

# Pediatric diarrhea treatment

Optimal Zinc/ORS Product Presentation and Improvements

SEPT 2014

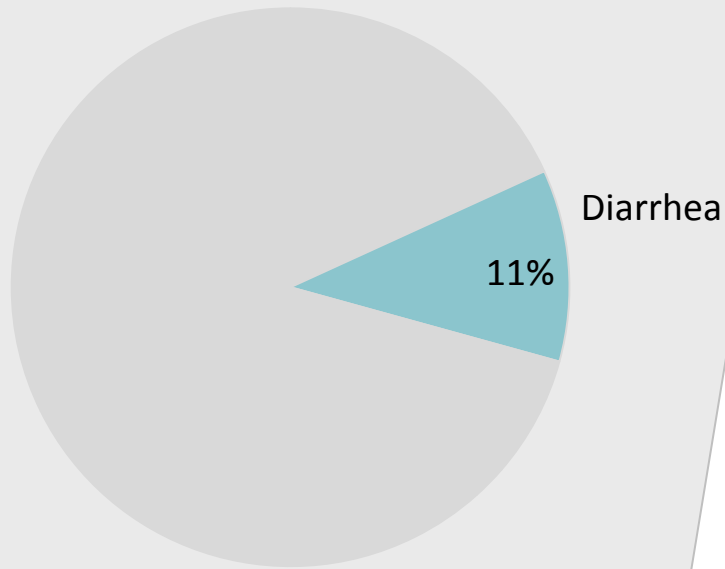


# Background

# Diarrhea is still a major global killer of children despite the availability of simple, highly effective, and affordable treatment

Over **1 in 10 child deaths** is due to diarrhea, a loss of about **800,000 lives** a year

Proportional distribution of diarrhea-caused deaths among children under 5 (% , 2010)



Effective treatment with **zinc** and **ORS** is simple and affordable at **<US\$ 0.50 per course**



## Zinc

- 40% reduction in treatment failure/ death
- 25% reduction in duration of diarrhea
- ~US\$ 0.25 per course (10 tablets)

