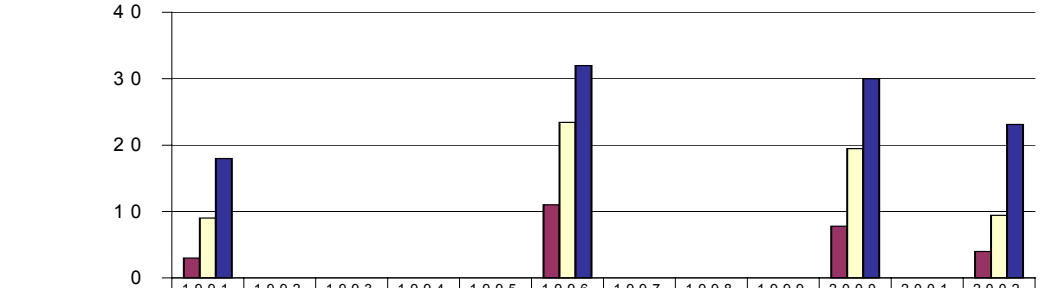
Overview of Nutritional Status of Under-fives in South/Centre Iraq

I. Introduction

The deteriorating trend of malnutrition among under-five children (U5C) seen throughout the 1990s has changed. As shown below, preliminary figures from a UNICEF-supported survey carried out in February 2002 show that acute and general malnutrition are now less than half the levels of 1996, while chronic malnutrition has fallen by nearly 30% during the same period (Fig. 1). This decline should be seen in the context of the overall humanitarian programme in Iraq, including the UNICEF-supported Targeted Nutrition Programme (TNP). Despite gains, the present level of child malnutrition remains high compared to 1991 levels, which were already elevated after one year of sanctions. Therefore, more needs to be done by all stakeholders to further reduce malnutrition in Iraq.

A contributing factor to the very high rate of malnutrition and mortality has been the breakdown of key Iraqi infrastructure such as power grids and water distribution networks as a result of two major wars and over a decade of comprehensive international sanctions. In the South/Centre of Iraq (S/C), the rates of malnutrition steadily increased from 1991 to 1996, before the onset of the Oil for Food Programme (OFFP). Chronic malnutrition rose from 18.7% to 32%; underweight shot up from 9.2% to 23.4%; and acute malnutrition increased from 3% to 11%[1].

Fig 1. Trends in Malnutrition in Iraq S/C (1991-2002) [2].



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Acute	3					11				7.8		4
Underweight	9					23.4				19.5		9.4
Chronic	18					32				30		23.1

[1] Acute malnutrition (Weight-for-height): is an indicator of acute wasting caused by a severe, recent onset of adversities, such as rapid reductions in food availability or interference with food in-take due to infections
Underweight (Weight-for-age): is an indicator of general malnutrition, a composite of chronic and acute malnutrition (either or both of these can result in underweight). It is the most widely understood indicator for a nutritional status assessment.
Chronic malnutrition (Height-for-age): is an indicator of "stunting" and is generally attributed to long-term malnutrition. This type of malnutrition results in poor physical and intellectual growth and development. It reflects the accumulated detrimental effect on child growth by adverse economic conditions, poor health, feeding, and caring practices. Stunting takes longer to decline than either acute or underweight malnutrition

[2] Sources of Data and Sample Size:
1991: "Health and welfare in Iraq after the Gulf crisis", International study team (Harvard University), 9,034 Households
1996: Multiple Indicator Cluster Sample (MICS-1996), UNICEF, Central Statistical Organization of Planning Iraq (CSO), and Ministry of Health (MOH), 6,375 households
2000: MICS-2000, UNICEF, CSO, and MOH, 13,430 households
2002: Household Nutrition Status Survey, UNICEF, CSO, and MOH, 19,200 households

Many factors interact to affect the nutritional status of children. Some may seem completely unrelated, but when they combine with other factors, have a major impact child malnutrition rates. For example, improved electricity generation may not appear at first to have anything to do with nutrition. However, electricity is essential for water treatment plants to produce and distribute clean, potable, water. If children do not have access to clean water they are more likely to contract diseases that lead to malnutrition. For this reason, malnutrition is one of the most comprehensive indicators of the wellbeing of children, because it relies on the functioning of many sectors of society.

