



Children's Health and Nutritional Status in Ghana

Results from the 2008
Ghana Demographic and
Health Survey



The 2008 Ghana Demographic and Health Survey (GDHS) was carried out by the Ghana Statistical Service and the Ghana Health Service. ICF Macro, an ICF International company, provided financial and technical assistance for the survey through the USAID-funded MEASURE DHS programme. Local costs for the survey were partially funded by the Ministry of Health (MOH), the Ghana Statistical Service (GSS), the Ghana AIDS Commission (GAC), UNICEF, UNFPA, and Danida.

Additional information about the survey may be obtained from the Ghana Statistical Service (GSS), P.O. Box 1098, Accra, Ghana; Telephone: 233-21-671-732; Fax: 233-21-671-731.

Information about the DHS programme may be obtained from the MEASURE DHS Project, ICF Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, USA; Telephone: 301-572-0200; Fax: 301-572-0999; E-mail: reports@macrointernational.com; Internet: <http://www.measuredhs.com>.

Recommended citation:

ICF Macro. 2010. *Nutrition of Children and Women in Ghana: A new look at data from the 2008 Ghana Demographic and Health Survey*. Calverton, Maryland, USA: ICF Macro.

Cover photograph: © 2008 Erberto Zani, Courtesy of Photoshare



Ghana Statistical Service



Table of Contents

About the survey	2
Introduction	3
Nutritional status of children	5
Infant and Young Child Feeding (IYCF).....	8
Micronutrient intake and anaemia.....	9
Vaccination.....	11
Childhood illnesses.....	12
Malaria	15
Childhood mortality.....	17
Conclusions.....	19

About the survey

2008 Ghana Demographic and Health Survey (GDHS)

The 2008 GDHS is the fifth Demographic and Health Survey conducted in Ghana. It is designed to measure levels, patterns, and trends in demographic and health indicators.

In the 2008 GDHS, a nationally representative sample of 11,778 households was interviewed, and in half of the households, 4,916 women age 15–49 and 4,568 men age 15–59 were interviewed. This represents a response rate of 99% for households, 97% for women, and 96% for men. This sample provides estimates for Ghana as a whole, for urban and rural areas, and for the 10 regions (shown below).

The Ghana DHS provides data on fertility, family planning, maternal and child health, childhood mortality, nutrition, malaria, HIV, and domestic violence. This booklet looks exclusively at the nutrition data for children from the 2008 GDHS.

GHANA



Introduction

Ghana has made good progress in child health and nutrition in the last five years. More children receive all basic vaccinations than five years ago. Children are also better nourished, and childhood mortality has declined sharply. Despite this progress, 1 in 7 children in the Northern region die before their fifth birthday, and almost 4 in 5 children age 6–59 months in Ghana are anaemic.

Data from the 2008 GDHS provide the current health and nutritional status of children in Ghana, and, together with data from the 2003 GDHS, track changes over the last five years.

This booklet focuses on several areas: nutritional status of children; vaccination coverage; the prevalence and treatment of fever; acute respiratory infection (ARI) and diarrhoea; and childhood mortality.



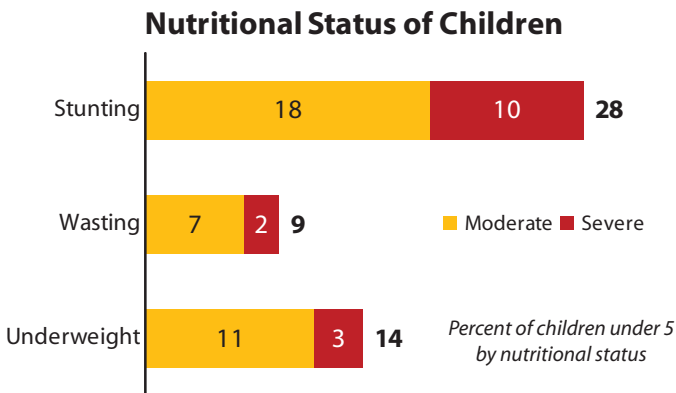
©2008 Erberto Zani, Courtesy of Photoshare

Nutritional status of children

Child malnutrition continues to be a major public health problem in developing countries. Nutritional status is primarily measured by a child's growth in height and weight and is directly influenced by food intake and the occurrence of infections. Chronic (stunting) and acute (wasting) malnutrition and general health and nutritional status (underweight) are assessed at the population level through the Demographic and Health Surveys.