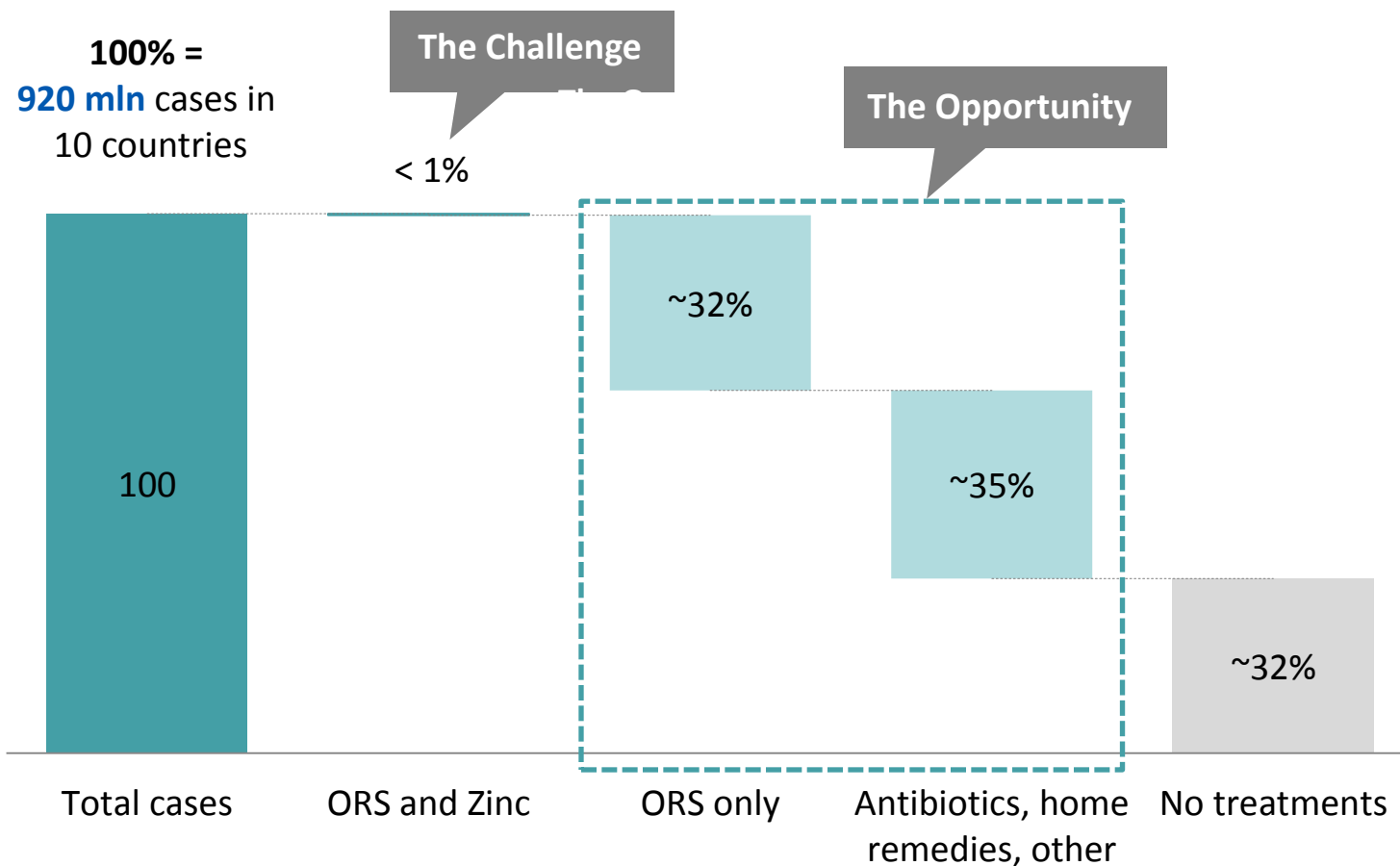


## ORS

- ORS can avert estimated 93% of diarrhea deaths
- ~US\$0.08-0.13 per sachet

# For diarrhea, <1% of children are receiving both zinc/ORS - the majority are receiving sub-optimal treatment

Treatment of child diarrhea in 10 high burden countries<sup>1</sup>, percentage



<sup>1</sup> Bangladesh, Dem. Republic of Congo, Ethiopia, India, Kenya, Niger, Nigeria, Pakistan, Tanzania, Uganda

SOURCE: National household survey data (2005-2011); Fischer Walker et al. Global burden of childhood pneumonia and diarrhea. Lancet. 2012; Private

Healthcare in Developing Countries: [www.ps4h.org/globalhealthdata.html](http://www.ps4h.org/globalhealthdata.html);

# CHAI's ORS-zinc Program works to catalyze scale-up globally

## Diarrhea & Pneumonia Working Group

**Co-chairs**



**Membership**




## 10 Priority Countries\*

Bangladesh

DRC

Ethiopia

India\*

Kenya\*



Niger

Nigeria\*

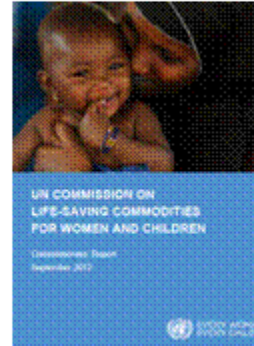
Pakistan

Tanzania

Uganda\*

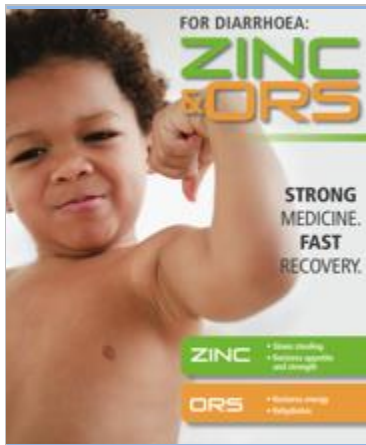
*\*CHAI is the lead partner in four countries*

## Global Initiatives



# CHAI is driving large-scale increases in zinc and ORS access and use in high countries—India, Kenya, Nigeria, and Uganda—through 4 key interventions

## Generate awareness & demand

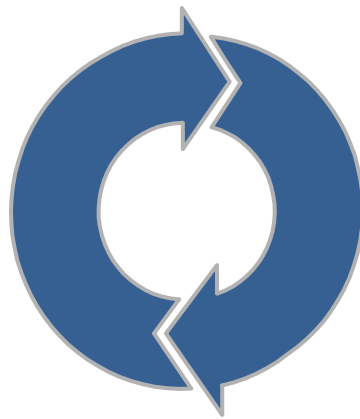


Launch high-impact **national campaign**

Community level **health diplomacy**

Partnerships to reinforce key messages

Awareness and demand interventions motivate supply



Increased supply further drives demand and builds awareness

## Ensure availability of the product

- Engage manufacturers to strengthen supply outcomes
- Optimize **packaging & branding**
- Strengthen **distribution** in remote areas



