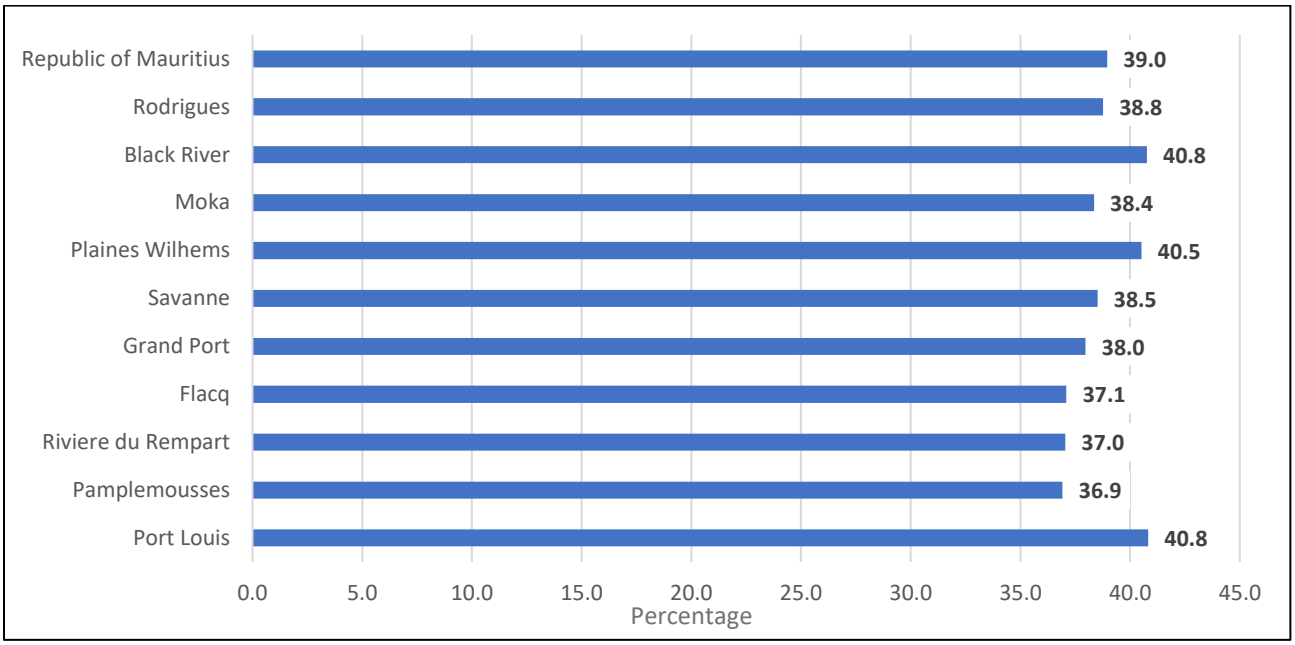
Note that protein-rich foods include seafood, lean meats, poultry, beans, lentils, peas, nuts and eggs.

Figure 3.1.8 Average number of protein-rich foods by region



For the Republic of Mauritius, the average share of protein from animal origin, works out to around 39%. The share is almost similar across all regions except in Port-Louis, in Black River and in Plaines Wilhems, which reported a share of around 41%.

Figure 3.1.9 Average share of protein from animal origin by region

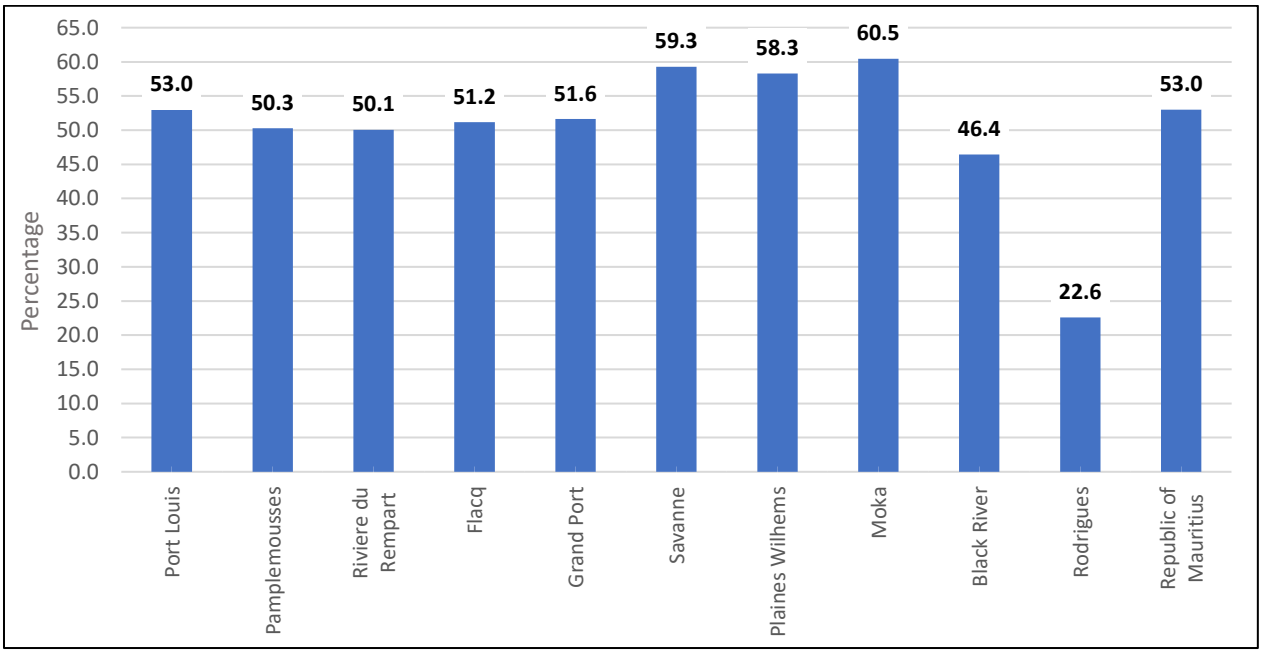


Watch your fat intake: less than 30% fat in diet (WHO recommendation)

Clearly, apart from Rodrigues and Black River, the proportion of population with more than 30% fat in diet, is more than 50% in the other regions.