To show how these different factors have combined to improve malnutrition in S/C Iraq, this paper uses the UNICEF nutrition conceptual framework, to review the immediate, underlying and basic factors that have contributed to arresting the deteriorating nutritional status of children. Immediate causes can include disease and inadequate food intake, while underlying causes reflect the status of social services like water and sanitation, health, and education. Finally, basic causes relate to issues such as control and distribution of national resources, governance, and social organization (including the status of women).

II. Immediate Causes of Improvement:

- Improved dietary intake and reduction in childhood diseases have been critical in improving the nutritional status of children. Additionally, institution-based data on communicable diseases from the Ministry of Health (MOH) indicates an overall decline in morbidity, and a downward trend in cholera, measles and diarrhea. In particular, cases of measles, which causes and aggravates malnutrition among children, dropped significantly from 1998 (28,571 cases) to 2001 (452).

- Since 1996, the Targeted Nutrition Programme (TNP) has seen tremendous improvement in the number of health service providers and the quality of care provided at health facilities. Between 1999 and 2001, an average of 1.1 million under-five children were screened for malnutrition by Community Child Care Units (CCCUs) each year. However, the number of children being screened is increasing sharply, a half a million alone were screened in the first half of 2002. What is rather remarkable is the fact that high protein biscuits (HPB), which were used to motivate mothers to bring their children to CCCUs for screening, have been in very short supply since April 2001. Despite this, attendance of under-fives at CCCUs has not faltered during this period, ensuring that parents continue to receive nutrition education even in the absence of HPB. Therefore, it is clear that the information families receive on caring for their children has been an important contributor to the decline in child malnutrition rates, is as crucial as supplementary calories provided by HPB, and is more important for their long-term wellbeing.

- Breastfeeding promotion, with a focus on exclusive breastfeeding for the first six months, has also improved. A year ago, exclusive breastfeeding for this period was very low at 17.1% of mothers. Currently, that number has risen to a much higher 30%. UNICEF-supported breastfeeding promotion activities led to the establishment of 31 Baby Friendly Hospitals implementing the 10 steps for successful breastfeeding programme. In addition, extensive training of health workers in counseling mothers on breastfeeding has taken place. Nonetheless, the presence of infant formula in the food basket continues to discourage mothers from breastfeeding, and further contributes to malnutrition as it is frequently mixed

with unclean water. As such, more can be done in this area, particularly through the strong CCCU programme.

- During the last four years, the total number of CCCUs grew from 600 in 1997 to 3,000 by mid 2002. CCCUs are the cornerstone of the TNP, where volunteers screen all children under five in their areas and provide health education and counseling services to mothers of malnourished children. Those found to be malnourished are referred to public health care centres (PHCs) for verification and treatment. In cases of severe malnutrition, children are referred to one of 63 nutrition rehabilitation centers (NRCs) nation wide. All 548 main PHC are implementing TNP activities. A total of 13,000 CCCU volunteers have been trained on rehabilitation of malnourished children and screening/growth monitoring activities.

- This highlights the fact that both monitoring and educational activities have been critical elements in the decline in malnutrition.

III. Underlying Causes of Improvement

- Underlying factors include improved health services delivery and an expansion of social infrastructures, which have increased people's access to vital health and social services.

- The nutrient content of the government-distributed food basket increased from an average of 1,090 kcal per person/day prior to the OFFP, to 2,215 kcal by the end of July 2002. The Iraqi government's food ration scheme is highly efficient and among the largest food distribution programmes in the world.

- Immunization coverage through PHCs (children 9-12 months) has been sustained at above 90% from 1996 to 2001, except for Measles, which declined in 1998 (79%) and 2001 (78%) due to vaccine shortages. However, nationwide Measles vaccination campaigns conducted in 2000 and 2002 increased coverage of under five children to 96%. UNICEF has also supported the establishment of oral rehydration therapy (ORT) corners in all PHCs, as well as training and educational activities. This resulted in a very high ORT user rate of 99.1% in 2000.

- By mid 2002, the stock level of essential drugs tracked by the UN at hospitals and chronic illness pharmacies rose to 80%. Moreover, the production capacity of SAMARA drug industries rose from 5% of capacity in 1999 to 50% in 2002, further contributing to the wellbeing of children.

