MINISTRY OF PUBLIC HEALTH AND SANITATION

Policy Guidelines

on Control and Management of Diarrhoeal Diseases in Children Below Five Years in Kenya

DIVISION OF CHILD AND ADOLESCENT HEALTH

March 2010

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Mark K. Bor, CBS
Permanent Secretary
Ministry of Public Health and Sanitation

ACRONYMS

CDD . . . . . Control of Diarrhoeal Diseases

CSDS . . . . . Child Survival and Development Strategy

DCAH . . . . . Division of Child and Adolescent Health

IEC . . . . . .Information, Education and Communication

IMCI. . . . . Integrated Management of Childhood Illness

NHSSP. . . . . .National Health Sector Strategic Plan

ORS . . . . . .Oral Rehydration Salts

ORT . . . . . .Oral Rehydration Therapy

HFS . . . . . Health Facility Survey

IV therapy . . . . . Intravenous therapy

ICC. . . . . .Inter-Agency Coordinating Committee

KDHS . . . . . Kenya Demographic Health Survey

MDGs . . . . . Millennium Development Goals

M&E . . . . . Monitoring & Evaluation

NG Tube . . . . . Nasogastric Tube

PATH . . . . . Program for Appropriate Technology in Health

UNICEF . . . . . United Nations Children's Fund

WHO . . . . . .World Health Organization

FOREWORD

Extensive consultation among various stakeholders marked the development process of the Policy Guidelines on Control and Management of Diarrhoeal Diseases in Children Below Five Years. These policy guidelines build on the achievements and challenges arising during the implementation of the Policy Statement on Control of Diarrhoeal Diseases (CDD) formulated in 1993 with targets going up to 1997. Similarly, the policy takes into account the Child Survival and Development Strategy and is in-line with the National Health Sector Strategic Plan II (NHSSP II – 2005-2010), whose main goal was "to reduce health inequalities and reverse the downward trends in health related outcome and impact indicators."

The policy guidelines come at a time when there are indications that, in some countries, knowledge and use of appropriate preventive measures and home therapies to successfully manage diarrhoea may be declining. This has led to an upsurge in diarrhoea related morbidity and mortality among children below five years. The development of this policy statement has also taken into account two recent advances by UNICEF and WHO in managing diarrhoeal disease: newly formulated oral rehydration salts (ORS) containing lower concentrations of glucose and salt, and success in using zinc supplementation.

It is envisaged that resource allocation for child health programmes will be increased so that the outlined policy strategies can be achieved. The strategies targeted for implementation are building capacity, strengthening health systems and empowering families and communities to take charge of diarrhoeal diseases.

Successful implementation of this policy will require the coordinated action of many sectors and the participation of all stakeholders in the health sector.

I am confident that these policy guidelines will inform the process of joint annual planning for control and management of diarrhoeal diseases in children below five years in Kenya. I request and urge all stakeholders in the health sector to put great effort into implementing this policy as a means of averting preventable morbidity and mortality in our country and improving the quality of life of Kenyan children.

Hon. Beth Mugo, EGH, MP
Minister for Public Health and Sanitation
March 2010

1.0 BACKGROUND

A policy statement was formulated for the Control of Diarrhoeal Diseases (CDD) program in 1993 with benchmarks through 1997. In 1997, the CDD merged with other programs to become the Integrated Management of Childhood Illness (IMCI) strategy and, as a result, this policy was not revised.

In 2004, WHO and UNICEF released revised recommendations aimed at dramatically reducing the number of child deaths due to diarrhoea. These new recommendations take into account two significant recent advances: a new formulation of ORS containing lower concentrations of glucose and salt (low osmolarity ORS), and the use of zinc supplementation in addition to rehydration therapy in the management of diarrhoeal diseases. Prevention and treatment of dehydration with ORS and fluids commonly available at home, breastfeeding, continued feeding, selective use of antibiotics and providing treatment with zinc for 10 to 14 days are the critical therapies aimed at achieving the goal of reduced morbidity and mortality due to diarrhoeal diseases.

Despite much effort and successes in the management of diarrhoea, the disease has remained among the top five causes of mortality and morbidity in Kenya, particularly among infants and children below five years. Though diarrhoea is well articulated in the IMCI guidelines, the coverage of health workers in the country who are trained on IMCI has remained low. In addition, there is no policy statement on management of diarrhoeal diseases, which leaves a policy gap. In view of this scenario, a diarrhoea policy has become necessary to inform the management and prevention of diarrhoea.

2.0 SITUATION ANALYSIS

A National IMCI Health Facility Survey (HFS), conducted in November 2006 by the Division of Child and Adolescent Health, Ministry of Public Health and Sanitation with support from partners, revealed concerns in the way diarrhoeal diseases are managed. Though diarrhoea is the third most common cause of mortality and morbidity in the country with a case fatality of up to 21 percent, the HFS showed that only 55 percent of the children with diarrhoea were correctly assessed and classified appropriately. Further, almost 10 percent of the caregivers were advised to give the child extra fluids, which translates to poor case management and reflects a reduced focus on diarrhoeal diseases. The HFS further showed a decline in the functional oral rehydration therapy (ORT) corners and an increased irrational use of antibiotics in the management of diarrhoea. Further, a review of various Kenya Demographic and Health Surveys (KDHS) shows a continued decline in ORS use in the last 10 years.