In Ghana, more than one-quarter (28%) of all children under age five are stunted—that is, they are too short for their age. One in ten children is severely stunted. Stunting reflects a failure to receive adequate food intake over a long period of time, and is, therefore, a measure of chronic malnutrition.

Almost 1 in 10 children under five is wasted (9%)—that is, they are too thin for their height. Wasting reflects the failure to receive adequate nutrition in the period immediately before the survey and also may be due to childhood illness. It is considered a measure of acute malnutrition. Overall, 14% of children under age five are underweight—that is, they are too thin for their age. Underweight is a composite indicator combining both chronic and acute malnutrition.



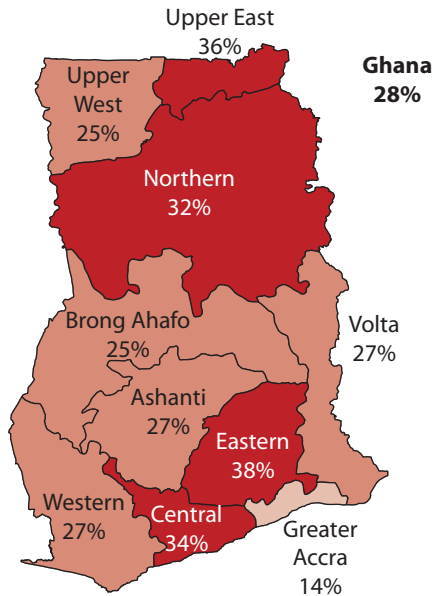
Based on the WHO Child Growth Standards, 2006

Nutritional status of children, continued

Malnutrition affects children across the country. Stunting ranges from 14% in the Greater Accra region to 38% in the Eastern region. Children living in rural areas are more likely to be stunted than children living in urban areas (32% vs. 21%). In addition, children of mothers with no education are almost twice as likely to be stunted as children of mothers with a secondary education or higher (30% vs. 18%).

Stunting by Region

*Percent of children under 5
who are stunted*



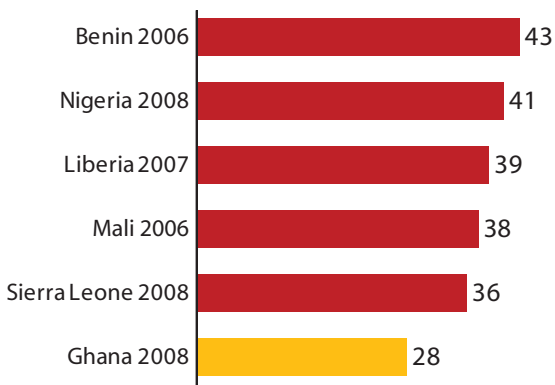
Stunting has decreased since 2003* (from 35% to 28%). Levels of wasting remained relatively constant during the same period (from 8% to 9%). The percent of children underweight has decreased slightly in the past five years (from 18% to 14%). Levels of overweight among children appear to be on the rise; they have increased from 1% in 1988 to 5% in 2008.

* 2003 GDHS nutrition data have been reanalyzed according to WHO Child Growth Standards, 2006

Rates of stunting—or chronic malnutrition—are lower in Ghana than in other countries in the region. Slightly more than one-quarter (28%) of children in Ghana are too short for their age, compared with two-fifths of children in Nigeria (41%) and Benin (43%).

