



Ministry of Health  
of the Republic of Uzbekistan



# UZBEKISTAN NUTRITION SURVEY

# 2 ZERO HUNGER



**Sustainable Development goal 2 (SDG2): "end hunger, achieve food security and improved nutrition, and promote sustainable agriculture."**



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# UZBEKISTAN NUTRITION SURVEY

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Tashkent – 2019



In 2017, UNICEF and the Ministry of Health of Uzbekistan launched a nationwide nutrition survey. For the first time, this survey collected data at the regional level, providing targeted insights about the areas that face the greatest nutrition challenges, barriers to adequate food intake and nutrition-related health status. Participants from 3874 households across all 14 regions were surveyed, with a focus on three key vulnerable groups: children under 5 years old, women of reproductive age and pregnant women.

Sound nutrition is fundamental to children's well-being and the achievement of the SDGs. It needs to be put at the heart of government policy and supported by key stakeholders including civil society and the private sector. Using the data from the National Nutrition survey to design and implement targeted nutrition strategies in Uzbekistan will create a platform for sustainable development in health, education, employment and the empowerment of women, as well as a reduction in poverty and inequality.

# The first 1000 days and beyond:

The period of the child's first 1000 days from conception to age two is an important window of opportunity for setting the foundations of optimum health, growth, and neurodevelopment. The baby's health and learning environment during the first 1000 days can influence his or her entire lifespan. A child's nutritional future depends greatly on the mother's nutritional status before and during pregnancy, as well as breastfeeding and the introduction of healthy family foods. Tiny doses of minerals, vitamins and trace elements can make a big difference towards creating a healthy mother and a well-developing, thriving child. Investing in child nutrition is also key to human capital formation because nutrition is central to children's growth, cognitive development, school performance and future productivity.


Children have unique nutritional needs and can suffer unique harm from malnutrition. Putting children's needs first is key to ensuring that every child has the nutrition they require to get the best start in life. If societies are to meet the economic, social and environmental challenges of our changing world in the twenty-first century, all children will need nutritious, safe, affordable and sustainable diets.



# What are micronutrients?

Micronutrients are essential elements required in small quantities to maintain health throughout life.

To get enough nutrients, it's important to eat a varied diet. Supplementation with tablets or syrup, and fortification of staples like flour and rice can also boost micronutrient status.



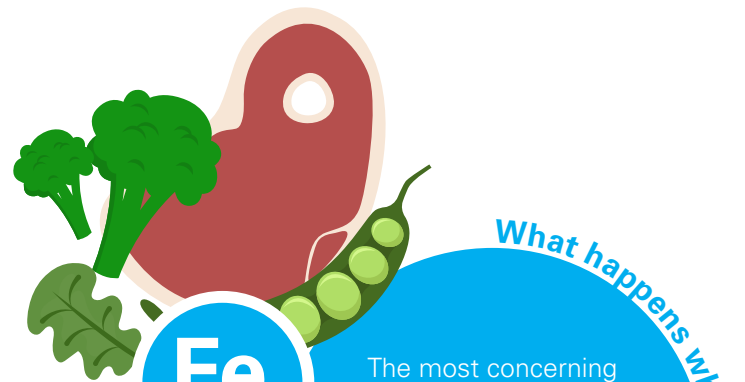
**A**

*What does it do?*

Vitamin A is important for normal vision, the immune system, and reproduction.

*What happens when it's lacking?*

Vitamin A deficiency is a major contributor to the mortality of children under five. Improving the Vitamin A status of deficient children through supplementation enhances their resistance to disease and can reduce mortality from all causes by approximately 23 per cent.



**Fe**  
IRON

*What does it do?*

Iron is an essential nutrient for development and cell growth in the immune and neural systems, as well as for regulation of energy metabolism and exercise.

*What happens when it's lacking?*

The most concerning consequences of iron deficiency in children are alterations of cognitive, motor and behavioral performance

**What does it do?**

The body needs folate to make DNA and other genetic material, and for cells to divide.

**What happens when it's lacking?**

The babies of pregnant women who are folate deficient are at risk of neural tube defects, such as spina bifida. Too little folate can also cause anaemia. Deficiency also has an impact on child development.

**B<sub>9</sub>**  
Folate

**B<sub>12</sub>**

**What does it do?**

This important mineral is needed for a healthy thyroid, the gland responsible for tissue repair, regulating metabolism and promoting proper growth and development.

