

These fact sheets are intended to provide a short overview of the current situation affecting women and children, and outline UNICEF's support in each major sector. They are not designed as a comprehensive situation analysis.

### Current situation

The 2006 Sudan Household Health Survey undertaken by the Government of National Unity and the Government of Southern Sudan, with support from UNICEF, provided the first national data on critical child and maternal health and nutrition indicators for more than 20 years.

Estimated child population	20.44 million (50.9%)
Estimated child population under the age of five	5.95 million (14.8%)
Estimated female population of child bearing age	8.96 million (44.5%)
Under-five mortality rate	112 deaths/1,000 live births
Infant mortality rate	81 deaths/1,000 live births
Maternal mortality rate	1,107 deaths/100,000 live births
Children under-five moderately and severely underweight	31%
Exclusive breastfeeding rate (up to six months)	33.7%
Fully immunized children aged 12-23 months	41.4%
Women immunized against neo-natal tetanus	48.8%
Estimated prevalence of diarrhoeal disease amongst under-fives <sup>†</sup>	28.2%
Estimated prevalence of malaria amongst under-fives <sup>†</sup>	20.9%
Proportion of mothers accessing ante-natal care	69.6%
Proportion of births attended by qualified health personnel	49.2%
Proportion of births taking place at home	80.6%

<sup>†</sup> The Sudan Household Health Survey reported this data for children suffering diarrhoeal disease or malaria during the two weeks prior to the survey being undertaken.

In its effort to improve child and maternal health and nutrition indicators by the year 2012, UNICEF and its partners in Sudan are striving to achieve key results that will include:

- Ensuring at least 80 per cent of children under the age of five have access to a minimum package of health services and
- Ensuring at least 65 per cent of women of child-bearing age have access to a minimum package of maternal health services

### Key issues affecting maternal and child health and nutrition

#### Disparities

National indicators do not show the considerable disparities between states across Sudan. For example, in Western Equatoria the maternal mortality ratio is estimated at 2,327 deaths per 100,000 live births; possibly the highest recorded ratio in the world, while across Sudan's 25 states the proportion of fully immunized children ranges from just 5.5 per cent to as high as 72.5 per cent. These disparities draw attention to the need for local investment in health and nutrition services as well as broader national and sub-national strategies.

#### Human and financial resourcing

According to government data, primary health care coverage is estimated at 40 per cent in the northern states, and 25 per cent in Southern Sudan. There are just 5,000 registered Sudanese physicians working in Sudan (World Bank, 2001) – only 160 are found in Southern Sudan. In the northern states, there are 9,300 trained midwives. Human capacity is therefore limited, leaving an urgent need for training and deployment of community primary health workers.



In the northern states, public expenditure on primary health care is estimated at US\$4 per capita, far short of recommended levels for a country with Sudan's GDP. In Southern Sudan, 5.4 per cent of the public sector budget in 2007 was earmarked for health care, of which more than half was allocated for capital expenditure. There needs to be considerable increases in public spending on primary health care, especially at state and sub-state level.

## Knowledge and educational status of parents

When the prevalence of exclusive breastfeeding, accurate treatment of diarrhoeal disease and pneumonia, or effective prevention of malaria are measured against the education status of mothers, it can be seen that the lack of parental education increases the likelihood of children being affected by poor nutrition or preventable diseases. For example, 69 per cent of children whose mothers have achieved secondary or higher education are exclusively breastfed, compared to 36 per cent amongst those whose mothers have no education.

Overall, the same correlation can be seen between under-five mortality rates and the status of mother's education – ranging from 121 deaths per 1,000 live births amongst children whose mothers have no education, to just 89 deaths per 1,000 live births amongst children whose mothers have a secondary education.

## Coverage of maternal health services

There is a notable difference in levels of access to ante-natal care between states in the north of Sudan and those in Southern Sudan – ranging from 0 per cent in Unity State (in Southern Sudan) to 89 per cent in Khartoum State. However, even where such care is accessible, the SHHS found that more than 50 per cent of available services did not fully meet expected standards.

The large proportion of births that are not attended by skilled health professionals (more than 50 per cent) and the shortage of trained midwives in Sudan – there are just 29 operational midwifery schools in the whole country – are also contributory factors to maternal and infant mortality.

## Other issues

Limited education and knowledge amongst mothers about health and nutrition is a key factor influencing mortality across Sudan. Poor infrastructure and limited services in rural areas is a critical barrier to obstetric care for mothers. Disease outbreaks – including acute watery diarrhoea, malaria, measles, meningitis and tuberculosis – are regular occurrences.

## UNICEF's programmatic approach

Prevention of childhood diseases is being approached through improved quality of health care and the development of integrated health and nutrition activities through the Sudan Accelerated Child Survival Initiative (ACSI). The Initiative brings together a package of key health activities, including immunization, vitamin A supplementation, provision of deworming tablets, promotion of breastfeeding, use of iodised salt, health education and hand washing, distribution of insecticide-treated bed nets, and nutritional screening and growth monitoring, all of which are known to have a significant impact on reducing mortality rates.