Rates of wasting—or acute malnutrition—in Ghana are similar to other countries in the region. Wasting rates in Ghana are slightly higher than in Benin and Liberia and are lower than rates in Mali, Nigeria, and Sierra Leone.

Stunting
Percent of children under 5 who are too short for their age



Wasting
Percent of children under 5 who are too short for their weight



Overall, these data show that the prevalence of stunting among Ghanaian children has declined in the past five years.

Infant and Young Child Feeding (IYCF)

UNICEF and WHO recommend that children should be exclusively breastfed on demand for the first six months of life. Exclusive breastfeeding means feeding infants only breast milk and no food or other liquids, not even water. Infants should start eating solid and semi-solid foods at six months. The recommended Infant and Young Children Feeding (IYCF) practices for complementary feeding of children age 6 to 23 months are: continued breastfeeding or feeding with appropriate calcium-rich foods if not breastfed; feeding solid or semi-solid food for a minimum number of times per day according to age and breastfeeding status; and including foods from a minimum number of food groups per day according to breastfeeding status.

Breastfeeding is nearly universal in Ghana—98% of children are ever breastfed, 52% are breastfed within an hour of birth, and 82% are breastfed within 24 hours of birth. The average length of breastfeeding is 20 months.

In Ghana, 63% of children under six months are exclusively breastfed, and the average length of exclusive breastfeeding is 4 months. However, only 41% of breastfed children and 11% of nonbreastfed children age 6–23 months are fed according to all of the recommended IYCF practices.



© 2005 Paul J. Crystal, Courtesy of Photoshare

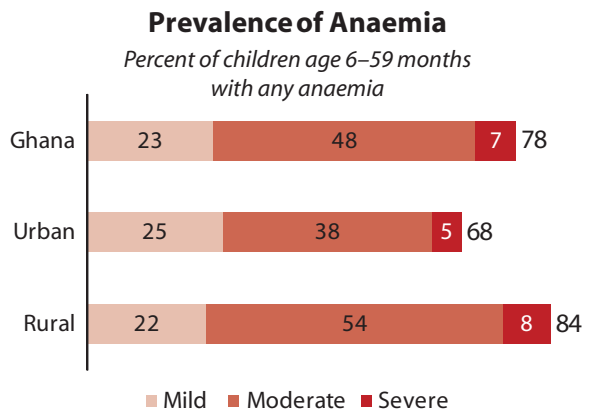
Micronutrient intake and anaemia

Micronutrient deficiency is a serious contributor to childhood morbidity and mortality. Vitamin A deficiency can cause eye damage and can increase severity of infectious diseases such as measles. Iron deficiency can impair mental and intellectual development, stunt growth, and increase morbidity from infectious diseases. Insufficient iodine in the diet can cause mental and neurological disorders in children. Children can receive micronutrients from everyday, nutrient-rich foods, fortified food (such as iodized salt), and direct supplementation.

Overall, 81% of children 6–35 months consumed vitamin A-rich foods, such as meat, fish, poultry, eggs, pumpkins, and dark green leafy vegetables, in the 24 hours before the survey. More than half of children age 6–59 months (56%) were given a vitamin A supplement in the six months before the survey. Children living in the Northern region were least likely to have received vitamin A supplements than children in other regions (41%).

In addition, 75% of children consumed iron-rich foods, such as meat, fish, poultry and eggs in the 24 hours before the survey.

Anaemia is most often caused from an inadequate intake of iron, folate, vitamin B₁₂, or other nutrients and from malaria. Anaemia among children is associated with impaired intellectual performance, motor development, coordination, language development, and scholastic achievement.



