

RESPONDING TO THE CHOLERA CRISIS: UNICEF WES IN MALAWI

CASE STUDY

AUGUST 2004

1. Introduction

The global cholera pandemic

Cholera is an acute infection of the intestinal tract caused by ingesting the *vibrio cholerae* bacteria through contaminated water or food. The disease causes severe watery diarrhoea, vomiting and other symptoms. If left untreated, dehydration and death can occur within hours. Global cholera epidemics – or pandemics – have been recorded regularly since the 19th century. The current pandemic wave (the seventh) started in 1961 in Indonesia and spread rapidly throughout the world, reaching Malawi in 1973.

Cholera is easily treatable. Most cases of cholera are relatively mild and the use of oral rehydration therapy to replace lost fluids in patients almost always results in a cure. In more severe cases the use of intravenous solutions to quickly replenish fluids may be necessary. Cholera is a very serious disease not because it is hard to treat, but because it is easily spread and can kill very quickly. In one of the worst cases in recent history, a 1994 cholera epidemic (together with the related disease shigellosis) resulted in at least 48,000 cases and 23,800 deaths in the Goma refugee camp, Democratic Republic of Congo.

Because of the rapid onset and spread of the disease, the key to reducing or eliminating epidemics is prevention. And because cholera is a faecal-oral disease, prevention is only possible through the promotion of improved hygiene practices and through better access to safe water and sanitation facilities.

Cholera in Malawi

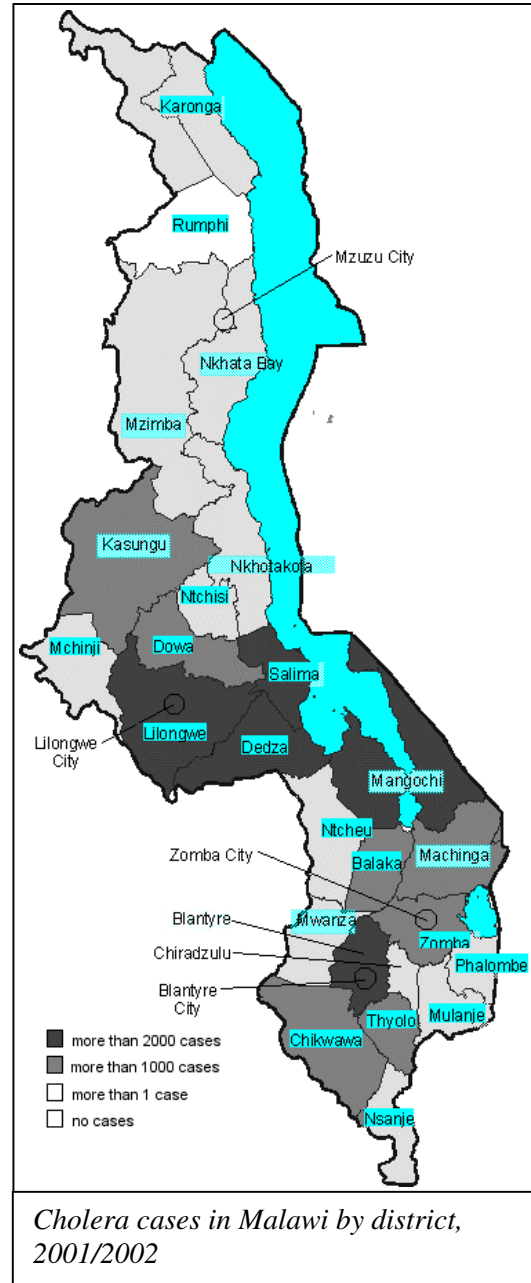
In Malawi, as in other countries, the severity of cholera cases fluctuates through yearly and seasonal cycles, with most cases occurring during the rainy season (November to April). The number of annual cholera cases rose significantly in the late 1990s and peaked during the 2001/2002 rainy season at 33,150 cases and 980 deaths.

During 2001/2002, all but one district in the country was hit by the epidemic, but then, and in general, some parts of Malawi are much more seriously affected than others. Hardest hit are districts subject to annual flooding (including lakeside fishing communities), areas with large migratory populations and poor urban and peri-urban areas. Poverty, food insecurity and HIV/AIDS are key underlying factors, in addition to the hygiene and sanitation status of communities. A severe maize shortage in 2001, a growing population of people living with HIV/AIDS, and increasing poverty resulted in large numbers of malnourished people much more vulnerable to infection and with few coping mechanisms for dealing with the disease when it hits the household.