3.0 POLICY OBJECTIVES

The overall objective of this policy is to reduce diarrhoea-associated mortality and morbidity in children below five years.

3.1 Specific Objectives

1. Reduce by one-half deaths due to diarrhoea among children below five years by 2013
2. Reduce by two-thirds the mortality rate among children below five years by 2015 compared to 1990 (United Nations Millennium Development Goals)
3. To strengthen monitoring and evaluation
4. To ensure availability and strengthen logistical management of commodities for diarrhoea management such as zinc, ORS, Rehydration Solution for Malnutrition (ReSoMal), intravenous fluids and vitamin A.

4.0 POLICY STRATEGIES

Appropriate control and management of diarrhoeal diseases is a priority effort of the Government of the Republic of Kenya. The Division of Child and Adolescent Health (DCAH) of the Ministry of Public Health and Sanitation will ensure the planning, coordination and technical guidance in this respect. Improved home and clinic-based case management will be the primary focus of the programme for reducing diarrhoeal mortality and morbidity in children below five years.

To achieve the objectives of this policy, the strategies employed shall include:

- Capacity building
- Home-based case management
- Prompt and effective facility-based case management
- Prevention of diarrhoea
- Advocacy
- IEC and Behaviour Change Communication
- Logistics management

4.1 Capacity Building

This policy advocates for strengthening of the necessary human resource capacity through training and orientation to target health managers, in-service health workers, community health workers and health training institutions.

4.2 Home-based Case Management

Parents and other caretakers of children below five years of age will be empowered to give early treatment at home to children with diarrhoea following the four main rules of home therapy, which are:

i. To increase fluid intake to prevent dehydration when diarrhoea starts.
   - For exclusively breastfed children, breastfeed more frequently and for a longer time at each feed, at least eight times day and night (in 24 hours) and give ORS.
   - For children not on exclusive breastfeeding; continue breastfeeding and give plenty of recommended fluids (ORS and home fluids).

This policy recommends the following fluids:

- Cereal gruel (Uji)
- Fresh and fermented milk
- Fresh fruit juices
- Soups prepared from meat, fish and chicken
- Oral Rehydration Salts (ORS)
- Breast milk
- Clean, safe water

Breast milk is an important source of nutrition and, for children who are breastfed (either exclusively or non-exclusively), it should be continued during and after diarrhoea.

NB: Salt-sugar solution, bottled/packed commercial soft drinks and juices must not be used.

ii. To increase child's feeding including breastfeeding during and after diarrhoea.
   - For exclusively breastfed children, breastfeed more frequently and for longer time at each feeding, at least eight times day and night (in 24 hours).
   - For children not on exclusive breastfeeding, continue breastfeeding and in addition, the child should be given small feeds of nutritious, easy-to-digest food frequently (5-6 times per day). Avoid foods with

lots of sugar, foods with high fiber or bulky foods such as coarse fruit and vegetables, fruit and vegetable peels and whole grain cereals. The extra feeding should be continued for at least two weeks after acute diarrhoea has stopped and for at least one month in cases of persistent diarrhoea to promote catch-up growth.

iii. To give zinc as recommended to all children with diarrhoea.

iv. To recognize danger symptoms and signs of dehydration that will enable parents to seek treatment outside home.

4.3 Prompt and Effective Case Management at Health Facilities

Staff in health facilities will be trained to correctly assess patients with diarrhoea, determine and classify the degree of dehydration and prescribe appropriate treatment according to the child's degree of dehydration and nutritional status. All children with signs of dehydration will be given appropriate treatment for correction and prevention of dehydration.

The following principles are recommended in diarrhoeal management:

(i) Oral Rehydration Salts (ORS)

The mainstay of therapy to correct dehydration will be low osmolarity ORS. All children with diarrhoea should be given ORS. The policy recommends the local production and procurement of ORS. Outlets for ORS will be health facilities, pharmacies (public/private), retail shops and community health workers.

On discharge, parents and other caretakers will be given sufficient ORS sachets to last two (2) days. This includes cases where children show no signs of dehydration. This is to replace the ongoing losses, so that the child does not develop further dehydration.

All parents and other caretakers will receive correct instructions on home care and treatment.

NB: The policy recommends the use of half (1/2) litre ORS sachets in <u>all</u> government, private and non-governmental health facilities.

(ii) Zinc supplementation

It has been shown that zinc reduces the duration and severity of episodes, and lowers incidence of diarrhoea in the following 2-3 months. All patients with diarrhoea should therefore be given zinc supplements as soon as possible after diarrhoea has started as part of first line treatment.

(iii) Intravenous therapy (IV)

Intravenous therapy will be used in children with the following conditions:

- Severe dehydration
- Severe, profuse, repeated diarrhoea
- Persistent vomiting
- Inability to drink
- Abdominal distention
- Paralytic ileus and
- Glucose malabsorption

The fluid of choice will be Ringer's lactate (Hartmans Solution). In cases where it is not available, normal saline can be used.