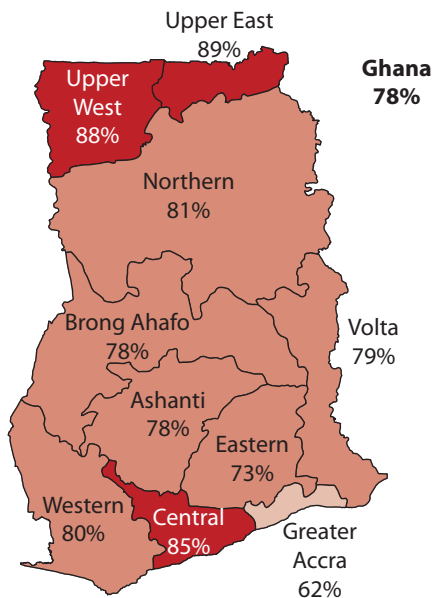
More than three-quarters (78%) of children age 6–59 months are anaemic. Twenty-three percent of children suffer from mild anaemia, 48% are moderately anaemic, and 7% are severely anaemic. Anaemia rates are higher in rural areas than in urban areas (84% vs. 68%).

Anaemia, continued

Anaemia rates are high throughout Ghana. In the Upper East (89%) and Upper West (88%) regions, almost 9 in 10 children suffer from some level of anaemia. Twelve percent of children in the Northern region are severely anaemic compared with only 2% of children the Eastern region.

Anaemia among Children by Region

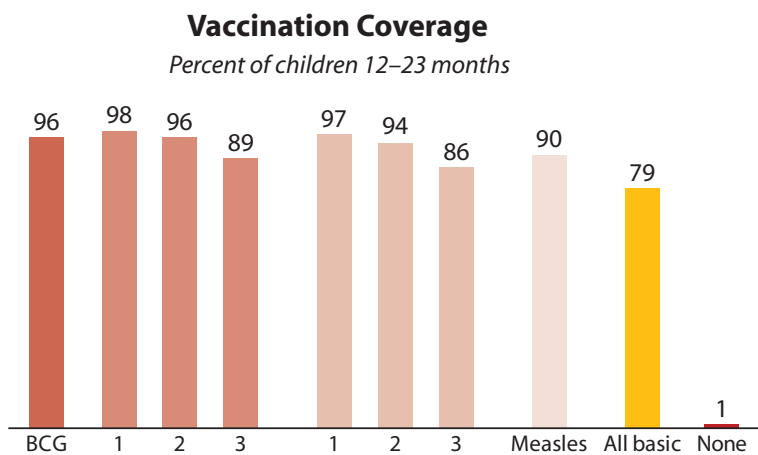
*Percent of children under 5
with any anaemia*



Vaccination

Universal immunisation against vaccine-preventable diseases is crucial to reducing infant and child mortality. According to WHO guidelines, children are considered fully vaccinated when they have received a vaccination against tuberculosis (BCG), three doses each of DPT (diphtheria, whooping cough and tetanus) and polio vaccines, and a measles vaccination by the age of 12 months.

Eight in ten children age 12–23 months (79%) received all of the recommended vaccinations. Almost all children (96%) received the BCG vaccination, and 90% were vaccinated against measles. While the coverage for the first dose of DPT is nearly universal (98%), only 89% went on to receive the third dose of DPT—a 9% dropout.



Vaccination coverage has increased steadily over the past two decades. Only 47% of children were fully vaccinated in 1988. In the 2003 GDHS, 69% of children had received all of the recommended vaccinations.

Vaccination coverage in Ghana is substantially higher than in other countries in the region. Less than one-quarter of children in Nigeria (23%) are fully immunised. In most West African countries, vaccination coverage remains below 50%.

Childhood illnesses

Diarrhoea

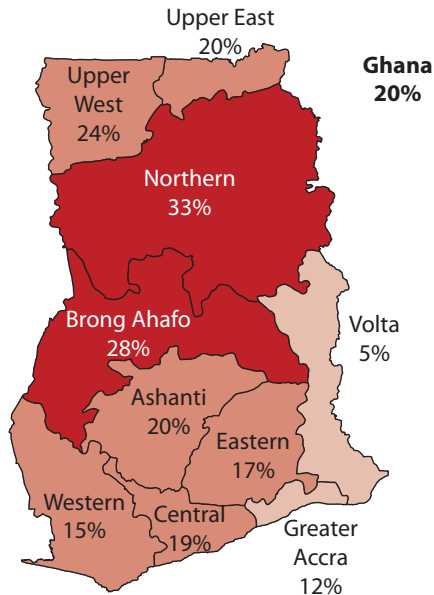
Dehydration caused by severe diarrhoea is a major cause of morbidity and mortality among young children, although the condition can be easily treated.

