MONGOLIA

Population 2 442,540  Infant mortality rate 2  30.4 per 1000 live births
Life expectancy at birth 65.3 years
Fertility rate 2.2
Annual population growth 1.4%

NUTRITION OVERVIEW

Major achievements include the adoption of the National Plan of Action for Food Security, Safety and Nutrition (NPAFSSN, 2001), capacity building in salt iodization to eliminate iodine deficiency disorders, and fortification of flour to control iron deficiency anaemia. The Nutrition Research Centre (NCR) has carried out several projects on mother and child nutrition in collaboration with the Government, WHO, and the United Nations Children’s Fund (UNICEF). In 2003, the Ministry of Health and the NRC, with WHO support, developed the National Integrated Programme on Prevention and Control of Noncommunicable Diseases (NCD).

NUTRITIONAL PROBLEMS

Birth weight

The 1997 World Vision/Nutrition Research Center (WV/NRC) report showed that 5.8% of infants were born with a low birth weight (<2500 g).

The 2nd National Child and Nutrition Survey, 1999 (UNICEF/NRC) showed a 10.89% prevalence of low birth weight, the prevalence in rural areas being significantly greater than in the cities.

Infant feeding

Highly successful collaboration between the Government, by the Nutrition Research Centre (NRC), and UNICEF since 1992, has led to a return to traditional breast-feeding practice in Mongolia.

According to the 2nd National Child and Nutrition Survey in 1999 (UNICEF/NRC), 93% of babies were being breast-fed within 30 minutes of birth. At four to six months, 99.5% of babies were being exclusively breast-fed (however the Mongolia Child and Development Survey, MICS-2, 2000, gave 64%), and 92.9% at 9-12 months. Complementary foods are introduced at around six months, but 92.9% of women are still breast-feeding at one year and 75.9% at two years. However, traditional child weaning food is inadequate in both quality and quantity due to a lack of food variety, inadequate food frequency and low energy density.

The 2001 NRC and World Vision Survey in Bulgan, Tov aimags and Ulaanbaatar found that 75% of children were being exclusively breast-fed to four months, but only 21% to six months. This suggests that the rates of exclusive breast-feeding may have begun to decrease again in recent years, or that there is considerable variation in rates of exclusive breast-feeding from place to place.

The 2001 survey to assess the nutritional effects of the dzud in Mongolia (supported by WHO; UNICEF; and Centers for Disease Control [CDC], Atlanta, United States of America) showed that breast-feeding was common (94% of children aged 6-11 months) and prolonged (70% still breastfeeding at age 24 months).

Child growth

The report on the 2nd National Child and Nutrition Survey, 1999, showed that 24.6% of children under five years of age were stunted, 12.5 were underweight, and 3.7% were wasted. The prevalence of PEM in rural areas was twice the rate of urban areas.

The Mongolia National Child Development Survey 2000 (MICS-2) showed that 24.6% of children under five years of age were stunted, 12.7% were underweight and 5.5% were wasted. By age group, the survey found a 21.6% prevalence of stunting for the 6-11 months age group, 31.9% for the 12-23 months age group, 23.4% for the 24-35 months age group, 26.7% for the 36-47 months age group and 27.1% for the 48-59 months age group.

The under-five mortality rate decreased from 47.8 per 1000 in 1998 to 40.2 per 1000 in 2001. However, there has been no improvement in nutritional status since 1992-94, as the survey conducted in those years showed that 25% of children under five years of age were stunted, 12% were underweight, and 2% were wasted.

Following the two consecutive winters (1999-2000 and 2000-2001) with severe weather (called dzud), a population-based survey was conducted, with the support of CDC/Atlanta, WHO and UNICEF, to assess the nutritional status of young children in those areas of the country more affected by the winter weather disaster. The prevalence of growth stunting was significantly greater among children aged 6-23 months in dzud-affected areas than in unaffected areas. There were no other significant differences between children aged 6-59 months in dzud-affected and unaffected areas in general nutritional status, prevalence of anaemia and other micronutrient deficiencies.

Iodine deficiency

A 1992-1995 national study among children aged 7-14 years showed an overall total goitre rate of 28%.

