

UNICEF IRAQ - Programme Review 1990-2000

**Sector Review Report
Northern Iraq**

Health and Nutrition

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UNICEF IRAQ - Programme Review 1990-2000

EXECUTIVE SUMMARY Health and Nutrition

Between 1990 – 2000, UNICEF has supported a large number of programmes in Northern Iraq. Programme interventions in the health and nutrition sector have been, and continue to be, crucial support to the well-being of all people in the region, especially for women and children. To objectively evaluate these interventions, together with UNICEF's counterparts, a programme review exercise was undertaken by UNICEF.

The programme review exercise consisted of three components. First, a desk review of all available programme documents from the past decade, including many studies and evaluations. Second, a rapid assessment of one element of the nutrition programme (CCUs) in order to provide qualitative insights into the effectiveness of the programme. Community Child Care Units (CCUs) were chosen as they are a key intervention for the prevention of malnutrition and promotion of healthy growth practices. In addition, CCUs are a new intervention to the region as they introduced the concept of community participation to complement the health and nutrition programmes of the local authorities. Third, a participatory workshop was held to bring together many key persons in the health and nutrition section from counterparts, UNICEF staff from the three governorates and other UN agencies. The workshop was held August 9-10, 2000 in Erbil, one day for health and one day for nutrition. Facilitation of the workshop was shared by UNICEF staff from Northern Iraq, Baghdad and Amman. As well, one senior consultant and one sectoral consultant participated. The workshop adopted a participatory process where small group discussions took place around specific themes. The workshop was an opportunity to critically review the past and brainstorm about the future of health and nutrition programming.

From the review, it can be clearly seen that much improvement has been achieved in the health and nutrition status of the population in Northern Iraq. Key indicators of infant and child mortality rates, immunization coverage, and malnutrition can be highlighted to illustrate these improvements.

The Child and Maternal Mortality Survey in 1999 revealed that both infant mortality and child mortality rates decreased in the 20 year period from 1979-1999. However both rates rose in the 1989-1994 period, indicating the declining health status of the population following the 1991 conflicts. For the three five-year periods of 1984-1989, 1989-1994, and 1994-1999, infant mortality rates are estimated to be 63, 71, and 58 per 1000 respectively. Under five child mortality rates for the same periods are 80, 89, and 71 respectively. Therefore, infant and child mortality rates have been declining since 1979, but this decline has not been continuous as both rates increased during the 1989-1994 period.

Immunization rates for under-one children have improved since 1993 based on information from 30-cluster surveys carried out in 1993, 1994, 1995, 1997, and 1999 as well as from the Multiple Indicator Cluster Survey (MICS) conducted in 1996. The rate of fully immunized children has risen from 24.1% in 1993 to 42.0% in 1999. Measles coverage has risen from 36.0% in 1993 to 61.3% in 1999. DPT/OPV3¹ coverage has also risen from 45.0% in 1993 to 70.3% in 1999. BCG² showed steady coverage from 1993 to 1997 with a drop in 1998, due to the shortage of BCG caused by irregular flow of vaccines. The BCG coverage in 1993, 1997, and 1999 was 92.9%, 93.4%, and 77.3% respectively.

The household nutrition status survey of December 1994 revealed a high prevalence of malnutrition in Northern Iraq with 37.3% of children suffering from chronic malnutrition, 25.8% underweight, and 4.2% acute malnourished. Since 1994, there has been a general improvement in the overall nutritional situation. However, the survey in June 1999 showed an increased prevalence of underweight (13.6% to 14.7%) and acute malnourished children (1.7% to 3.4%) from the November 1998 survey although chronic malnutrition continued to decline in the same period from 24.3% to 18.9%. The nutritional status survey of November 1999 indicated a prevalence of 18.3% chronic malnourished, 9.5% underweight and 1.8% acute malnourished.

However, not all indicators have been showing positive trends in the last ten years. Nutritional surveys since 1993 reveal decreasing breastfeeding rates coupled with increasing bottle feeding rates. For

example, in 1993-1996, the average rate of breastfeeding in 0-5 month old infants was 52.9% (4 surveys). In the years 1997-1999, the average breastfeeding rate for 0-5 month olds becomes 25.4% (5 surveys). Furthermore, the nutrition and MICS surveys in 1996 indicate the bottle-feeding rate for under-one infants to be 37% and 29.4% respectively. The latest nutrition survey in November 1999 indicates a bottle-feeding rate of 56.0% for under-one infants. However it should be noted that measuring breastfeeding and bottle feeding rates is very imprecise and measuring exclusive breastfeeding rates is especially difficult.

All UNICEF interventions in health and nutrition in the past decade have been relevant and indeed crucial for the functioning of the health system in Northern Iraq, especially given the dire situation of the almost complete collapse of the health system. However, there are a number of UNICEF interventions that can be highlighted as particularly successful, namely the immunization programme, control of malnutrition, supply of iodized salt, and promotion of Oral Rehydration Salts.

Clearly, support to the immunization programme needs to be highlighted as one of the most crucial interventions by UNICEF in the past ten years. UNICEF has been the largest supporter of the EPI programme since 1991. UNICEF was the sole supplier of EPI vaccines and cold chain equipment before the SCR986 programme in 1996. Since 1991, UNICEF has been providing vaccines, syringes, needles as well as annual training to health staff and master trainers on immunization. And although under SCR986 the vaccines are procured by the Government of Iraq UNICEF facilitates the transportation of the vaccines to the North.

UNICEF has been supporting the cold chain system through the provision of equipment, including kerosene, gas, and solar refrigerators and recently generators as well as through training on cold chain maintenance and repair and printing of temperature charts. Support to the cold chain system was particularly crucial in the earlier half of the decade, especially in Dohuk, given the complete lack of electricity.

Although poliomyelitis eradication is part of the immunization programme, the effort to eradicate the virus can also be highlighted as a very significant contribution to Northern Iraq in the past decade. UNICEF has been the main supporter of Polio National Immunization Days (PNIDs) and mopping up campaigns. Since 1995, UNICEF has supported annual campaigns including supply of vaccine, mobilizing and training vaccinators, supporting mass media campaigns as well as recently supporting mobile teams to implement a house-to-house campaign. Campaigns are conducted with the cooperation of WHO and include provision of all vaccines and supplies as well as training to vaccinators. All campaigns are conducted with mass media support through radio, television, and posters. Coverage from PNID campaigns (first round) have increased from 71.5% in 1995 to almost 100% in 1999. Mopping up campaigns (first round) have also increased from 59% in 1997 to 99.2% in 1999.

UNICEF's contribution to reducing child malnutrition rates has been in three directions. First, UNICEF has strongly advocated for (and supported) the expansion of the Growth Monitoring Unit (GMUs) system. UNICEF has been supporting growth monitoring of under-five children since 1991 when a few GMUs were established with the cooperation of NGOs. Starting in 1994, UNICEF has been training health staff on principles of infant and child malnutrition and procedures in growth monitoring. Training of staff has continued up to 2000 and includes not only health staff, but women's union members, primary school teachers and village volunteers.

After 1996, UNICEF increased the emphasis of screening children and therefore focussed interventions in expanding and strengthening the GMU system. Mobile monitoring teams were introduced in 1997 to supervise monitoring activities at the GMUs. Through the provision of supplies and equipment and training of staff, the number of GMUs has expanded from 61 before 1997 to 315 in 2000. GMUs are now an institutionalized aspect of the primary health system performing the screening and referral of under-five children.

Secondly, UNICEF introduced Community Child Care Units (CCCUs) in 1997 in order to further intensify growth monitoring activities and to reach rural isolated communities. CCCUs are a community based approach whereby one or two volunteers from a village are trained by UNICEF to provide routine growth monitoring of under-five children, refer malnourished children to PHCs for treatment, and to provide health and nutrition information to the community. Support to CCCUs

includes provision of basic growth monitoring equipment and training of village volunteers. Currently in 2000 there are 238 CCCUs across the three governorates. UNICEF and DOH's targeted nutrition programme coupled with WFP ration distribution and screening of more children in rural and vulnerable communities through GMUs and CCCUs have contributed to improvements in the nutritional status of children and women.

Thirdly, in order to assess the nutritional status of children, UNICEF has been supporting surveys since 1991. Although small scale in 1991 and 1992, beginning in 1993, UNICEF has supported 30-cluster surveys across the three governorates. Surveys were carried out in 1994, 1997, 1998(2), 1999(2), and one so far in 2000. MICS was carried out in 1996 and included assessment of child nutrition. The surveys have been used as a capacity building tool for local authorities as well as an advocacy tool in addressing malnutrition. As a result of the second survey in 1998 which revealed high levels of underweight children, the criteria for enrolling children in the feeding programme was changed from weight for height to weight for age, beginning in May 1999. This new criteria enabled more children to be enrolled in the programme. It was pointed out in the participatory workshop that the nutritional surveys have been a key advocacy tool for showing the international community the seriousness of the malnutrition problem in Northern Iraq. In addition, the surveys contributed to convincing the local authorities that malnutrition of children is a priority issue that needs to be addressed.

Two additional interventions that UNICEF has supported need to be highlighted as particular successes in Northern Iraq. Both interventions, regarding iodized salt and Oral Rehydration Salts, were a successful mix of supply delivery and advocacy.

A goitre survey in 1994 supported by UNICEF revealed that goitre, as an indicator of iodine deficiency, is a problem in the area, with 42.8% of primary age children showing signs of goitre.³ To address the iodine problem, UNICEF supported media campaigns using television and radio spots as well as posters to raise awareness on the importance of iodine and using iodized salt. Due to the fact that iodized salt was not readily available in the North, in 1996 UNICEF established three iodization plants and has been supporting these plants until the present day with the provision of potassium iodate. The household use of iodized salt has increased from 72% in August 1996⁴ to 92.3%⁵ in November 1999.

Case management of diarrhoea shifted from an emphasis on drug therapy to promotion of ORS. UNICEF has consistently supported ORS through training of staff on how to treat diarrhoea with ORS as well as support to revitalised and newly established ORT corners. UNICEF has also supported mass media promotion of ORS. The Health and Nutrition KAP survey in November 1997 revealed that 97% of mothers interviewed knew about ORS which is an indicator that health staff are promoting ORS since 90.5% of mothers indicated that doctors or other health staff taught them how to mix ORS.

Although all UNICEF interventions have been relevant, not all interventions can be deemed completely successful. Two areas of intervention need to be pointed out as being limited in their success. First, care and immunization of pregnant women continues to be an area of concern as shown by Tetanus Toxoid immunization coverage remaining low. In 1999, Tetanus Toxoid coverage was 34%.⁶

Second, UNICEF's promotion of exclusive breastfeeding have been unable to effect concrete change in behaviour. One of UNICEF's goals is to increase the level of exclusive breastfeeding in children under six months of age. Since 1994 UNICEF has been promoting exclusive breastfeeding through advocacy and capacity building strategies as well as service delivery to promote the Baby Friendly Hospital Initiative (BFHI).

There has been a marked increase in the use of infant formula which negatively affects infant nutrition. After 1991, infant formula was distributed freely (but on a limited scale) especially by non-governmental organizations (NGOs). Since 1997, the WFP food ration for the entire population of under-one children has included infant formula. The current amount of infant formula is eight tins per month per infant.

Although UNICEF's advocacy and social mobilization activities were relevant and effective in increasing awareness about breastfeeding, the activities were not sufficient to overcome the

widespread availability and use of infant formula to achieve an actual increase in exclusive breastfeeding rates.

Although the coverage of all the programmes in the sector were in both urban and rural areas, greater stress on implementation of programmes in the remoter rural areas is called for. A distance-services available criteria may be developed for prioritising 'in need' villages/settlements for special focus.

Supplies will continue to be a dominant part of the health and nutritional programme, and a method of making this process more efficient and planned would be an important contribution to both ensuring smoother programme implementation and enable release of quality programme staff time to programming issues. Environmental constraining factors will however be a determining factor in this, depending on the political scenario as it evolves.

Specific recommendations for making the programme implementation process more effective and efficient include:

- Introducing through design, a supply chain management and inventory control system that pre-designs priorities, delays, component matching and other variables as in an industrial distribution supply chain system.
- Sequencing training and material supplies to ensure quick utilization of supplies.
- Fine tuning implementation roles for different kinds of counterparts like DOH, NGOs, and contractors.
- Enhancing training quality through creating a network of local trainers and resource persons and making training programmes more focussed and skill based at the lower levels.
- Extending roles in programme implementation to the village/local community level wherever feasible, through a ground level human resource identification process.
- Reviewing programme implementation processes in a decentralised manner to identify villages with success and failure.
- Creation of a broad based health surveillance system on a random cluster basis instead of attempting to cover total population through census based systems.
- Designing of advocacy and social mobilisation campaigns and strategies that are relevant and appropriate to specific programmes through media planning strategies that are more contextual and programme specific.
- Relooking at and strengthening all training strategies and programmes.

The health and nutrition sector, amongst all the sectors within UNICEF, has been regularly conducting different studies and collecting valuable information. Such studies executed by UNICEF are valuable, even critical, in a context where virtually no regular census operations or record keeping are carried out by public authorities. UNICEF's infant mortality survey is globally famous. Given this context, the following recommendations emerged from the review process, including the participatory workshops.

- A series of KAP studies tracing mothers and community behavioural practices along different dimensions of health.
- Women's Health Status and Needs Surveys focussing on problems during pregnancy, nutritional status and prevalence of anemia and other vitamin-mineral deficiencies, and family practices.
- Technical knowledge and training needs assessment studies of PHC and other health staff.

