Zinc/ORS Scale-up in Kenya

Diarrhea & Pneumonia Working Group
October 7-8, 2013, Washington DC
There is not only a high diarrhoea incidence in Kenya, but poor care seeking and un-recommended treatment practices are very prevalent….

*Includes care seeking from pharmacies & shops*
In Kenya, there is a need to work with public and private sectors to scale up zinc and ORS, and focus on reaching those who don’t seek care.

### Diarrhea Treatment by Source and Treatment

Proportional distribution of sources of care for diarrhea in Kenya\(^1\), percentage, 2008

<table>
<thead>
<tr>
<th>Source</th>
<th>Treatment</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>No treatment</td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Other treatment*</td>
<td></td>
<td>28%</td>
</tr>
<tr>
<td>ORS</td>
<td>Public sector</td>
<td>42% (~9M)</td>
</tr>
<tr>
<td></td>
<td>Private clinics</td>
<td>9% (~1.5M)</td>
</tr>
<tr>
<td></td>
<td>Pharmacies/</td>
<td>9% (~1.5M)</td>
</tr>
<tr>
<td></td>
<td>Home</td>
<td>40% (~9M)</td>
</tr>
</tbody>
</table>

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1. Source: Kenya DHS 2008; Malaria Indicator Survey 2010
2. Source: Kenya Service Provision Assessment 2010

Alternative treatment not including ORS; could be home-based fluids, antibiotics, antidiarrheals, and/or other treatments.
As of Q3 2013, key progress has been made to facilitate an enabling environment for change

<table>
<thead>
<tr>
<th>National scale-up plan endorsed</th>
<th>Achieved</th>
<th>The <em>Scaling up Strategy for Essential Treatments in Children in Kenya (2012-2016)</em> was endorsed and signed in 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTC status secured for zinc</td>
<td>Achieved</td>
<td>The Pharmacy and Poisons Board approved OTC status for zinc in late 2012</td>
</tr>
<tr>
<td>Amoxicillin as 1st-line treatment</td>
<td>In progress</td>
<td>Cotrimoxazole is recommended as 1st-line treatment. However, in practice, amoxicillin is more widely used. The TWG attempted to revise guidelines but the change could not be completed in the absence of clear guidance on the appropriate 2nd line treatment.</td>
</tr>
<tr>
<td>Favorable policy change for amoxicillin</td>
<td>In progress</td>
<td>Pending policy decision on recommended amoxicillin as 1st-line treatment</td>
</tr>
<tr>
<td>Coordination mechanism established</td>
<td>Achieved</td>
<td>A coordinating mechanism, chaired by the MoH meets regularly for routine implementation work. Key partners include: MOH/DCAH, CHAI, WHO, UNICEF, PSI, MI, USAID/MCHIP, SHOPS</td>
</tr>
</tbody>
</table>

4
A number of NGO partners are supporting national implementation.

**Partner Coverage by Region***

- **CENTRAL**
  - Lead: JHPIEGO
  - JHPIEGO, MI, MCHIP

- **EASTERN**
  - Lead: Pathfinder
  - Pathfinder, CHAI, PSI

- **COAST**
  - Lead: Pathfinder
  - Pathfinder, CHAI, PSI

- **NORTHERN EASTERN**
  - Lead: AMREF
  - AMREF, UNICEF

- **WESTERN**
  - Lead: PATH
  - PATH, MCHIP

- **NYANZA**
  - Lead: PATH
  - PATH, MCHIP

- **RIFT VALLEY**
  - Lead: FHI360
  - AMREF, UNICEF

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*Includes USAID-APHIA Plus Lead Partners and additional regional implementation partners*
Significant funding has been secured from the Government and partners

Estimated Funding Need (2013-2014), USD, millions

- $7 Gap
- $12 Commitment

Current Financial Gap (2013-2013 Financial Year, USD)

