

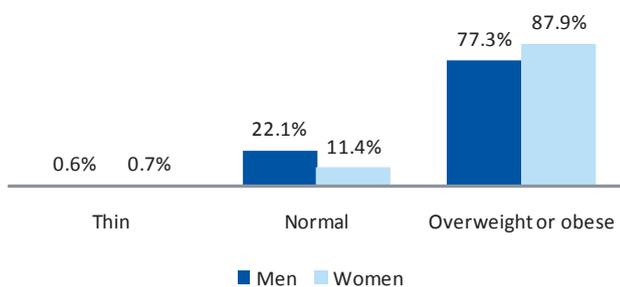


Adequate nutrition is essential to good health. Poor nutrition can impact on productivity and places a significant burden on health systems as a result of noncommunicable diseases. Poor nutrition can be attributed to not eating enough nutritious food, too much food that is high in fat and sugars, and other socio-cultural factors.

Nutritional status of adults

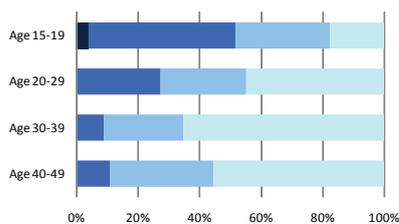
Most of the Tuvaluan population is reported to be either overweight or obese. Only around one in nine women, and one in five men registered a Body Mass Index (BMI) within the normal range (BMI 18.5 to 24.9). Although obesity is a real problem for the entire population, fewer women than men have a normal BMI with more women than men overweight or obese.

Body Mass Index (men and women aged 15+)

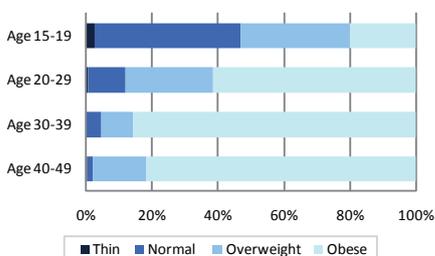


As the people of Tuvalu age, the likelihood of being overweight or obese generally increases, however between the ages of 40-49 the number of Tuvaluan men who have a normal BMI is slightly higher than for men aged 30-39. By the age of thirty, 95% of women and 90% of men are considered overweight or obese.

Percentage of Tuvaluan men by BMI and age



Percentage of Tuvaluan women by BMI and age



Foods consumed by mothers

Eating the right amount of good quality food has a positive impact on mothers' health and the health of their children. This is particularly important during pregnancy and breastfeeding.

The food most commonly consumed by mothers in the 24 hours preceding the survey was rich in protein and grain. Foods rich in vitamin A were also commonly eaten, with seven in ten women having eaten foods rich in vitamin A in the 24 hours preceding the survey. On the other hand, only three in ten mothers had eaten fruit and vegetables (other than those rich in vitamin A).

Micronutrient intake among mothers

More than 90% of women with a child under three years of age reported having eaten foods rich in vitamin A and iron in the 24 hours preceding the survey. Close to 50% of women with a child under three years reported taking iron supplements during their last pregnancy and nearly half of the women surveyed did not provide any information on whether they took iron supplements during their last pregnancy.

Night blindness can be caused by vitamin A deficiency, particularly during pregnancy. A very low incidence of night blindness was reported, indicating that vitamin A deficiency is unlikely to be a problem in Tuvalu.

Nutritional status of children

Malnutrition increases children's risk of illness and death, and can result in impaired mental development. Optimal feeding practices in the first two years of a child's life will aid child health and development. Ideal feeding practices include breastfeeding for the recommended period, introducing complementary foods at the appropriate time and ensuring that a diverse range of foods is offered.

Very few children in Tuvalu are considered to be underweight. Likewise, when the survey results are compared to WHO standards, the rates of stunting (height-for-age) and wasting (weight for height) of children in Tuvalu are very low. A low prevalence of children considered overweight or obese was also reported.

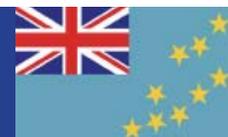
Like Tuvaluan adults, breastfeeding and non-breastfeeding children under the age of three tend to have a diet based on grains and protein-rich food such as fish and eggs.

There appears to be very little supplementation of micronutrients. Despite the high rates of anaemia that were reported among children, only 8% had been given iron supplements in the seven days preceding the survey. Around 9% of children had been given de-worming medication in the six months preceding the survey.