- Rapid Assessments and Client Service Use Surveys on a regular interval basis for programme monitoring around each intervention implemented.
- Assessment studies of the different institutional systems introduced in the health sector, such as functioning of PHCs, GMUs, CCCUs and NRCs.

In all the above studies rural areas need to be looked at separately.

There was also a strong felt need amongst counterparts that they participate in the studies, right from the designing stage as a means of their own capacity building and in building up a management information system.

There is a need to view all programmes within a programme framework derived from the mandate of UNICEF rather than from only an activity framework derived from the environmental context and implementation pressures. Reviewing UNICEF's programme from this perspective, the following specific programmes emerge.

- Infant and Early Childhood Health and Nutrition Programmes** – centred around immunisation, nutrition monitoring and supplement feeding, growth monitoring and referral system, diarrhoea control and other needs of healthy early childhood development.
- Safe Motherhood Programme** – centred around reproductive health and child spacing, care during pregnancy, neonatal care for mother and child, and safe delivery practices.
- Adolescent Girls Health** – centred around family education, preparation for reproductive health education for future life.

Currently within health and nutrition, predominantly the focus is on infant and early childhood programmes. However in the long term, if the impact on children's health has to be sustained, programmes around safe motherhood have to be made a complementary focus. A holistic safe motherhood programme needs to be designed for implementation as the next logical step for UNICEF. This process should start with a needs analysis of women's reproductive health issues in the Northern Iraq-Kurdish social context.

Adolescent Health is an emerging issue globally and within UNICEF's programming however it may not be feasible to design and implement a comprehensive programme around adolescent health in Northern Iraq immediately. However preparation for this long term agenda may be introduced through a single specific activity that addresses a specific health need of adolescent girls in Northern Iraq.

Along another programming dimension of delivery mechanisms, is the issue of designing a basic health services delivery cum access framework. Taking a PHC as the basic unit for health services, a blue print of the role of a PHC and extension of its services to its catchment community needs to be designed, as majority of the health and nutrition programmes are being routed through the PHCs.

The third programming dimension is that of the different programming strategies, particularly quality of services, training and capacity building and social mobilisation. In each certain specific steps need to be taken to improve effectiveness.

- quality of services – improvements in use of services by studying non-participation reasons related to quality of services (client surveys).
- training and capacity building – a comprehensive assessment of the training needs and institutional possibilities in each governorate.
- social mobilisation – designing more programme specific and contextually relevant strategies through analysis of KAP studies.

The above recommendations, albeit broad, attempts to cover the three dimensions of programme development: thematic based on client groups; institutional based on delivery systems; and strategic based on complementary inputs.

Reviewing the health and nutrition programme in Northern Iraq, certain policy issues need to be taken up at different levels. Recommendations around these issues centre around the following:

- Investment in a basic course in public health as preservice training be included in health sector programme parameters of UNICEF.
- Personnel costs that are programme specific and that are at the cutting edge of service delivery at the community level be treated as programme costs by UNICEF.
- Sector specific exposure trips to DOH functionaries to third world countries where health programming for rural areas is more advanced.
- Long term clearance, in terms of items to be imported, within a Master Plan of Operations (MPO) be taken up MPO wise, rather than itemwise.
- Disaggregated area based health planning and implementation be cleared as an approach to reach the most vulnerable by the local counterparts.

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Sector Review Report Northern Iraq Health and Nutrition

1. INTRODUCTION

1.1 Background of Programme Review exercise

Between 1990 to 2000, UNICEF supported Iraq through a number of short duration programmes, only routine stock taking was undertaken during this period, while this is understandable in light of the changing international, political and economic context of Iraq, a comprehensive review of UNICEF interventions during this period is necessary in order to gain lessons learned and to improve on future planning. Hence UNICEF has undertaken a review of its programme interventions in Iraq over the past decade.

1.2 Objectives of the Programme Review

The primary objectives of the programme review in the sector of health and nutrition of UNICEF supported programme in the three Northern governorates over the period 1990-2000 are to:

- a) Assess the relevance and effectiveness of UNICEF assisted interventions in health and nutrition, over the period 1990-2000;
- b) Assess the appropriateness of key UNICEF supported programming strategies with regards to the health and nutrition priority needs of women and children;
- c) Assess the effectiveness of UNICEF cooperation post-1996 in maximizing benefits for women and children;
- d) Distill the lessons learned from the above;
- e) Draw conclusions and recommendations for UNICEF's future role and interventions; and
- f) Based on the conclusions made from the review exercise, provide inputs to the new country programme of cooperation for the period 2002 to 2004.

1.3 Methodologies of the Programme Review

- a) **Desk review:** A review of UNICEF documents from 1990-2000 to gather information on UNICEF objectives, interventions, and achievements;
- b) **Participatory workshop:** Bringing together many key persons in the health and nutrition section from counterparts, UNICEF staff and other UN agencies to discuss relevance, effectiveness, and appropriateness of UNICEF interventions. The workshop was held August 9-10, 2000 in Erbil. The first day discussed the health programme and the second day discussed the nutrition programme. Participants included counterparts and UNICEF staff from the three governorates. Facilitation of the workshop was shared by UNICEF staff from Northern Iraq, Baghdad and Amman. As well, one senior consultant and one sectoral consultant participated. In total, 40 people attended the two day workshop and recommend future planning priorities;
- c) **Rapid Assessment:** Provide qualitative insights into the effectiveness of Community Child Care Units (CCCU) linked to child malnutrition.

2. HEALTH

2.1 Overview

From the mid-1970s until the Gulf War in 1991, the nutrition and health status of the Iraqi population was at a high level. A reasonable part of the country's development outlay was invested in the health programme, and other health related activities such as provision of potable water and acceptable sanitation, which resulted in the decline in the incidence of water born diseases and promotion of health and hygiene status. There were also investments in agricultural and food production with general improvement of the nutritional status of the population. Iraq was among one of the world's largest importers of medicine and medical supplies.

Up until the Gulf War, the Government of Iraq supported the health system in the three northern governorates. The health system was well established in terms of service delivery and presence of well trained staff. Although more emphasis was given to curative health services, good preventive health care services were provided to women and children. There were effective immunization, maternity health care, control of diarrhoea and school health programmes. All indicators of health and nutrition had improved for the two decades prior to the war and Iraq's situation was one of the best in the region.

The Gulf War led to massive destruction of the health infrastructure in Iraq. The socio-economic dimension of the UN sanctions imposed since 1991 resulted in widespread unemployment, which coupled with significant rises in the prices of basic commodities, caused increasing impoverishment at the household level with a considerable decline in child nutritional and health status. In Northern Iraq the inter-party conflict only exacerbated the grave situation.

The health status of the population declined following the conflicts of 1991. Much damage was caused to health facilities during these conflicts. Since 1991, health infrastructures have been in a continuous state of deterioration due to lack of resources from the local authorities to repair or even maintain facilities. Access to health services was reduced due to deterioration of facilities as well as absence of trained staff who left due to insecurity in the region. Also due to insecurity was the disruption of agricultural production and diminished food availability. There was a continuous increase in market food prices of basic food commodities with a dramatic deterioration of family purchasing power. Hence family food reserves and the capacity to sustain their normal caloric intake was seriously affected. People living in collective towns were unable to produce their own food, and other displaced people and poor urban dwellers were completely dependent on the World Food Programme's (WFP) limited assistance. In addition, local health authorities were not convinced of the need for supplementary feeding programmes in the health facilities as the focus was on acute malnutrition rates and did not include the more encompassing chronic malnutrition or underweight rates.

In May 1994, inter-party conflict between the Kurdish Democratic Party (PDK) and the Patriotic Union of Kurdistan (PUK) began. This conflict affected access to health care as well as household access to food. Due to the insecure situation, there were frequent changes of health personnel. Inter-party conflict continued throughout 1994-1996, reaching a peak between September and October 1996. Security negatively affected the implementation of primary health programmes. Many trained health staff left the area. Acute shortage of medical supplies, particularly life saving drugs and antibiotics restricted the functioning of hospitals and Primary Health Care Centers (PHCs) to the extent that medical supplies were used only for emergencies.

Since then there has been a general improvement in the economic condition. The local dinar has appreciated from a rate of US\$1:21 dinar in 1997 to a rate of US\$1:17.7 in 2000. In addition, the security situation has become relatively stable since 1997. The local economy has benefited from the United Nations Security Council Resolution 986 (SCR986) that was passed in December 1996 and began implementation in 1997. SCR986 allows the Government of Iraq to sell specified amounts of oil in exchange for humanitarian supplies. In

Northern Iraq, UN agencies implement the SCR986 programme. Since 1997, the health status of the population has improved as a result of the cumulative effect of improved household food security from improved rations and health inputs. Another contributing factor is the general rise in the economy level due to the higher flow of external financial resources.

The Child and Maternal Mortality Survey in 1999 revealed that both infant mortality and child mortality rates decreased in the 20 year period from 1979-1999. However both rates rose in the 1989-1994 period, indicating the declining health status of the population following the 1991 conflicts. For the three five-year periods of 1984-1989, 1989-1994, and 1994-1999, infant mortality rates are estimated to be 63, 71, and 58 per 1000 respectively. Under five child mortality rates for the same periods are 80, 89, and 71 respectively. Therefore, infant and child mortality rates have been declining since 1979, but this decline has not been continuous as both rates increased during the 1989-1994 period. It is difficult to attribute reasons for the decline between 1994 and 1999. However, it is clear that conflict, in whatever form, has a direct negative impact on children's health.

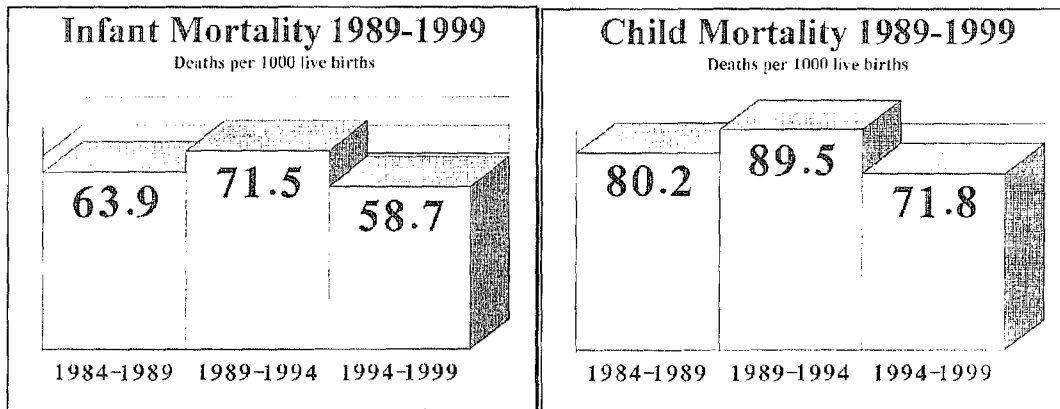


Figure 1: Child and Maternal Mortality Survey: Dohuk, Erbil, and Suleimaniyah, 1999

The health infrastructure survey conducted in 1999 revealed the current situation in the functional and physical status of the facilities in Northern Iraq. It was found that the number of Primary Health Centres (PHCs) has increased from 368 in 1997 to 496 in 1999. Out of the total number of PHCs in 1999, 468 or 94% are functioning. On average, each PHC covers an estimated catchment of 9,000 people. There are 152 immunization centres present in the North, representing 31% of all PHCs. Throughout the three northern governorates male doctors are available in 106 PHCs and female doctors in 62 PHCs. There is a total of 130 maternity care centres in the North as well as 221 ORT corners. The greatest obstacle to improving maternal care is access to services, especially for rural women, and availability of trained female staff.

2.2 Objectives

Since 1990 UNICEF has supported four health projects: basic health services; safe motherhood; Expanded Programme on Immunization (EPI) and polio eradication; and Control of Acute Respiratory Infections (ARI) and diarrhoeal diseases. The objectives of these projects are as follows:

- a) Increase access to basic health care through strengthening of the PHC system;
- b) Reduce national mortality and morbidity through universal access to pre, post, and antenatal care services and to promote safe delivery practices;
- c) Reduce the annual number of neonatal tetanus cases by increasing the Tetanus Toxoid (TT) coverage of women of child bearing age;
- d) Achieve and sustain 90% coverage of all under-one children of the six vaccine preventable diseases;

- e) Reduce measles mortality and morbidity;
- f) Eradicate poliomyelitis;
- g) Improve and standardise the identification and management of ARI and diarrhoeal diseases in order to reduce the morbidity and mortality of these diseases.

Key Programme Interventions and Trends

Throughout the ten-year period from 1990 – 2000, all UNICEF interventions in both health and nutrition were focussed on reducing infant, child, and maternal morbidity and mortality. Interventions in the health programme focussed on increasing access to primary health, promoting the Expanded Programme of Immunization (EPI) and polio eradication, increasing access to safe delivery and overall safe motherhood, and promoting standard case management of Acute Respiratory Infections and diarrhoeal diseases.

All interventions in the above areas have used a combination of service delivery, capacity building, and advocacy as a means to achieving the programme objectives and overall goal of reducing morbidity and mortality.

2.3 Basic Health Services

Throughout the decade, service delivery and capacity building have been the main strategies used in order to strengthen the PHC system. UNICEF has been working in Northern Iraq since 1983. From 1983 to 1992, this support was managed through the offices in Baghdad and later, Mosul. In 1992, UNICEF established a sub-office in Erbil. The opening of this sub-office facilitated UNICEF to intensify interventions in Northern Iraq.