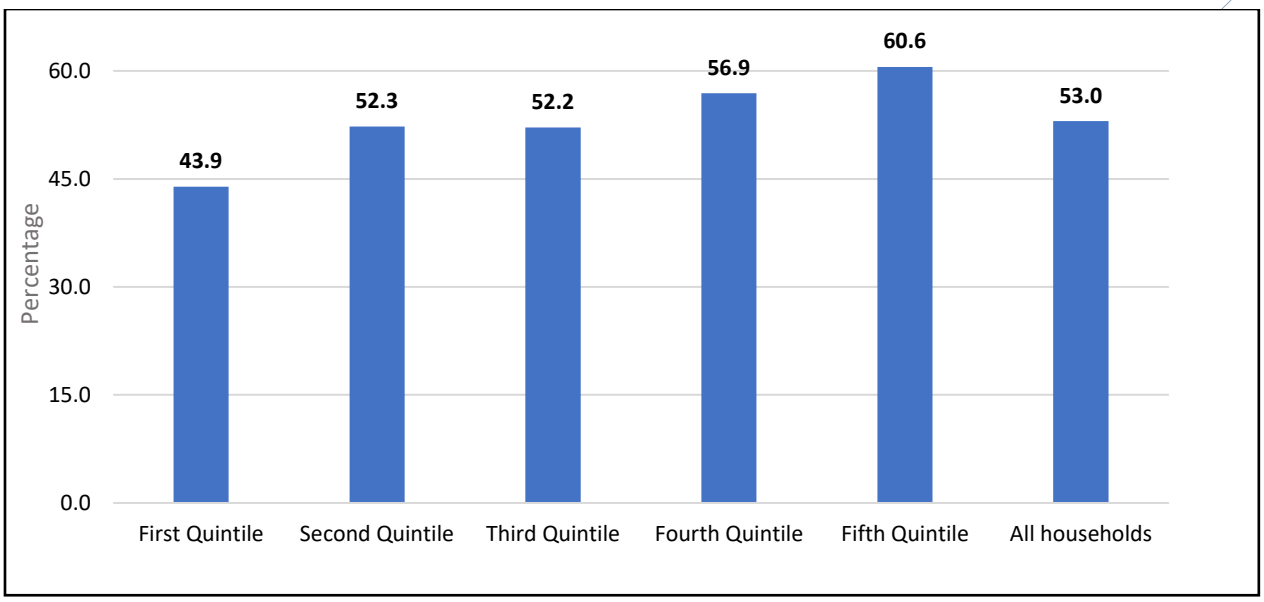
Rodrigues has a relatively lower share of 22.6% indicating that their eating habits are more within the recommended range for fat consumption.

Figure 3.1.10 Percentage of population with more than 30 % fat in diet by region



Around 61% of households in the higher quintile have more than 30% of fat in diet compared to around 44% for the first quintile.

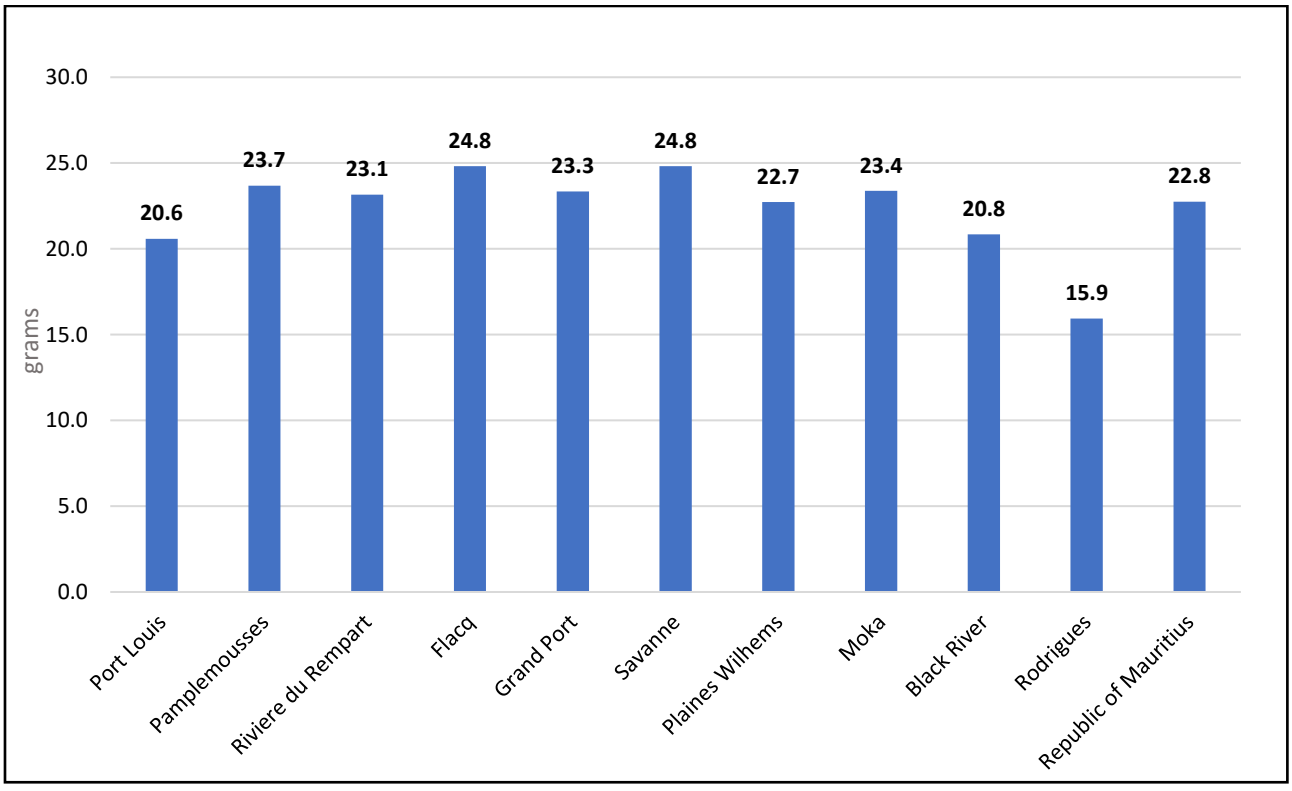
Figure 3.1.11 Percentage of population with more than 30 % fat in diet by quintile