Poor urban and peri-urban areas are especially vulnerable to cholera. Many poor people in and around cities live in informal settlements that are not covered by municipal water and sanitation services. They are forced to pay for their water from private vendors (usually at rates many times higher than municipal rates), live in crowded conditions, do not have access to safe sanitation, and have poor hygiene practices due to both lack of information and of water. Many households rely on income from seasonal labour (mainly tobacco harvesting) which becomes scarce towards the end of the year, at the very same time that the rainy season – and the cholera season – begins. As people run out of money they can no longer afford nutritious food and they become malnourished and more susceptible to any disease (and the many people living with HIV/AIDS in these areas, are especially susceptible). Even worse, residents can no longer afford water from private vendors and are forced to revert to untreated open water sources (such as the Lilongwe River in the capital), which in crowded areas are highly contaminated. Under these conditions, cholera spreads easily and quickly.

2. UNICEF response

The cholera epidemic in Malawi is the result of a wide range of interlinked causes, and the solution must also be multi-faceted. Treating cholera patients during outbreaks is a critical intervention and saves lives, but it is not enough and ultimately unsustainable. To prevent serious and recurring cholera outbreaks it is necessary to raise awareness among decision makers, to ensure that the national health network is prepared and equipped for cholera, to establish effective rapid response systems, and above all, to prevent the spread of cholera through the promotion of improved hygiene practices and better access to safe water and sanitation. To achieve these goals, UNICEF and its partners employ a variety of mutually-reinforcing strategies: advocacy and partnership building, preparedness planning, prevention (hygiene awareness raising, improving access to water and sanitation) and emergency response.



Advocacy and partnership building

The severity of the 2001/2002 outbreak underlined the need for improved consistent coordination within government and the external support community. In response, the Ministry of Health (MoH) – with UNICEF encouragement and support – established the National Cholera Task Force in 2002. In addition to MoH and UNICEF, membership also includes the Ministry of Water Development, WHO, MSF, the National Red Cross Society and the Lilongwe City Assembly. The task force’s objective is to reduce cholera morbidity and mortality by ensuring adequate prevention, surveillance and response measures are put into place.

The crisis in 2001/02 also resulted in an increase in funding support for cholera-related activities and an increase in the number of support agencies active in the area. Cholera was a component in the 2002/03 and 2003/04 UN Consolidated Inter-Agency Appeals, with WHO and UNICEF the lead agencies for health and water and sanitation respectively. Financial support to UNICEF’s cholera activities has been provided by the Canadian, Norwegian and UK UNICEF national committees, the European Office for Emergency Humanitarian Aid (ECHO) and the governments of the Netherlands, Sweden and the United States. Other agencies and organizations active in the area of cholera in Malawi include Oxfam, World Vision, the Norwegian Refugee Council (NRC) and the US Peace Corps (see box).

Preparedness and planning

The severity of the 2001/2002 cholera outbreak clearly showed that the country was not adequately prepared to mount an effective response. The UNICEF programme of support has accordingly stressed preparedness, and has focussed on five areas:

- procurement of supplies well in advance of the cholera season, and pre-positioning at the district level;

UNICEF partnership with Crisis Corps Volunteers

In 2002, UNICEF and the Malawi Ministry of Health entered into a partnership with the US Peace Corps Crisis Corp Volunteer (CCV) programme for the placement of ten qualified volunteers for a six-month period in the highest risk districts in the country (the CCV programme draws on a cadre of experienced Peace Corps volunteers). The objective of the partnership was to provide support at the district level for logistics, assessment and public awareness raising.

The CCVs were very successful in providing timely information to UNICEF and the Ministry of Health on local cholera outbreaks, the availability of critical supplies and the operational status of key water and sanitation facilities. They also helped channel pre-positioned district-level supplies to health facilities and cholera camps, which is typically the weakest link in the supply chain. The CCVs were thus able to improve the effectiveness and timeliness of the national cholera response programme during the 2002/2003 cholera season, and contributed to the dramatic drop in cases from the previous season.

Lessons learned from the CCV programme are now being applied in ongoing efforts to build district capacity for improved coordination, logistics management, surveillance and reporting, and awareness-raising programmes.