Prior to SCR 986, UNICEF interventions focussed on the provision of basic essential drugs, equipment, supplies and kerosene to practically all PHCs across the North. These interventions were crucial to maintaining the health system at a minimally functional level as the local authorities had little resources to support the health system. **UNICEF was the major provider of basic essential drugs and medical supplies to Northern Iraq, procuring approximately 60% of all available drugs and equipment.** UNICEF also provided support to pediatric and maternity hospitals. From 1991-1994, UNICEF collaborated with Medicine Sans Frontiers (MSF) on the Allocation Committee to enable UNICEF supplies to reach "non government" areas, as UNICEF was unable to directly distribute supplies to areas controlled by PDK and PUK.

To improve drug supply management, UNICEF assisted the local administration in establishing a central warehouse in 1994 where almost all donated drugs and medical supplies were stored, inventoried and monitored. Pharmacists Sans Frontiers (PSF) and North West Medical Teams (NWMT) assisted with monitoring of the warehouse.

Between 1993-1996 UNICEF provided fuel and malathion to support the malaria control programme in cooperation with the World Health Organization (WHO). In 1994 and 1995 health staff were trained on diagnosis of malaria. In 1993 there were over 30,000 malaria cases reported. **As a result of UNICEF/WHO intervention, malaria has become an issue of limited concern.** In the year 2000, only 8 cases of malaria have been reported to date.

Since SCR986 UNICEF has continued to put priority on strengthening the PHC system. Interventions have focussed on the rehabilitation of PHCs and the provision of supplies and equipment, including dental and x-ray units in 1999. Since 1998, UNICEF has been distributing office furniture and office equipment to PHCs and DOH buildings and has rehabilitated 90 PHCs, including 20 that are currently undergoing rehabilitation. Essential drugs to handle cholera outbreaks have also been provided on an emergency basis.

In 1998 UNICEF cooperated with Peace Winds Japan (PWJ) and the International Islamic Relief Organization (IIRO) to improve the living condition of Internally Displaced Persons (IDPs) through the distribution of emergency supplies to more than 3,000 families.

UNICEF has also supported various mobile medical teams and cholera watch teams since 1993.

Since 1995 UNICEF has been developing the overall management capacity of local health staff. Staff have been trained on disease surveillance and in 1996 disease surveillance teams were established. Since 1998 local health directorate staff have been trained on data collection, analysis, and computers. There has been an improvement in disease surveillance and health information systems as a result of UNICEF cooperation, however it is clear these systems still need further strengthening. From the participatory workshop it was pointed out in all discussion groups that there is a lack of routine data collection, trend analysis and administrative monitoring. To change this situation, institutional investment and further training is required.

Health education messages have been promoted through the mass media using radio, television, posters and a Kurdish translation of the Facts for Life publication since 1993.

Two health infrastructure surveys in 1998 and 1999 and the Multiple Indicator Cluster Survey (MICS) in 1996 were supported by UNICEF. The PHC survey in 1998 highlighted that attention needs to be given to improve the health infrastructure environment and further develop the capacity of service providers through training. The PHC survey in 1999 again highlighted the need for infrastructure improvement as nearly 75% of PHC buildings required renovation.

Equipping the PHC system through infrastructure, basic supplies and equipment has been the basic thrust of this programme since 1991. While coverage of this strategy has expanded over the years, UNICEF has also started increasingly focussing on training the staff of the PHCs on various technical parameters of the health and nutrition programme.

This programme highlights the importance of investing in such a dispersed health system as a key institutional mechanism for delivering health services to both rural and urban populations. UNICEF's experience has also highlighted the need to support rehabilitation of infrastructure and supply support with technical assistance in the form of training and knowledge to health system staff.

2.4 Safe Motherhood

UNICEF provided three strategic inputs: training and kits to Traditional Birth Attendants (TBAs) (as over 50% of births are estimated to be outside the formal health system); expanding and strengthening maternal and child care units within the PHCs; and Tetanus Toxoid (TT) immunisation to pregnant women.

Since 1991, UNICEF's support to safe motherhood has focussed on improving pre, post, and antenatal care for women. A main focus in the programme has been strengthening the Traditional Birth Attendant (TBA) system as a means to improving safe delivery practices through training of new TBAs which began in 1992 as well as refresher courses to previously trained TBAs. TBA training has also been supported by AMI and Dutch Consortium, in collaboration with UNICEF, in certain areas. UNICEF has distributed TBA kits and supplies and equipment to maternity units on an annual basis since 1991. In addition, UNICEF has been training maternal care health staff since 1995.

Surveys were undertaken in 1993 to determine the number of practicing but untrained TBAs. More than 60% of the TBAs in the North have been trained.

During 1995-1996, to strengthen antenatal care and nutritional status of women, UNICEF provided food rations to pregnant and lactating women in co-operation with ECHO, a programme that also included training for health staff.

As a part of the EPI programme, UNICEF has conducted various Tetanus Toxoid (TT) campaigns since 1994 (except for 1997), although not all campaigns have been for all areas or all rounds. In 1994 mobile vaccination teams were introduced in order to increase the coverage of isolated rural communities.

Orientation sessions involving community and religious leaders, teachers, community groups and women's union members have been organised throughout the decade as a means of promoting safe delivery practices by encouraging mothers to deliver in hospitals or under supervision of trained TBAs.

UNICEF succeeded in promoting clean delivery practices through ensuring the presence of skilled birth attendants at birth (by training Maternal Child Health Care (MCHC) staff, TBAs and midwives), especially in remote areas. This coupled with TT immunisation led to a decrease in reported maternal neonatal tetanus (MNT) and a decrease in the maternal mortality rate.

Responses from the participatory workshop found that before SCR986, UNICEF interventions were most helpful in training of TBAs, supplying essential drugs, supporting TT immunisation and other routine services.

Participants felt that the current priority should be on improving social mobilisation and community participation. Other priorities are for increasing TT coverage rates and further improving institutional service delivery and training.

The PHC surveys in both 1998 and 1999 recommended that effort needs to be made to expand maternal care services to provide prenatal and postnatal care services to as many women as possible. In 1999, only 28% (130 out of 468) of PHCs had maternity care services throughout the North. The 1999 PHC survey found that only 62 out of 468 functioning PHCs (13%) have female doctors available.

2.5 Expanded Program of Immunization and Polio Eradication

Throughout the decade, service delivery, capacity building and advocacy have been the main strategies used to work towards achieving universal immunization of children. UNICEF has been supporting the immunization programme since 1991 when the EPI programme was re-established following the conflicts. Mobile teams in collaboration with NGOs were established to conduct EPI acceleration weeks and cover rural areas from 1991-1993, which were actively promoted by local Kurdish radio. Support to mobile teams to cover rural areas without PHCs has continued and expanded throughout the decade in cooperation with Qandil.

UNICEF has been the largest supporter of the EPI programme since 1991. UNICEF was the sole supplier of EPI vaccines and cold chain equipment before the SCR986 programme. Since 1991, UNICEF has been providing vaccines, syringes, needles as well as annual training to health staff and master trainers on immunization. And although under SCR986 the vaccines are procured by the Government of Iraq UNICEF facilitates the transportation of the vaccines to the North.

UNICEF has been supporting the cold chain system through the provision of equipment, including kerosene, gas, and solar refrigerators and recently generators as well as through training on cold chain maintenance and repair and printing of temperature charts. Vehicles were provided in 1996 and 1999 to strengthen EPI monitoring teams.

Since 1996, UNICEF and WHO have been coordinating efforts to improve Acute Flaccid Paralysis (AFP) surveillance. UNICEF has supported the Directorates of Health (DOHs) in following up suspected AFP cases by having stool samples tested in Baghdad.

Within the EPI programme, UNICEF carried out many training sessions for health staff on immunization and cold chain maintenance. To update the skills of health staff on immunisation, several training programmes have been held. In May 1998 a Regional Workshop on Immunization was conducted. Seven EPI national managers were trained on how to plan and conduct immunization sessions, how to monitor immunization activities, how to monitor the cold chain, how to conduct disease surveillance and how to promote immunization activities in the community. This was followed by training courses for vaccinators on immunization skills and monitoring Vaccine Vial Monitor (VVM).

Immunization rates for under-one children have improved since 1993 based on information from 30-cluster surveys carried out in 1993, 1994, 1995, 1997, and 1999 as well as from the Multiple Indicator Cluster Survey (MICS) conducted in 1996. The rate of fully immunized children has risen from 24.1% in 1993 to 42.0% in 1999. Measles coverage has risen from 36.0% in 1993 to 61.3% in 1999. DPT/OPV3⁷ coverage has also risen from 45.0% in 1993 to 70.3% in 1999. BCG⁸ showed steady coverage from 1993 to 1997 with a drop in 1998, due to the shortage of BCG caused by irregular flow of vaccines. The BCG coverage in 1993, 1997, and 1999 was 92.9%, 93.4%, and 77.3% respectively. Immunization coverage rates are shown below. (It should be noted that all coverage rates are from surveys and reflect the actual coverage of the previous year.)

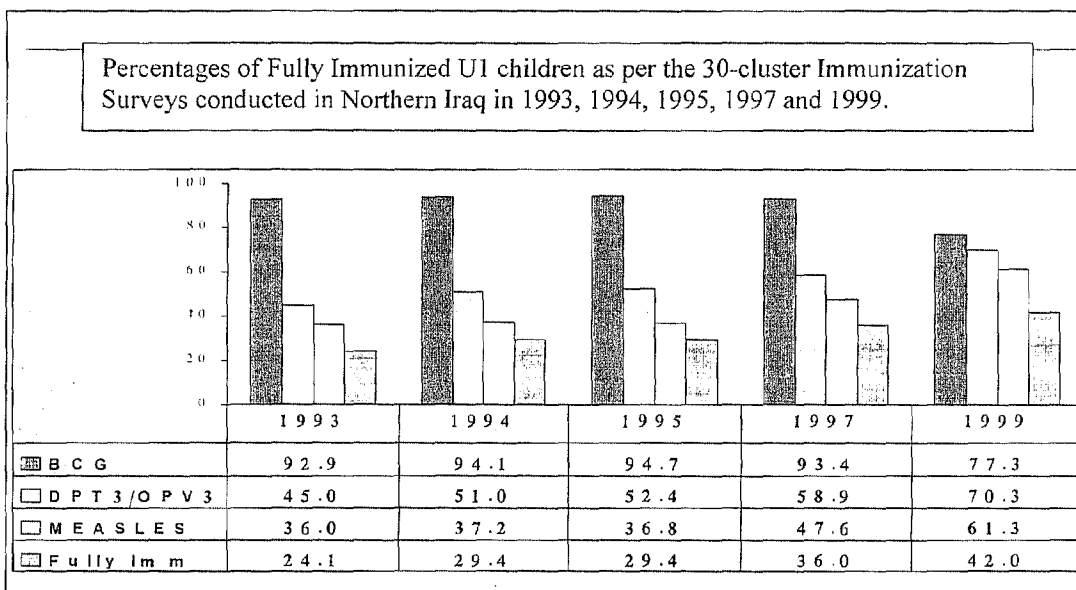


Figure 2: Immunization surveys, 1993-1999.

Tetanus Toxoid (TT) immunization coverage for pregnant women has generally remained low throughout the 1990s, even showing a slight decline from 1993. In 1993 TT2 coverage was 43.4%.⁹ In 1999, TT coverage was 34%.¹⁰

The number of known poliomyelitis cases has declined from a high of 32 in 1991¹¹ to zero in 1999. In 1993, 24 cases were reported. In 1994 two cases were reported, in 1995 and 1996 one case was reported each year, no case was reported in 1997 and only one case was reported in 1998.¹²

In Northern Iraq, a measles epidemic occurs around every five years; there was a measles epidemic in 1993 after which reported measles cases decreased to a low of 17 in 1995.¹³ In 1998, 5 years after the epidemic in 1993, there was another outbreak. After which reported cases fell in 1999 and 2000. The estimated coverage of measles immunisation is around 70% in the region. To avoid measles epidemics, the measles immunisation coverage for children under one should reach at least 90%. To achieve this UNICEF in coordination with Directorates of Health (DOH) held a measles catch-up campaign in September 2000.

UNICEF has been the main supporter of Polio National Immunization Days (PNIDs) and mopping up campaigns as we work towards eradicating the wild poliomyelitis virus. Since 1995, UNICEF has supported annual campaigns including supply of vaccine, mobilizing and training vaccinators, supporting mass media campaign as well as recently supporting mobile teams to implement a house-to-house campaign. Campaigns are conducted with the cooperation of WHO and include provision of all vaccines and supplies as well as training to vaccinators. All campaigns are conducted with mass media support through radio, television, and posters.

Coverage from PNID campaigns (first round) have increased from 71.5% in 1995 to almost 100% in 1999. Mopping up campaigns (first round) have also increased from 59% in 1997 to 99.2% in 1999. (It should be noted that coverage figures for PNIDs are based on how many children are immunized during the campaign compared to targets set based on the estimated population of under-five children. Coverage figures are imprecise because sometimes children over the age of five are immunized but more importantly, accurate target figures can not be set without accurate population data. Currently, WFP population estimates are used, which tend to overestimate the population).