- The increasing productivity and efficiency of local farmers has also been a contributing factor. Local wheat and barley harvests in S/C increased from 0.59 million metric tonnes in 2000 to 1.6 million metric tonnes in 2002, representing a nearly three-fold increase. This was due to the end of three years of severe drought in 2000, followed by two years of good rainfall. As a result, the street value of food and non-food commodities included in the food basket dropped from ID10,000 in July 2000 to ID7,000 in July 2002. Sunflower/maize production also increased by 20-40% in 2002 from the year before, and factories such as bakeries, tea blending and vegetable oil plants have been commissioned. All these are closely linked to increased FAO-supported extension services to farmers and the excellent and reliable

national system for the management and distribution of food rations, which is supported by the WFP

- Importantly, the deficit in electricity generation, which directly impacts water production and distribution, has decreased by 900 mega watts (MW) – down from 3,000 MW in 1996 to 2,100 MW in 2002.

- Under-five diarrhea cases dropped by 19% between 1998 and 2001. One of the key factors is the increase in water production, quality and distribution capacity.

  ⇒ Availability of potable water in urban areas increased from 166 l/c/d in 1997 to 197 l/c/d in 2002. The same period saw an in increase in rural areas from 60 l/c/d to 86 l/c/d. Water production rates at water treatment plants (WTPs) for Baghdad City stabilized at approximately 210 l/c/d.
  ⇒ Production of chlorine, which is essential for water purification, increased greatly at the Basra chlorine plant. This capacity upgrade was achieved with UNDP support.

- Overall however, safe water coverage has not improved significantly in recent years (see V. below).

IV. Basic causes of improvement

- Some major shifts in Security Council Resolutions are among the basic factors that have improved child malnutrition in the S/C. These included:
  ⇒ Lifting the cap on oil sales by the UN made more revenues available for the importation of humanitarian goods.
  ⇒ Expanding the list of goods Iraq can import also had a positive impact.

V. Challenges Ahead

Despite gains, the level of malnutrition in Iraq is still higher than in 1991, the first year sanctions were in place. Child malnutrition rates had already deteriorated by this time.

There is still a need for continued and more concerted efforts, especially in the following areas:

Targeted Nutrition Programme:

- The TNP has been reviewed and areas have been identified for strengthening. This includes improved training of health workers using more participatory training methods; increasing focus on educating mothers on managing malnutrition; and improving monitoring through more regular meetings among healthcare workers. However, due to limited available funds, strengthening is only being undertaken by the UNICEF Country Programme in two governorates. This intensification project needs to be expanded.

- Improve availability of High Protein Biscuits and Therapeutic Milk. HPBs and Therapeutic Milk are essential for rehabilitating malnourished children. These are procured by the Government of Iraq under a Memorandum of Understanding. Supplies have been erratic and none have arrived in the country for more than one year. The reasons for erratic supplies include

supplier default and delays in placing orders. Supplies of these items need to be improved. Otherwise children who are not rehabilitated early enough using these items, are more likely to die.

Food:

- There is a need for supplementary food to be given in the food ration to families with children under five years of age and pregnant and lactating women.

Water and Sanitation

- The availability of potable water at the household level needs to be improved. Safe water coverage in rural areas has increased from 41 to 47 per cent, since 1997 while it has decreased from 94 to 92 per cent in urban areas. Access to potable water can be increased by accelerating the replacement of worn out water distribution networks and increasing production of water at water treatment plants.
- The garbage collection rate in Baghdad City has dropped from 1.5 kg per capita per day, for the city's 4.25 million inhabitants, to 0.5 kg/capita/day, for a population of 5.6 million - a serious health hazard and source of water contamination.
- An estimated 500,000 metric tons of raw sewage is discharged into the fresh water bodies in Iraq every day. While GOI has stepped up efforts to rehabilitate the country's water distribution network, the incidence of diarrhea will not be significantly reduced until treatment and disposal of sewage is addressed.

Education

- Despite being vital to the long-term improvement of child health and nutrition, education has not benefited as much as other areas under the OFFP. Therefore, it is crucial that education, and especially girls education, receives priority attention in the future.

VI. Conclusion

Improved child malnutrition in Iraq is a result of many factors across numerous sectors. However, more still needs to be done to bring malnutrition rates down to pre-sanction levels. This will require continued multi-sectoral cooperation and a focus on educating people at the grassroots.