Be mindful of your nutrient needs: increase dietary fibre. WHO recommends at least 25 grams of fibre per capita per day

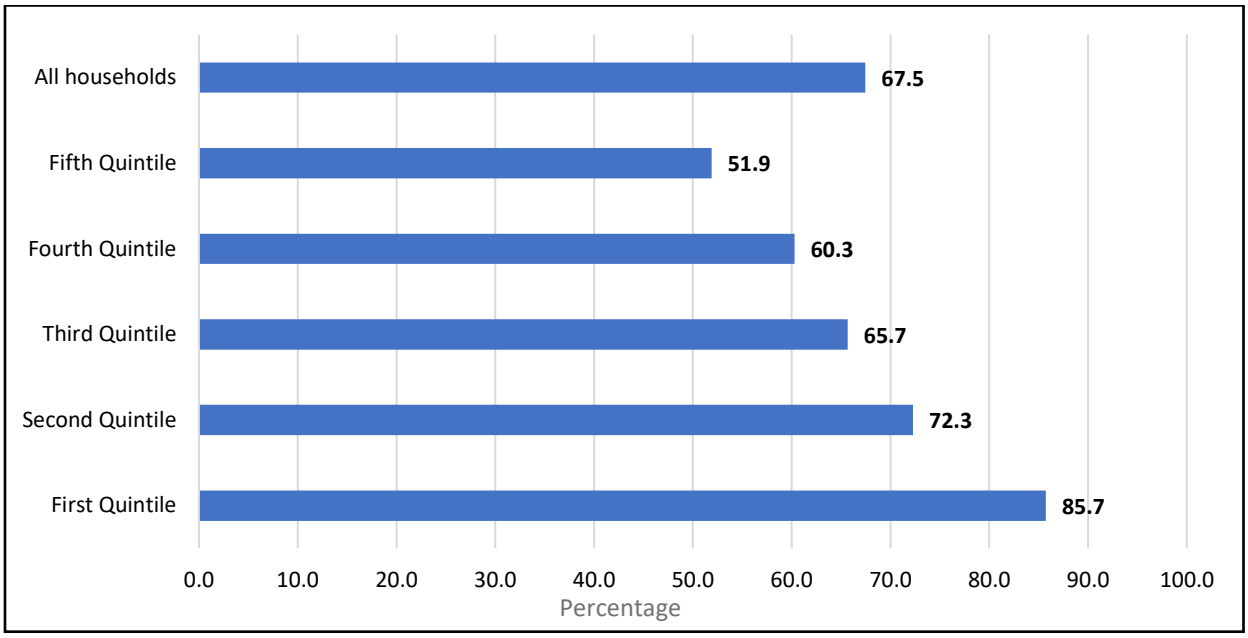
The average grams of fibre per capita per day for the Republic of Mauritius is 22.8 grams per capita per day.

Figure 3.1.12 Average grams of fibre per capita per day by region



The lower quintile has a higher proportion of 85.7% of households with less than the recommended 25 grams of fibre per capita per day compared to the highest quintile, which has a share of 67.5%.