**What happens when it's lacking?**

Iodine deficiency can result in goitre, hypothyroidism, miscarriage, stillbirth, congenital anomalies, infant and neonatal mortality, impaired intellectual development and impaired growth.

**I**  
Iodine

# UNICEF's work on nutrition in Uzbekistan



Over the last 10 years UNICEF has been providing a vitamin A supplementation program in Uzbekistan for children aged 6-59 months. Every year the MoH organises two rounds of supplementation covering more than 95 per cent of these children.

UNICEF is supporting breast feeding in Uzbekistan: 96 maternity hospitals have been certified as Baby Friendly (34 per cent of all maternity hospitals in Uzbekistan). Health care providers have been trained on a breastfeeding programme in their pre and in-service curricula. A law on the marketing of breast milk substitutes has been submitted for Senate approval.

Health care workers have also been trained on infant and young children feeding in pre and in-service curricula.

UNICEF, jointly with MoH, piloted a multivitamin home- fortification programme in the Republic of Karakalpakstan which helped to reduce anaemia among children under 5.



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Infants, young children, adolescents, women of childbearing age and pregnant women, due to their increased need for vitamins and minerals, are most vulnerable to micronutrient deficiencies [...] Malnutrition during the first 1000 days of a child's life increases the risk of sickness and mortality, and also limits mental and physical growth to a level well below full genetic potential [...] It can affect the entire human life cycle and its effects can spread over several generations.

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**Nodira Zakirova, Paediatrician.**

*Tashkent Paediatric Medical Institute.*



# Survey results

## Child stunting, wasting and underweight:

Stunting (low height for age) is both a symptom of past deprivation and a predictor of future poverty. It's therefore a cause for celebration that Uzbekistan has made excellent progress on reducing stunting. It currently stands at 8.7 per cent, which is a low public health risk. Nonetheless, there are big differences across the regions, ranging from 2.7 per cent in Tashkent city to 15.1 per cent in Sirdarya Region. Child wasting stands at just 1.9 per cent, and child underweight at 2.6 percent.

## Infant feeding:

Early breastfeeding initiation is very common across the country (91.0 per cent). Almost nine out of ten children were being breastfed up to one year of age, and about 40 per cent were still breastfed at the age of two years. However, only about 50 per cent of children below six months of age were exclusively breastfed. Legislation is important to regulate the marketing of breastmilk substitutes to mothers and families, and of unhealthy food to children.

## Diet:

The survey discovered that just 30.3 per cent of young children were getting the minimum level of diversity in their diets, that is, eating from at least four different food groups per day. Only one in four children (22.6 per cent) receive the right number of meals a day. 94 per cent of children aged 6–23 months are not enjoying a sufficient diet to ensure optimal growth and development.

Only about 40 per cent of non-pregnant women were eating a diverse enough range of foods; the women in Namangan and Jizzakh ate the most widely, and those in Andijon and Surkhandarya the least. Pregnant women did slightly better, but only 51.3 per cent were eating a varied enough diet to provide them with a range of micronutrients.