The 2nd National Nutrition Survey in 1999 found that the prevalence had decreased, with a mean value total goitre rate of 21.4%. The highest goitre prevalence was found in the mountainous western aimags (around 30%). The average iodine level in urine was 98.43 ng/l, which is an indication of "medium level prevalence of IDD" according to the classification of the IDD situation by urine iodine level.

A national survey of IDD was conducted by the Ministry of Health in 2001 in all 21 aimags and seven areas of Ulanbaatar. The median urinary iodine excretion (UIE) was found to be 101.3 ug/L, as in an iodine-sufficient population. Of the 21 aimags, 15 had median UIE values below 100 ug/L and seven (one third) had values below 50. In these aimags the percentage of salt samples containing >20 ppm was 7-74%, with lower UIE found in areas where less adequate iodized salt was available.

Different surveys showed that overall only 40% of households have salt in stock that tested positive for the presence of iodine.

The 2nd National Nutrition Survey, 1999, noticed that the central region showed the highest level of consumption of iodized salt (63.6%), whereas the western region had the lowest percentage of iodized salt consumption (24.3%). The average was 46.1%.

Another indicator directly related to iodine status in the neonate is the amount of thyroid-stimulation hormone (TSH) in infant blood. Less than 3% of newborn infants should have TSH levels >5mU/L of whole blood. However, in the 2nd National Nutrition Survey in 1999, 10.8% of infants tested had TSH levels >5mU/L. This means they could have been at risk of impaired mental and physical development during pregnancy.

Nutritional anaemia

The National Survey of 1999 found an average 48.5% prevalence of anaemia in children up to five years of age after adjustment (for number of selected children), and 58.5% in mothers of children aged up to five, after adjustment. It was much higher in mothers living in sums (reaching 71.0%), than in those living in urban areas.
In the 2001 survey (supported by CDC/Atlanta), the assessment was done in comparison with WHO criteria and classification related to long-term altitude exposure. Results of this survey showed that 30.3% of children aged 6-59 months were anaemic. The 2001 survey, comparing areas affected and not affected by the dzud, found the highest rates of anaemia (52% and 43% respectively) in children of 6-23 months. Approximately half (49.3%) of all children (407) and 72.3% of anaemic children aged 6-59 months had low levels of serum ferritin (24µg/l). The prevalence of severe iron deficiency (serum ferritin is <12 µg/l) among anaemic children aged 6-59 months of was 58.3%.

The study conducted in 2001 (Second National Survey/NRC) showed that the prevalence of anaemia in pregnant women appears to have decreased, according to surveys conducted in the past 10 years, from over 30% to less than 20%. The prevalence of anaemia was 12.4% among pregnant women (782) living in UB and three aimags. However, 47.1% of pregnant women had a low level of serum ferritin (<24ng/l). The prevalence of severe iron deficiency (serum ferritin is <12ng/l) among anaemic pregnant women was 41.7%.

In the 2001 survey conducted after the dzud, only about 17% of non-pregnant women were found to be anaemic. There are, however, conflicting figures, partly due to the method used and the use of different cut-off points.

An assessment of folate status in mothers of children aged 6-59 months in 2001 showed that almost 50% of mothers were folate-deficient.

**Vitamin A deficiency**

A 1992-1994 survey conducted by UNICEF showed that 0.8% of children displayed clinical evidence of vitamin A deficiency. Night-blindness was reported in 4.5% of children.

In the 2001 survey to assess the nutritional effects of the dzud, only a few children aged 6-59 months had low serum vitamin A, and the prevalence of low serum vitamin A levels among non-pregnant mothers in dzud-affected and unaffected areas was around 1.0%.

**Vitamin D deficiency**

The WV/NCR survey in 1997, found that 37.7% of children under five years of age had clinical symptoms of rickets and that the presence of more severe rickets (children with two or more of the nine clinical signs) was common among children of one to two years (47.4%).

In 1998 a follow-up WV/NCR survey (published in the *Asia Pacific Journal of Clinical Nutrition*) showed that the prevalence of children aged 6-60 months who demonstrated one or more of the three main clinical signs was 69.8%.

The 2nd Nutrition Survey, 1999, UNICEF/NRC, in UB and 15 different aimags found an overall prevalence of 32.1%.