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 1: Case management</td>
<td>$1,991,422</td>
</tr>
<tr>
<td>Objective 2: Commodities, equipment, logistics</td>
<td>$3,333,241</td>
</tr>
<tr>
<td>Objective 3: Advocacy, communication, social mobilization</td>
<td>$3,214,611</td>
</tr>
<tr>
<td>Objective 4: Monitoring &amp; evaluation</td>
<td>$4,642,445</td>
</tr>
<tr>
<td>Objective 5: Access through private sector channels</td>
<td>$1,061,111</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$14,242,829</strong>*</td>
</tr>
</tbody>
</table>

*NOTE: $2M may potentially be filled through reallocation of existing commitments

Key commitments have been secured from partners (CHAI, MI, UNICEF, SHOPS, PSI); however, key financial gaps still remain.
CHAI has secured large-scale funding to scale up the use of combined treatment of zinc and ORS to 65% in 2015.

### Source of care

<table>
<thead>
<tr>
<th>Segment</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Public Sector</td>
</tr>
<tr>
<td>II</td>
<td>Pharmacy/Shop</td>
</tr>
<tr>
<td>III</td>
<td>Home</td>
</tr>
</tbody>
</table>

**Segment I:** Treatment sought in the public sector. Typically give ORS: 69%, alternative 28% and no treatment 3%.

**Objectives:**
- Ensure that providers appropriately assess and treat children suffering from diarrhoea with zinc and ORS as the first line of treatment-
  - including onsite rehydration of children
- Ensure consistent availability of zinc and ORS in the public sector
- Ensure providers educate caregivers on correct practices and treatment

**Segment II:** Treatment sought in the private sector. Typically give ORS (58% in clinics & 18% in pharmacy/shops) and alternative tx (38% in clinics & 71% in pharmacy/shops) and no treatment (4% in clinics & 11% in pharmacy/shops).

**Objectives:**
- Ensure that providers appropriately assess and treat children suffering from diarrhoea with zinc and ORS as the first line of treatment
- Ensure availability and affordability of zinc and ORS in the private sector
- Ensure providers educate caregivers on correct practices and treatment

**Segment III:** Caregivers at home, typically using home made fluids (43%), ORS (12%) and nothing (40%)

**Objectives:**
- Encourage care givers who stay at home to give appropriate treatment and seek care immediately at the nearest provider
- Expand access to prevention and treatment services for the 40% not seeking care through community health strategy
MoH and partners are working to increase demand for diarrhea among caregivers (1 of 2)

- The MOH-led TWG includes CHAI, PSI, UNICEF, MI, PATH, SCUK, REDCROSS
- Caregiver radio messages (in 15 local languages) & posters under pre-test.
- Media plan developed and radio stations identified based on target group listenership by region
- Official campaign to roll out in November 2013
MoH and partners are working to increase demand for diarrhea among caregivers (2 of 2)
**Health Workers Job Aid**

**Management of Diarrhoea in Children Below 5 Years**

### Assessment (0 - 2 months)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Classification</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Not Dehydrated</td>
<td>No Treatment</td>
</tr>
<tr>
<td>1</td>
<td>Dehydration</td>
<td>Treatment</td>
</tr>
<tr>
<td>2</td>
<td>Severe Dehydration</td>
<td>Treatment</td>
</tr>
</tbody>
</table>

### Assessment (2 months - 5 years)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Classification</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Not Dehydrated</td>
<td>No Treatment</td>
</tr>
<tr>
<td>1</td>
<td>Dehydration</td>
<td>Treatment</td>
</tr>
<tr>
<td>2</td>
<td>Severe Dehydration</td>
<td>Treatment</td>
</tr>
</tbody>
</table>

### Classification

**Plan A:** Start treatment at home
- Dehydration
- Lay effective ORT
- Follow up

**Plan B:** Start treatment with ORT
- Dehydration
- Lay effective ORT
- Follow up

**Plan C:** Start treatment in hospital
- Dehydration
- Lay effective ORT
- Follow up

### Treatment

**ORS Solution**
- Oral Rehydration Solution
- 3 parts water + 1 part sugar
- 1 part salt

**Nausea**
- If occurs, use anti-emetics

**Diarrhoea**
- Continue ORT
- Don’t give any other foods or drinks

**Children with Fever**
- Give paracetamol

**Children with Blood/Stools**
- Continue ORT
- Don’t give any other foods or drinks
Sample Wall branding, signage, danglers & Caregivers Give-aways
Providers will also be trained to appropriately assess and treat children suffering from diarrhea with zinc and ORS as the first-line treatment.