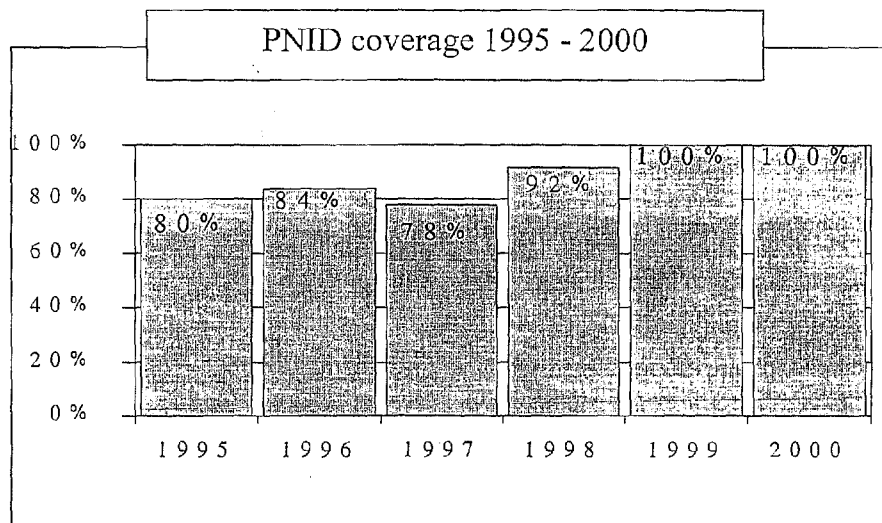


Figure 3: Polio National Immunization Days coverage, 1995-2000, UNICEF Iraq.

Other immunization campaigns that UNICEF has supported include: Measles Plus in 1992, Measles, Mumps, Rubella (MMR) in 1998 and 1999, wide scale immunisation campaigns in 1994 and 1997 and Catch-up campaigns along dividing lines between the two factional parties in 1994-1996. As well as initiating the Days of Tranquility in partnership with Olympic Aid (1996) where UNICEF supported peace talks between PDK and PUK and arranged a three day ceasefire to immunize along the dividing lines between the two parties.

Immunization awareness campaigns have been ongoing throughout the decade, with a focus on polio and measles, and include many radio and television spots as well as printing of thousands of posters and polio/immunization cards as well as distribution of the Kurdish Facts for Life. In 1993 the EPI schedule was printed on the back of kerosene coupons reaching 565,000 families. Awareness has also been promoted through orientation meetings on immunization and health matters with political, religious and women leaders.

UNICEF has provided major support to efforts to increase public awareness on the advantage of immunisation through activities such as advocacy meetings with community leaders, television and radio programmes and spots, and printing thousands of posters and leaflets.

UNICEF has supported immunization coverage surveys in 1993, 1994, 1995, 1997, and 1999 as well as the MICS survey in 1996. In addition a KAP EPI survey was supported in 1994 and 1997.

The KAP (Knowledge, Attitude, and Practice) EPI survey was conducted in 1994 in order to highlight reasons for immunization failure. It was found that some mothers are clearly aware of the need to immunize their children and adhere to the immunization schedule, many however, either do not know about immunization, the schedule of immunization or do not understand why immunization is important.

The EPI coverage survey in 1999 also looked at reasons for immunization failure. Amongst the major reasons were lack of vaccines, place of immunization was too far and the mother was unaware of the need for immunization, which were universal for each of the three governorates. Many mothers' responses revealed that the child was not immunized because the child was ill and not brought to the health centre, the mother was too busy or the mother was unaware that the child needed to return for a second dose. Although 1999 witnessed some shortage of vaccines, particularly BCG, all of the other above mentioned reasons of failure to immunize can be corrected through future community awareness and social mobilization activities.

Both the PHC survey and EPI coverage surveys in 1999 pointed out that the number of immunization centres offering regular immunization services need to be increased as a way to improve coverage rates. Particular attention needs to be paid to properly maintaining the cold chain system and improving monitoring of temperature charts. Currently 69% of immunization centres are not offering regular immunization services. There are 152 immunization centres present in the North, showing that only 31% (152 out of 496) of PHCs are providing regular immunization services to the community.

This programme has been the most successful of all the health programmes during the decade, as clearly shown by the trends in immunization coverage. This impact was achieved in spite of several constraints like the inter-party conflict, complex supply management problems caused by delays in supplies and mismatch of supplies such as syringes not matching vaccine supplies caused by the sanction procedures, and lack of technical knowledge of local staff on managing immunization programmes. Cold chain management systems had to be re-established, vaccines and syringes imported from different countries and the local communities socially mobilized to immunize their children. UNICEF has successfully managed and implemented this programme year after year.

2.6 Standard Case Management of ARI and Diarrhoeal diseases

ARI, or Acute Respiratory Infection, is a major killer of children under-five. CDD refers to the Control of Diarrhoeal Diseases. Throughout the decade, UNICEF has used service delivery, capacity building and advocacy as strategies to work towards this goal.

UNICEF support to the control of Acute Respiratory Infections (ARI) and diarrhoea has focussed on the distribution of supplies and drugs as well as training to health staff. Since 1991 UNICEF has been distributing Oral Rehydration Salts (ORS) as well as essential drugs (including intravenous fluid (IVF) and related laboratory supplies and nebulizers. UNICEF has been supporting ORT corners (replenishing and establishing new ones) since 1991. Currently there are 221 ORT corners across the three governorates.

UNICEF has also been instrumental in providing emergency assistance during cholera outbreaks in 1991, 1995 and 1999. Support to water inspection and cholera watch teams has been ongoing since 1993, with WHO cooperation since 1998. In late 1995, the most serious outbreak of cholera occurred in Suleimaniyah governorate and if it was not for the immediate and active intervention of different UN agencies and NGOs including UNICEF, ECHO and WHO, fatality rates would have been high.

Training of health staff on improved case management and identification of ARI and diarrhoeal diseases has been ongoing since 1993. Training on identification of cholera has been included. TBA training also includes topics of ARI and diarrhoeal diseases identification and control.

To effectively manage the efforts to control ARI and diarrhoea, CDD and ARI programmes were integrated. A regional workshop was organised for managers of national CDD/ARI programmes in 1998. A national programme policy was set, programme objectives were defined, and the participants were trained on how to monitor and evaluate the programme effectively. A series of training courses, on control and proper management of diarrhoeal diseases followed this, for the health workers in the primary health facilities in the three northern governorates.

Public education and awareness campaigns on diarrhoea, ORS, cholera and ARI have received much support from UNICEF since 1993. Campaigns have used radio, television, posters, pamphlets, and stickers to educate people about safe hygiene practices and awareness of ARI. ARI and diarrhoea home management posters and flip charts for PHCs have been printed. There have also been awareness orientation sessions to teachers and religious and community leaders to raise awareness about the identification and management of diarrhoea/cholera and ARI. In addition, KAP surveys on ARI and CDD were conducted in 1994 and 1997.

Case management of diarrhoea shifted from an emphasis on drug therapy to promotion of ORS. UNICEF has consistently supported ORS through training of staff on how to treat diarrhoea with ORS as well as support to revitalised and newly established ORT corners. UNICEF has also supported mass media promotion of ORS. The Health and Nutrition KAP survey in November 1997 revealed that 97% of mothers interviewed knew about ORS which is an indicator that health staff are promoting ORS since 90.5% of mothers indicated that doctors or other health staff taught them how to mix ORS.

Diarrhoea and Acute Respiratory Infections (ARI) represent the main causes of morbidity and mortality of under-five children. Both ARI and diarrhoea are caused by or exacerbated by risk factors such as crowded living conditions, poor quality of water, poor nutrition and reduced breastfeeding rates for infants.

Worsening environmental conditions following the 1991 uprising and high levels of malnutrition can be considered contributing factors to high ARI and diarrhoea levels. A considerable proportion of medical professionals in 1993/4 advocated the use of antidiarrhoeals and antibiotics instead of Oral Rehydration Therapy (ORT). Drug abuse regarding ARI and poor compliance of health personnel with the ARI control programme was a constraint faced by the ARI programme. Other constraints faced were the lack of qualified trainers, inadequate monitoring due to lack of personnel and transport, high levels of malnutrition, overcrowded housing conditions, and shortages of fuel in the winter. Increased prevalence of bottle feeding may also be a contributing factor to the high prevalence of diarrhoea.

Discerning trends in the prevalence of ARI and diarrhoea since 1990 is very difficult given the lack of reliable and consistent data. Figures available are only for reported cases and do not necessarily give a realistic view of the actual situation for the population. For example, data from the Directorates of Health (DOH) show that the number of hospitalized under-five ARI cases in 1993 was 12,277 with 757 deaths. In 1995 and 1996 the number of hospitalized cases were 3,705 and 3,192 respectively. In 1997 the numbers rise drastically to 47,192 with 443 deaths.

Describing the trend of the prevalence of diarrhoea is similarly a difficult task due to lack of complete data. However, it can be said that under-five deaths due to diarrhoea reached a peak in 1996 and have declined since. DOH reported deaths due to diarrhoea for the years 1993-1997 are as follows; 48, 44, 120, 528, and 341.

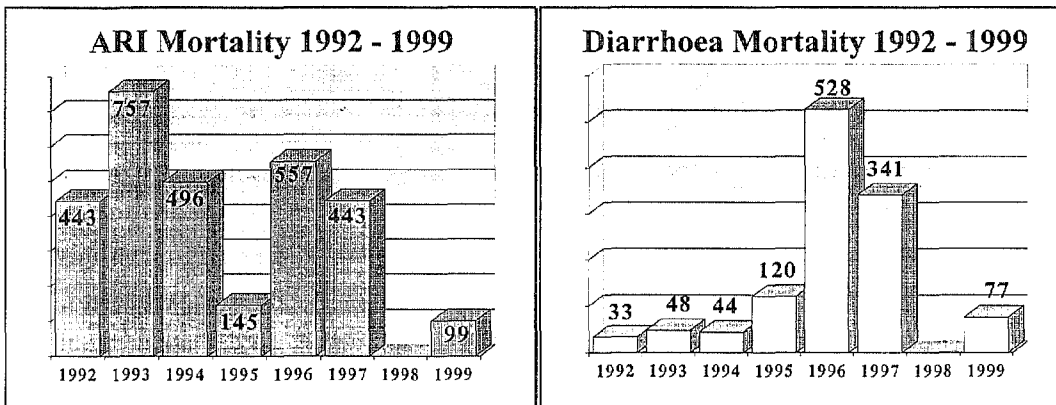


Figure 4: ARI and diarrhoea reported mortality for under-five children 1992-1999. Data collected from Directorates of Health, three governorates.

2.7 Lessons Learned

Technical assistance and capacity building by UNICEF has become a critical input over time to sustaining the **basic health services** in different emerging scenarios. Within training, disease surveillance and diagnosis knowledge has been an important component which has had a positive feedback from all participants as it enhances the health system's capacity to anticipate and react quickly to different kinds of epidemics. Training has also emerged as a consistent felt need by all programme groups in the sectoral workshop organized by UNICEF.

On the negative side, there is still much more to be achieved, both in terms of coverage and quality of health services. There continues to be a consistent demand for rehabilitation and supplies from the health system, especially in those areas where PHCs have not been rehabilitated. The extent to which this would be feasible would obviously be determined by both future resource flows and the wider emerging scenarios of sanctions and international aid. One of the lessons learned has been the difficulties in getting matching supplies in a comprehensive manner to equip a PHC fully. There have been problems at two levels. Firstly, source, timing and flow of supplies have been uneven often with the result that equipment and medicines lie unused because their complementary inputs have not arrived. Supply chain management and inventory systems need to be streamlined and prioritized further, now that knowledge on time lags, quantities, priorities and problems in importing goods are known. Better planning of supplies at all levels could be an essential part of much an exercise.

Secondly, supplies have often been incrementally planned product wise rather than PHC wise. This has been both because of the emergency situation, as well as the short six month cycle of funds, which allowed for little planning. What a typical PHC should have in terms of a practical blueprint would be an alternative mechanism in unit based planning. An individual PHC would form the basic unit for supply and health service planning. Enhanced coverage would then be PHC wise rather than product wise. Prioritizing PHCs to be covered for rehabilitation would then automatically lead to planning supplies for them. This would also help shift prioritization from a 'product' basis to an 'area' basis and help UNICEF to serve in a more focussed manner the remoter areas.

Quality of services has two dimensions in respect to health. First is the supply of the service along certain quality norms. Second is the access to such services to more vulnerable groups. In an emergency situation and an environment where the health sector's human resource capacity has been badly depleted, quality norms are neither easy to set nor adhere to. In spite of this there has been general agreement that the quality of services provided to clients coming to the PHCs has been satisfactory. The technical training provided by UNICEF has been an important contributor to this, as training, while being technical in content, have a behavioural component and motivates the staff to perform better. Quality of services is also a function of the incentive systems available to the PHC staff. Being underpaid, there are

persistent requests from the local authorities to UNICEF to meet some part of the human resource costs of the PHC. However, this seems beyond the existing rules of UNICEF. In as much as quality of services in health depend both on technical knowledge and client oriented behaviour, a more comprehensive training package would be the short term part solution that UNICEF can offer.

The second issue is that of access to such services. Both the studies and rapid assessment has raised the issue of access to health services for women and in remote areas. The PHC system is constrained in having limited female staff who are more accessible to women having obstetric or gynecological related problems. If the basic health programme of UNICEF has to address the needs of women's health it is critical that an institution system exists that is easily accessible to women. In the remoter areas, largely rural, distance from the PHC negates the access that the population can have to a specific PHC. In such a context having an effective referral system right from the village level to the PHC and beyond is critical.

Access issues, especially around women's health needs, and specific remoter rural areas need to be addressed by UNICEF in their future programming. Quality of service issues can only be addressed directly by UNICEF in a limited way, through more comprehensive and behaviour based training programmes, as related issues of quality of services such as staff incentive systems are beyond its purview at present.

