

Nutrition & Diet Profile | Sri Lanka

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Key Findings

- Stunting and wasting are prevalent among children under 5 (~15% and ~19%, respectively), while overweight, obesity, hypertension, and diabetes are prevalent among adults.
- Dietary intake is inadequate for most micronutrients across young children, adolescents, and adults.
- There is a crucial need for dietary improvements, focusing on increased intake of nutrient-rich foods, including fruits and vegetables, and decreased intake of unhealthy foods.
- Evidence of effective approaches to improving diet quality in Sri Lanka are needed to inform programs and policies.



About FRESH

Sub-optimal diets, especially those low in fruits and vegetables (F&V), are among the leading causes of malnutrition worldwide.^[1] The CGIAR Research Initiative on Fruit and Vegetables for Sustainable Healthy Diets (FRESH) is designed to increase F&V intake, and in turn, improve diet quality, nutrition, and health outcomes, while also improving livelihoods, empowering women and youth, and mitigating negative environmental impacts through end-to-end approaches.^[2]

This brief describes the nutritional profile and dietary patterns in Sri Lanka.

The Sri Lankan Context

In Sri Lanka – one of the four FRESH focus countries – dietary risks are the fourth most common driver of total death and disability.^[3] The country has experienced an economic crisis with a 95% food inflation rate in 2022.^[4] As a result, many Sri Lankans cannot afford to eat a healthy diet, which has led to a national food insecurity prevalence of 32%.^[5] This situation has likely worsened the existing nutrition and diet challenges in Sri Lanka.

Nutritional Status

Sri Lanka faces a double burden of malnutrition, with the presence of undernutrition (stunting, wasting, and underweight), micronutrient deficiencies, and overweight/obesity. Other nutrition-related non-communicable diseases (NCDs) such as diabetes and hypertension are also major health concerns among adults in Sri Lanka.

Anemia & micronutrient deficiencies

Anemia affects 8-19% of children, adolescents, women, and men, with some variation according to specific age and physiological group (**Table 1**).

Deficiencies in some micronutrients may pose more significant challenges in Sri Lanka. For example, deficiencies in vitamin D, vitamin B₁₂, and zinc stand out in some population groups.^[6, 7] Vitamin D deficiency impacts 13-36% of children, adolescents, and pregnant women. Pregnant women are also particularly affected by vitamin B₁₂ deficiency, while more than one-quarter of adolescents aged 10-18 years are zinc deficient.

Table 1: Prevalence of anemia and micronutrient deficiencies by population group [6, 7]

	Children < 5 y	Children 5-9 y	Adolescents 10-18 y	Pregnant women	Non-pregnant women	Men
Anemia	14.6 %	10.2 %	18.3 %	15.0 %	18.5 %	8.2 %
Iron deficiency	5.4 %	5.9 %	5.0 %	11.0 %	7.2 %	2.5 %
Iron deficiency anemia	1.8 %	0.6 %	2.2 %	2.5 %	3.2 %	-
Vitamin D deficiency	26.2 %	23.9 %	13.2 %	35.6 %	-	-
Vitamin B₁₂ deficiency	-	1.7 %	-	16.6 %	-	-
Zinc deficiency	15.3 %	17.0 %	29.4 %	24.5 %	-	-

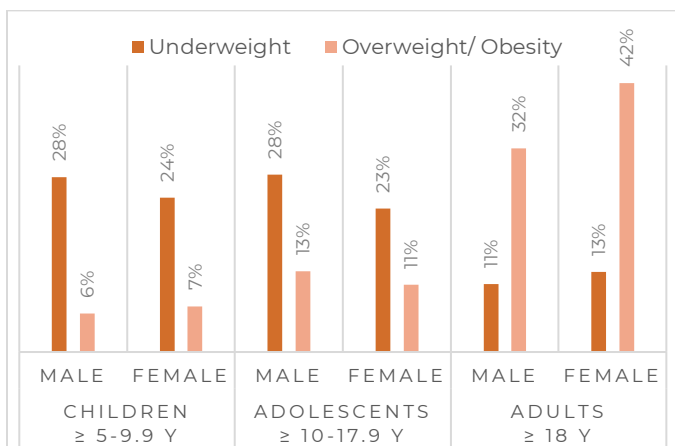
- Indicates that no data is available on micronutrient deficiency in the respective population group.
 * The micronutrient deficiencies listed above are those for which data is available in Sri Lanka.

Malnutrition

In Sri Lanka, about 25% of children 5 years or older and adolescents are underweight. While overweight/obesity is not common among children under 10 years of age, approximately 12% of adolescents are affected (**Figure 1**).

However, among the adult population, over one-third are overweight/obese, a condition that is 10 percentage points higher in women compared to men.

