Policy Guidelines for Management of Diarrhoea in Children Below Five Years in Kenya

August 2014
FOREWORD

Extensive consultation amongst various stakeholders marked the revision of “The Policy Guidelines on Control and Management of Diarrhoeal Diseases in Children Below Five Years in Kenya” of 2010, which build on the achievements and challenges arising during the implementation of the Policy Statement on Control of Diarrhoeal Diseases (CDD) formulated in 1993, the Child Survival and Development Strategy and the National Health Sector Strategic Plan II (NHSSP 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 on Control and Management of Diarrhoeal Diseases in Children Below Five Years in Kenya” came at a time when there were indications that, in some countries, knowledge and use of appropriate preventive measures and home therapies to successfully manage diarrhoea may be declining. This led to an upsurge in diarrhoea related morbidity and mortality among children below five years. Also included were the recommendations by WHO and UNICEF in 2004 for managing diarrhoeal disease using low osmolarity oral rehydration salts (ORS) and use of Zinc sulphate.

Since 2010, Kenya has adopted several initiatives to increase access to diarrhoea treatment for children. These include; The National Diarrhoea and Pneumonia Scale Up Plan, re-classification of Zinc sulphate from prescription only to over the counter product, development of a locally produced ORS/Zinc co-pack and the introduction of Rotavirus vaccine into the national routine immunization schedule. In addition, the country recognizes the community health strategy, which allows Community Health Volunteers (CHVs) to manage diarrhoea at the community. These developments necessitated the revision of the Policy Guidelines on Control and Management of Diarrhoeal Diseases in Children Below Five Years.
It is envisaged that resource allocation for child health programmes will be increased so that the strategies outlined in this policy can be achieved. The strategies targeted for implementation are capacity building, strengthening health systems and empowering families and communities to take charge in the prevention and management 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.

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- Child Health ICC members
- WHO – Kenya Country Office
- UNICEF – Kenya Country Office
- Micronutrient Initiative (MI)
- Program for Appropriate Technology in Health (PATH)
- Population Services Kenya (PSK)
- Clinton Health Access Initiative (CHAI)
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ACRONYMS

CDD .......................................................... Control of Diarrhoeal Diseases
CSDS .......................................................... Child Survival and Development Strategy
CHEWs ......................................................... Community Health Extension Workers
CHVs .......................................................... Community Health Volunteers
CME ............................................................ Continuous Medical Education
DHIS .......................................................... District Health Information Systems
HFS .............................................................. Health Facility Survey
ICC ............................................................. Inter-Agency Coordinating Committee
iCCM ........................................................... Integrated Community Case Management
IEC .............................................................. Information, Education and Communication
IMCI ............................................................. Integrated Management of Childhood Illnesses
IMCI ............................................................. Integrated Management of Childhood Illnesses
IV ................................................................. Intravenous therapy
KDHS ........................................................... Kenya Demographic and Health Survey
MCHC .......................................................... Maternal and Child Health Clinic
MCHIP .......................................................... Maternal Child Health Integrated Program
MDGs ........................................................... Millennium Development Goals
M&E ............................................................. Monitoring & Evaluation
MI ............................................................... Micronutrient Initiative
MoH .............................................................. Ministry of Health
NCAHU ........................................................ Neonatal, Child and Adolescent Health Unit
NHSSP .......................................................... National Health Sector Strategic Plan
NG Tube ......................................................... Nasogastric Tube
OPD ............................................................. Out Patient Department
ORS .............................................................. Oral Rehydration Salts
ORT ............................................................. Oral Rehydration Therapy
PATH .......................................................... Program for Appropriate Technology in Health
UNICEF ........................................................ United Nations Children’s Fund
WHO .......................................................... World Health Organization
# TABLE OF CONTENTS

FORWARD ................................................................................................................. i

ACKNOWLEDGEMENTS ..................................................................................... ii

ACRONYMS ........................................................................................................ iii

1.0 BACKGROUND ................................................................................................ 1

2.0 SITUATION ANALYSIS ................................................................................... 2

3.0 POLICY OBJECTIVES .................................................................................... 2

3.1 Specific Objectives ......................................................................................... 2

4.0 POLICY STRATEGIES .................................................................................... 3

4.1 Capacity Building ............................................................................................ 4

4.2 Case Management ........................................................................................... 4

4.3 Prevention of Diarrhoea .................................................................................. 10

4.4 Advocacy ......................................................................................................... 11