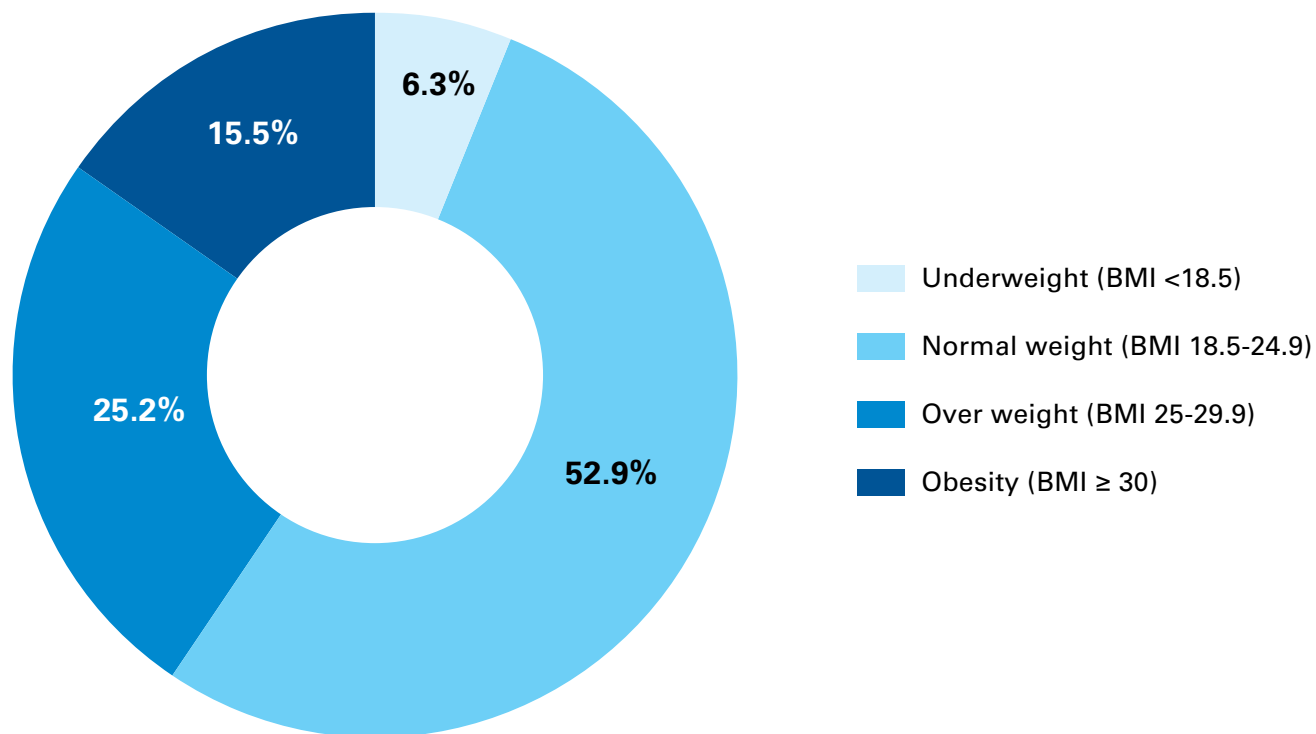
## Overweight and obesity:

The study found that 4.6 per cent of children in Uzbekistan are overweight. While this is not a major issue yet, children's weight for height scores are on average higher than those in the WHO Growth Standard population.

40.7 per cent of non-pregnant women between 15 and 49 were found to be overweight or obese, and the older a woman grows, the more overweight she is likely to be. This represents a significant public health issue.

Evidence suggests that a significant number of the risk factors for over-weight/obesity during adulthood can be prevented with appropriate approaches across the maternal, paternal and child health life cycle. These should take place throughout the reproductive years, especially before conception and during pregnancy, as well as during infancy, childhood and adolescence.

## Prevalence of underweight, normal weight, and overweight and obesity in non-pregnant women 15-49 years of age, Uzbekistan 2017



### Micronutrient deficiencies:

Anaemia affects 15 per cent of children in Uzbekistan. Worryingly, one in four children under the age of two were found to be anaemic. Of these cases, 75 per cent are due to lack of iron. Over 50 per cent under-fives were iron deficient. Even without anaemia, low iron levels can cause cognitive developmental delays in children.

The level of iron deficiency among adolescent girls was found to be alarmingly high at nearly 50 per cent and women of reproductive age in Uzbekistan are suffering from severe hidden hunger. Two out of five of them have iron deficiency. One in five non-pregnant women is anaemic and one in five has a vitamin B12 deficiency. This means that about half of women are starting their pregnancies with deficiencies that put them at high risk of giving birth to newborns with neural tube defects. Nearly one in three pregnant women were also found to be anaemic.

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I cared for a one-year old child whose parents complained about his frequent illnesses. He was tired, drowsy, tearful and irritable.

The parents were very upset about the child's health; they were even afraid to go for a walk with him, fearing he might get ill again. They too were tearful and looked tired, because the child took a lot of effort to care for.

Upon examination, I found that the boy had very pale hands, dry and very palid skin, dull and brittle nails and hair. Among other symptoms, I identified a decrease in appetite, muscle tone, increased fatigue, and drowsiness. The examination confirmed my guesses and the child was diagnosed with anaemia.

Fortunately, drug therapy and nutritional adjustments have helped make a difference. Within two months, the child and the parents have changed for the better.