- ensuring the availability of qualified technical assistance, including dedicated consultants within UNICEF (including a WES secondee from the Norwegian Refugee Council), the Crisis Corp Volunteer programme, and support to ongoing training programmes for health and water sector personnel;
- technical and material support to the National Cholera Task Force;
- establishment and equipping of cholera camps in vulnerable areas;
- surveillance and forecasting.

Planning for cholera is just one component of the UNICEF country programme's comprehensive integrated emergency preparedness plan that covers a variety of national and sub-national emergency scenarios including floods, drought and severe food shortages. The plan, which is updated annually, is now an integral part of UNICEF's overall programme of operations.

Prevention: hygiene awareness raising and increasing access to water and sanitation facilities

The long term strategy of UNICEF and its partners in Malawi is to prevent major outbreaks through public awareness raising programmes on hygiene and cholera, and improving access to safe water and sanitation facilities. UNICEF has a two-pronged awareness raising strategy: focussed, short-term campaigns to raise awareness about cholera specifically, and ongoing comprehensive hygiene promotion programmes.

UNICEF and its partners sponsor multi-media cholera campaigns before and during the cholera season. The campaigns include cholera prevention messages in newspapers, on radio and billboards. In addition, musical and theatre groups are sponsored to develop cholera prevention material and to give shows throughout the affected districts. Government extension workers are also mobilised during this period to reinforce messages and reach more isolated communities.

Campaigns will be necessary as long as cholera continues to be major threat in the country. Ultimately, however, continuous and sustained hygiene awareness-raising programmes that are broader in scope are required to sustainably increase overall



Cholera campaign billboard: "To stop cholera in Malawi – always wash your hands after visiting the toilet, after changing a baby's nappy, before handling food or breastfeeding, before preparing food and before eating".

knowledge and improve hygiene practices. Consequently, hygiene is at the core of UNICEF's water and sanitation programme in Malawi – all projects and interventions stress hygiene awareness-raising with the ultimate goal of changing behaviour patterns and reducing mortality and morbidity from all diarrhoeal diseases, including cholera. In Malawi UNICEF emphasizes awareness-raising amongst school children to instil good hygiene practices at an early age and to raise awareness in communities as a whole. This is done primarily through school sanitation and hygiene promotion programmes that use schools to teach children about hygiene and to model and promote improved toilet and hand washing facilities. The programmes are designed to help children become 'agents of change' – to pass on the health and hygiene information learned at school to family and community members.

UNICEF's long-running programme of support to improve access to safe water and sanitation facilities in the country is also an important component in the prevention of cholera outbreaks over the long term. Coverage rates are still low in Malawi – 67 per cent of the population has access to safe water supplies and only 46 per cent to improved sanitation facilities. And in poor urban and rural communities rates are generally much lower.

UNICEF's water and sanitation programme focuses on supporting the Government of Malawi through capacity building (including training of community water committees) and policy development initiatives, and provides direct support to facility construction in target schools and in especially vulnerable communities.



New school latrines and hand-washing stations constructed with UNICEF support, Dowa district

Emergency response

During cholera outbreaks UNICEF provides emergency support in four key areas: the procurement and delivery of essential supplies, the emergency construction, rehabilitation or repair of water and sanitation facilities, hygiene promotion, and direct support for cholera case management (through the Ministry of Health).

Most supplies procured by UNICEF for cholera response are now procured well in advance and pre-positioned at the district level. Stock level requirements are determined by MoH in collaboration with UNICEF through the preparedness planning process based on past experience, local capacity and estimates of potential case numbers. Four major categories of supplies are procured:

- chemicals, mainly HTH – high test hypochlorite – for purifying water supplies and the decontaminating health facilities;

- equipment and supplies for constructing and repairing water systems and latrines (including pipes, pumps, and construction tools and materials);
- household hygiene and water handling supplies (including the UNICEF Family Water Kit, which contains soap, buckets and water purification tablets);
- health supplies for rural health centres and cholera camps (including oral rehydration salts, Ringer’s Lactate IV solution, water containers, soap and equipment such as special cholera beds).

UNICEF sponsors the emergency construction and repair or rehabilitation of water and sanitation facilities where they were needed on a critical basis (focussing on health facilities with Nutrition Rehabilitation Units, schools with school feeding programmes and highly cholera-prone communities). Through the provision of supplies and the sponsorship of training programmes, UNICEF also supports the chlorination of water supplies (see box).