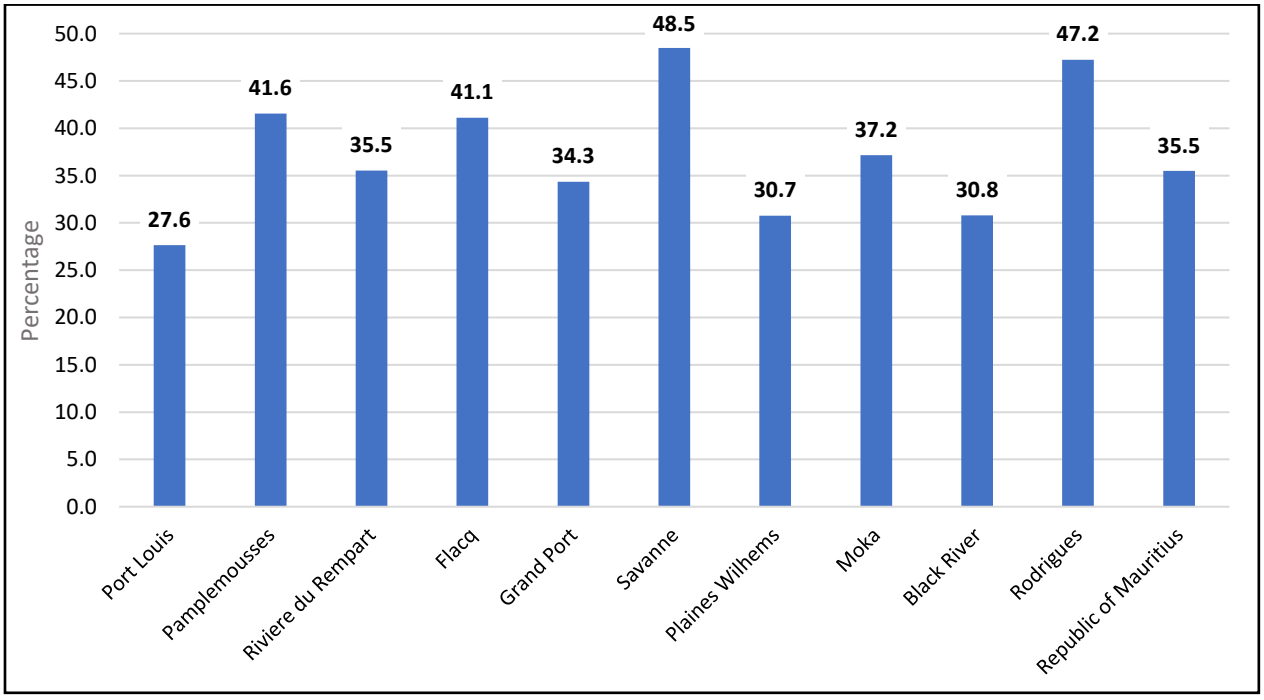
Figure 3.1.13 Percentage of population with less than 25 grams of fibre per capita per day by quintile



Go easy on the salt: WHO recommends less than 5g of salt per person per day

Savanne has a share of the population with more than 5 grams of salt at 48.5%, followed by Rodrigues which has a share of 47.2%. Note that in Rodrigues, salting and drying fish are one of the most prominent activities, resulting in a high share of its population consuming more than the recommended quantity of salt. Port Louis, conversely, has the lowest share of around 27.6%.

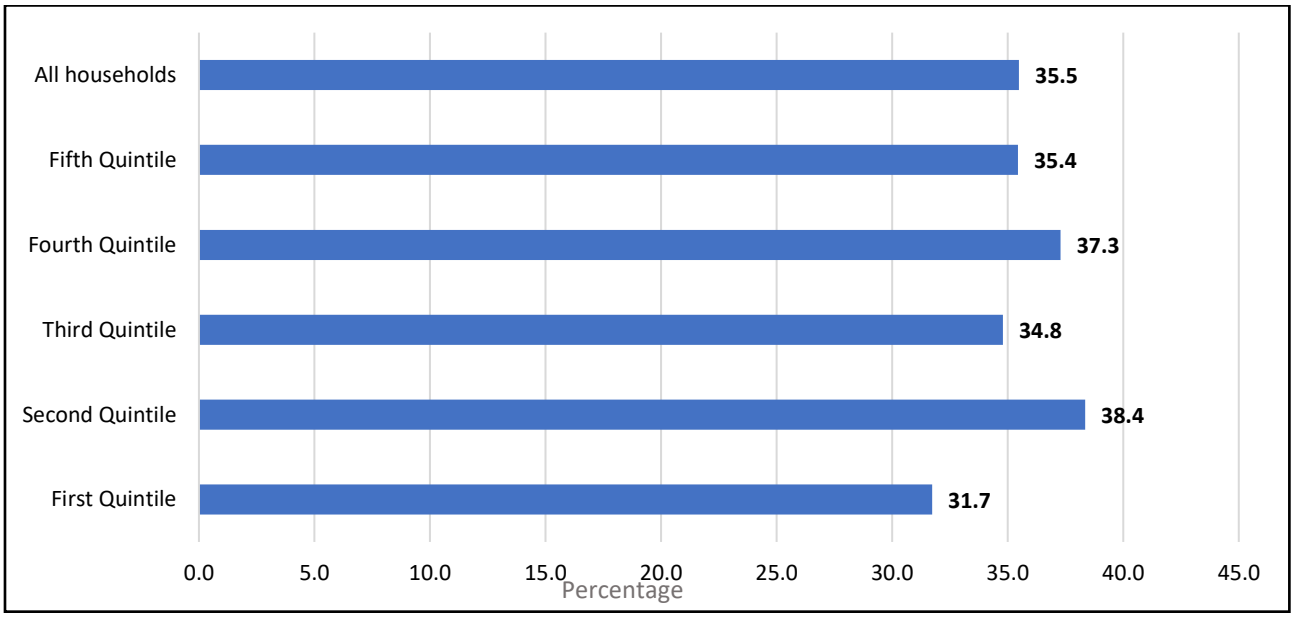
Figure 3.1.14 Share of population with more than 5 grams of salt per capita per day, by region



Overall, there is 35.5% of population with more than 5 grams of salt per capita per day.

Across quintiles, there is no clear pattern with respect to the use of salt.