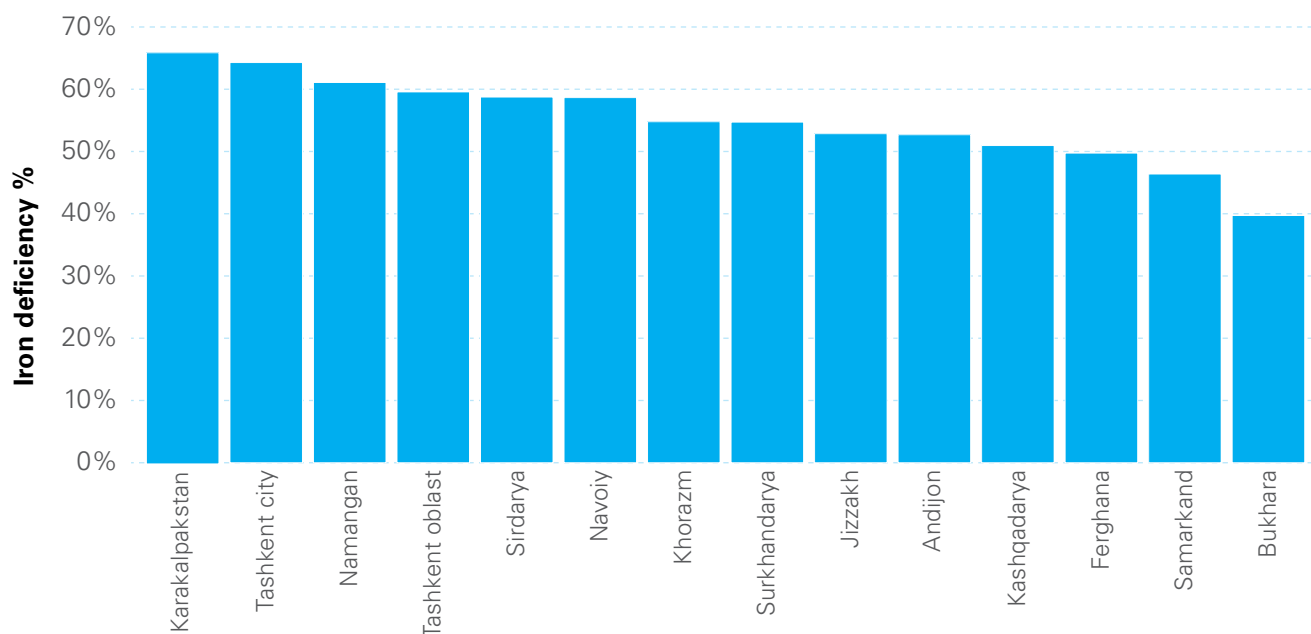
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***Nodira Zakirova, Paediatrician.***

*Tashkent Paediatric Medical Institute.*

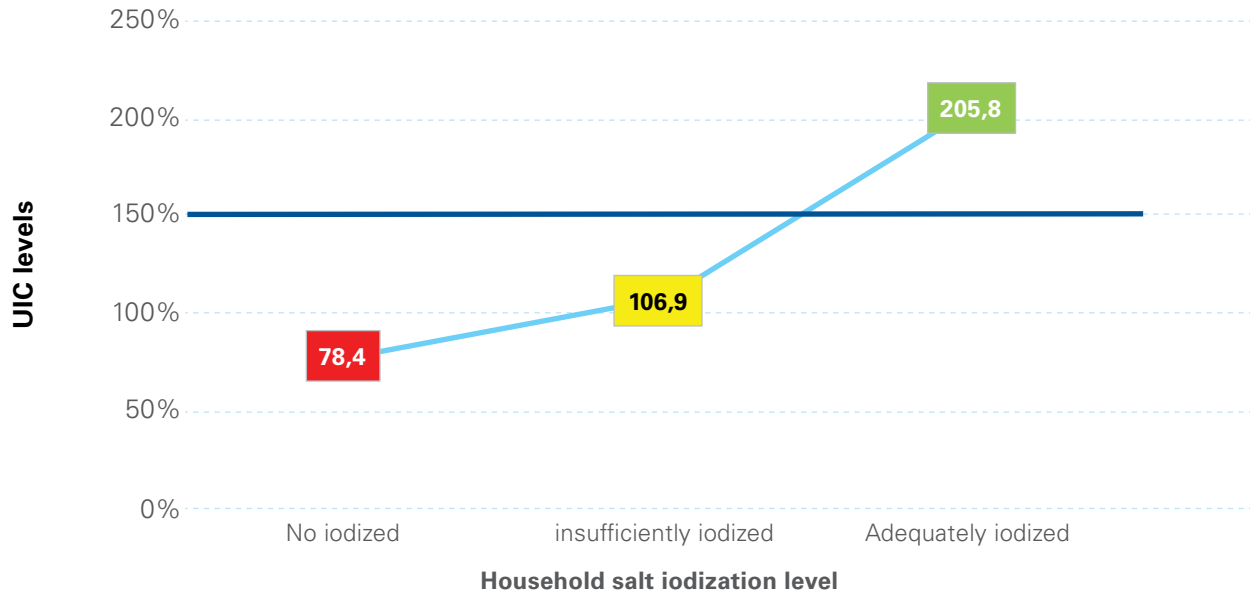
Fortification of flour can prevent iron, zinc and B12/folate deficiencies if over 70 per cent coverage is achieved. Based on the findings of this survey, only 30 per cent of flour used in the surveyed households was found to be adequately fortified. Some locally produced flour and much imported flour does not meet fortification standards. Tashkent city, Tashkent region and Namangan have the lowest levels of fortification in the country.