One of the recommended treatments is oral rehydration therapy, which includes oral rehydration salts (ORS) packets, recommended home fluids, or an increase in fluids. Another recommended treatment is to continue normal feeding.

One in five children under five years suffered from diarrhoea in the two weeks before the survey. Diarrhoea is most common among children age 12–23 months (33%) and among children living in the Northern region (33%).

Prevalence of Diarrhoea by Region

Percent of children under 5 with diarrhoea in the 2 weeks before the survey



Among children with diarrhoea, 41% were taken to a health provider or health facility. Children in rural areas are slightly more likely than those in urban areas to be taken for treatment (43% versus 38%).

Nine in ten mothers of children under five know to treat diarrhoea using ORS packets. Knowledge of ORS packets is lowest in the Northern region (73%), among mothers who have no education (80%), and those in the lowest wealth quintile (75%).

Overall, half of children with diarrhoea were given oral rehydration therapy. Forty-five percent of children were treated with ORS packets, and 13% were given recommended home fluids. Only 38% of children were given increased fluids. About the same percentage were given the unusual amount or more than the usual amount of food during their illness.

Acute Respiratory Infection

Symptoms of acute respiratory infection (ARI), cough accompanied by short rapid breathing which is chest-related, are considered to be a proxy for pneumonia, a major cause of death of young children throughout the world. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths due to pneumonia.

Six percent of children under five had symptoms of ARI in the two weeks before the survey. These symptoms are most common among children age 12–23 months (7%) and among children living in the Northern region (9%).

Of the children who had symptoms of ARI, more than half (51%) were taken to a health facility or provider. However, only one-quarter of children received antibiotics for their illness.



© 2008 Erberto Zani, Courtesy of Photoshare

Childhood illnesses, continued

Fever

Fever is a symptom of malaria and other acute infections in children. These illnesses contribute to high levels of malnutrition and mortality.

One in five children under five (20%) had a fever in the two weeks before the survey. Fever is most common among children age 12–23 months (26%).

Among children who had fever, more than half (51%) were taken to a health facility or provider; 43% took antimalarial drugs; and 25% took antibiotic drugs. Children are most likely to be brought to a health facility in the Upper East region (76%) and least likely in the Central region (32%).

Children in the wealthiest households are twice as likely to be brought to a health facility as children living in the poorest households (80% versus 41%). Seeking treatment for children with fever is higher in urban areas and increases with a mother's education.



© 2006 Erika S. Pearl, Courtesy of Photoshare

Malaria

Malaria is hyper-endemic in Ghana and constitutes one of the leading causes of morbidity and mortality, especially among pregnant women and children under five. It is estimated that malaria accounts for 22% of under-five mortality and 9% of maternal deaths (The President's Malaria Initiative, 2007).

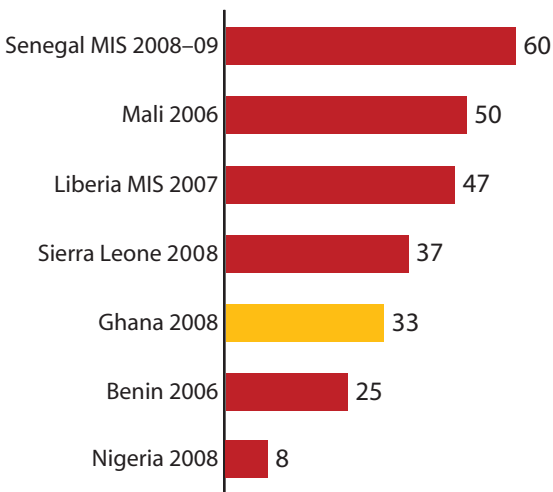
Use of insecticide-treated mosquito nets (ITNs) and the prompt diagnosis and treatment of malaria among children under age five are important strategies in addressing childhood morbidity and mortality related to malaria. Since 2002, the Government of Ghana has waived taxes on the importation of mosquito nets to Ghana and has worked with development partners to provide ITNs at a lower cost to pregnant women and children under five.