- The Kenya Paediatric Association (KPA):
  - Trained team of 24 MOH trainers and 24 Private sector trainers for Nairobi & Coast
  - Roll out trainings in Nairobi & Coast MOH facilities targeting Roll out private sector trainings targeting
  - Developing CME materials to be used by MOH in both public and private sectors
  - To support roll out of CMEs in both public & private sector facilities
  - A few other partners supporting IMCI trainings—How many and where not very clear.

**TARGETS:**
**Duration:** 6 months

**Facilities:**
- 454 MOH
- 360 private clinics

**Training HCWs:**
- 1000 MOH
- 500 Private sector

**CMEs**
- 80 CMEs across Nairobi & Coast
Commodity Availability, Quantification & Forecasting

**Availability**
- ORS: 84%
- ACTs: 81%
- Antibiotics: 75%
- All 3: 66%

**Reality**
- Stock Outs!! I have no drugs!
- I have too much stocks of X & Y!!
- How much should I order??
- When should I order??
- Where is my order!
- I have Expired drugs!

**Solution**
- Health Commodities Management System (HCMP)

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Some of The Contributing Factors

**Stock Outs**
- Delays on ordering
- Long Lead times from CMS
- Low order fill rates
- Failure to correctly quantify facility or national needs

**Excess Stocks/Expiries/Procurement**
- PUSH * from CMS
- Failure to correctly quantify facility or national needs
- Failure to monitor short expiries & lack of a redistribution plan
- Lack of corrective plans- No visibility
## Health Commodities Management Platform (HCMP)

<table>
<thead>
<tr>
<th>HEALTH FACILITY</th>
<th>DISTRICT PHARMACIST</th>
<th>KEMSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconcile stock count online</td>
<td>• Receive email notification of;</td>
<td>• Receive order</td>
</tr>
<tr>
<td>Issue to service points</td>
<td>□ Orders placed</td>
<td>• Feed order into ERP</td>
</tr>
<tr>
<td>Decommission expired commodities</td>
<td>□ Expired commodities</td>
<td>• Supply commodities</td>
</tr>
<tr>
<td>Auto-quantification of commodities &amp; placement of order online</td>
<td>□ Orders lead time</td>
<td></td>
</tr>
<tr>
<td>Update supply delivery online</td>
<td>• Approve order online, PDF is generated &amp; emailed to KEMSA</td>
<td></td>
</tr>
<tr>
<td>Generate facility reports</td>
<td>• Access online reports to monitor consumption trends.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Compare cost of expiries against cost of orders placed</td>
<td></td>
</tr>
</tbody>
</table>
### Place Order – Quantification of commodities

