

# The *CHILD HEALTH* Millennium Development Goal

What water, sanitation and hygiene can do  
for child health in **Kenya**

## The Millennium Development Goals

In September 2000, the United Nations Millennium Summit agreed a set of time-bound and measurable goals aimed at combating poverty, hunger, illiteracy, environmental degradation and discrimination against women.

The fourth Millennium Development Goal (MDG) is to reduce child mortality. The target is to reduce by two thirds the mortality rate among children under five by the year 2015.



## Headline facts

The MDGs are strongly inter-dependent and programme interventions must reflect this. *Water, sanitation and hygiene deliver outcomes across the MDGs.*

## Why is water, sanitation and hygiene so important for child health?

- Poor water supplies, sanitation and hygiene pose a major threat to the health of children under five years.
- Water, sanitation and hygiene interventions can reduce the prevalence of diarrhoea and other diseases.
- Access to safe water, sanitation and hygiene creates a healthier home environment and reduces children's exposure to intestinal worms and other infections.
- Better access to water, sanitation and hygiene allows women more time to care for their young, thereby enhancing children's health and survival status.



## Child Health in Kenya at a Glance

### The facts

- 20% of the Kenyan population are children under five years.
- The Infant Mortality Rate in Kenya is 112 per 1000 live births.
- The Child Mortality Rate in Kenya is 74 per 1000 live births.
- Malaria, skin diseases, diarrhoea and intestinal worms combined account for up to 70% of outpatient morbidity among children under five. All are preventable.
- Diarrhoeal diseases among children under five account for over 4.7% of all outpatient cases countrywide. The annual incidence of diarrhoea is 3.5 to 4.6 episodes per child per year, making it one of the top child killers. Dehydration caused by severe diarrhoea is a major cause of morbidity and mortality.
- Intestinal worms are an important cause of outpatient morbidity among children under five and account for 6.8% of total morbidity.
- Control of communicable diseases such as malaria and diarrhoea especially among children under five years is a high priority in Kenya.

## Threats to Child Health in Kenya

### The facts

In Kenya the Ministry of Health states that:

- A significant proportion of Kenyan children living in rural areas are regularly exposed to waterborne diseases that have crippling and debilitating effects.
- Children under five are most susceptible to water-washed diseases including scabies and trachoma, which are associated with lack of adequate water supply for washing. Children's vulnerability stems from both their under-developed immune systems and intensive interaction with unsafe environments.
- Poor hygiene, which includes poor disposal of faecal matter is a key contributor to the spread of childhood diseases especially diarrhoea.
- During periods of acute water shortage in Kibera, the second largest slum in Sub-Saharan Africa, the average water consumption (20-60 litres per person per day) costs anywhere from USD \$0.26-0.78, yet the majority of residents live below the poverty line and spend less than one dollar per day. Lack of access to water forces communities living in informal settlements to spend a large proportion of their income on water leading to household poverty and consequent child malnutrition. Diarrhoea is less common among children drinking rain or bottled water than among children drinking water from unprotected sources.

### Why water, sanitation and hygiene?

- Children under five are most susceptible to water-washed diseases including scabies and trachoma which are associated with an inadequate supply of water for domestic use.





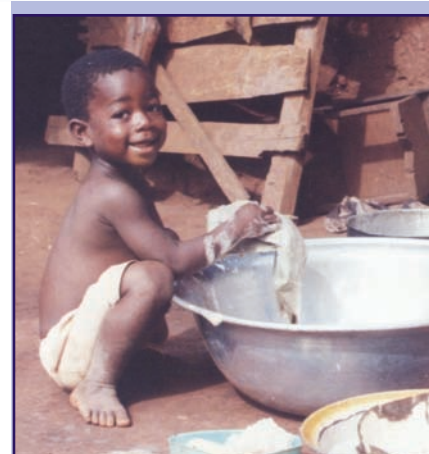
## Child Health and the Home

### The facts

- The quantity and quality of water available for domestic and drinking purposes has an impact on the health of the children.
- In Kenya, children living in unsanitary conditions, for example in slums, have a higher frequency of diarrhoea and are more likely to experience stunted growth due to worm infestation than their counterparts living in healthy environments (UN-HABITAT 2003). Case studies in low-income settlements in Kenya show that a high proportion of the Kenyan populace with debilitating intestinal worm burdens particularly among children under five years live in poor environments and neighborhoods.
- In a slum settlement in Nairobi uncovered water containers were found to be the most significant factor influencing childrens' recovery from diarrhoea.
- In Kenya, most communities mistakenly believe that young children's faecal matter is harmless. Consequently little effort is made to dispose of it safely. Healthier home environments as a result of access to safe water, sanitation and hygiene minimizes childrens' exposure to intestinal worms and other infections.

### Why water, sanitation and hygiene?

- Affordable water in sufficient quantities, available without excessive physical effort and time, facilitates improvement of household sanitation and consequently the health of children – particularly among the rural communities that spend a significant amount of time fetching water.
- Maintaining appropriate sanitation and hygiene at home significantly reduces the spread of childhood diseases and particularly diarrhoea.
- Where children are concerned, the only safe sanitation methods are those that eliminate all possibility from contact with excreta. Child friendly latrines are among the most effective sanitation options to prevent childrens' contact with excreta and subsequent infections.
- An act of washing hands with water and soap can reduce diarrhoeal disease transmission among children by one third. If this simple act were coupled with hygienic environments, the result would be significant improvements in childrens' health.
- The Kenyan experience shows that improved child health is attained when mothers devote more time to childcare as a result of easy access to water.
- Integrating water, sanitation and hygiene into the Community Integrated Management of Childhood Illnesses (C-IMCI) programme, is essential to accelerate health gains from improved management of child health at household level in Kenya.



## Child Health and Water Supply and Sanitation

### The facts

- Improved access to water is essential for life. But, for improved and sustained health, access to water must be coupled with hygiene promotion and appropriate sanitation.
- Diarrhoeal disease in children can often be controlled through low-cost measures at community and household level, rather than through expensive infrastructure interventions.
- Containment and treatment of excreta is the best means to prevent diarrhoeal disease pathogens from proliferation and transmission among children. (UN-HABITAT, 2003)
- Childrens' faeces are often viewed as harmless even though they are highly contaminated. Educating carers in the safe disposal of children's faeces is therefore critical in the prevention of diarrhoeal diseases. (Murphy et al, 1997)
- The control of flies and other insect vectors through effective drainage and solid waste management disposal is an important domestic hygiene intervention. (UN-HABITAT, 2003).

### Why water, sanitation and hygiene?

- Good sanitation practice among non-breast feeding children reduces the prevalence of diarrhoea by up to 24%.
- Water security, adequate environmental sanitation and good hygiene practices.

**This Country Note presents evidence for the impact of Water Supply, Sanitation and improved Hygiene on Child Health in Kenya.**

Full details of all the material used in support of this Country Note available at [www.Lboro.ac.uk/well](http://www.Lboro.ac.uk/well)

This Country Note is part of a series based upon the six WELL Millennium development goal briefing notes (MBN). The MBNs can be found at: <http://www.Lboro.ac.uk/well/>

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### Key References

- Ministry of Health Kenya (1999): National Health Sector Strategic Plan 1999 – 2004, Health Sector Reform Secretariat, Government Press, Kenya.
- Central Bureau of Statistics (CBS) [Kenya] Ministry of Health (MOH) [Kenya] and ORC Macro 2004. *Kenya Demographic and Health Survey 2003*, Calverton, Maryland, CBS, MOH and ORC Macro.

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