Purifying Water Supplies

During the rainy season – which is also the cholera season in Malawi – water supplies are especially vulnerable to contamination, and water treatment is of critical importance. In Malawi, UNICEF and its partners support emergency water chlorination at the system, source and household levels. For water systems serving municipalities, and health and nutrition centres, UNICEF procures and distributes chlorine (HTH) powder. Chlorine is also distributed through district authorities to Health Surveillance Assistant (HSAs) who have been trained to chlorinate traditional wells. HSAs also prepare one percent chlorine stock solution, distribute it to households and train families on how to use the solution to treat drinking water at home (the “pot-to-pot” method).

To protect water supplies over the longer term, UNICEF continues to promote the rehabilitation and construction of safe, protected water sources and community capacity building for improved operation, maintenance and management of water systems (including ongoing efforts to improve the availability of hand pump spare parts). UNICEF is also involved in efforts to promote home water treatment over the long term in Malawi. It is involved with a programme sponsored by Population Services International (PSI) to promote and market WaterGuard, an inexpensive water chlorination kit. In 2003, 650,000 bottles of the treatment solution were sold.

The support is provided in vulnerable communities themselves and in critical institutions such as schools, health posts and supplemental feeding centres (see table).

UNICEF Cholera Emergency Response Programme, 2002 to Aug. 2004

Area of support	Facilities constructed
Communities in 18 cholera-affected districts, with a focus on outbreak-prone localities (including extensions of municipal piped systems in poor urban areas)	Water points (over 700 water points repaired and rehabilitated and another 150 constructed, or under construction, to date)
Forty-four schools	Water points, latrines, hand-washing facilities
Five Nutritional Rehabilitation Units (therapeutic feeding centres)	Water systems, latrines
Health centres in 5 districts	Water and sanitation systems

3. Successes and challenges

Due to the cyclical nature of cholera epidemics, the overall success of response programmes cannot be assumed from a drop in cases from one year to the next. Only a sustained reduction over several years

is proof that strategies are working and programmes are successful. In Malawi, the very significant drop in cases and deaths from the 2001/2002 season to the 2002/2003 season (see table) is a positive sign. Hundreds of deaths were averted, at least in part due to the

efforts of the Government of Malawi with support from UNICEF and other partners. The fact that there were further reductions over the next year is an indication – albeit preliminary – that prevention and preparedness systems are contributing to a long term decrease in cholera in Malawi.

Malawi: Cholera Morbidity and Mortality Rates

Season	Cases	Deaths
2001/2002	33,150	980
2002/2003	3,040	5
2003/2004 (estimate)	approx. 900	4

There are also a series of ‘spin-off’ successes from the cholera mitigation programme. Perhaps most important is the fact that the concept and practice of emergency preparedness is now more embedded in the planning and programmes of government, UNICEF and other development partners. Malawians in general, and children in particular, are especially vulnerable in a crisis situation brought on by cholera, floods or other disasters due to extreme poverty and high HIV/AIDS prevalence rates. Heightened readiness on the part of government and civil society has the potential to save many lives in the future.

The cholera pandemic has resulted in increased awareness among decision makers on the importance of hygiene and of sanitation for public health. This is important in a sector (in Malawi and elsewhere) that still has a tendency to focus too many resources on water supply and not enough on sanitation and hygiene.

Cholera has also focussed greater attention on the plight of unplanned peri-urban communities where water and sanitation services have not been provided by municipalities as a matter of policy. The severity of cholera outbreaks in poor urban has clearly demonstrated the need for these services and, in some areas, piped water systems are now being extended to reach some of these neighbourhoods. UNICEF is a strong advocate for these moves, and is directly supporting system extension to especially vulnerable areas (such as market places) and promoting peri-urban water kiosks managed by women’s groups.

Malawi is in the midst of a long-standing complex emergency due to extreme poverty, recurring drought, food shortages and HIV/AIDS. Poor Malawians thus continue to be highly vulnerable to infectious diseases in general, and cholera in particular. The key challenge in Malawi is ensuring a transition from emergency responses and cholera campaigns to balanced water and sanitation programmes that reach vulnerable people and include a strong commitment to hygiene promotion.