Anaemia

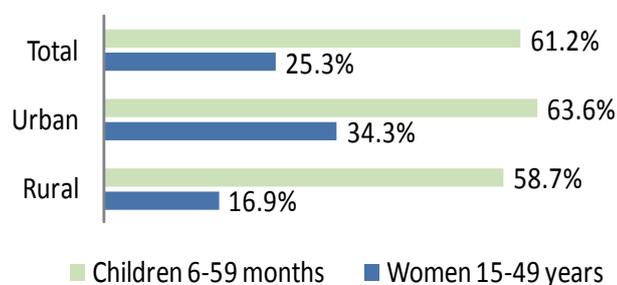
Anaemia in children can impair cognitive development, stunt growth and increase morbidity from infectious diseases. Overall, six in ten children had some anaemia with nearly one third of children mildly anaemic and more than a quarter of children moderately anaemic.





The levels of anaemia were lower among women, but still considerable, with a quarter of women having some anaemia. Most commonly, the anaemia reported was mild. As wealth quintile increased, so did the prevalence of mild and moderate anaemia.

Anaemia among women and children

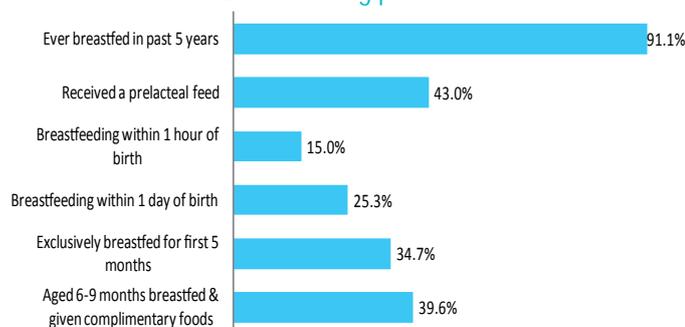


Infant and young children feeding practices

Ninety percent of children born in Tuvalu in the past five years had been breastfed at some point. More than half of babies were exclusively breastfed up to three months, with 35% exclusively breastfed up to five months.

The median duration of any breastfeeding was 11.3 months and the median duration of exclusive breastfeeding was only 1.5 months. Many breastfed children in Tuvalu are given water before they are six months old. The WHO recommends exclusive breastfeeding for the first six months of a baby's life.

Breastfeeding practices



From six months of age, the WHO recommends that solid foods should be introduced. Less than two thirds of children aged 6-23 months had received the recommended three or four different food groups during the 24 hours prior to the survey, and fewer than half of the children surveyed were fed the minimum recommended number of times per day.

Eighty seven per cent of children aged 6-35 months had consumed vitamin A-rich foods and 78% had consumed iron-rich foods in the 24 hours preceding the survey. Iron supplements were given to 1 in 12 children aged 6-59 months and 1 in 11 children aged 6-59 months were given de-worming medication in the six months preceding the survey.

*For more information on nutrition see chapter 11 in the Tuvalu 2007 DHS report

While only one third of households in Tuvalu consumed salt with the recommended iodine content this is off-set by the high fish diet.

Policy note:

With good nutrition essential to people's health, nutrition-related morbidity and mortality are major health concerns in Tuvalu. The DHS reported a very high proportion of the population as either overweight or obese, affecting nine in ten women (88%) compared to eight in ten men (77%). With a low prevalence of overweight or obese children, this situation increases dramatically with age, affecting 50% of Tuvaluan 15-19 year olds, and by age 30, it affects 95% of all women and 90% of all men.

These figures, and the fact that people are getting overweight and obese while still young, should call for very urgent policy attention. This is critically important to avoid a growing financial burden on the country's budget and public health system, and to counteract low Tuvaluan life expectancy at birth; the last census report (2002) estimated this at 61.7 and 65.1 years for men and women respectively, which are the lowest figures in Polynesia, and amongst the lowest in the Pacific. As reported in other Pacific Islands DHS reports, the real tragedy behind such figures is that simple and inexpensive mitigation measures such as health education and healthier life styles (good nutrition and exercise) could save the country millions of dollars in treatment of nutrition-related morbidity and hundreds of premature deaths over the years.

Sixty one per cent of children were anemic, with moderately high levels reported for one in four children; much lower rates were reported for women, with one in four recording some anemia. Considering a high overall consumption of iron-rich food, absorption appears to be a key problem, as reflected in low consumption of fruit and vegetables (other than those rich in Vitamin A). This situation can be addressed by promoting a greater use of iron supplements; a more effective and sustainable policy, however, would place greater emphasis on health (nutrition) education/awareness raising to increase the consumption of Vitamin C-rich food to help boost the rate of iron absorption.

Most Tuvaluan children are breastfed, and the mean duration of any breastfeeding is 11.3 months, which is considerably shorter than the recommended 24 months. The mean duration of exclusive breastfeeding (1.5 months), also falls well short of the recommended six months. Only 1 in 3 children between 6-23 months met the minimum Infant and Young Children Feeding Practices (IYCF) requirements, which are based on number of breastfeeds and the variety of food groups that are consumed.