#### Githiga Private Medical Clinic: New Order

**Facility Facility** [Logout] | [Change Password]

**Enter Order Quantity and Comment**

<table>
<thead>
<tr>
<th>Order Form Number</th>
<th>Bed Capacity</th>
<th>Number Of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Search:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>KEMSA Code</th>
<th>Order Unit Size</th>
<th>Order Unit Cost</th>
<th>Opening Balance</th>
<th>Total Receipts</th>
<th>Total Issues</th>
<th>Adjustments</th>
<th>Losses</th>
<th>Closing Stock</th>
<th>No days out of stock</th>
<th>Order Quantity</th>
<th>Order Actual</th>
<th>Order cost(Ksh)</th>
<th>Comment(If any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Medicines: External Use</td>
<td>Calamine Lotion 15%</td>
<td>PM12CAL001</td>
<td>10 50ML</td>
<td>161.5</td>
<td>80</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>80</td>
<td>0</td>
<td>9</td>
<td>80</td>
<td>1292.00</td>
<td>N/A</td>
</tr>
<tr>
<td>Essential Medicines: External Use</td>
<td>Silver Sulphadiazine Cream 1%</td>
<td>PM12SLV001</td>
<td>250g</td>
<td>186.48</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>1864.80</td>
<td>N/A</td>
</tr>
<tr>
<td>Essential Medicines: Oral Liquids</td>
<td>Amoxicillin Oral Susp 125mg/5ml</td>
<td>PM01AMX005</td>
<td>100ML</td>
<td>29</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>10</td>
<td>1000</td>
<td>290.00</td>
<td>N/A</td>
</tr>
<tr>
<td>Essential Medicines: Parenterals</td>
<td>Adrenaline (Epinephrine) 1mg/1ML Amp</td>
<td>PM07ADR001</td>
<td>10</td>
<td>46.9</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>20</td>
<td>200</td>
<td>918.00</td>
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<tr>
<td>Essential Medicines: Parenterals</td>
<td>Artemesin Inj 60mg Vial</td>
<td>PM03ART008</td>
<td>5</td>
<td>575</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>0</td>
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<td>150</td>
<td>17250.00</td>
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<tr>
<td>Essential Medicines: Parenterals</td>
<td>Quinine Dihyd Inj 300mg/ML 2ML Amp</td>
<td>PM03QUN003</td>
<td>100</td>
<td>1534.5</td>
<td>600</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>600</td>
<td>0</td>
<td>60</td>
<td>6000</td>
<td>32070.00</td>
<td>N/A</td>
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<tr>
<td>Essential Medicines: Tablets And Capsules</td>
<td>Artemether/Lumefantrine Tab 120/20mg</td>
<td>PM03ART004</td>
<td>Blister (6)</td>
<td>0.01</td>
<td>60</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>60</td>
<td>0</td>
<td>20</td>
<td>120</td>
<td>0.20</td>
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<tr>
<td>Essential Medicines: Tablets And Capsules</td>
<td>Quinine Sulfate Tab 300mg (F/G Scored)</td>
<td>PM03QUN001</td>
<td>1000</td>
<td>4444</td>
<td>7000</td>
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<td>50</td>
<td>50000</td>
<td>222200.00</td>
<td>N/A</td>
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<tr>
<td>Essential Medicines: Tablets And Capsules</td>
<td>Albendazole Tab 400mg</td>
<td>PM03ALB001</td>
<td>1000</td>
<td>902.5</td>
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<td>200</td>
<td>0</td>
<td>30</td>
<td>30000</td>
<td>27075.00</td>
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</tr>
</tbody>
</table>

**Showing 1 to 9 of 9 entries**

[Add A Product]  [Place Order]

Government of Kenya © 2013. All Rights Reserved
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Interventions</th>
</tr>
</thead>
</table>
| **Ensure that providers (public and private) appropriately assess and treat children suffering from diarrhoea with zinc and ORS as the first line of treatment** | 1. Avail child health policy, guidelines and job aids to facilities  
2. Train health care workers on IMCI  
3. Conduct routine CMEs in all facilities  
4. Set up Oral Rehydration Therapy corners in both public and private hospitals  
5. Scale up the provision of diarrhoea health talks in public and private facilities targeting caregivers seeking ANC, PNC, Immunization and Delivery services |
| **Increase proximity of care to the 40% of caregivers that stay at home through community health strategy** | 1. Stimulate existing functional Community Units to offer ICCM services  
2. Re-activate non-functional Community Units and ensure they offer ICCM services  
3. Scale up intensive diarrhoea treatment and prevention messaging through outreaches and road shows |
| **Increase availability of ZN/ORS in the public sector** | 1. Roll out Zn/ORS co-pack in all facilities  
2. Strengthen commodity management through Health Commodity Management Platform at facility, district and county level  
3. Support routine diarrhoea commodities stock availability assessment in both public and private facilities |
At the county level, initial progress has been made to extend the reach of implementation