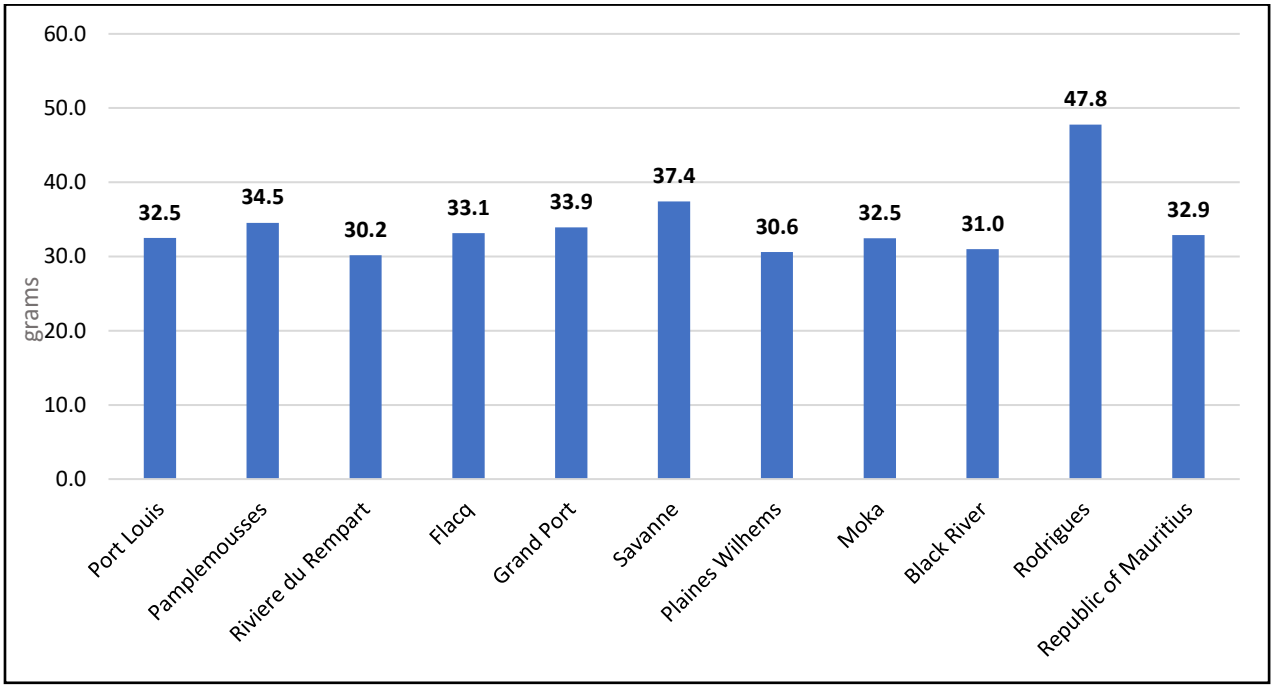
Figure 3.1.15 Share of population with more than 5 grams of salt per capita per day, by quintile



Shift your sweet tooth: The WHO recommends less than 45 g of sugar

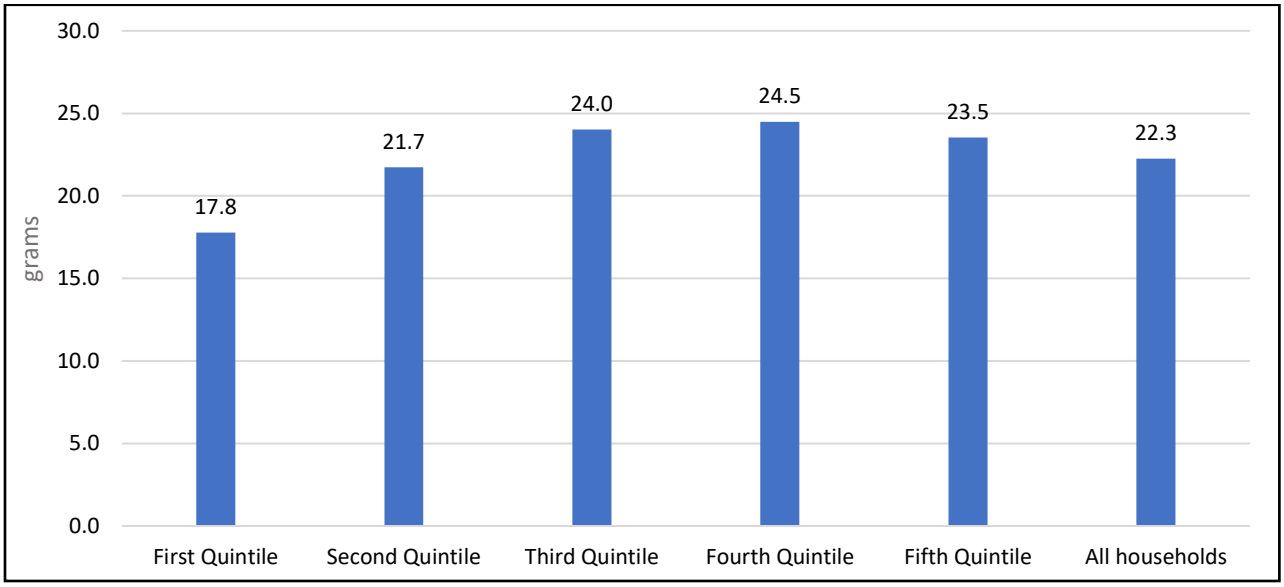
Households in Rodrigues have a relatively higher estimated quantity (in grams) of sugar in sugar dense products, per capita per day – around 48 grams. Conversely, Rivière du Rempart and Plaines Wilhems have the lowest estimated quantity with around 31 grams. Overall, the estimated grams of sugar in sugar dense products per capita per day for the Republic of Mauritius was 32.9 grams (Refer to Appendix on how the quantity of sugar was estimated).