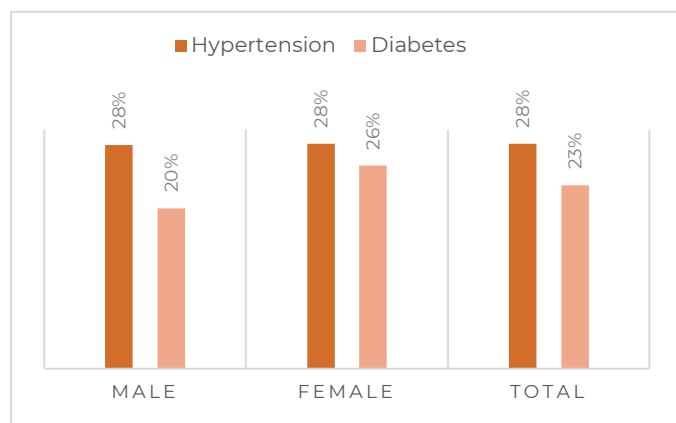
Figure 1: Prevalence of malnutrition by population group [7]



Non-communicable diseases

NCDs, including those that are diet-related, account for 84% of all deaths in Sri Lanka.^[8] Between 2009 and 2019, death and disability due to diabetes increased by 34.8%, and that for ischemic heart disease increased by 9.2%.^[3]

Figure 2: Hypertension and diabetes in adults [9, 10]



Nearly 30% of Sri Lankan adults have been diagnosed with high blood pressure, and about one-quarter suffer from diabetes (**Figure 2**). While the prevalence of hypertension is similar in both genders, women are more likely to have diabetes than men.^[9, 10]

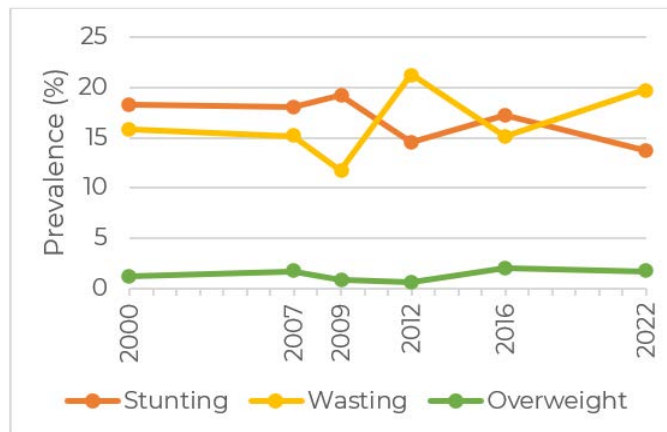


Malnutrition (cont'd)

The prevalence of stunting among children under 5 years of age has decreased slightly over the past 20 years, while wasting prevalence has increased. There has been no significant change in overweight/ obesity in this group (**Figure 3**).^[7, 11]

The prevalence of stunting and overweight/ obesity falls below the South Asia regional averages of 30.7% and 2.5%, respectively.^[12] Conversely, the prevalence of wasting of 20% is higher than the regional average of 14.1%.

Figure 3: Trends in malnutrition among children under 5 ^[7, 11]



Dietary Patterns

In Sri Lanka, diets largely revolve around starchy staples which are often paired with modest portions of vegetables, meat, or fish prepared in curries.^[13] **Figure 4** illustrates the constituents of a typical Sri Lankan meal.

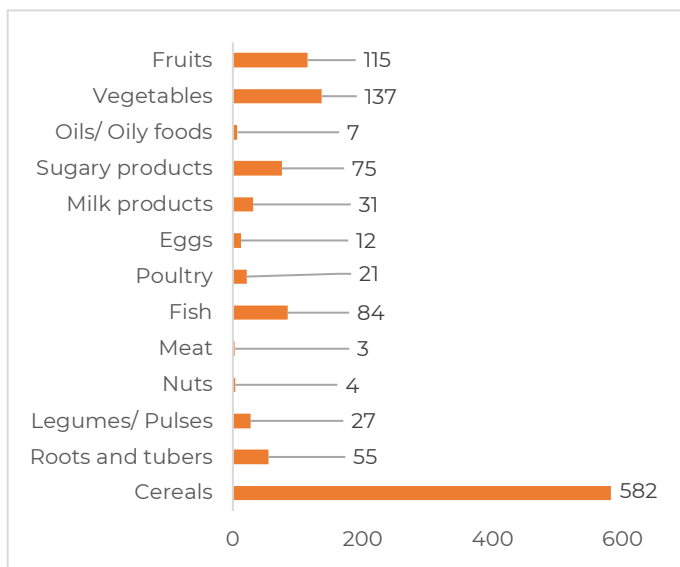
An important contextual factor to consider about Sri Lankan diets is that even though people may eat certain foods like vegetables or fish frequently, they are likely not eating enough of these food items. For example, only 27.5% of adults meet the World Health Organization's (WHO) recommendation of at least 400 grams of F&Vs per day.^[14] A recent longitudinal evaluation of the World Food Programme's Rural, Resilience, Risk, Reconstruction, Recovery and Nutrition (R5N) program also found low intake of F&Vs. Among the 1,823 adults living in rural study areas, average intake of F&Vs was approximately 190 grams, or 2.4 servings, per person per day.^[15]