## Prevalence of iron deficiency in children 6-59 months, Uzbekistan 2017



In the survey, over 90 per cent of respondents said they used iodised salt, and 80 per cent of salt labels confirmed this. However, when the salt was analysed, only 40 per cent of salt samples contained adequate iodine. Although most women of reproductive age surveyed are getting enough iodine, some regions, such as Namangan and Samarkand are iodine deficient. Most importantly pregnant women across the country are not getting enough iodine, which is critical to prevent the inter-generational impacts of iodine deficiency on the cognitive development of their newborns. Findings show that pregnant women from houses that consume adequately iodized salt are not at risk of iodine deficiency. This once again confirms the effectiveness of salt iodization, but the coverage and quality of this program must be improved and sustained to make a real impact.

## Iodine status of pregnant women based on their iodized salt consumption patterns



Legislation can play a key role in enforcing markets for iodized salt and fortified flour and regulating imported flour.

## Recommendations:

Nutritional deprivations continue to affect large number of children and women in Uzbekistan; in some areas stunting rates of over 15 per cent exist and obesity among 15 to 49-year-old women is becoming a major challenge. At the same time, micronutrient deficiencies such as iron, iodine etc. are still posing substantial risks to the health and wellbeing of children, adolescent and women.

Iron and other micronutrient deficiencies can have more than just health outcomes. Indeed, they can be a burden to other systems such as education since they reduce cognitive capacities. Evidence based, effective strategies to address iron deficiency as well as other micronutrient deficiencies must be scaled up and upgraded;

- As a long-term strategy, improving the quality of children's and mothers' diets is the most sustainable intervention to improve their nutritional situation.
- This intervention must be started as early as possible, at the time of conception; the highest impact can be achieved during the first 1000 days of life, from conception to the child's second birthday.

- As a mid-term strategy, large scale food fortification programmes play a major role. The study shows that the implementation of national legislation on universal salt iodization, as a proven strategy to address iodine deficiency, needs significant enforcement at all levels of production, importation and distribution. Without this, iodine deficiency among pregnant women has the potential to cause irreversible damage to the cognitive development of the next generation.
- In addition, national legislation on mandatory flour fortification, for both locally produced and imported flour needs to be enforced in order to achieve a coverage of over 70 per cent. The addition of B12 to the premix can contribute considerably to further reducing deficiencies in this vitamin.
- As a short-term strategy, preventive supplementation programmes must be considered for all young children, pregnant and lactating women and adolescent girls to prevent the irreversible impacts of iron, folic acid and other micronutrient deficiencies.

Overweight and obesity among non-pregnant women aged 15-49 should be prevented and controlled, through modifying the relevant national legislation and by creating a nutritionally supportive environment. Behavioural change can be started in schools, and nutrition counselling must be integrated into ante- and post-natal services to reverse this trend.

Child overweight and obesity must be monitored and assessed routinely to ensure timely action is taken to prevent any increasing trend in the rates of obesity.

## Agenda to Put Children's Nutrition Rights First

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- Empower families, children and young people to demand nutritious food.
- Drive food suppliers to do the right thing for children.
- Build healthy food environments for all children.
- Mobilize supportive systems – health, water and sanitation, education and social protection – to scale up nutrition results for all children.
- Collect high-quality data and evidence regularly to guide action and track progress

**(State of the World's Children report, 2019)**

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