MARSHALL ISLANDS

Population\(^1\)  52710

<table>
<thead>
<tr>
<th></th>
<th>Infant mortality rate(^2)</th>
<th>Life expectancy at birth(^1)</th>
<th>Fertility rate(^1)</th>
<th>Annual population growth(^1)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>22 per 1000 live births</td>
<td>65.7 years</td>
<td>5.7</td>
<td>1.5%</td>
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NUTRITION OVERVIEW

Progress has been made in the field of nutrition by implementing activities planned under the National Food and Nutrition Policy, including programmes for increased qualified personnel; increased community skills, knowledge and awareness; increased community participation; reviving the breast-feeding practice; and consumption of traditional foods. The Community Nutrition Certificate Course offered by the University of the South Pacific, Majuro Extension Center, and other food- and nutrition-related training have increased capacity to implement community food and nutrition projects throughout the many sectors of the government and non-government organizations. The Ministry of Development and Resources has invested much of its efforts towards food production and food security over the past 10 years.

NUTRITIONAL PROBLEMS

Birth weight

In 1999, 12% of infants were born with a low birth weight (<2500 g)\(^1\). Data from 2001, 2002 and 2003 show that 19.7%, 23.5% and 15.8%, respectively, were born with a low birth weight.

Infant feeding

In 1998, a study carried out among 313 mothers in Majuro, mostly in the outer atolls, found that the proportion of infants ever breast-fed was 95%. A total of 20% were being exclusively breast-fed at birth, 16% at four months, and 4% at six months. Fifty-seven percent of infants were being breast-fed at one year of age, and 35% at two years.

In 1999, 97% of infants were being exclusively breast-fed at birth in Majuro Hospital.

In the same hospital, 98% were exclusively breast-fed in 2001 and in 2002. The challenge remains in continuing exclusive breast-feeding after discharge from the hospital and continued breast-feeding up to two years and beyond.

The Well Baby Clinic worksheets for Majuro for 2003 reported that, after discharge from the hospital, only 50% were exclusively breast-fed between birth and six months. Between seven and 12 months, 37% were still being breast-fed and the majority (43%) were being mix-fed, with less than 10% being bottle-fed.

Child growth

The 1991 National Nutrition Survey revealed that 76% of children from seven to 14 years of age were malnourished (30% mild, 38% moderate, 2% severe, 6% overweight). Underweight (< median-2SD of weight-for-age) was affecting 37% of females and 43% of males. This rose as high as 68% in the outer atolls. Over 35% of children were found to be stunted, rising to 44% at age 12. Again this figure rose to over 63% in outer atolls.

\(^2\) RMI, Ministry of Health Annual Report 2002
A 1998 study on overnutrition and undernutrition among children under five years of age found that 32% of the males and 40% of the females were stunted. The same study found that 22% of the male children and 33% of the female children were underweight (low weight-for-age), and that 5.8% of the males and 7% of the females were wasted (low weight-for-height).

In 2001, the Pacific Helminths Initiative Study, conducted in two different schools, among 287 children aged from five to 14 years, revealed that the proportion of underweight (< median –2SD of weight-for-age) was 14.8%, and stunting (< median –2SD of height-for-age) 33.7%. The authors concluded that the high rates of undernutrition in children attending the two schools had not improved since 1991. Whilst experiencing high rates of undernutrition, there is an indication of the emergence of overweight in girls, with 11.1% and 13.0% of girls from the two respective schools, with high weight for their height.

**Nutritional anaemia**

The National Nutrition Survey revealed that anaemia was common in 1991. In children under six years of age, 29% had moderate anaemia and 10% had severe anaemia. In the 7-12-year-old age group, 16% were found to have anaemia with 2% moderate/severe. However, this figure rose sharply to 66% of males and 40% of females aged 13 years of age. The same study showed that 10% of pregnant and lactating women were mildly anaemic, 3% moderately anaemic and 4% severely anaemic. Among non-pregnant and non-lactating women, 24% had mild anaemia, 1% moderate and 1% severe.

A 1993 Nutrition Survey showed that 44% of pregnant women and 43% of lactating women were anaemic.

A study conducted in 1994 among 919 children revealed that 36.4% were anaemic. No studies have been done recently to assess nutritional status on the country. One was planned for later 2003, or early 2004.

Majuro Hospital statistics for 1999 show that 8% of pregnant women were anaemic, a decrease from 1991 and 1993 studies.

The 2001-2002 study on helminthiasis among schoolchildren showed a prevalence of anaemia (Hb <11.5 g/dl) of 12.1% and 15.0% in the two different schools.