The experience of UNICEF in this programme also shows that the **safe motherhood programme** has yet to be designed within a comprehensive programme framework to meet all the needs of pregnant women and new mothers. Efforts have been focussed only on specific elements of safe motherhood, because of which the impact has been diluted. This was restressed in the participatory workshop where counterparts desired programmes in health for women, in addition to children. A more comprehensive programme around safe motherhood would also help to explicitly introduce gender issues such as reproductive health choices within UNICEF's work. It therefore seems timely that UNICEF works towards developing a programme design and implementation strategy around a more comprehensive safe motherhood programme.

Care and immunization of pregnant women continues to be an area of concern as shown by Tetanus Toxoid immunization coverage remaining low and neonatal mortality not showing any decline over the decade. Reproductive health care and services for women seems to be an emerging focus of concern.

In the case of the **immunization programme**, the lessons revolve more around programme implementation issues in a complex and constrained environment, rather than programme content or design issues. Because supplies is a policy issue in the context of sanctions, it may be necessary to take some of these constraining issues faced during the immunization programme to the sanctions committee in a comprehensive form. The challenge for UNICEF is to maintain the immunization coverage level from year to year.

Experience shows that a focussed strategy implemented in a campaign mode can be highly successful to eliminate major diseases that can affect children critically. The trend also shows that year by year the coverage has expanded and it was clear from the workshop participants that immunization is one programme where UNICEF has been able to transfer ownership and capacity to local counterparts.

The KAP surveys also show that there is still a need for further social mobilization, so that all mothers and families realize the criticality of immunizing their children.

An important contribution of UNICEF to **Standard Case Management of ARI and Diarrhoea** has been the shift in emphasis that has occurred from drug therapy to ORS as a more effective, localized and low cost method of controlling diarrhoea. Another important contribution has been the effective linking up of this issue with safe drinking water and hygiene factors by the water and sanitation sector within UNICEF. It provides a lesson that cross sectoral coordination is best achieved around very specific issues that are naturally interlinked.

The successful implementation of the programme also restresses the importance of the local public health delivery system using the programme. ORS, using simple technology and having lower costs, provided the opportunity to local health systems to easily adopt ORS and has made the programme more sustainable. The need now is to have a simple but regular monitoring system that both monitors incidence of diarrhoea among children and ORS use on a regular basis to ensure that the success is sustained.

3. NUTRITION

3.1 Objectives

Since 1990 UNICEF has made key programme interventions in three projects: control of malnutrition; promotion of exclusive breastfeeding; and control of micronutrient deficiencies. The objectives of these projects are as follows:

- a) To reduce the prevalence of malnutrition in under five children through the promotion of regular growth monitoring and rehabilitation of malnourished children.
- b) To increase the level of exclusive breastfeeding in children under six months of age and promote Baby Friendly Hospital Initiative.
- c) To reduce prevalence of micro-nutrient deficiencies, specifically iodine, Vitamin A and iron deficiencies.

Key Programme Interventions and Trends

Throughout the ten-year period from 1990 – 2000, all UNICEF interventions in both health and nutrition were focussed on reducing infant, child, and maternal morbidity and mortality. Interventions in the nutrition programme focussed on controlling malnutrition, promoting breastfeeding, and controlling micronutrient deficiencies

All interventions in the above areas have used a combination of service delivery, capacity building, and advocacy as a means to achieving the programme objectives and overall goal of reducing morbidity and mortality.

3.2 Control of Malnutrition

Starting in 1991 with the distribution of High Protein Biscuits (HPBs), the supplementary and therapeutic feeding programmes have gradually increased their support and coverage. With the cooperation of Non-Governmental Organizations (NGOs), food rations were distributed in 1992. Therapeutic Feeding Centres (TFCs) in several hospitals were established in 1993 to treat severely malnourished children. In 1994 a supplementary feeding programme was set up with the cooperation of WFP to treat moderately malnourished children. From 1994 to 2000 UNICEF has supported supplementary and therapeutic feeding programmes with the distribution of supplies and equipment to TFCs and Nutrition Rehabilitation Centres (NRCs). Up until 1995, the therapeutic feeding programme included KMIX or Unimix and vegetable oil. In 1997, Therapeutic Milk Powder (TMP) was introduced. High Protein Biscuits (HPBs) have been distributed throughout the period.

UNICEF has been supporting growth monitoring of under-five children since 1991 when a few Growth Monitoring Units (GMUs) were established with the cooperation of NGOs. Starting in 1994, UNICEF has been training health staff on principles of infant and child malnutrition and procedures in growth monitoring. Training of staff has continued up to 2000 and includes not only health staff, but women's union members, primary school teachers and village volunteers.

After 1996, UNICEF increased the emphasis of screening children and therefore focussed interventions in expanding and strengthening the GMU system. Mobile monitoring teams were introduced in 1997 to supervise monitoring activities at the GMUs. Through the provision of supplies and equipment and training of staff, the number of GMUs has expanded from 61 before 1997 to 315 in 2000. GMUs are now an institutionalized aspect of the primary health system performing the screening and referral of under-five children.

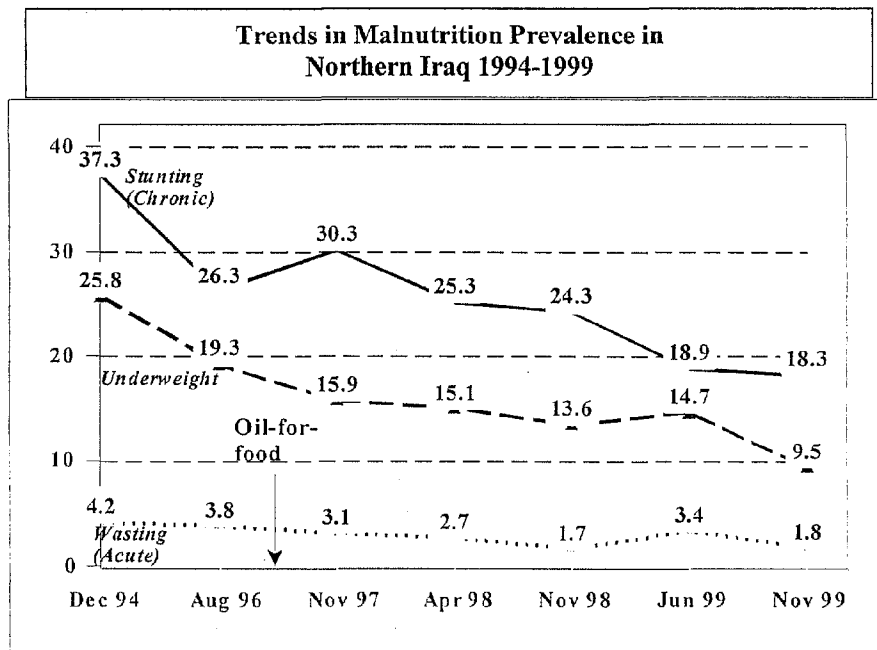
In order to further intensify growth monitoring activities and to reach rural isolated

communities, UNICEF has supported Community Child Care Units (CCCU) since 1997. CCCUs are a community based approach whereby one or two volunteers from a village are trained by UNICEF to provide routine growth monitoring of under-five children, refer malnourished children to PHCs for treatment, and to provide health and nutrition information to the community. Support to CCCUs includes provision of basic growth monitoring equipment and training of village volunteers. Currently in 2000 there are 238 CCCUs across the three governorates.

Overall, approximately 70,000 under-five children are screened monthly through GMUs and CCCUs. Of this number, 8,000 children are severely or moderately malnourished and receive feeding items at PHCs and NRCs with the cooperation of WFP. For comparison, in 1994, 4400 moderately and severely malnourished children were treated per month, although the malnutrition rates were higher in 1994 than in 2000. Through the therapeutic and supplementary feeding programmes, a total of 45,000 severely malnourished and 135,000 moderately malnourished have been treated between 1997 and July 2000. UNICEF and DOH's targeted nutrition programme coupled with WFP ration distribution and screening of more children in rural and vulnerable communities through GMUs and CCCUs have contributed to improvements in the nutritional status of children and women.

In order to assess the nutritional status of children, UNICEF has been supporting surveys since 1991. Although small scale in 1991 and 1992, beginning in 1993, UNICEF has supported 30-cluster surveys across the three governorates. Surveys were carried out in 1994, 1997, 1998(2), 1999(2), and one so far in 2000. MICS was carried out in 1996 and included assessment of child nutrition. The surveys have been used as a capacity building tool for local authorities as well as an advocacy tool in addressing malnutrition. As a result of the second survey in 1998 which revealed high levels of underweight children, the criteria for enrolling children in the feeding programme was changed from weight for height to weight for age, beginning in May 1999. This new criteria enabled more children to be enrolled in the programme. It was pointed out in the participatory workshop that the nutritional surveys have been a key advocacy tool for showing the international community the seriousness of the malnutrition problem in Northern Iraq. In addition, the surveys contributed to convincing the local authorities that malnutrition of children is a priority issue that needs to be addressed.

The household nutrition status survey of December 1994 revealed a high prevalence of malnutrition in Northern Iraq with 37.3% of children suffering from chronic malnutrition, 25.8% underweight, and 4.2% acute malnourished. Since 1994, there has been a general improvement in the overall nutritional situation. However, the survey in June 1999 showed an increased prevalence of underweight (13.6% to 14.7%) and acute malnourished children (1.7% to 3.4%) from the November 1998 survey although chronic malnutrition continued to decline in the same period from 24.3% to 18.9%. The nutritional status survey of November 1999 indicated a prevalence of 18.3% chronic malnourished, 9.5% underweight and 1.8% acute malnourished. The trend in malnutrition rates is illustrated below.



Prevalence of stunting (chronic malnutrition), underweight and wasting (acute malnutrition) based on <- 2SD of reference WHO criteria. NOTE all were household surveys except April 1998, based in Primary Health Centres.

Figure 5: Malnutrition rates for under-five children from nutrition surveys (except April 1998) 1994-1999.

Workshop participants noted that future studies should focus on feeding practices and on the missed out groups from the CCCUs to PHCs/NRCs. Also important would be studies on children who have been discharged from GMUs after rehabilitation and on the "why aspect" of why mothers do not bring their children for regular growth monitoring. Regarding CCCUs it is useful to have KAP studies in villages having CCCUs to evaluate villagers ideas about the unit and growth monitoring as well as mothers' knowledge and practice regarding health and nutrition. Also needed are studies on the nutritional status of mothers and children and information on how best to establish the nutrition surveillance system.

3.3 Promotion of Exclusive Breastfeeding

UNICEF's goal is to increase the level of exclusive breastfeeding in children under six months of age. Part of this goal includes the promotion of the Baby Friendly Hospital Initiative (BFHI). Since 1994 UNICEF has been promoting exclusive breastfeeding through advocacy and capacity building strategies as well as service delivery to promote BFHI.

Exclusive breastfeeding for infants under six months, is a very important preventive technique for maintaining healthy children. Breast milk provides essential nutrients to infants at the age when they are least resistant to infections and most need the nurture and nutrition from breastfeeding. Breast milk not only provides essential nutrition for healthy growth but is a first line of prevention against diarrhoea, especially when water quality is poor.

Since 1993, UNICEF has been supporting information and communication activities to promote exclusive breastfeeding. Campaigns have used posters, radio dramas, pamphlets and television spots as a means to create awareness. Breastfeeding Week has been supported by UNICEF most years with media campaigns and orientation sessions for women's union members and religious leaders. In 1995-1996 Qandil helped to promote Breastfeeding Week.

Since 1996 UNICEF has been working with maternity hospitals to promote the Baby Friendly Hospital Initiative (BFHI). Distribution of supplies and equipment and rehabilitation of three maternity units have helped in making progress towards BFHI certification. Recently ambulances were distributed to maternity units.

Also since 1996 UNICEF has been training health staff on breastfeeding. Incorporation of information on breastfeeding and appropriate weaning in Traditional Birth Attendant (TBA) training began in 1994.

The nutrition survey in 1999 identified an urgent need to continue advocacy to increase complementary foods in the monthly food ration with a corresponding reduction in infant formula as well as to continue the promotion of exclusive breastfeeding in young infants.

The KAP survey in 1997 made a recommendation to improve infant feeding practices as well as to improve communication and mobilization strategies to improve feeding practices. The nutrition survey in April 1998 reiterated these recommendations of improving infant feeding practices and increasing community participation and improve communication and mobilization strategies in feeding practices. The nutrition survey in November 1998 specifically recommended education campaigns to promote breastfeeding.

Although malnutrition rates are decreasing, there has been a marked increase in the use of infant formula which negatively affects infant nutrition, and efforts to control diarrhoea. Prior to 1991, infant formula was available, but was not distributed freely. After 1991, infant formula was distributed freely especially by non-governmental organizations (NGOs). This distribution by NGOs was for targeted vulnerable groups and not a blanket distribution to all families. As the overall economic situation declined for the population, the use of infant formula increased because families accepted any kind of additional food to their diet. Furthermore, as a mother's nutrition declined mother's often believed that they were unfit to breastfeed their infants. Since 1997, the WFP food ration for the entire population of under-one children has included infant formula. The current amount of infant formula is eight tins per month per infant.