Figure 3.1.16 Grams of sugar per capita per day by region



The households in the lowest quintile have a share of 17.8% of the population with more than the WHO recommended level of sugar whilst the highest quintile stood at 23.5%. Overall, 22.3% of all households have more than 45 grams of sugar per capita per day.

Figure 3.1.17 More than 45 grams of sugar per capita per day by quintile



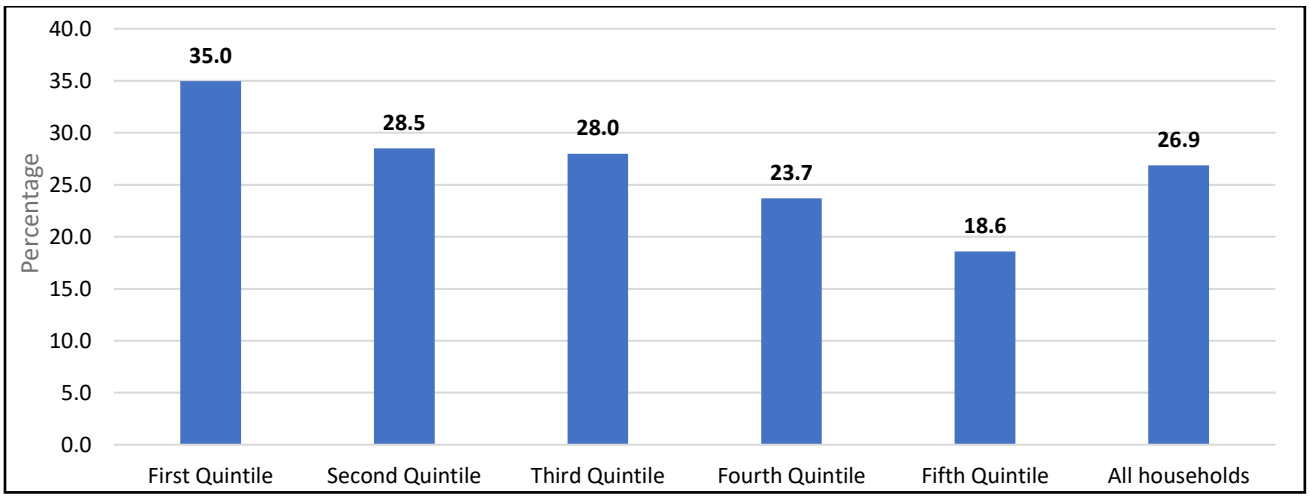
Strive for a Healthy Weight: Eat a balanced diet

3.1.18 Box explaining balanced diet

A balanced diet (FAO/WHO 2003):	
Fat:	5-30 %
Carbohydrates:	55-75 %
Protein:	10-15 %

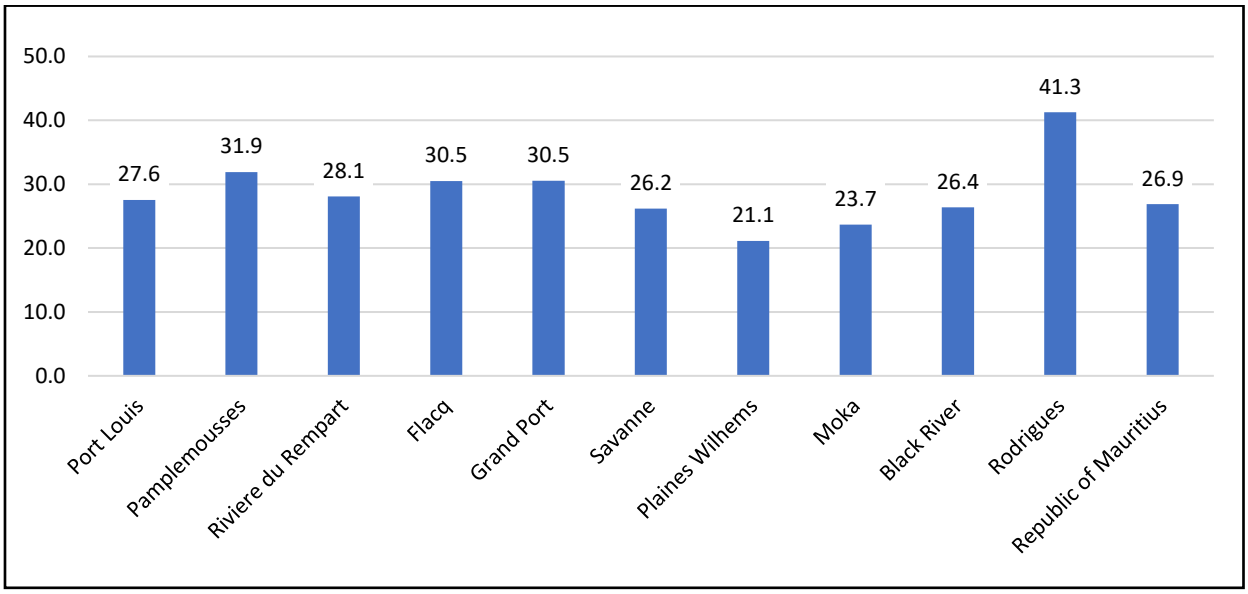
In the lowest quintile, 35.0% of the population have a balance diet, compared to the highest quintile, where the share is as low as 18.6%. One reason may be that there is higher consumption of fat among wealthier households (as shown previously). Overall, for the Republic of Mauritius, around 27% of the population have a Balance diet.