**Vitamin A deficiency**

A study on serum retinol, carried out in 1994-1995 among 919 children aged from one to five years, found that 55% had moderate vitamin A deficiency (10-19 µg/dl) and 8% were severely deficient (<10 µg/dl). After these findings, the Vitamin A Distribution Program was launched, including a twice a year distribution of vitamin A supplements and deworming medication to all children from six months to 12 years of age. The programme emphasizes promotion of breast-feeding and locally produced foods high in vitamin A. The Ministry of Health has not assessed the vitamin A supplementation programme since initiation, and plans to do this in the near future.

A study is currently being done on the Marshallese pandanus fruit that have a high vitamin A content. The aim of this study is to identify one or more particular varieties that can be promoted in a sustainable food-based vitamin A deficiency prevention strategy.

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1 Hughes R. *Environmental influences on helminthiasis and nutritional status among Pacific Schoolchildren*. Not yet published. For the purpose of this study, country government selected two schools to be surveyed, one from the capital or commercial centre and the other less accessible. Approximately 150 children aged 5-12 years of age were selected from each school.
Obesity

The 1991 National Nutrition Survey showed that 9% of non-pregnant women were underweight (BMI<20), 30% were overweight (BMI 25 - 29.9) and 31% were obese (BMI 30+).

A 1996-1997 study on undernutrition and overnutrition shows that the prevalence of overweight and obesity was approximately 57% in adults aged 18-50 years. Rates of obesity increase sharply in women of around 20 years of age and in men in their 40s. In comparison with the 1991 survey, obesity prevalence is increasing. The purpose of the undernutrition and overnutrition study was to develop a strategic plan towards the prevention of obesity and promotion of well-being, with collaboration from community groups. The Ministry of Health continues to implement activities successfully.

POLICIES AND PROGRAMMES DIRECTED AT NUTRITION

In 1991, the National Nutrition and Children’s Council (NNCC) was established and given responsibility for developing policies on food & nutrition and children’s health. The chair of the NNCC is under the Office of the Chief Secretary and the secretariat of the NNCC is under the Ministry of Internal Affairs. The NNCC established the Food and Nutrition Taskforce as the working committee for the NNCC. A National Policy on Agriculture, Food and Nutrition was drafted by the working committee and approved by Cabinet in 1996. A National Plan of Action on Nutrition was drafted in 1995 and continues to be revised by the Food and Nutrition Taskforce. Each government agency has developed its own 15-year (2000-2015) strategic work and operational plan.

National Dietary guidelines were developed in 1995.

Breast-feeding policies

The National Breast-feeding Policy has been drafted by the NNCC and submitted to the Government for endorsement. The Ministry of Health took the initiative to develop and implement its own Breast-feeding Policy in 1996. The Ministry also established a Breast-feeding Committee to monitor breast-feeding activities in hospitals and community health centres. The Breast-feeding Policy applies to the two hospitals as well as the health centres in the outer atolls. The Baby-Friendly Hospital Initiative has been launched in Majuro Hospital.

Breast-feeding counselling training was launched in 1995 for all health providers in the Ministry, several health assistants and women’s groups. Breast-feeding Week is celebrated annually. Education on breast-feeding is carried out during antenatal, postpartum and paediatric care services, as well as through community outreach and the media. Brochures and other educational materials are disseminated during training sessions and community outreach activities.

Paid maternity leave for up to 20 weeks after delivery is available for government employees. Mothers are allowed annual and sick leave if needed. The private sector determines its own maternity leave.

The rate of exclusive breast-feeding upon discharge from hospital has remained at 97% since the establishment of the breastfeeding policy in 1996.

Monitoring and surveillance of nutritional status

Information is routinely collected on birth weight, infant feeding, child growth, obesity, nutritional anaemia in pregnant women and children, vitamin A deficiency, and foodborne diseases, through clinical and community outreach. Special studies have also been conducted on child-feeding practices, child growth, nutritional anaemia, family nutrition, vitamin A deficiency, water quality, and risk factors for noncommunicable diseases.
**Intervention programmes**

The Ministry of Health works actively with other ministries to improve quality of life through health campaigns and seminars on primary health care. The Ministry launched the Health and Population Project in 1995 and established 53 Community Health Councils throughout the nation as the core groups to implement primary health care services. The Ministry used the message “Health is a shared responsibility” in establishing the Community Health Councils. Additionally, in 1995, in collaboration with the John Hopkins University in the United States of America, the Ministry initiated a study on undernutrition and overnutrition in the Marshall Islands to develop strategies towards their prevention.

The Agriculture Division and the Marine and Resources Division at the Ministry of Resources and Development are working actively to promote the production and preservation of locally grown food crops and marine resources.

The Land Grant Program at the College of the Marshall Islands continues to implement significant research towards increased production and availability of local food crops.

*Prepared by Mrs Julia Alfred, Nutrition Program Coordinator, NDPP, Ministry of Health, the Marshall Islands.*