This is complemented by building capacity of community-based health workers, the introduction of new programmatic approaches such as new-born care, and the expansion of comprehensive emergency obstetric care and neo-natal care.

Core immunization efforts against diseases such as polio, measles, diphtheria and tetanus remain central to UNICEF's work. This includes ensuring that the necessary infrastructure for effective routine immunization is in place and the training of vaccinators.

To help tackle acute malnutrition, UNICEF provides technical support and equipment to partners, helps to consolidate national standards and supplies specialist foods such as therapeutic milk and nutritional pastes for rehabilitation of severe malnutrition in both facility-based, and community based selective feeding programmes.

### The Sudan Accelerated Child Survival Initiative (ACSI): a three-tier approach to accelerated child survival in Sudan.

#### 'Jump-start' activities

A 'jump-start' campaign over two years will deliver polio and measles immunization, vitamin A supplementation, de-worming, promotion of iodised salt consumption, breastfeeding and handwashing, screening and referral for treatment of malnutrition and distribution of anti-malarial bed nets, reaching the majority of children in Sudan, using existing Expanded Programme on Immunization structures and equipment. At the same time, in selected areas, local capacity will be enhanced to provide routine health care at community level.

#### 'Pulse' activities

Based upon mapping and identification of areas in selected states with low health coverage, mobile teams of community health and nutrition workers, supported by capacity building and skills development, will roll out services from their bases in existing health centres to deliver regular, systematic child and maternal health services in the surrounding areas, complemented by twice-yearly Child Health Days. Community development committees will be supported to ensure local management and ownership of the initiative.

#### Routine health care services

From 2008, the Sudan Accelerated Child Survival Initiative will also focus on systems improvements in community health care delivery, building human capacity and the development of routine programmes that tackle child and maternal mortality. This includes introduction of new strategies such as new-born care and individual clinic care, as well as expansion of comprehensive emergency obstetric care and neo-natal health care, and the establishment of annual Child Health Weeks nationwide.

Micronutrient deficiencies, low birth weight and chronic malnutrition are being tackled through increased routine micronutrient supplementation, promotion of iodized salt, and the marketing of fortified foods. At the same time, UNICEF supports growth monitoring and promotion, the promotion of breastfeeding and complementary feeding, and improving household caring practices through routine, community-based health and nutrition services.

Support is also provided for strengthening identification and referral systems for severely malnourished children

UNICEF also works with government to deliver a 'Minimum Nutrition Package' of key preventive activities in health facilities

UNICEF is supporting the finalization of health policies for the north of Sudan and Southern Sudan and assisting with the development of technical guidelines and treatment policies on issues such as malaria, safe motherhood, HIV and AIDS, disease surveillance and Health Management Information Systems.

## UNICEF-supported achievements in 2008

Key health and nutrition results supported through UNICEF's programmes during 2008 included:

- Reaching 5 million children with a range of integrated health activities including measles and polio immunization, de-worming and distribution of anti-malarial bed nets through the Sudan Accelerated Child Survival Initiative in the northern states of Sudan. In Southern Sudan, where ACSI will be launched in 2009, similar integrated approaches reached more than 57,000 children with oral rehydration therapy, infant and young child feeding programmes, growth monitoring and promotion, vitamin A supplementation, home management of malaria and support for hand washing activities in schools.
- Immunization of nearly 9 million children against polio and just over 3 million children against measles. In Southern Sudan, vaccination efforts have helped reduce the number of measles cases from 671 in 2007 to 383 in 2008.
- Supporting the vaccination of 1 million children against diphtheria, tetanus and pertussis (whooping cough).
- Provision of more than 2,600 primary health care kits containing essential materials and drugs, in support of basic health care services for an estimated 3 million people.
- Provision of nearly 2.5 million long lasting insecticide-treated bed nets to tackle malaria.
- Vaccination of more than 1 million women against tetanus toxoid vaccine.
- Strengthening of ante-natal care through the training of 898 midwives.
- Supporting the treatment of nearly 45,000 children suffering from severe malnutrition in 180 specialist feeding centres, including supply of therapeutic food and milk, training of more than 600 health workers, and monitoring and surveillance activities.
- Provision of iodised oil capsules to nearly 684,000 children and more than 382,000 women.
- Administering of vitamin A supplements to 6.6 million children and nearly 186,000 mothers of new-born children.
- Provision of iron and folic acid supplements to more than 390,000 pregnant women.
- In Southern Sudan, supporting more than half of all primary health care facilities to implement a 'Minimum Nutrition Package' including women's nutrition, birth spacing, promotion of breastfeeding, nutritional care of sick children, micronutrient supplementation, diversification of diet, growth monitoring and promotion, immunization and promotion of improved hygiene and sanitation.
- Support to a wide range of training activities including training of teachers on hygiene promotion, and the training of local health workers on management of childhood illnesses, malaria prevention, obstetric care and other health initiatives.