A study started in 2000 by the NRC, with WHO support, showed that 40% of children under five had at least three of the clinical signs of vitamin D deficiency, 23% of all children with rickets were infants of less than one year, and 43% of the children had levels of plasma 25 (OH) D below 18 nmol/l, indicating vitamin D deficiency. This study also suggested that the cause of rickets in Mongolian children is vitamin D deficiency, probably of multifactorial origin, with both low oral intakes and limited ultraviolet sunlight exposure being involved. Also calcium deficiency, in particular, may be contributing to the development of vitamin D deficiency through enhanced degradation of stored 25 (OH) D. Referring to the study, the mean daily dietary calcium intake in Mongolian children was found to be 264.5 mg, and the average intake of calcium was lower than the RDA.

**Obesity**

Overweight (BMI>25) was reported to be 11% in 1993 and 51% in 1999 (First National Diabetes epidemiology survey in adults).
The 2001 survey assessing the nutritional effects of the dzud in Mongolia showed that the mean BMI among non-pregnant mothers was the same in dzud-affected and unaffected areas. Low BMI was uncommon, but nearly 23% of women were overweight or obese (BMI > 25 kg/m²).

In 2002, NRC conducted a joint survey with Kagawa Nutrition University, Japan, and the results showed that overweight and obesity (BMI > 25 kg/m²) for the adult population of the urban area (UB) was 40.7%, with a prevalence of 47.7% in the city centre.

POLICIES AND PROGRAMMES DIRECTED AT NUTRITION

The National Plan of Action for Food Security, Safety and Nutrition (NPAFSSN) was developed in 2001 with WHO support. It was adopted in October 2001 by Resolution of the Government of Mongolia No. 242. The National Intersectoral Coordinating Committee (NICC), chaired by the Minister of Food and Agriculture, is in place to implement the NPAFSSN.

Food Selection Guidelines have been developed and the NPAFSSN (2001) refers to plans for revising these.

In February 2000, the first dietary management guidelines for healthy and sick children from birth to five years of age were approved in a consensus-building workshop for leading pediatricians and local practitioners as part of the early implementation of the WHO Integrated Management of Childhood Illness (IMCI) strategy.

In 1996, a National Coordinating Committee for the Control of Iodine Deficiency Disorders was established. The National Plan of Action for Iodine Deficiency Disorders was adopted in 1996 and revised in 2002. It now contains a detailed schedule of activities to deal with the constraints identified for 2002-2006. It comes under the responsibility of the Ministry of Health, the Ministry of Food and Agriculture and the Public Health Institute, with UNICEF support. Legislation on IDD is under preparation and the law on the “Prevention of IDD” is going to be adopted by the Mongolian Parliament.

In 1999, Parliament made amendments to the Food Law, which regulates food fortification, including salt iodization. A new law is being discussed to make iodized salt completely tax-free.

According to the 2001 Agreement between the Mongolian Government and the Asian Development Bank (ADB) on project JFPR 9005 "Improving nutrition for poor mothers and children, Mongolia", a policy on iron flour fortification policy will be implemented.

Breast-feeding policies


World Breast-feeding Week is celebrated in Mongolia every year.

The National Breast-feeding Policy has been updated recently to reflect the new WHO recommendation of exclusive breast-feeding for the first six months.

The breast-milk substitute provision scheme ended in 1994. No National Code of Marketing of Breast-milk Substitutes has yet been drafted, but one of the objectives of the NPAFSSN (activity 9.2.8) is to "create a legal environment for breast-milk substitute coordination".

Mongolia has ratified Convention 103 on Maternity Protection, and its legislation is considered to be in compliance. The Labor Law of Mongolia (1999) allows 120 days of maternity leave, two hours of breaks during the hours of work for the
breast-feeding of infants under six months of age, and one hour of breaks for breast-feeding of infants aged six to 12 months.

**Monitoring and surveillance of nutritional status**

Information is routinely collected on infant feeding, child growth, nutritional anaemia and iodine deficiency disorders. Several special studies have been conducted on the prevalence of nutrition-related diseases and dietary intake.

*Prepared by Dr. Ch. Ulziiburen, Director of Nutrition Research Center, Mongolia.*