- Partnered with 7 County Health Directors in Coast & Nairobi to scale up diarrhoea Tx in August 2013
- Initial diarrhoea scale-up plans and budgets developed for 26 sub-counties in 7 counties in Nairobi & Coast
- Facility baseline assessments conducted
- 7 counties currently bundling zinc/ORS manually. Packaging and caregiver’s literature provided by CHAI.
- Health commodities management platform (HCMP) rolled out to 50% of public health facilities in Nairobi.
Specifically, ORS/zinc co-packaged products were launched by Cosmos and Universal... Private Sector

**COSMOS**
- Co-pack launched November 2012
- Retail price (KSH 50)
- 5,000 free samples provided

**UNIVERSAL**
- Co-pack yet to be launched
- Negotiations underway to explore further reductions
• Co-pack introduced into the market in May 2013 through a team of **87 detailers**

• Co-pack now available in **6/6 major retailers (~400 outlets)** and **19 regional distributors***

• Through CMEs reached **98 Retailers, 400 Private Practitioners and 800 Public Providers**- By Aug 2013

• >**35,000 co-packs** distributed to date

• 80 CME trainings planned to change provider prescribing patterns(targeting ~**2500 providers**)  

• MEDS procurement agency converted single orders placed with COSMOS to co-pack
On the supply side, there are now two local manufacturers who have introduced a co-pack of L-ORS and zinc at an affordable price.

### Current Registrations for Zinc and ORS in Kenya

<table>
<thead>
<tr>
<th>Supplier</th>
<th>ORS</th>
<th>Zinc</th>
<th>Co-pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cosmos</td>
<td>L-ORS* (WHO rec.)</td>
<td>Yes</td>
<td>Yes (Ksh 50)</td>
</tr>
<tr>
<td>Universal</td>
<td>L-ORS* (WHO rec.)</td>
<td>Yes**</td>
<td>No**</td>
</tr>
<tr>
<td>Elys</td>
<td>L-ORS* (WHO rec.)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Biodeal</td>
<td>Yes (but not L-ORS)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Laboratory and Allied</td>
<td>Yes (but not L-ORS)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Searle Pakistan</td>
<td>Yes (but not L-ORS)</td>
<td>No</td>
<td></td>
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<tr>
<td>FDC India</td>
<td>Yes (but not L-ORS)</td>
<td>No</td>
<td></td>
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<tr>
<td>Rivopharm SA (Kenya Swiss)</td>
<td>Yes (but not L-ORS)</td>
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</tr>
<tr>
<td>Alkem</td>
<td>No</td>
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<td>Square Pharmaceutical</td>
<td>No</td>
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<td>Sai Mirra Inno Pharm PVT LTD</td>
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<td>Atco</td>
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<tr>
<td>Macleods</td>
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</tbody>
</table>

* L-ORS is Low Osmolality ORS, the formulation recommended by the WHO
**Note: Universal Corporation that has not yet received official registration for Zinc is actively pursuing registrations and is working with the CHAI team to develop a co-packaged product. It should also be noted that Universal has already won a number of recent government tenders for Zinc.
Priorities for Q4 2013

- Finalize performance dashboard for tracking national progress
- Roll out demand generation campaign on radio and print media
- Train 1,500 HCWs in IMCI
- Roll out HCMP to remaining facilities Nairobi and in Coast, Makueni county (support by local leadership) and to other counties with secured roll out funding
- Explore opportunities to reduce pricing of zinc/ORS co-pack from Universal or other suppliers to match Cosmos retail price
Key issues/questions for Working Group

- Close the funding gap for DHS 2013/14
- Partners to align their focus with that of MoH
- Re-allocation of funding across any of the 5 objectives/activities? (In case funding already available for other objectives or activities)
- It will be critical for partners to share information on their specific programmatic support to support tracking efforts and ensure efficient implementation
Key lessons learned: planning and implementation

- **Lesson 1.** MOH Leadership and partner’s aligning their focus with MOH is key for progress to be achieved.
- **Lesson 2.** Verticalization of solutions at facility level will not deliver results. Integrated focus & support is what is needed. RRI results below demonstrate change can be achieved over a short period. Partners should aim to support comprehensive set of interventions.