



Supply Chains  Community Case Management

Last Mile Perspectives on ORS and Zinc: CHW Experiences from Malawi & Ethiopia

ORS and Zinc Symposium

ASTMH

November 13, 2012



Supply Chains for Community Case Management (SC4CCM)

SC4CCM will **identify, demonstrate,** and **institutionalize** supply chain management practices that improve the **availability** and **use** of selected essential health products in community-based programs in partnership with MOH, CCM and supply chain stakeholders in Malawi, Ethiopia and Rwanda



SC4CCM works at the global and country levels to improve access to CCM products, including ORS and zinc



CCM programs in Malawi & Ethiopia

Malawi - Over 3,000 HSAs in hard to reach areas trained to provide CCM, manage up to 19 products including ORS and zinc for treatment of children under 5 with diarrhea; CCM started in 2009

Ethiopia - Over 23,000 HEWs trained on CCM, 2 HEWs per health post; manage up to 55 products, including ORS and zinc; training on CCM in 2010



CCM Product Focus Groups: Malawi & Ethiopia (October 2012)

CHWs were asked about their experience transporting, managing, and administering ORS and zinc and to share feedback they had received on the products from caregivers and children

Malawi – 66 HSAs covered in 6 FGDs in 3 districts (Mulanje, Machinga, Nkhata Bay)

Ethiopia – 39 HEWs covered in 4 FGDs in 2 regions (Amhara and SNNPR, 4 woredas)



CHW Knowledge: ORS and Zinc

“Zinc is like a mineral salt and it helps the child not to open bowels and it also helps to build the child’s immunity to help the child to not have diarrhoea for some time, whilst ORS helps to hydrate the body and targets diarrhoea” - HSA, Malawi

Process of administration and explanation of zinc and ORS to caregivers – HSAs and HEWs were well-informed



Zinc for CCM in Malawi & Ethiopia

Malawi -

- Zinc – 20mg dispersible tablets in 10 tab blister packs (introduced to HSAs in 2011)

Ethiopia –

- Zinc – 20mg dispersible tablets in 10 tab blister packs (introduced to HEWs in 2010*)

* Training occurred in 2010; product distribution has been in phases, still in progress



Zinc: Management and Administration

The challenge of splitting tablets: For children under 6 months, zinc tablets have to be split; this is burdensome for CHWs and caregivers and may lead to contamination or over/under dosing

CHWs in both countries feel that the **blister packs are ideal** for transport and storage and dispensing for patients – well protected from the elements

In Ethiopia many caregivers ask 'yichi litadnew new' - isn't this tablet too small to cure the child? (about the split tablets)

“There are no challenges giving the zinc, it is packed well, it dissolves well too.” – HSA, Malawi



Zinc: Child/Caregiver Acceptability



- Disperses easily in water, tastes sweet
- New to CHWs in both countries, but seems to be well accepted by caregivers and children
- Many caregivers question whether their child can take tablets, even when dispersible, usually request syrups
- CHWs thought it was difficult to explain to caregivers – especially because no pictorial instruction

“Caregivers think it’s difficult for their children to take medication of 10 days. So they stop giving zinc after 3 days.” – HEW, Ethiopia

“It is easy for children to take zinc. It is sweet.” – HSA, Malawi



Zinc: Challenges with Adherence & Follow Up

- 10 days of treatment is challenging
- Caregivers tend to stop treatment when symptoms disappear
- Follow up by CHWs is encouraged but inconsistent
- Caregivers save medicines in-order to share drugs with other children in the house or for next illness
- Drugs (zinc) is wasted by splitting tablets (dropping or crushing) the child spitting them out or vomiting

“In our communities we are able to assess our community members and we know who needs help and those are the ones we follow-up and help them accordingly, especially typically the villagers with no school, we are forced to follow them up...” – HSA, Malawi



Zinc: CHW Recommendations

- Convert zinc tablet into syrup form (**Very strong**)
- Consider reducing the length of days for zinc to fewer than 5 (**Very strong**)
- Provide sufficient, friendly and pictorial instruction using national language (**Strong**)
- CHWs would rather give older children multiple tablets than split tablets for younger children → consider providing zinc 10mg tablets instead of 20mg tablets (**Very strong**)



ORS for CCM in Malawi & Ethiopia

Malawi -

- ORS – 20.5mg 1L low osmolarity sachets, orange-flavored

Ethiopia –

- ORS – 20.5mg 1L low osmolarity sachets, un-flavored



ORS: Management and Administration

HEWs and HSAs like sachets for storage and administration

- Transport can be challenging if they are given a full box (1,000 sachets)
- Demonstration is straight forward but can be challenging if CHWs do not have the right containers
 - A Coca-Cola bottle or a cup is often used to measure the needed one litre of water



ORS: Child/Caregiver Acceptability

Color and taste play a big role in child and caregiver acceptance and use

- In Malawi, ORS is a nice orange color, tastes good, children like to drink it (like Sobo)
- In Ethiopia, the ORS is un-flavored and many children do not like it; report that it tastes salty and bitter
 - The yellow color is associated with lemon = bitter

Mothers locally know it well and call it *'yengliz chew'* (*English salt*) and like it for the treatment of diarrhea



ORS: Challenges with Adherence & Follow Up

Concern with caregiver's ability to mix products

- Lack of instructions, especially pictorial
- May not use safer (boiled) water; risk of contamination

Reports of misuse:

- Putting ORS on hand for child to lick (without added water)
- Mixing with spit
- Making as tea or using an insufficient amount of liquid
- Mixing with Fanta (not just using the empty Fanta bottle)

Wastage

- The amount of ORS solution prepared from one sachet is too much to be finished by children within a day (24 hrs), which usually results in wastage



ORS: CHW Recommendations

- HEWs suggested the current ORS sachet to be in half size, e.g. to prepare only half liter at a time to prevent wastage of solution **(Strong)**
- The information on preparation and use should be in the local language **(Very strong)**
- In Ethiopia, the ORS solution should have a better flavor/taste **(Very strong)**

निओड्राल

ओरल रिहाइडेशन सॉल्यूशन साइट्रेट आई.पी.