Nutritional surveys since 1993 reveal decreasing breastfeeding rates coupled with increasing bottle feeding rates. For example, in 1993-1996, the average rate of breastfeeding in 0-5 month old infants was 52.9% (4 surveys). In the years 1997-1999, the average breastfeeding rate for 0-5 month olds becomes 25.4% (5 surveys). Furthermore, the nutrition and MICS surveys in 1996 indicate bottle feeding for under-one infants to be 37% and 29.4% respectively. The latest nutrition survey in November 1999 indicates a rate of 56.0% for under-one infants. However it should be noted that measuring breastfeeding and bottle feeding rates is very imprecise and measuring exclusive breastfeeding rates is especially difficult. The promotion of breastfeeding was constrained in the past by the lack of commitment and interest from medical professionals and decision-makers as they were considering other problems as their priorities.

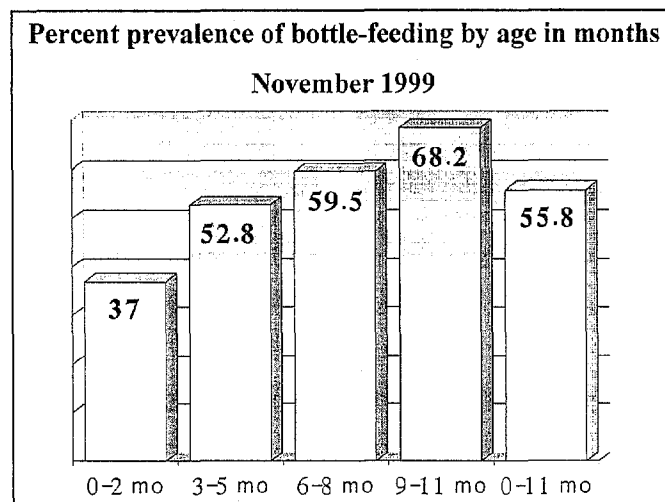


Figure 6: Bottle-feeding prevalence. Nutritional Status of Children Survey, November 1999.

3.4 Control of Micronutrient Deficiencies

UNICEF's overall goal is to reduce the prevalence of micronutrient deficiencies; specifically iodine, Vitamin A and iron deficiencies.

Since 1991 UNICEF has been addressing micronutrient deficiencies through the distribution of micronutrient supplements to vulnerable groups. UNICEF has focussed on Vitamin A deficiency in children, iron deficiency in pregnant women, and iodine deficiency in the population as a whole. The provision of emergency basic health kits (1991-1994) containing essential supplies to health centres included micronutrients (folic acid, ascorbic acid, and retinol).

The policy of Vitamin A supplementation to all children receiving their measles vaccine at 9 months of age and the DPT/OPV3 booster dose at 18 months was incorporated into the vaccination programme in 1993. Vitamin A was also supplemented to hospitalized measles cases. Lipiodol capsules have been distributed to women in Dohuk during Tetanus Toxoid (TT) campaigns. In 1999 37% of children under-two received one dose of Vitamin A and 51% of children between two and five years received one dose of Vitamin A.¹⁴ Iron and folic supplements have been distributed to pregnant women since 1993.

A goitre survey in 1994 supported by UNICEF revealed that goitre, as an indicator of iodine deficiency, is a problem in the area, with 42.8% of primary age children showing signs of goitre.¹⁵ To address the iodine problem, UNICEF supported media campaigns using television and radio spots as well as posters to raise awareness on the importance of iodine and using iodized salt. Due to the fact that iodized salt was not readily available in the North, in 1996 UNICEF established three iodization plants and has been supporting these plants until the present day with the provision of potassium iodate.

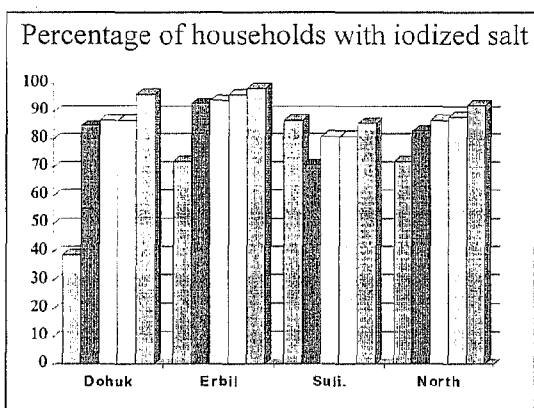
Training of health staff on the prevention of micronutrient deficiencies, causes of iodine deficiency disorders (IDD), importance of iodized salt, monitoring iodine levels, and Vitamin A with EPI have been ongoing since 1994. The Vitamin A survey in 1995 recommended that educating the medical community on Vitamin A deficiency is necessary because the region has no previous experience with the problem.

Understanding the extent of micronutrient deficiencies is seriously constrained by the lack of quantitative data. One survey on Vitamin A in 1995 showed that 1.1% of children interviewed had night blindness.¹⁶ Interpreting this data is difficult given the imprecise methodology of relying on qualitative responses from respondents. However, supporting Vitamin A

distribution can contribute to the maintenance of children's immune systems especially with regards to fighting measles, respiratory and digestive diseases.

There is no doubt that iron deficiency anaemia is the most common among other micro-nutrient deficiencies in the region. The prevalence rate of anaemia is estimated to be around 40%. According to WHO and UNICEF guidelines if 30% of pregnant women are anaemic, universal iron-folic acid supplements should be provided to that group.

UNICEF supported DOH to undertake surveys to assess the prevalence of goitre in primary school children in 1994. Utilizing the ICCIDD (International Council for the Control of Iodine Deficiency Disorders) classification, 42.8% of children who participated in the survey in Dohuk showed evidence of goitre.¹⁷ Results for pregnant women was 71%, although another survey in 1993 revealed that 43.6% of pregnant women had goitre. In Erbil the prevalence of iodine deficiency was 38.9%.¹⁸ Iodized salt did not become easily accessible in the North until the three iodization plants were established in 1996. The current prevalence of utilization of iodized salt in the household is 92.3%.¹⁹



	Aug 1996	Nov 1997	Nov 1998	June 1999	Nov 1999
Dohuk	39	85	87	87	96.3
Erbil	72	93	94	96	98.4
Suleimaniyah	87	71	81	81	85.8
North	72	83	87	88	92.3

Figure 7: Nutritional Status of Children Survey, November 1999.

3.5 Lessons Learned

Malnutrition rates for all children has shown a gradual decline over the years since 1994. However, if this declining trend has to be sustained, it is critical that breastfeeding is promoted through behaviour change communication strategies that are more effective. The easy availability of infant milk formula in the food basket under the SCR986 programme in an emergency situation has outlived its purpose and is negatively affecting the nutrition status of new born children.

The **nutrition programme** led by UNICEF with supplementary food supplies from WFP has been instrumental in improving the nutritional status of children in Northern Iraq, as seen in the trends brought out by the cluster surveys.

Some of the important lessons from this programme include the capacity building of local staff through the establishment of the growth monitoring units and their participation in the various cluster studies conducted by UNICEF periodically. These studies have also been instrumental as an advocacy tool for focussing the local authorities to children's health issues. The cluster studies also provide a model for a surveillance system of regularly assessing the status of children. As nutritional status of children is one of the key indicators for assessing children's status as a whole, this programme has taken a lead in establishing the importance of a surveillance system around children's issues. To expand the reach of this system, the CCCU is also an innovative experiment introduced by UNICEF. While their performance is as yet mixed, CCCUs provide an institutional nucleus around which other community based programmes can be developed.

An area of concern in the nutrition programme is the increasing supply of supplementary food for children by WFP. While in the short term this is beneficial, it has created dependency of the population on it. Long term nutritional status of children is best developed through their regular diet that is dependent on local food production.

In spite of UNICEF's concentrated efforts to **promote breastfeeding**, it does not seem that rates of breastfed children have been increasing. In fact, the reverse may be true, although authentic data is not available. The easier availability of infant formula is a strong force acting against the promotion of breastfeeding practices. The important lesson learned from this programme is that it is as important to neutralize contradictory programme inputs external to a specific programme, as it is to promote a programme. The other lesson learned is that because breastfeeding is a natural method for immunization it is not given importance by the health system. Hence in addition to social strategies to promote breastfeeding, advocacy maybe required at the institutional level.

This programme's coverage has varied between different **micronutrient supplements**. It is essentially a supply driven programme. While this programme is critical from the overall health perspective, it may be necessary to integrate different components of this programme into more target and vulnerable group based programmes that are more holistic, such as the safe motherhood programme and the child nutrition programme. It is necessary to check utilization levels at the community level amongst different groups within a community.

As iodized salt was not readily available in the market until after the three iodization plants in the North were established with UNICEF support, it can be said that UNICEF played a major role in raising the household use of iodized salt from 72% in 1996 to 92.3%.²⁰ This has been made possible through the provision of potassium iodate to salt iodization plants. The promotion of salt iodization required a supporting programme of social mobilization and health education in order to generate demand for iodized salt.

Micronutrient supplements, such as Vitamin A and iron to pregnant mothers and newborns that go towards not only reducing anemia and malnutrition but also building up natural immune system would be one method of targeting nutrition needs of children. Both data on iron deficiency and supply show that the strategy of supplying micronutrient supplements need to be scaled up.

4. PROGRAMME IMPLEMENTATION - ISSUES AND RECOMMENDATIONS

4.1 Strategic Issues

The health and nutrition programme of UNICEF in Northern Iraq has been very effective in directly impacting positively the status of children's health. The extensive coverage of the immunization programme has given an opportunity to the children for a healthier future life. Given the context of conflict, displacement, and total breakdown of public health services, the immunization programme over the past decade has been the most relevant in directly addressing the health needs of children. Similar wide coverage has been achieved in certain other programmes, more significantly in moving to the adoption of ORS from drug therapy for diarrhoeal attack, malaria eradication, polio eradication and cholera control.

It needs to be noted that the above programmes have been implemented in an environmental context that is highly constrained and probably globally unique. The sanctions have imposed a complex procedural web that makes supply management difficult; the emergency nature of the funding, limited funding cycles to six months only which left little scope for planning; the internal conflicts in Northern Iraq led to a multiplicity of local authorities with whom UNICEF has to work; the public health system that existed in the early 1980s had all but collapsed with health services being depleted of a majority of qualified personnel and finally the large size of the programme had to be implemented by a very small team from UNICEF.

The effective implementation of this programme in such an adverse context is what makes programme performance by UNICEF stand out. Year after year, over the decade, more and more children have been immunized through the UNICEF's health programme. Also systematically, over the years, the programme content has widened. Starting initially with basic immunization of children, UNICEF has moved to addressing specific disease control measures.

Further to ensure that the programme is implemented effectively, UNICEF has not just relied on supply of medicines, vaccines, and material goods but has adopted a much more comprehensive and integrated strategy that covers technical assistance, training, social mobilization, and advocacy with local authorities. This attention to the 'software' part of the programme implementation has been a critical element in the effective implementation of the programmes, even though in terms of financial resources they consume a very small part of the total budget. Around each specific intervention, technical training has been given and social mobilization strategies pursued to ensure demand and use of the service.

In addition to the specific technical dimensions of each programme implementation process, three elements of programme support introduced by UNICEF stand out. First is the effectiveness of counterpart relationships. Northern Iraq is characterized by multiple governorates and local authorities. UNICEF's ability to focus such a diverse set of counterparts to children's issues has contributed significantly to programme performance. Not only has it earned goodwill for UNICEF, but also ensured future commitment by local authorities to UNICEF programmes.

Second, as the trend analysis shows, each element of the programme has been backed by a systematic attempt to collect and analyze information. Unlike other countries, data is often not available or is prone to political misinterpretation in Iraq. No systematic census operations or sectoral information is available from the local authorities. This has been effectively taken up by UNICEF through a series of studies, surveys and monitoring systems introduced for the first time by UNICEF in Northern Iraq. The studies have been found to be relevant, useful and of significance by all UNICEF's counterparts. To regularize this data flow UNICEF has been able to establish an extensive system of monitoring the nutritional status of children in Northern Iraq.

The third element of all programme implementation processes has been technical training given to local staff, especially at the ground level. This was not only necessary to implement the programmes, but also go towards building local capacities to manage such programmes at the local level in the future.

Broadly, UNICEF follows three integrated strategies for implementing any programme. Service delivery, which is concerned with efficient delivery of a particular health service. Capacity building, for counterpart institutions, essentially through training. And social mobilization, which is a wide basket of issues covering demand generation for programme outputs. In all the health and nutrition programmes, some combination of the above strategies have been pursued. However, there are specific issues that have arisen in different programme elements that need greater elaboration. Advocacy of both the policy and public level is the consulting strategy used by UNICEF.

Service delivery has been the strongest element in a majority of the health and nutrition programmes. It has been both a strategic priority within UNICEF and given the context of virtually a collapse of any kind of health services, the most relevant strategy.

Service delivery has two elements within it: **coverage and quality of services**. The programme's coverage in a majority of the services has been extensive and in programmes such as goitre control through iodized salt, children's immunization programme, ORS and diarrhoea control, and malaria control, it has been effective in covering virtually the entire population. However, in programmes revolving around basic health services and safe motherhood, coverage can still be expanded, particularly in the rural areas. In the initial years coverage has been the priority, but in the last two years quality of services is emerging as an important issue. However quality of services is partly a function of how well equipped basic health service infrastructure is; the technical knowledge backing this infrastructure; and the incentive system available to the human resources in the system.

UNICEF has attempted to address issues of quality of service through better equipping the PHC centers, carrying out client and user surveys on a regular basis and providing technical training. UNICEF now needs to give greater priority to this aspect of service delivery by integrating client/user surveys as part of its programme monitoring system, and acting on these surveys. Technical knowledge aspects of services will be discussed in the section on capacity building. Incentives to staff, especially at the cutting edge of a programme where the users meet the delivery system are critical. Creative alternatives need to be looked at to solve this problem.