Figure 3.1.17 Share of population with a balanced diet by quintile



Plaines Wilhems has the lowest share of Balance diet (21.1%), compared to Pamplemousses (31.9%). Whilst Rodrigues stands out with a share of 41.3%, partly due to the lower share of households with high fat consumption (as shown previously).

Figure 3.1.18 Share of population with a balanced diet by region



Finally, the next two respective graphs show the share of the population with carbohydrates higher than the threshold in the balance diet (75%) and protein lower than the recommended threshold (10%). Rodrigues stands out with a relatively high share of the population with too much carbohydrates and a relatively high share of the population with too little protein.

Figure 3.1.19 Share of population with than 75% of carbohydrates, by regions

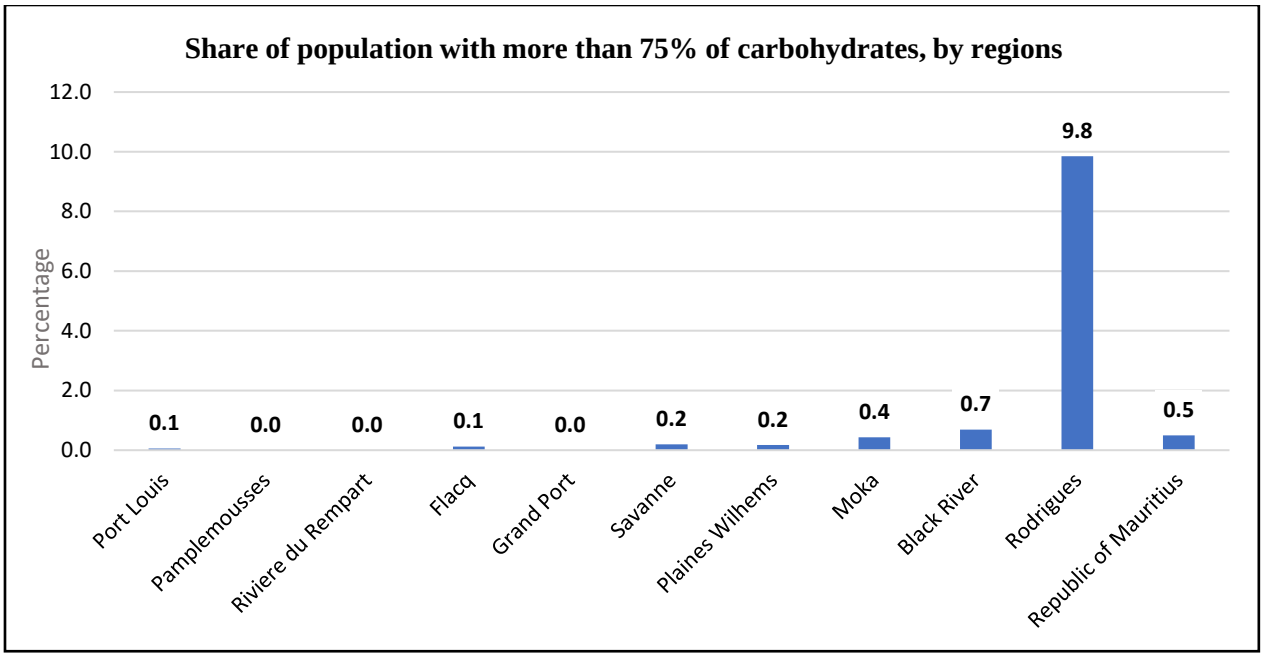
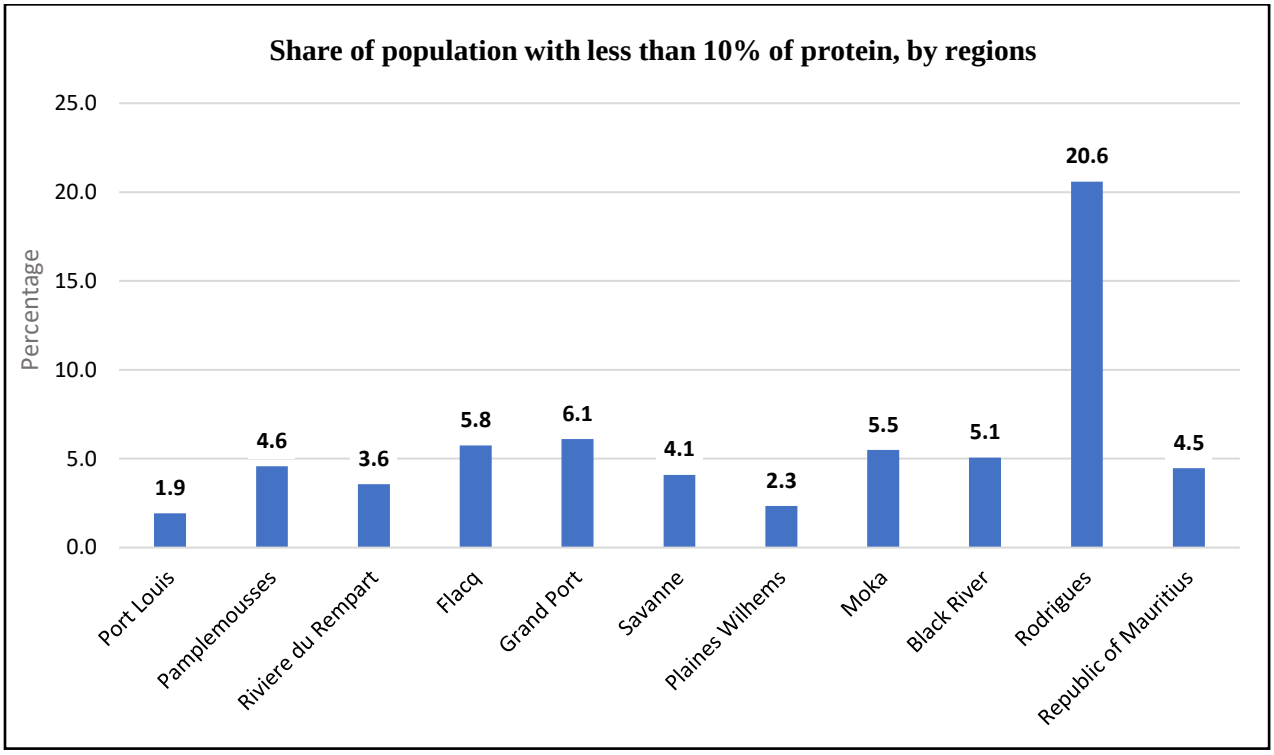