दस्त से हुई जल की कमी के लिए.

मिलाने का तरीका

एक लीटर साफ पानी लें।

पैकेट खोलकर पूरा निओड्राल पानी में डाल दें।

पुल जाने तक हिलाते रहें।

यह घोल बच्चे को पिलायें।

अन्य बीजों (विशेषकर बीज वृक्ष) से बिलो/विरासे करें।

पैकेट खोलने के बाद २४ घण्टों को अन्दर इस्तेमाल कीजिए

ओ. आर. एस. हर दस्त के बाद पिलाएं

आयु

6 महीने..... चौथाई गिलास (50 मि.ली.)

7 महीने..... चौथाई से आधा गिलास (50-100 मि.ली.)

2 से 5 वर्ष..... आधे से एक गिलास (100-200 मि.ली.)

5 वर्ष से ऊपर..... जितना पी सकें।

मात्रा हर दस्त के बाद

COMPOSITION: Each Sachet (28.5g) contains

Sodium Chloride I.P. 3.5g

Potassium Chloride I.P. 1.5g

Sodium Citrate I.P. 2.9g

Dextrose Anhydrous I.P. 20.0g

Excipients..... q.s.

Mfg. Lic No. : G/1065

Batch No. :

Mfg. Date:

Expiry Date: 2 years from Mfg. Date

MRP not to exceed Rs. 7.50 per sachet.

Local taxes extra

Manufactured by: Maan Pharmaceuticals Ltd.

Plot no.1, GIDC Phase 2, Modhera Road

Mehsana, (Gujrat)

Marketed by: **PSI** Population Services International

C-445, Chittaranjan Park, New Delhi-110019, India.

Store in a dry place.

Image Source: PSI.org

CCM Products:

General Observations & Recommendations

Importance of color and packaging

- HSAs said color played a significant role to caregivers, HSAs, and children as well; colored medications were considered potent and effective compared to “white” drugs which were viewed as being “bitter”

Blister packs

- CHWs said that drugs that are in blister packs were well received by caretakers as they were perceived to be more powerful than drugs wrapped in paper (loose tablets)



CCM Products:

General Observations & Recommendations

Coartem as a model

- In both countries, ACTs (Coartem D) was cited as having color, taste, packaging and consumer information that caregivers liked and felt was effective

PRIMO Coartem® 20/120
artemether 20 mg
lumefantrine 120 mg

AMABWIRIZA: PRIMO Umuhondo ivura malariya yoroshye iterwa n'imibu ya nijoro ikwirakwiza uduterandwara.
Malariya iravurwa igakira kandi iyo uvuwe hakiri kare ntiba igikatu ngo itere ibibazo.

RANGIZA UMUTI UKURIKIJE AMABWIRIZA AKURIKIRA

NI INDE USHOBORA GUKOresha PRIMO Umuhondo?
Abana bari hagati y'inyaka 3 na 5 gusa. (kg 15 - kg 25)

NI INDE UTAGOMBA GUKOresha PRIMO Umuhondo?
Abana batarwa ingaruka mbi na artemether/lumefantrine. Abana bari muni y'inyaka 3 (15 kg) cyangwa hejuru y'inyaka 5 (kg 25).

INGARUKA Z'UMUTI: PRIMO Umuhondo yitanganirwa na benshi ariko ishobora gutuma uka intege, buryaryate (bw'uruhu), inkorora, ukarwara umutwe, isereri, guhurwa ibiryo, kuruka, kubabara mu nda.

KOresha UMUTI UKIMARA KUMVA UMURIRO

TANGIRA MU GITONDO
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.

UMUNSI WA 2
3. 4.

UMUNSI WA 3
5. 6.

ABANA B'IBIRO kg 15 - kg 25
Abana bari hagati y'inyaka 3 na 5

Abana bari muni y'amezi 6 (kg 5) bagomba kujyanwa ku ivuriro bakimara gufatwa. Wunywe ukurikije amabwiriza. Ntuzagire uwo agabanyiriza kuri uyu muti. Tanga umuti hamwe n'ibiryo. Komezaga gutanga ibiryo cyangwa konsa niba bishoboka.

Hehe n'umubu, hehe na Malariya!

CCM Program and Products

“The availability of CCM products has helped to enhance our relations with caregivers as they trust us to provide the right medication and proper help when a child is sick.” – HSA, Malawi

“Previously, no treatment was provided at HPs for any condition, the focus was only on prevention. But since CCM drugs came, we’re treating and saving the lives of children under the age of five years.”

- HEW, Ethiopia

“Women are excited when you give them ORS and zinc because it is helping the diarrhoea so that in the future the child does not have similar occurrence of diarrhoea. They also feel good to seem to have taken a lot of products.” – HSA, Malawi