According to the 2008 GDHS, one-third of households (33%) own an insecticide-treated net (ITN), and 11% own more than one. Ownership is higher in rural areas than urban areas (38% versus 27%) and ranges from a low of 20% in the Greater Accra region to 47% in the Upper East region. Ownership has risen dramatically since the 2003 GDHS when only 3% of households owned an ITN. Despite these

improvements, Ghana still ranks in the bottom half of West African countries. Ownership is highest in Senegal where 60% of households own an ITN and lowest in Nigeria where only 8% of households own an ITN.

Ownership of ITNs

Percent of households with at least one insecticide-treated net (ITN)



Malaria, continued

Unfortunately, there is a gap between ownership of mosquito nets and use of these nets. Overall, only 28% of children slept under an ITN the night before the survey.

Children in rural areas are more likely to sleep under an ITN (31%) than children in urban areas (24%). Use of ITNs by children varies from 11% in the Northern Region to 50% in the Brong Ahafo Region. As with ownership of ITNs, use has also risen dramatically in the last five years. In 2003, only 4% of children slept under an ITN the night before the survey.

Children under five years are recognized as one of the most vulnerable groups, and as such, malaria diagnosis and treatment should be given priority. Nevertheless, of the 20% of children with fever in the two weeks before the survey, only 43% received antimalarial drugs, and 24% took the antimalarial drug the same day or the day following the onset of fever. The most common anti-malarial drugs used are Artemisinin Combination Therapy (ACT) (22%), chloroquine (9%), and SP/Fansidar/Malafan (4%).

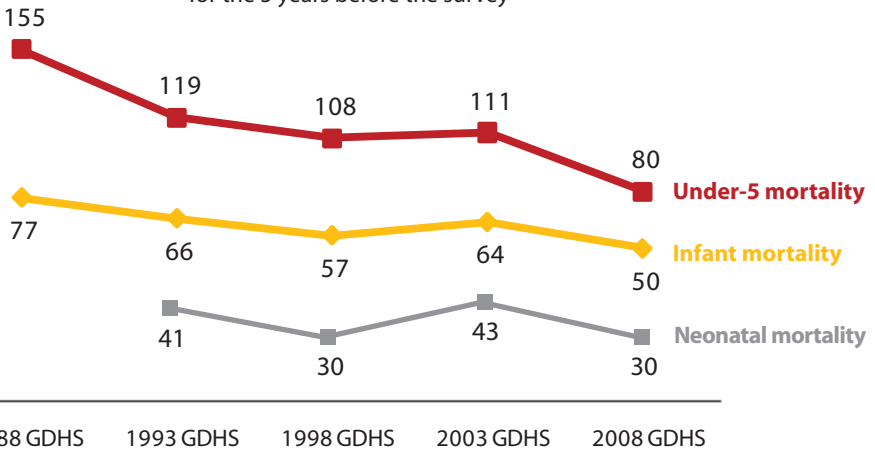
Childhood mortality

Childhood mortality rates in general, and infant mortality in particular, are often used as broad indicators of social development or as specific indicators of a population's health status. One of the targets of the Millennium Development Goals is a two-thirds reduction in infant and child mortality by the year 2015. This goal should be achieved through scaling up proven interventions—immunisation, Integrated Management of Childhood Illnesses (IMCI), Infant and Young Child Feeding practices (IYCF), and proper care for newborns.