Figure 3.1.20 Share of population with less than 10% of protein, by regions



3.3 Conclusion

Above conclusions were based on HBS 2017 and the analyses were based on some assumptions as specified in the Appendix.

An updated report based on latest HBS 2023 results, will be disseminated soon.

3.4 Acknowledgement

In the light of the Food Security project initiated by Statistics Norway and COMESA Secretariat and, funded by Statistics Norway, Statistics Mauritius would like to express our sincere appreciation to Ms Astrid Mathiassen of Statistics Norway and Mr Owen Siyoto of COMESA Secretariat, for their technical guidance, thorough analysis of HBS data, and their valuable recommendations. Their support and collaboration throughout the course of this engagement have been instrumental in informing our findings and shaping actionable outcomes.

We also extend our thanks to all members of our internal team, as well as stakeholders, especially the Ministry of Health and Wellness (MoHW), for their commitment to this initiative.

Appendix

About the NCT

A first version of a Nutrient Conversion Table (NCT) was built by Statistics Norway. It was revised based on a review performed by a team from the Statistics Mauritius and Ministry of Health and Wellness (MoHW) and comments received from Ana Moltedo from the FAO Statistics Division.

The NCT was built following the approach outlined in a newly published document on NCTs for Household Consumption documentation which can be found here.

All documentation can be found in the NCT table itself. Here we will just mention that as Mauritius do not have a national Food Composition Table, the following are the main sources of information for the nutrient composition of the foods:

- For some mixed plates of foods (e.g Dhollpuri and Briani) information on nutrient values by 100 grams, collected and provided by the MoWH, was used.
- Indian Food Composition Tables (2017). T. Longvah; R. Ananthan; K. Bhaskarachary; K. Venkaiah
- Food Standards Agency. 2021. McCance and Widdowson's The Composition of Foods Integrated Dataset (CoFID) 2021. London, Institute of Food Research, Public Health England. (also available at https://www.gov.uk/government/publications/composition-of-foods-integrated-dataset-cofid).
- Grande, V et al. 2020. FAO/INFOODS Food Composition Table for Western Africa (2019). Rome, FAO. URL: http://www.fao.org/documents/card/en/c/ca7779b
- FAO & Government of Kenya. 2018. Kenya Food Composition Tables. Nairobi. http://www.kilimo.go.ke/wp-content/uploads/2018/10/KENYA-FOOD-COMPOSITION-TABLES-2018.pdf
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About the classification of processed and ultra-processed foods

The healthy eating guidelines for Mauritius recommend to "choose minimally processed foods when possible". This recommendation is responded to by classifying foods reported in the HBS into four groups according to degree of processing following the NOVA classification. In addition to the NOVA documentation the classification was based on discussions during the workshop with the team from Statistics Mauritius, MoHW, COMESA, and Statistics Norway. When in doubt we decided to not include the food item in the NOVA group with the lower level of processing to arrive at a conservative estimate. For example:

- No bread is classified as ultra processed foods (as we are not able to distinguish between "packaged" breads and other breads)
- No baby foods are included in processed as we do not know what they are made of
- We included ham in ultra processed foods (but bacon is according to the examples in NOVA not ultra processed)
- Foods in restaurants are not classified as processed or ultra processed, except for chips and burger (e.g Mc Donald's)

Full documentation can be found in the syntax codes.

About the estimation of sugar

We use two different approaches to look at sugar. One is the calories from foods belonging to the food group sugar. The second approach is to estimate the actual quantities of sugar in grams. The latter was done in the following way: First we selected pure sugar and sugar dense foods (e.g. cakes, biscuits, soft drinks etc). For pure sugar the quantities in grams are straight forward. For sugar dense foods we searched for approximate levels of sugar in such foods (on the internet) and calculate estimates on average daily quantities in grams. This is likely to be conservative as only sugar dense foods are included. For example, for soft drinks we used estimated 10 grams of sugar per 100 grams of soft drink.

Full documentation can be found in the syntax codes.

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