A related dimension of service delivery is **access to services**. The programme must extend its programme coverage by introducing an effective referral system that goes from the village to the PHC centers. If vulnerable groups are to be reached on an ongoing basis then it is important to introduce some form of the concept of community health workers at the village level. These community health workers would act as a link between the formal health system and the people.

Capacity building of local counterparts has been a strategy adopted by UNICEF globally. However the specific contours of this strategy varies from context to context. UNICEF has throughout the decade invested in training as an instrument for capacity building in Northern Iraq, as one of the main problems has been the depletion of human resources from the region due to various conflicts. Training strategies has essentially revolved around strengthening programme implementation through providing technical knowledge and information around specific programme elements, such as immunization and ORS use. However, given the extensive and overarching need for training in Northern Iraq it is necessary for UNICEF to broaden its training framework. Very specific practical weaknesses in the training courses organized by UNICEF emerged in the workshop. These included the uneven quality of trainers, making training methodologies both more practical and participatory, improving the quality of training materials to include recent knowledge, and to introduce preservice training which is currently missing.

There is a need for a more comprehensive training framework and strategy for different levels and different programmes within health and nutrition, which is currently missing. A starting point for this could be a training needs assessment and identification survey for a potential training institution. The capacity building and training component needs to move from the adhoc short duration training programme conducted now to a more institutionalized system.

There is also a need for broadbasing the training content to both cover wide roles such as PHC management and improve overall planning capacities.

The third component of UNICEF's strategy revolves around **advocacy and social mobilization**. Within this similar strategies have been taken up such as posters, radio and television spots, and pamphlet distribution in local languages, irrespective of the programme content. Because of this uniformity or standardization, sometimes the strategy has worked, as in ORS promotion, and at other times not, such as in breastfeeding. There is a need to match the social mobilization strategies to the requirement of different programmes. Small client user surveys immediately after each social mobilization campaign would be important in changing or adding strategies during implementation. Content, medium and transmission needs to be constantly evaluated as part of any social mobilization implementation strategy.

4.2 Cross Sectoral Issues

Health and Nutrition is probably the sector where cross sectoral inputs are the most critical to programme effectiveness, especially as it covers preventive health. Water quality, hygiene education, basic health education to children and adolescents, socio-psychological issues in child protection and women's status are all issues which have a bearing on the health of the child. Given this inherent cross sectoral nature of children's and women's health, ideally the health and nutrition sector within UNICEF should take a lead in addressing cross sectoral issues and intersectoral coordination.

The cross sectoral issues in health have not been addressed by UNICEF in a comprehensive manner, except to a limited extent by water quality monitoring and hygiene education by the Water and Environmental Sanitation (WES) sector. There is an urgent need for UNICEF to introduce elements of health issues in each of the other sectors they are working in. In Northern Iraq, UNICEF's WES section is the only sector which has on its own introduced health education, related to hygiene and water use, in its programming.

4.3 Inter-agency Coordination

As the implementation experience of Northern Iraq shows, there has been concentrated efforts for coordination, both at the programme design and programme implementation level. WFP's nutrition programme is integrated with UNICEF's nutritional programme and WHO's disease monitoring and surveillance system has been a direct input into UNICEF's disease control programming. A large number of NGOs have also been involved in the implementation of UNICEF's programmes, particularly immunisation. UNICEF has played a proactive and lead role in ensuring interagency complementarities and cooperation in the health and nutrition sector. Complementarities across institutions should continue to be the basis for health programming.

4.4 Programme Implementation Issues

The 'scale' of the programme exerts a tremendous pressure on the quick, effective, and continuous delivery of different supply components within the health and nutrition programme. The extremely short six month programme funding cycle compounds this problem. Given this implementation reality, efficient planning management has become the key challenge for UNICEF's operations during implementation. If programme implementation has to improve and be made more relevant and sustainable, then efficient supply management on the one side and enhancing counterpart's capacity to productively utilise the supplies on the other side, become key issues.

Ensuring supplies in a 'matching' manner, enhancing local supply chains (as was done in ORS and iodised salt); and prioritising supplies are all implementation issues which UNICEF has dealt with effectively throughout the period. A review at this experience would be valuable to further streamline systems.

From the programme perspective, ensuring that all these inputs are effectively utilised hinges on the ability of the local systems to actually absorb and distribute these services to the local population. In this context strengthening the capacity of the PHC system becomes a key

implementation issue. Also institutional mechanisms need to be developed that reach down to the village level. This is possible through 'subcontracting' programmes to NGOs working locally, setting up a community Health Volunteer Service and providing training inputs.

Where demand has to be generated for a service through social mobilisation, the implementation issue centres around using local resources and channels, which may be much more effective than posters or written pamphlets. Visual material and local languages also become critical. Greater stress and reorientation is required by UNICEF in their social mobilisation strategies at present.

Finally, in the absence of a census level base for data, there is need for a decentralised and quick feedback system for programme monitoring to check effectiveness. For each programme, key short term output indicators need to be developed (as compared to input and long term impact indicators used now), to quickly check utilisation of services by people. Such a system needs to be integrated into the programme implementation process and is not part of the impact and status studies done by UNICEF.

4.5 Programme Implementation Recommendations

Even though the coverage of all the programmes in the sector were in both urban and rural areas, greater stress on implementation of programmes in the remoter rural areas is called for. A distance-services available criteria may be developed for prioritising 'in need' villages/settlements for special focus.

Supplies will continue to be a dominant part of the health and nutritional programme, and a method of making this process more efficient and planned would be an important contribution to both ensuring smoother programme implementation and enable release of quality programme staff time to programming issues. Environmental constraining factors will however be a determining factor in this, depending on the political scenario as it evolves.

Specific recommendations for making the programme implementation process more effective and efficient include :

- Introducing through design, a supply chain management and inventory control system that predesigns priorities, delays, component matching and other variables as in an industrial distribution supply chain system.
- Sequencing training and material supplies to ensure quick utilization of supplies.
- Fine tuning implementation roles for different kinds of counterparts like DOH, NGOs, and contractors.
- Enhancing training quality through creating a network of local trainers and resource persons and making training programmes more focussed and skill based at the lower levels.
- Extending roles in programme implementation to the village/local community level wherever feasible, through a ground level human resource identification process.
- Reviewing programme implementation processes in a decentralised manner to identify villages with success and failure.
- Creation of a broad based health surveillance system on a random cluster basis instead of attempting to cover total population through census based systems.
- Designing of advocacy and social mobilisation campaigns and strategies that are relevant and appropriate to specific programmes through media planning strategies that are more contextual and programme specific.
- Relooking at and strengthening all training strategies and programmes.

5. POLICY AND PROGRAMME DEVELOPMENT – ISSUES AND RECOMMENDATIONS

The recommendations of the review have been structured around further studies required, that could fit into the upcoming situation analysis; issues of programme implementation; issues of programme design and development and finally certain policy issues that need to be taken up for negotiation.

5.1 Studies leading to Situational Analysis and Planning

The health and nutrition sector, amongst all the sectors within UNICEF, has been regularly conducting different studies and collecting valuable information. Such studies executed by UNICEF are valuable, even critical, in a context where virtually no regular census operations or record keeping are carried out by public authorities. UNICEF's infant mortality survey is globally famous. Given this context, the following recommendations emerged from the review process, including the participatory workshops.

- A series of KAP studies tracing mothers and community behavioural practices along different dimensions of health.
- Women's Health Status and Needs Surveys focussing on problems during pregnancy, nutritional status and prevalence of anemia and other vitamin-mineral deficiencies, and family practices.
- Technical knowledge and training needs assessment studies of PHC and other health staff.
- Rapid Assessments and Client Service Use Surveys on a regular interval basis for programme monitoring around each intervention implemented.
- Assessment studies of the different institutional systems introduced in the health sector, such as functioning of PHCs, GMUs, CCCUs and NRCs.

In all the above studies rural areas need to be looked at separately.

There was also a strong felt need amongst counterparts that they participate in the studies, right from the designing stage as a means of their own capacity building and in building up a management information system.

5.2 Programme Design Issues

The emergency situation and need for speedy implementation have been at the cost of a more holistic programming framework. However, without such a framework, it is difficult to identify lacunas in programme relevance or effectiveness. Such a programming framework's starting point needs to be the status of and needs of different vulnerable groups like infants, children and mothers. This would also allow for a horizontal framework applicable to specific groups and areas, which can then be vertically integrated to plan strategies and procure supplies around narrower sub-programme themes such as immunisation, and diarrhoea control.

If we review the programme experience from this perspective, then nutrition, immunisation, CDD and ORS would be programme elements around child based health programmes. While malaria, cholera control and other general disease control measures would be for the general population. Given the emergency situation and UNICEF's mandate it has focussed more on child based health programmes. However, given the status of women in Northern Iraq, it is necessary to design a holistic safe motherhood programme that takes in elements of preventive and curative health and nutrition issues of women in a more comprehensive

manner. Within such a programme, there would be elements of anemia control through supplementary nutrient supplies, but there also needs to be elements around more sensitive social issues like birth spacing and family planning, care during pregnancy, women's workload etc. The expansion to a holistic safe motherhood programme would also enable UNICEF to sensitise local counterparts to gender issues.

The second issue in programming is concerned with the basic unit of programming. Currently programming follows a vertical framework of activity based programming. However in Northern Iraq, given its spatial and political structure, a more horizontal programming may be more effective. Such a unit could be a village, villages covered by a PHC or a local health authority's area of jurisdiction. Given that UNICEF has invested in the PHC as the basic health service unit, a PHC based programming framework may be used in health and nutrition. This would enable a shift of programme planning perspective from purely an activity or input basis to what is needed for a typical PHC. It would also allow UNICEF to focus more on unserved areas within Northern Iraq.

5.3 Programme Design Recommendations

There is a need to view all programmes within a programme framework derived from the mandate of UNICEF rather than from only an activity framework derived from the environmental context and implementation pressures. Reviewing UNICEF's programme from this perspective, the following specific programmes emerge.

- a. **Infant and Early Childhood Health and Nutrition Programmes** – centred around immunisation, nutrition monitoring and supplement feeding, growth monitoring and referral system, diarrhoea control and other needs of healthy early childhood development.
- b. **Safe Motherhood Programme** – centred around reproductive health and child spacing, care during pregnancy, neonatal care for mother and child, and safe delivery practices.
- c. **Adolescent Girls Health** – centred around family education, preparation for reproductive health education for future life.

Currently within health and nutrition, predominantly the focus is on infant and early childhood programmes. However in the long term, if the impact on children's health has to be sustained, programmes around safe motherhood have to be made a complementary focus. A holistic safe motherhood programme needs to be designed for implementation as the next logical step for UNICEF. This process should start with a needs analysis of women's reproductive health issues in the Northern Iraq-Kurdish social context.

Adolescent Health is an emerging issue globally and within UNICEF's programming however it may not be feasible to design and implement a comprehensive programme around adolescent health in Northern Iraq immediately. However preparation for this long term agenda may be introduced through a single specific activity that addresses a specific health need of adolescent girls in Northern Iraq.

Along another programming dimension of delivery mechanisms, is the issue of designing a basic health services delivery cum access framework. Taking a PHC as the basic unit for health services, a blue print of the role of a PHC and extension of its services to its catchment community needs to be designed, as majority of the health and nutrition programmes are being routed through the PHCs.

The third programming dimension is that of the different programming strategies, particularly quality of services, training and capacity building and social mobilisation. In each certain specific steps need to be taken to improve effectiveness.

- quality of services – improvements in use of services by studying non-participation reasons related to quality of services (client surveys).
- training and capacity building – a comprehensive assessment of the training needs and institutional possibilities in each governorate.
- social mobilisation – designing more programme specific and contextually relevant strategies through analysis of KAP studies.

The above recommendations, albeit broad, attempts to cover the three dimensions of programme development : thematic based on client groups; institutional based on delivery systems; and strategic based on complementary inputs.

5.4 Policy Issues

In a complex political environment driven by sanctions, North-South Iraq relationships and multiple governments within Northern Iraq, everything tends to move up to become a policy issue. Keeping this unique environmental factor in mind, the major policy issues only have been highlighted here.

One of the issues that has been constraining the development of a holistic programme design and implementation in the health sector is that the SCR986 programme is restricted to primarily material supplies. It does not consider any sustainability issues such as the capacity (financial, technical and institutional) of UNICEF's local counterparts to contribute to the programme. Human resources are the key to any social programming and yet the local authorities in the North have no revenue generating capacity to meet even the full salary expenses to implement a wide based public health programme over any period of time. That so much has been achieved is itself a miracle. Hence several recommendations of the review hinge on solving the dilemma of where the staff costs are going to be met from for an extended public health programme. Right from the community level workers to the PHC staff personnel have to be compensated within a programme. Without this complementary support cost, material supply will not be able to convert itself into services. UNICEF's policy does not allow meeting of such local salary expenses, nor does the SCR986 framework. A creative solution could be that, at least the cost of rural volunteers and key programme human resources are included in the programming framework of SCR986, under each programme component and paid contracted honorariums, under Training and Capacity Building budget line items.

A related policy issue, is the investment required in local training institutional systems to rebuild the personnel base in the public health system. While short term programme implementation should continue, a parallel, longer term, investment needs to be made in building up the DOHs capacity to continuously produce locally trained health personnel (so that the past experience of total collapse is not repeated). A comprehensive assessment of the training needs and existing training systems (defunct and otherwise) needs to be carried out.