## Increase provider awareness



- Improve **skills and knowledge** of public and private providers
- **Detail** providers in rural areas

## Secure a conducive policy environment

- Mobilize **resources and partner/government support**
- Update and disseminate **treatment guidelines**
- Ensure **OTC** status



# While there are many barriers, one of the reasons for lack of ORS + Zinc use is user dissatisfaction with the product

“Unpleasant taste that causes kids to throw up”

“Not storable: not useable after 24 hours”



“Cumbersome to prepare”

“Wasteful, must throw away leftover after 12 hours”

“Need to administer repeatedly to be effective”

“The challenge of getting clean potable water”

“Lack of variety in flavors”

“Products are sold separately”



# Project Sunshine



# Renovation & innovation are real opportunities

=> Project Sunshine 

Optimal product presentations and product improvements of ORS + ZINC



**HIGHER** caregiver and provider **acceptance**



**More lives saved**

## Project Sunshine :

- Led by **expert in NPD & product improvement**
- Managed by a **Steering Committee** gathering a **diverse set of skills/knowledge** (country teams, experts on supply, R&D, distribution...)

# A 7 month project with 4 phases

## 1. Desk research & Analysis

- **Objective:** understand and identify needs & opportunities for improvement
- **Key steps:** 1) Desk research, 2) Complementary research through interviews with key stakeholders', 3) Analysis

## 2. Concept development

- **Objective:** identify and develop relevant concepts
- **Key steps:** 1) Idea generation, 2) NP features and benefits, 3) Rough feasibility & cost assessment, 4) Concept writing & design development

## 3. Testing

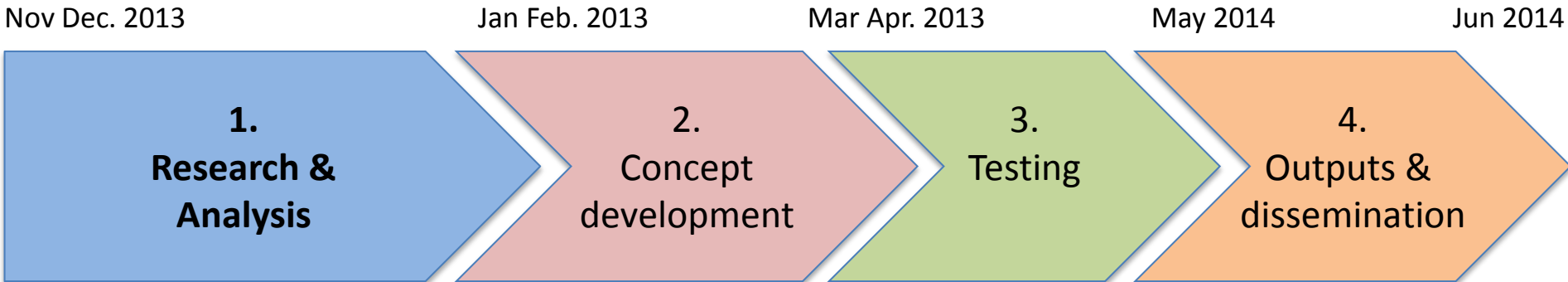
- **Objective:** evaluate each concept with users in at least 3 countries
- **Key steps:** 1) Agency identification; 2) Field work ; 3) Analysis & final report
- **Sample Size:** 555 care-givers and 119 providers (3 countries)

## 4. Outputs & dissemination

- **Objective:** disseminate opportunities to manufacturers/marketing teams
- **Key steps:** 1) Fine tune concepts; 3) Dissemination & Technical assistance



# Phase 1 – Research & Analysis



- **Review existing quantitative research:**
  - PATH research in India and Kenya
  - Gates reports on previous ORS & Zinc programs in various developing countries
- **Review existing qualitative research:**
  - In Nigeria, Uganda, India, Ethiopia, Malawi
- **Key stakeholders interviews including**
  - Vicky McDonald - Abt, Greg Zwisler - PATH, Dr Azharul Khan – icddr,b , Simon Berry – ColaLife, Leith Greenslade - MDG, Alison Greig – Micronutrient Initiative, Shamim Rahman - SMC
  - Amy Meyers, Colleen Connell - CHAI
- **CHAI country team and field visits** in Nigeria, Uganda and India
- **Manufacturer visits** in Nigeria, Uganda and India
- **Contacts with regulatory organizations** in Nigeria, Uganda and India