4.5 Health Communication and Social Mobilization ........................................... 11

4.6 Commodities, Supplies and Equipment ......................................................... 12

5.0 POLICY IMPLEMENTATION .......................................................................... 12

5.1 Clinical Practice Guides .................................................................................. 13

5.2 Capacity Building ............................................................................................ 13

5.3 Logistics .......................................................................................................... 13

5.4 Monitoring and Evaluation (M&E) ................................................................. 13

5.5 Coordination and Management ....................................................................... 14

5.6 Promotion of Research ................................................................................... 15

5.7 Adequate Resources ......................................................................................... 15

vi
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.

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 significant advances: a new formulation of ORS containing lower concentrations of glucose and salt (low osmolarity ORS), and the use of Zinc sulphate 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. The developments led the Ministry of Health to formulate the "Policy Guidelines on Control and Management of Diarrhoeal Diseases in Children Below Five Years in Kenya" in 2010.

Since 2010, Kenya has adopted several initiatives to increase access to diarrhoea treatment for children. These include; the national diarrhoea and pneumonia scale up plan, re-classification of Zinc sulphate from prescription only to over the counter product, development of a locally produced ORS/Zinc co-pack and the introduction of Rotavirus vaccine into the national routine immunization schedule. In addition, the country recognizes the community health strategy, which allows Community Health Volunteers (CHVs) to manage diarrhoea at the community. The foregoing has necessitated the revision of the policy guidelines.
2.0 SITUATION ANALYSIS

Diarrhoea has remained a major public health challenge and a barrier to achieving MDG 4 despite great effort employed so far. In Kenya, diarrhoea is the second leading cause of morbidity with a prevalence of 17% as reported in the Kenya Demographic and health survey (KDHS) 2008/09 and accounts for 21% of under-five child deaths. In addition, diarrhoea is a major cause of malnutrition. Reducing the deaths from diarrhoea largely depends on whether the children are able to access the lifesaving ORS and Zinc tablets. While the use of low osmolarity Oral Rehydration Salts (ORS) and Zinc supplementation can prevent up to 93% and 23% of deaths from diarrhoea respectively these treatments are more often not accessed by the children who need them most leading to deaths. According to the Kenya demographic and health survey of 2008-9, less than half (49%) of the children with diarrhoea were taken to a health care provider for care. Further, only 39% of children received ORS treatment and less than 1% received Zinc sulphate as part of their treatment for diarrhoea. A review of various Kenya Demographic and Health Surveys (KDHS) showed a continued decline in ORS use in the last 10 years as well as inadequate treatment practices at the health facilities.

3.0 POLICY OBJECTIVES

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

3.1 Specific Objectives

1. To strengthen strategies that will ensure children with diarrhoea are managed according to the set standards
2. To facilitate monitoring and evaluation in diarrhoea management at all levels
3. To create an enabling environment for logistical management of commodities for diarrhoea management
4. To promote strategies for demand creation and uptake of diarrhoea management interventions at all levels.
5. To promote strategies for prevention and control of diarrhoea

4.0 POLICY STRATEGIES

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

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

- IMCI strategy
  - Integrated community case management
  - Prompt and effective facility-based case management
- Prevention of diarrhoea
- Advocacy
- Health communication and social mobilization
- 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 Volunteers and medical training institutions. All facility level health care workers managing children shall be trained on Integrated Management of Childhood Illnesses. In order to
strengthen access to community case management, all Community Health Volunteers shall be trained on Integrated Community Case Management.

4.2 Case Management

Health care workers at all levels shall be trained to correctly assess children with diarrhoea, classify and manage according to the standard treatment guidelines

4.2.1 Home based 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 continue and 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 ORS & Zinc as a recommended combination therapy for all children with diarrhoea.

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

### 4.2.2 Community case management

All staff implementing integrated Community Case management (iCCM) including Community Health Extension Workers (CHEWs), nutritionists, Public health officers and Community Health Volunteers (CHVs) are
responsible for health care provision at the community level (level one). The CHEWs & CHVs shall be trained to provide promotive, preventive and curative interventions in the community on diarrhoea as per iCCM guidelines.