Figure 4: A typical Sri Lankan plate



Source: Department of Applied Nutrition, Wayamba University of Sri Lanka

Figure 5: Avg. per capita supply of foods in Sri Lanka (grams/ person/ day) ^[16]



Food supply

One of the challenges for achieving a more diverse and nutritionally adequate diet in Sri Lanka may be in part due to an insufficient supply of various food groups (**Figure 5**).

Aside from cereals, the availability of nutrient-rich foods like meat, poultry, legumes/ pulses, nuts, and F&Vs is alarmingly inadequate.^[16] A stark illustration of this is the total daily supply of F&Vs, which stands at an average of 252 grams per person per day, far below the WHO's recommended daily intake of 400 grams.

There is an insufficient supply of nutrient-dense foods in Sri Lanka.

Nutrient intake

With the Sri Lankan diet low in nutrient-rich foods, it is unsurprising that there are significant gaps in nutrient intake.^[17] While caloric insufficiency is still a concern, median intakes of proteins (primarily plant-based) and dietary fiber are adequate (**Table 2**). Conversely, median intakes of most vitamins and minerals are insufficient and vary by age group, with adolescents and adults reportedly being worse off than children in terms of micronutrient adequacy.

Table 2: Adequacy of median micronutrient intake by population group ^[17]

Nutrient	Children < 5 y	Children ≥ 5-9.9 y	Adolescents 10-17.9 y	Adults ≥ 18 y
Energy	✗	✗	✗	✗
Proteins	✓	✓	✓	✓
Dietary fiber	✓	✓	✓	✓
Vitamin A	✗	✗	✗	✗
Riboflavin	✗	✗	✗	✗
Niacin	✓	✗	✗	✗
Vitamin B ₆	✓	✓	✗	✗
Vitamin B ₁₂	✓	✗	✗	✗
Pantothenic acid	✗	✗	✗	✗
Folate	✓	✓	✗	✗
Vitamin C	✗	✗	✗	✗
Thiamin	✓	✓	✗	✗
Calcium	✗	✗	✗	✗
Iron	✗	✗	✗	✗
Zinc	✓	✓	✗	✗
Selenium	✓	✓	✓	✓
Magnesium	✗	✓	✓	✗
Iodine	✗	✗	✓	✗

National Guidelines, Programs, and Policies

Sri Lanka's nutrition policy landscape is robust, with the adoption of many nutrition-related policies, strategic plans, programs, and implementation of operational guidelines.^[18, 19] These policies, along with associated programs, have been developed in recognition of the need to reshape dietary habits and improve nutrition and health outcomes across the life cycle in Sri Lanka. Some examples are highlighted below.

The *Food Based Dietary Guidelines* (FBDGs) for Sri Lankans were designed to advise Sri Lankans on the composition of a healthy diet to prevent the incidence of diet-related NCDs (**Figure 6**).^[20] The guidelines provide dietary recommendations for all age groups and across life stages. However, whether people are aware of these guidelines and whether they are able to implement them is unclear.