The third policy issue that needs to be addressed is, based on a new, more comprehensive programme framework, where all supply items need to be itemised and permission for a comprehensive package of imports worked out on a longer term basis. In any programming it is essential that matching components are simultaneously integrated. But this has been a recurrent problem for UNICEF because of the sanctions led import procedures.

The fourth policy issue relates to inter agency coordination. The case of breastfeeding and infant formula is a classic case of contradictory programming perspectives. Food rations leading to a drop in local food production leading to local dietary supplements being ignored is another case. Contradictory programme perspectives within the SCR986 programme by different donors can often undermine each other's work rather than add value.

Finally, is the policy issue of what is an appropriate time framework for relevant programming. A six month cycle just cannot address a majority of programme issues and, even under different scenarios, a minimum three years programme framework is necessary to review impact. This is particularly true where demand generation for services and behavioural change are required for programmes to become effective.

The key policy issue underlying all the above is the question of sustainability. Sustainability in terms of financial planning; in terms of institutional capacity as defined by local human resources and systems; and technical sustainability in terms of maintenance of service quality levels. UNICEF needs to address this issue in all evolving scenarios. A clear policy and planing framework needs to be developed to address this issue.

5.5 Policy Recommendations

Reviewing the health and nutrition programme in Northern Iraq, certain policy issues need to be taken up at different levels. Recommendations around these issues centre around the following:

- Investment in a basic course in public health as preservice training be included in health sector programme parameters of UNICEF.
- Personnel costs that are programme specific and that are at the cutting edge of service delivery at the community level be treated as programme costs by UNICEF.
- Sector specific exposure trips to DOH functionaries to third world countries where health programming for rural areas is more advanced.
- Long term clearance, in terms of items to be imported, be taken up through the Master Plan of Operations (MPO), rather than itemwise.
- Disaggregated area based health planning and implementation be cleared as an approach to reach the most vulnerable by the local counterparts.

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- ¹ DPT is a vaccine for diphtheria, pertussis (whooping cough) and tetanus. OPV stands for Oral Polio Vaccine.
- ² BCG stands for Bacillus Calmette Guerin vaccine and is used to prevent tuberculosis (TB).
- ³ Goitre Survey in Dohuk Governorate, Sectors of Zakho, Summail and Aqra, UNICEF, 1994. Utilizing the ICCIDD (International Council for the Control of Iodine Deficiency Disorders) criteria.
- ⁴ MICS 1996.
- ⁵ Nutritional Status of Children, UNICEF, November 1999.
- ⁶ Annual Report, UNICEF, 1999.
- ⁷ DPT is a vaccine for diphtheria, pertussis (whooping cough) and tetanus. OPV stands for Oral Polio Vaccine.
- ⁸ BCG stands for Bacillus Calmette Guerin vaccine and is used to prevent tuberculosis (TB).
- ⁹ Programme Implementation Review, UNICEF, 1995.
- ¹⁰ Annual Report, UNICEF, 1999.
- ¹¹ Programme Implementation Review, UNICEF, 1995.
- ¹² Annual Programme Review, UNICEF, 1999.
- ¹³ Programme Implementation Review, UNICEF, 1995.
- ¹⁴ Annual Report, UNICEF, 1999.
- ¹⁵ Goitre Survey in Dohuk Governorate, Sectors of Zakho, Summail and Aqra, UNICEF, 1994.
- ¹⁶ Vitamin A survey, UNICEF, 1995.
- ¹⁷ Goitre Survey in Dohuk Governorate, Sectors of Zakho, Summail and Aqra, UNICEF, 1994.
- ¹⁸ Annual Report, UNICEF, 1994.
- ¹⁹ Nutritional Status of Children, UNICEF, November 1999.
- ²⁰ Nutritional Status of Children, UNICEF, November 1999.

Appendix A

List of Acronyms

AFP	Acute Flaccid Paralysis
ARI	Acute Respiratory Infection
BCG	Bacillus Calmette Guerin vaccine for tuberculosis
BFHI	Baby Friendly Hospital Initiative
CCCU	Community Child Care Unit
CDD	Control of Diarrhoeal Disease
CMM	Child and Maternal Mortality survey
DOH	Directorate of Health
DPT	Diphtheria, Pertussis (whooping cough) and Tetanus vaccine
ECHO	European Community Humanitarian Organization
EPI	Expanded Programme of Immunization
GMU	Growth Monitoring Unit
HPB	High Protein Biscuits
ICCIDD	International Council for the Control of Iodine Deficiency Disorders
IDD	Iodine Deficiency Disorders
IDP	Internally Displaced Persons
IIRO	International Islamic Relief Organization
IMCI	Integrated Management of Childhood Illnesses
IMR	Infant Mortality Rate
IV	Intervenous fluid
KAP	Knowledge Attitude Practice
MCHC	Maternal Child Health Care
MICS	Multiple Indicator Cluster Survey
MMR	Maternal Mortality Rate
MMR	Measles Mumps Rubella vaccine
MNT	Maternal Neonatal Tetanus
MPO	Master Plan of Operations
MSF	Medicine Sans Frontiers
NGO	Non Governmental Organization
NRC	Nutrition Rehabilitation Centre
NWMT	North West Medical Teams
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Salt
ORT	Oral Rehydration Therapy
PDK	Kurdistan Democratic Party
PHC	Primary Health Centre
PNID	Polio National Immunization Days
PSF	Pharmacists Sans Frontiers
PUK	Patriotic Union of Kurdistan
PWJ	Peace Winds Japan
SCR986	Security Council Resolution 986
TB	Tuberculosis
TBA	Traditional Birth Attendant
TFC	Therapeutic Feeding Centre
TMP	Therapeutic Milk Powder
TT	Tetanus Toxoid vaccine
UN	United Nations
UNICEF	United Nations Children's Fund
VC	Vibrio Cholera
VVM	Vaccine Vial Monitor
WFP	World Food Programme
WHO	World Health Organization

Appendix B

Review of UNICEF Support in the 1990s Workshop on Health and Nutrition-Northern Iraq Erbil, 9 and 10 August 2000

Objectives

1. Review the support provided under the Health and Nutrition project interventions within UNICEF programme of co-operation during the 1990s;
2. Identify strengths and weaknesses of UNICEF programme interventions in Health and Nutrition projects;
3. Recommend activities/areas of intervention in Health and Nutrition to be included in the next 2002-2004 Programme of Co-operation.

Programme Day 1 - Health

Time	Topic, Issues and Questions	Focal Point	Session Objective
8:30 – 8:45	Welcome Introductory Remarks Objective and Methodology of Workshop	R. Shrestha	Clarify background and objectives of the workshop.
8:45 – 9:00	Introduction of Participants	Richard Garfield	Participants open up with each other and the facilitators.
9:00 – 9:30	UNICEF Global Agenda for 21 st Century	Dr. Ahmed Megan	
9:30 – 10:00	Overview of UNICEF interventions in Health in the 1990s	Dr. Paula Abdulkadir	Participants get an overview of UNICEF's Health interventions in the 1990s.
10:00 – 10:15	Introduction to VIPP Methodology and break into three groups: Group A: EPI and Polio Eradication Group B: CDD/ARI/IMCI Group C: Safe Motherhood and Basic Health	Richard Garfield	Participants understand VIPP and feel comfortable with it.
10:15 – 10:35	COFFEE BREAK		
10:35 – 12:30	Assess the implementation of the UNICEF interventions in Health before and after 1997 and identify new areas/approaches to be included in the Health project in the future. List of questions to be distributed to each group. Group A: EPI and Polio Eradication Group B: CDD/ARI/IMCI Group C: Safe Motherhood and Basic Health	Working groups Facilitators: A: SK/PA B: AM/SV C: HN/AW	Participants review co-operation in Health before and after 1997 and identify new areas/approaches to be included in the Health project in the future.
12:30 – 13:45	LUNCH		
13:45 – 15:00	VIPP Group work continues		
15:00 – 16:30	Plenary Session: - Presentation by Groups; - Plenary Discussion; - Wrap Up of Discussion.	Richard Garfield	Overall wrap up of recommendations.

Programme
Day 2 – Nutrition

Time	Topic, Issues and Questions	Focal Point	Session Objective
8:30 – 9:00	Overview of UNICEF interventions in Nutrition in the 1990s	Dr. Qasim Othman	Participants get an overview of UNICEF's Nutrition interventions in the 1990s.
9:00 – 10:30	Assess the implementation of the UNICEF interventions in Nutrition before and after 1997 and identify new areas/approaches to be included in the Nutrition project in the future. List of questions to be distributed to each group. Group A: Growth Monitoring Units Group B: CCCUs and Community Awareness Group C: Micronutrient Deficiencies	Facilitators: A: SK/BA B: QO/JV C: PA/SV	Participants review co-operation in Nutrition before and after 1997 and identify new areas/approaches to be included in the Nutrition project in the future.
10:30 – 10:45	COFFEE BREAK		
10:45 – 12:30	Group work continues		
12:30 – 13:15	Plenary Session: - Presentation by Groups; - Plenary Discussion; - Wrap Up of Discussion	Richard Garfield	Overall wrap up of recommendations.
13:15 – 13:30	Closing session	R. Shrestha	Closing remarks.
12:30 – 13:15	LUNCH		

Appendix C

List of Participants Health and Nutrition Participatory Workshop: Chwar Chra Hotel Programme Review (9-10 August, 2000)

No	Name	Organization	Title	Governorate
1	Dr. Abdullah Abdulkareem	DOH	DG Health	Dohuk
2	Dr. Kawa M. Ameen	DOH	PHD Manager	Dohuk
3	Dr. Moaid Aisa	DOH	Pediatrician – Azady Hospital	Dohuk
4	Dr. Hameed M. Tahir	DOH	Pediatrician – Azady Hospital	Dohuk
5	Dr. Fawzi Tawfik	DOH	Manager – Amadiya Hospital	Dohuk
6	Dr. Fryad Ghafari	DOH	DG Health	Erbil
7	Dr. Mustafa Nadir al-Alem	MOH/DOH	Health Consultant	Erbil
8	Dr. Sarhang Jalal	DOH	Nutrition Focal Person	Erbil
9	Dr. Yasin Ahmed Asaad	DOH	Head of PHD	Erbil
10	Dr. Rezan Rashwani	MOH/DOH	Head of MCHC section	Erbil
11	Dr. Niaz Jamal Miran	MOH	Planning Officer	Erbil
12	Dr. Moyad Abdullah	DOH	Planning Officer	Erbil
13	Dr. Abdulraham Hama	DOH	DG of Health	Suleimaniyah
14	Dr. Isam Namiq	DOH	DG of Health – New Kirkuk	Suleimaniyah
15	Dr. Azad Rasheed	DOH	PHD Manager	Suleimaniyah
16	Dr. Rizgar Ali	DOH	Nutrition Focal Person	Suleimaniyah
17	Dr. Ronak Al-Hayderi	DOH	Former Primary Health Care Manager	Suleimaniyah
18	Dr. Mohammed Mahajub	WHO	Project Officer	Erbil
19	Ms. Pushpa Acharia	WFP	Nutritionist	Erbil
20	Mr. Richard Garfield	UNICEF	Health and Nutrition Consultant	
21	Mr. Hans Narula	UNICEF	Programme Review Consultant	
22	Dr. Ahmed Megan	UNICEF	Regional Advisor, Health and Nutrition	Amman
23	Dr. Sanjiv Kumar	UNICEF	Project Officer, Health and Nutrition	Baghdad
24	Dr. Haydar Nasser	UNICEF	APO, Health and Nutrition	Baghdad
25	Dr. Ramesh Shrestha	UNICEF	Coordinator	Erbil
26	Ms. Juanita Vasquez	UNICEF	Programme Officer	Erbil
27	Dr. Stemberg Vasconcelos	UNICEF	Project Officer, Health and Nutrition	Erbil
28	Dr. Paula Abdulkadir	UNICEF	APO, Health and Nutrition	Erbil
29	Dr. Qasim Othman	UNICEF	Nutrition Assistant	Erbil
30	Dr. Chimmen Taha Yassin	UNICEF	Health Information Assistant	Erbil
31	Mr. Rajen K. Sharma	UNICEF	Liaison Officer	Dohuk
32	Dr. Ashwaq Wardi	UNICEF	APO, Health and Nutrition	Dohuk
33	Dr. Bakhtiyar Ahmed	UNICEF	Nutrition Assistant	Dohuk
34	Dr. Najmaddin Ahmed	UNICEF	APO, Health and Nutrition	Suleimaniyah
35	Dr. Parzheen Ahmed	UNICEF	Nutrition Assistant	Suleimaniyah
36	Dr. Nasih Othman	UNICEF	Information Assistant	Erbil
37	Ms. Noriko Osada	UNICEF	Asst. Observation Officer	Erbil
38	Mr. Mark Okingo	UNICEF	Asst. Observation Officer	Dohuk
39	Ms. Christine Callahan	UNICEF	Asst. Observation Officer	Suleimaniyah
40	Dr. Saad Agha	UNICEF	Local Programme Review Consultant	Erbil

Appendix D

List of Consultants for Health and Nutrition Programme Review

Hans Narula	Programme Review Consultant
Biswajit Sen	Programme Review Consultant
Richard Garfield	Sector Consultant
Dr. Ahmed Megan	Sector Consultant
Dr. Saad Agha	Local Programme Review Consultant
Christine Callahan	Programme Review Assistant