Adequate nutrition is essential to good health. Poor nutrition can affect productivity, and places an extra burden on health systems as a result of non-communicable diseases. Concerns about the type of food that is generally being consumed in a country relate not only to people not eating enough, but also to the amount of sugary and high-fat foods consumed. Overconsumption of these foods can result in a diet that is high in energy but lacking in essential nutrients.

**Nutritional status of children**

Poor nutrition among children is associated with maternal malnutrition, low birth-weight, inadequate breast-feeding and weaning diets, and morbidity related to high levels of infectious diseases. Improving children’s diets can reduce the severity of childhood illnesses and reduce the risk of death.

The 2013 Vanuatu DHS shows that of all children younger than five years of age, 28.5% are underweight relative to height for age, 10.7% are underweight relative to weight for age, and 4.4% relative to weight for height (Fig. 1). This illustrates that the prevalence of stunting among children under five years of age is high, relative to World Health Organization (WHO) guidelines. The prevalence of stunted, wasted and underweight children was considerably higher in rural than urban areas, with the reverse applying to being overweight. Having said this, the overall prevalence of wasting, underweight for height and overweight for age is of low public health significance, according to the WHO guideline.

**Figure 1: Nutritional status of children under age five**

<table>
<thead>
<tr>
<th>Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stunting (Height for age)</td>
<td>28.5%</td>
</tr>
<tr>
<td>Wasting (Weight for height)</td>
<td>4.4%</td>
</tr>
<tr>
<td>Underweight (weight for age)</td>
<td>10.7%</td>
</tr>
<tr>
<td>Overweight (for height)</td>
<td>4.6%</td>
</tr>
<tr>
<td>Overweight (for age)</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

**Micronutrient intake by children**

Vitamin and mineral deficiencies are consequences of malnutrition. Overall, 88% of children were reported to have consumed foods that are rich in vitamin A, and nearly seven out of ten children had consumed food rich in iron in the 24 hours preceding the survey.

About 25% of children had received vitamin A supplements during the six months prior to the survey, and 50% of children had been given de-worming medication during the same period; most commonly this medication is administered to children aged between 18 and 59 months.

**Foods consumed by mothers**

The type of food a mother eats has a significant impact not only on her own health, but also on the health of her children. A healthy, varied and low-fat diet is especially important to women who are pregnant and breast-feeding.

Most women with children under three years of age reported eating vitamin A-rich foods (90%), high protein foods (76%), root crops (76%) and grains (76%). Just over half of all women (53%) reported consuming high-fat foods, with 45% reporting eating sugary food. Consumption of high-fat food was as pronounced in urban as in rural Vanuatu, with no marked variations across wealth quintiles; intake of sugary food, however, was marginally higher in towns (52%) than in rural Vanuatu (42%), and highest among women in the highest wealth quintile (60%), compared to values in the low 40s for the other four wealth quintiles.

**Nutritional status of mothers**

With malnutrition not representing a major health issue affecting adults in Vanuatu (3% of women and less than 3% of men), obesity and being overweight should be of greater concern to the Vanuatu Ministry of Health. About 50% of women aged 15–49 years (and 40% of men aged 15 years and over) were reported to be obese and overweight, and both these conditions were more pronounced among people in the highest wealth quintile. Women and men residing in urban areas were also more likely to be obese and overweight than people living in rural areas (Fig. 2).

**Infant and young children feeding practices (IYCF)**

Almost all (95%) children born in Vanuatu in the five years preceding the survey were breast-fed at some time, with 99% receiving their first breast-feed within one day after birth (Fig. 3).

**Figure 3: Breast-feeding practices**

- % ever breastfed in last 5 years: 95
- Started breastfeed within one hour of birth: 85
- Started breastfeed within one day of birth: 99
- Received a prelacteal feed: 4.1
Although WHO and United Nations Children's Fund (UNICEF) recommend exclusive breastfeeding, the survey results show that plain water, other liquids and complementary foods are being introduced to some babies less than six months of age in Vanuatu.

The mean duration of breast-feeding among Vanuatu children born in the three years preceding the survey is 18.7 months. The mean duration of exclusive breast-feeding is 4.3 months, and 5 months for predominant breast-feeding.

Regarding frequency of feeds, survey results show that babies are being breast-fed at frequencies in line with the WHO and UNICEF recommendations. The mean number of feeds during the night and day is 10.2.

Young ni-Vanuatu children tend to have a diet that is high in vitamin A, grains and root vegetables, with fruits and vegetables being the most common food consumed by breast-feeding children (82%) and non-breast-feeding children (90%). However, the survey results show that non-breast-fed children are more likely to eat sugary foods (45%) and foods made with oil, fat and butter (50%), than breast-fed children (36% and 39% respectively).

The Global Strategy on Infant and Child Feeding recommends that breast-fed children aged 6–23 months receive foods from at least three specified food groups per day. This recommendation rises to four specified food groups for children who are not breast-fed. The Vanuatu DHS survey shows that only 29% of children aged 6–23 months are fed according to recommended IYCF feeding practices. This low percentage is usually due to children not being fed as frequently as required, contributing to two-thirds of children not being fed the recommended dietary requirements for good health.

Anaemia

Young children who are growing rapidly have the highest iron requirements, and thus are at highest risk for iron deficiency anaemia. Survey results show one in four children (27%) aged 6–59 months having a form of anaemia: 19% have mild anaemia, 8% have moderate anaemia and less than 1%, severe anaemia. The prevalence of anaemia does not differ much by sex, but it is higher in urban than in rural areas. Surprisingly, the prevalence of anaemia increases with mother’s educational level and wealth quintile.

Policy note

The survey highlights several malnutrition issues amongst children under five and adults, which, if unattended, have the potential to turn into serious health challenges. The data illustrate the prevalence of malnutrition among children under five years of age (28.5% stunting, 10.7% underweight and 4.4% wasting) as a result of poor nutrition among this young population. In terms of health policy, parents may need to be better informed about the importance of nutritious food for their children’s physical and intellectual development.

Data also show that plain water, other liquids and complementary foods were being introduced to children under six months old, which is against WHO and UNICEF recommendations on exclusive breast-feeding. This is an area where significant positive health outcomes could be achieved, with Vanuatu health authorities stepping up their efforts to promote longer and exclusive breast-feeding, and undertaking a policy review to encourage and facilitate breast-feeding for working mothers at the workplace.

Amongst adults, malnutrition manifests itself in the form of being overweight and affects nearly half of women, particularly mothers with children under three years of age. Although most women reported eating vitamin A-rich foods (90%), high protein foods (76%), root crops (76%) and grains (76%), just over half (53%) reported consuming high-fat foods, with 45% reporting eating sugary food. Vanuatu health authorities are invited to take note of the reported figures on being overweight and obesity in the context of its NCD policy and programmes.

*For more detailed information on nutrition see chapter 11 in the 2013 Vanuatu DHS report.*