The CHVs shall also be trained to use the available tools to capture data at the community level and transmit the same to the link health facility

4.2.3 Health facility case management

Health care providers in (Public, private and faith based facilities) shall implement outlined MoH guidelines in management of diarrhoea in children under five years old.

All health care workers including Doctors, Nurses, Clinical officers, Nutritionists, Pharmacists and Public health officers shall be trained on proper case management in children under five years. The following recommendations form the minimum package for facility case management:

i. All facilities shall have a functional ORT corner for immediate start of on-site rehydration of children with diarrhoea as recommended in the ORT corner operational guidelines.

ii. All children with diarrhoea should be given ORS& Zinc combination therapy as soon as diarrhoea has started. Combination therapy of ORS & Zinc tablets (Co-pack) is available at the following places:
   a. Public health facilities
   b. Community health units
   c. Pharmacies (public/private)
   d. Retail shops
On leaving a health facility for home, a caregiver shall be given one co-pack containing (4 sachets of ORS & 10 tablets of Zinc) and will receive guidance on home management. In addition the caregiver should be advised to return to the health facility within two days if diarrhoea continues or immediately if the child:

- Is not able to drink or breast feed
- Becomes sicker
- Is vomiting everything
- Is drinking poorly
- Has blood in stool

**Product information on ORS & Zinc sulphate**

<table>
<thead>
<tr>
<th>ORS</th>
<th>ZINC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product information:</strong></td>
<td><strong>Product information:</strong></td>
</tr>
<tr>
<td>• Low osmolarity ORS</td>
<td>• Dispersible tablets (20mg)</td>
</tr>
<tr>
<td>• Local production &amp;</td>
<td>• Local production and</td>
</tr>
<tr>
<td>procurement</td>
<td>procurement</td>
</tr>
<tr>
<td>• ½ litre sachet</td>
<td></td>
</tr>
<tr>
<td><strong>Benefits:</strong></td>
<td><strong>Benefits:</strong></td>
</tr>
<tr>
<td>• Reduces stool output</td>
<td>• Reduces the duration and</td>
</tr>
<tr>
<td>• Reduces incidence of</td>
<td>severity of episodes,</td>
</tr>
<tr>
<td>vomiting</td>
<td>Lowers incidence of</td>
</tr>
<tr>
<td>• Replaces sodium</td>
<td>diarrhoea in the</td>
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<tr>
<td>bicarbonate &amp; potassium</td>
<td>following 2-3 months.</td>
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<tr>
<td>• Replaces burden of having</td>
<td>• Reduces the incidence of</td>
</tr>
<tr>
<td>to admit and treat with</td>
<td>pneumonia</td>
</tr>
<tr>
<td>IV fluids</td>
<td>• Improves cellular</td>
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<td>intestinal immune</td>
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<td>/epithelial function</td>
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<td></td>
<td>• Increased functioning</td>
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<td>of the immune system.</td>
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iii. **Vitamin A.** All children with diarrhoea shall be given an appropriate dose of Vitamin A at the facility if they have not received a dose in the last one month.

iv. **Intravenous therapy (IV)**

Intravenous therapy shall be used in children with the following conditions:
- Severe dehydration (As per IMCI guidelines)
- Severe, profuse, repeated diarrhoea
- Persistent vomiting
- Inability to drink
- Abdominal distention
- Paralytic ileus—
- Glucose malabsorption
- Shock

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

Every effort shall 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 shall be given by nasogastric (NG) tube or orally until IV therapy is started.

v. **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.
vi. Use of Other drugs

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

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

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

Anti/protozoal drugs:
• Anti/protozoal drugs shall only be used for the treatment of amoebiasis and giardiasis.

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

<table>
<thead>
<tr>
<th>Condition</th>
<th>Antibiotic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholera</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; line: Erythromycin</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; line: Chloramphenicol</td>
</tr>
<tr>
<td>Shigella dysentery</td>
<td>Ciprofloxacin</td>
</tr>
<tr>
<td>Amoebiasis</td>
<td>Metronidazole</td>
</tr>
<tr>
<td>Giardiasis</td>
<td>Metronidazole</td>
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</tbody>
</table>
4.2.4 Case management at retail outlets

Providers at retail outlets shall be sensitized on MoH guidelines on managing diarrhoea in children under five years old emphasizing:-

a) Treatment of childhood diarrhoea with ORS & Zinc – (co pack) 4 sachets of ORS & 10 tablets of Zinc).
b) Most children with diarrhoea do not require Antibiotics and anti-emetics
c) Provision of counselling messages to caregivers on management of diarrhoea based on the existing MoH guidelines.