Infant mortality in Ghana is 50 deaths per 1,000 live births and under-five mortality is 80 deaths. This means that 1 in every 20 Ghanaian children dies before reaching age one, and 1 in every 13 dies before his fifth birthday. Both infant and under-five mortality rates have dropped substantially since 2003. Neonatal mortality rates, deaths in the first month after birth, have not followed a consistent trend.

Trends in Neonatal, Infant, and Under-5 Mortality Rates

Deaths per 1,000 live births
for the 5 years before the survey



Childhood mortality, continued

Short birth intervals also significantly increase a child's risk of dying. In Ghana, the median birth interval is 40 months. However, 14% of children are born less than two years after a previous birth. Infants born less than two years after a previous birth are more than twice as likely to die in the first year of life as children who are born four years after the previous birth (88 versus 33 deaths per 1,000 live births).

When compared with other countries in the region, Ghana has the lowest child mortality rates. Ghanaian children are much less likely to die in infancy and young childhood than children in Mali, Sierra Leone, Nigeria, and Niger.

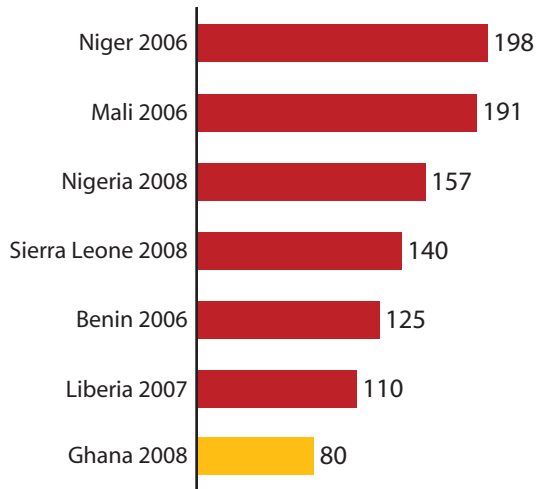
Infant Mortality

Deaths per 1,000 live births



Under-five Mortality

Deaths per 1,000 live births



Conclusions

Overall, the health and nutritional status of children in Ghana has improved over the past two decades, and Ghana stands out among West African countries in terms of child health. Still, major challenges remain.

Both infant and under-five mortality have declined over the past two decades. But, 1 in every 20 Ghanaian children dies in the first year after birth. Deaths in the first month after birth, which account for 60% of all infant mortality, have not declined.

Almost 3 in 10 Ghanaian children suffer from chronic malnutrition or stunting. Chronic malnutrition varies greatly by region, showing disparities in the quality and quantity of food children receive. For example, 38% of children in the Eastern region are stunted, compared to 14% in the Greater Accra region. A lack of adequate micronutrient intake is also a major cause for concern. More than three-quarters of children (78%) suffer from anaemia, which can slow a child's development dramatically. In addition, only 56% of children received a vitamin A supplement in the last six months.

Timely and appropriate treatment during childhood illnesses can determine the long-term health of a child. About half of children with symptoms of acute respiratory infection (ARI) and fever and 41% of children with diarrhoea were taken to a health facility or treated by a health provider. Among children with diarrhoea, only half received oral rehydration therapy. Diarrhoea, ARI, and fever are not always preventable, but effective, affordable, and accessible treatment options are necessary in order to maintain children's health.

Prevention and prompt treatment of malaria is essential for reducing childhood mortality. While ownership of insecticide-treated nets (ITNs) has risen dramatically since 2003, Ghana still lags when compared to other West African countries, such as Senegal where 60% of households own an ITN. While 33% of households in Ghana own an ITN, use of these nets is still low. Only 28% of children and 20% of pregnant women, the two most vulnerable groups, slept under an ITN the night before the survey. In addition, only one-quarter of children who were diagnosed with fever in the two weeks before the survey received prompt treatment with antimalarials of their fever. Until prevention and treatment of malaria are expanded, children will continue to suffer from this disease, and its impact on children's mortality will be significant.