Every effort will be made to replace IV therapy with oral therapy as soon as the child is able to drink. Where the child cannot get IV therapy at once, ORS solution will be given by nasogastric (NG) tube or orally until IV

therapy is started.

(iv) Management of dehydration in children with severe malnutrition

The fluid of choice is Rehydration Solution for Malnutrition (ReSoMal).

IV fluids should not be used unless the child is in shock.

(v) Use of drugs

Drugs will be given only when deemed absolutely necessary during the management of diarrhoeal diseases. The prevailing national guidelines shall apply but will follow the general guide.

- Anti-diarrhoeal agents

Anti-diarrhoeal drugs and anti-emetics will not be used. None have any proven practical value and some are dangerous.

- Antibiotics

Antibiotics will be used only for suspected or proven dysentery and cholera. In diarrhoea of any other aetiology antibiotics are of no practical value and should not be given.

- Anti-protozoal drugs

Anti-protozoal drugs should only be used for the treatment of amoebiasis and giardiasis.

Anti-microbial agents currently recommended for use in the treatment of diarrhoea in children:

Condition	Antibiotic
Cholera	1st line: Erythromycin 2nd line: Chloramphenical
Shigella dysentery	Ciprofloxacin
Amoebiasis	Metronidazole
Giardiasis	Metronidazole

4.4 Prevention of Diarrhoea

Prevention of diarrhoea is important because diarrhoea can cause death and stunting in infants and young children.

The following preventive interventions have been shown to be cost-effective and will be incorporated into diarrhoea-control activities.

(i) Improved nutrition through promotion of breastfeeding and appropriate complementary feeding
(ii) Adequate supply and use of safe drinking water
(iii) Good personal, domestic hygiene and sanitation
(iv) Childhood immunization
  - Strengthening routine immunizations
  - Introduction of new vaccines targeting diarrhoea such as rotavirus
(v) Vitamin A supplementation

4.5 Advocacy

Advocacy shall be a key approach to mobilize resources and enhance partnerships to build support for diarrhoea management and prevention.

4.6 IEC and Behaviour Change Communication

All Kenyans shall have access to appropriate, accurate and culturally relevant information on diarrhoea. Communication strategies shall be identified at every level to address issues of diarrhoea.

4.7 Logistics Mangement

Logistics management system shall be strengthened to ensure availability and a sustained supply of equipment and supplies for diarrhoea management.

5.0 POLICY IMPLEMENTATION

This policy will be implemented within the framework of the IMCI Strategy towards achieving the goals of Child Survival and Development Strategy (CSDS), Millennium Development Goals (MDGs) and the Vision 2030.

This will require the following:

5.1 Clinical Practice Guides

Guidelines and standards will be developed or updated for use by health workers for prevention and management of diarrhoea at all levels.

5.2 Capacity Building

Health workers responsible for the prevention and/or management of diarrhoea shall be trained or retrained to ensure they offer quality services. This training shall be incorporated into the syllabi for health training institutions and in-service training conducted as appropriate. Community health workers will also be trained.

5.3 Logistics

An effective system shall be promoted for procurement and distribution of diarrhoea management logistics such as drugs, ORS, Zinc Sulfate, ORT corner equipment, and IV fluids. ORT corners shall be strengthened to include availability of ORT registers to provide information.

5.4 Monitoring and Evaluation (M&E)

Since M&E is crucial to the success of this policy implementation, the policy advocates for supportive supervision and adequate monitoring and evaluation of the strategic approaches to diarrhoea prevention and management.

In addition to supportive supervision, appropriate indicators, together with methods, tools and clear accountability for their timely collection and analysis shall be developed and used to meet clear objectives for monitoring and evaluation as defined from time to time.

5.5 Coordination and Management

The Division of Child and Adolescent Health shall have the primary responsibility in the implementation of this policy and will ensure the planning, coordination and technical guidance in this respect. Improved home and health facilities based case management and prevention of diarrhoea will be the primary focus for reducing diarrhoeal mortality and morbidity in children below five.

The intersectoral collaboration shall be through the Child Health Interagency Coordinating Committee (Child Health ICC).

5.6 Promotion of Research

The policy shall encourage targeted operational and other research as well as promote utilization of the research findings. The research findings shall inform the policy and guide the implementation process.

5.7 Adequate Resources

The policy advocates for appropriate financial mobilization by all partners in the health care provision, medical training institutions, faith-based organizations, the pharmaceutical industry, development partners and the community.

Annex

The seven (7) points in the WHO and UNICEF 2004 joint statement for comprehensive prevention and treatment of diarrhoea:

	Treatment Package
1.	Fluid replacement to prevent dehydration
2.	ORS and zinc supplementation
	Prevention Package
3.	Promotion of early and exclusive breastfeeding and vitamin A supplementation
4.	Rotavirus and measles vaccination
5.	Promotion of handwashing with soap
6.	Improved water supply quantity and quality, including treatment and safe storage of household water
7.	Community-wide sanitation promotion

For further details, please refer to UNICEF/WHO, *Diarrhoea: Why children are still dying and what can be done*, 2009, p.31.

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