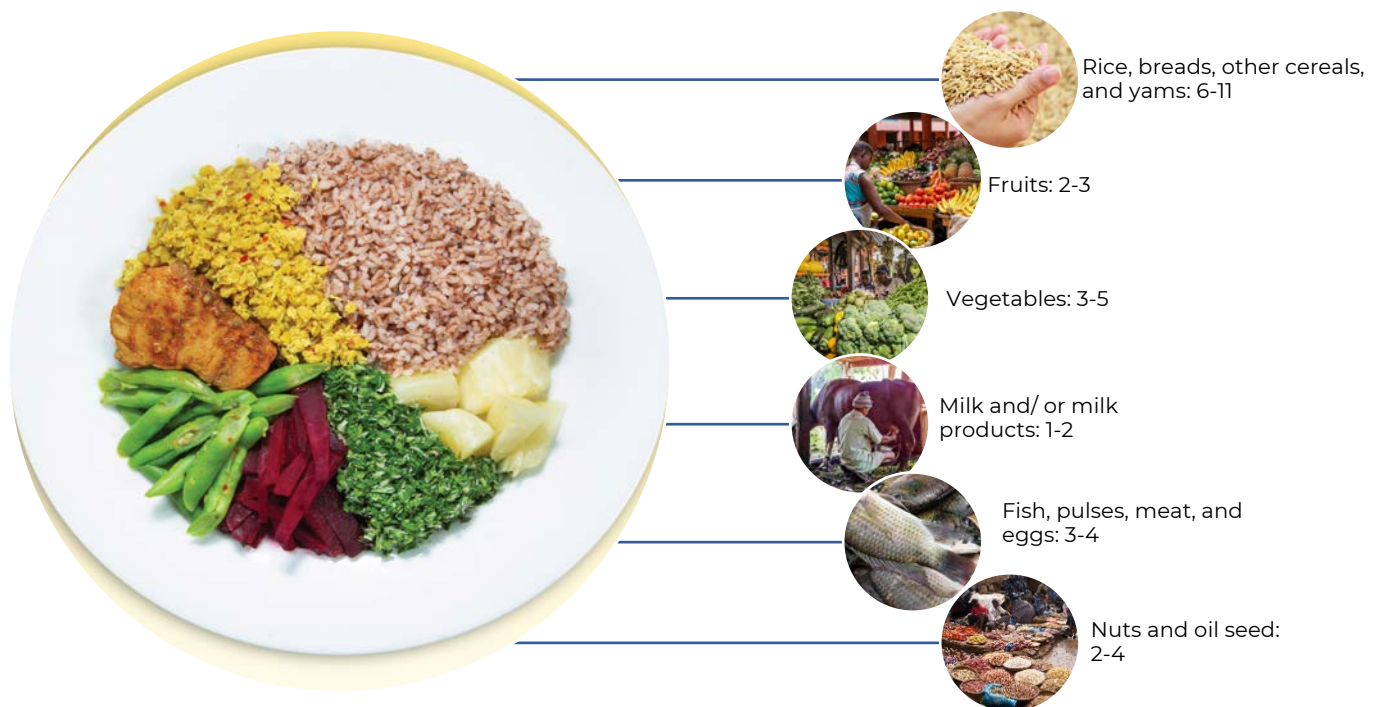


Figure 6: Sri Lankan model food plate - Recommendations for adults in daily servings^[20]

School canteen guidelines also exist to address poor diets among children 5 to 18 years of age. The document provides guidance on the types of foods that can be sold in school canteens and includes model menus for preparing healthy meals for children.^[21]

The *National Nutrition Policy (NNP) 2021-2030 for Sri Lanka* elaborates on strategic directions needed to ensure food and nutrition security in the country, such as enhancing availability and accessibility to healthy foods through nutrition-sensitive food value chains, adoption of financial strategies to promote healthy food behaviors, and community empowerment and mobilization for dietary diversification.^[22] This policy also links to *Sri Lanka's Multi-Sector Action Plan for Nutrition 2018-2025*, which aims to end all forms of malnutrition based on Sustainable Development Goal 2 - Zero Hunger.^[23]

The *2017-2022 National Strategy for Micronutrient Deficiency Prevention and Control in Sri Lanka* emphasizes micronutrient fortification and supplementation, but does not focus on F&Vs.^[24]

Other existing policies and programs also often overlook the importance of these nutrient-rich foods in promoting healthy, sustainable diets and combating micronutrient deficiencies.^[18]

In collaboration with other governmental, local, and international bodies, the Family Health Bureau and the Nutrition Division of the Ministry of Health in Sri Lanka undertake some nutrition promotion activities based on the available diet- and nutrition-related documents. However, evaluations of these programs are scarce, with significant gaps in data for assessing impacts on nutrition and health outcomes.^[19]

Conclusion

- Sri Lanka faces a double burden of malnutrition with the co-existence and persistence of multiple forms of malnutrition, e.g., stunting, wasting, underweight, overweight/ obesity, anemia, and micronutrient deficiencies.
- Inadequate intake of many micronutrients is common across several population groups in Sri Lanka, indicating low intake of nutrient-dense foods such as F&Vs and animal-source foods.
- A diverse diet with adequate intake of nutrient-dense foods should be encouraged to address nutrient gaps among Sri Lankans and reduce the risk of NCDs.
- Many government-issued diet- and nutrition-related policies, strategies, and programs have been adopted in Sri Lanka. However, these often do not place enough emphasis on F&Vs.
- While national food based dietary guidelines exist, as well as other guidelines and policies, there is uncertainty about the level of public awareness and the population's adherence to the recommendations.
- Evaluations of diet- and nutrition-related interventions are also scarce, indicating a need for rigorous evidence on what works to help guide programs and policies that aim to improve diet and nutrition outcomes among Sri Lankans.

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PRIMARY IMPACT AREA:

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