4.3 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:-

- Promotion of early and exclusive breastfeeding
- Rotavirus and measles vaccination
- Vitamin A supplementation
- Promotion of hand washing using running water and soap particularly at the four critical times (Before preparing food, before feeding the baby, after visiting a toilet and after changing baby’s napkins)
- Improved water supply quantity and quality, including treatment and safe storage of household water.
- Proper disposal of human faeces including babies
4.4 Advocacy

Advocacy shall be a key approach to mobilize resources and enhance partnerships with political and social leadership to build support, acceptance and commitment for diarrhoea management and prevention both at National and County Levels.

4.5 Health Communication and Social Mobilization

The policy emphasizes the promotion of approaches to engage participation of the communities to share health related information with a goal of adapting and sustaining Behaviour change practices for diarrhoea management. This will be realized through development of appropriate, accurate and culturally acceptable messages and utilize a variety of channels in their dissemination including electronic media, IEC materials, Community social mobilization and school health programme.

Other strategies include rallying of communities through dialogue and consensus towards demand creation and increase uptake of diarrhoea management interventions.

4.6 Commodities, Supplies and Equipment

Services: Every delivery point at facility level providing services to children under five shall be adequately equipped with relevant resources for diarrhoea management (MCHC, OPD and Wards). All health care facilities shall have under five registers, ORT corner registers, case management summary tools, guidelines, job aids, IEC materials, drugs, equipment and supplies at the main entry points for children.
Drugs, Equipment and Supplies:

A commodity management system, which enhances visibility of procured drugs, equipment and supplies, shall be promoted to strengthen the availability of diarrhoea management commodities.

The following drugs, equipment and supplies shall be available at all times.
   a) Drugs:
       Zinc +ORS, erythromycin, chloramphenicol, ciprofloxacin, Vitamin A, metronidazole and intravenous fluids (IV fluids) such as Ringer’s lactate (Hartman’s solution) normal saline and Resomal

   b) Oral Rehydration Equipment and Supplies as per the ORT Corner guidelines)

**5.0 POLICY IMPLEMENTATION**

This policy shall be implemented within the framework of:
   1) Child Survival and Development Strategy
   2) The IMCI Strategy
   3) iCCM Framework and Plan of Action - 
   4) National Diarrhoea and Pneumonia Implementation Plan.
   5) Child Health Communication Strategy
   6) Millennium Development Goals (MDGs),
   7) Vision 2030

**5.1 Clinical Practice Guidelines**

The guidelines below have been developed for use by health workers for prevention and management of diarrhoea at all levels.
   1) IMCI guidelines
   2) Basic Paediatric Protocols,
3) ORT corner operational guidelines,
4) M/E framework
5) iCCM guidelines/manuals
6) Diarrhoea management CME package
7) Diarrhoea management job aids
8) Mother Child-health booklet.

5.2 Capacity Building

Health workers shall be trained or retrained to ensure they offer quality services. This training shall be incorporated into the syllabi of medical training institutions and in-service training and conducted as appropriate. The following training approaches shall be applied: IMCI, iCCM, CMEs, e-Learning, mentorship and on job training.

5.3 Monitoring and Evaluation (M&E)

Since M&E is crucial to the success of this policy implementation, the policy advocates for supportive supervision, mentorship, on job training, CMEs, and routine facility level monitoring of diarrhoea case management, commodity availability, human resource capacity and availability of guidelines, job aids and tools.
For increased visibility and informed decision making, District Health Information System (DHIS) shall be utilized to report diarrhoea cases, classification and treatment for children below five years.

Appropriate indicators including case load, degree of dehydration and treatment shall be routinely monitored and analyzed for decision making at all levels (national, county, Sub-County, facility and community). Counties shall ensure all facilities are equipped with relevant data collection and reporting tools, which include the under five register, ORT corner register, and Under five summary sheets. At the community the following data collection
tools will be used: sick child recording form, CHVs treatment and tracking registers, CHEWs monthly summary registers and the commodity registers. Emphasis shall be on complete, accurate and timely data capture and use.

5.4 Coordination and Management

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

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

5.5 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.

5.6 Adequate Resources

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