# Current products used

1. Research & Analysis

## Antibiotics

## Anti-diarrheals

## ORS

## Zinc

### Features

- Injectable, oro-dispersible, crushable, syrup
- Dosage = 1-2 tab per day
- Pharmacist can cut blister and supply 1-2 tabs
- Does not stop diarrhea
- Widely available
- Low price point
- Treat cholera and dysentery

- Tablet and syrup
- Dosage = 1 tab only once
- Pharmacist can cut blister and supply 1-2 tabs
- Stops diarrhoea quickly
- Widely available
- Very low price point

- Available in powder sachet:
- 5g = 200ml and 20g = 1 litre
- Dosage = 50-200ml after each stool depending on age of child
- Various flavours available
- Decreases vomiting
- Efficient rehydration; replenishes electrolytes
- Higher price point
- Mixed availability

- Tablet and syrup (50 & 100ml)
- Dosage = 1/day for 10 -14 days
- Syrup = 5ml/day for 10-14 days
- Reduces stool volume over a couple of days
- 24% reduction in time to recovery
- Reduces likelihood of another episode for 3 months
- Higher price point
- OTC

### Benefits

- Can always obtain
- Affordable

- Immediate relief (for mum)
- Can always obtain
- Affordable

- Child doesn't suffer from dehydration
- Stops the child from getting worse – may not need to see and pay for HCP
- Child recovers more quickly and has more energy
- 20% reduction in stool output
- 30% reduction in vomiting

- Stops the child getting worse
- Quicker recovery
- Stronger child
- Healthier child



Antibiotics as well as anti diarrheals are currently preferred to ORS and Zinc

# Overview of barriers

## COMBINATION

1

LOW DUAL THERAPY AWARENESS

2

LOW TOP OF MIND

## ORS

3

ORS DOSAGE

4

ORS TASTE

5

ORS WASTE

6

ORS PREPARATION

7

ORS CLEAN WATER

## ZINC

8

ZINC TREATMENT DURATION

9

ZINC NAMING

10

ZINC <6 MONTHS TYPOLOGY

	MUM INSIGHT	MARKET TRUTH
ISSUE	<p><i>"If my child gets diarrhea I usually give him pills or local herbs" (antibiotics, antidiarrheal)</i></p>	<ul style="list-style-type: none"> <li>- ORS penetration &lt;45%</li> <li>- Zinc penetration &lt;5%</li> </ul>

## OPPORTUNITIES

- Good perception of Zinc benefit:
  - 98% of Indian mothers would use zinc again because for 80% it stops diarrhea immediately
  - 100%/ 60% of Kenyan
- High willingness to buy a full treatment:
  - 79% of Kenyan mums/ 60% of Indian mums are willing to buy a full treatment
  - => combi pack

- On pack communication about full treatment



Nigeria

Zinc instruction on ORS pack



# Low category awareness

2

ISSUE

## MUM INSIGHT

*Mums are not able to give brands or even to name products. They would say "the powder", "the tablet"*

## MARKET TRUTH

- Lack of visibility on shelf especially knowing providers tend to prescribe antibiotics or antidiarrheal first

## OPPORTUNITIES

- Positioning
  - 1/ Make it a medicine product
  - 2/ Make it a tonic/energy product

- Color coding



- Specific logo



- In store visibility





3

ISSUE

## MUM INSIGHT

*“One liter is too much so I take a spoon of ORS and put it in a glass of water”  
“I don’t know what is one liter”*

## MARKET TRUTH

- Wrong mixing = 50% of the mums vs 10% when providing container (ColaLife study)
- Various on pack dosages or no pictorials



## OPPORTUNITIES

- Adapt sachet size to the most common container in the country

- Beer bottle in Ghana
- Tempeco cup in Uganda
- 200ml glass India



- Improve back of the pack pictures: make them relevant & clear, put all key steps

- Provide mixing container

- Cola life Zambia
- Specific promo ex: Orasel in Cambodia



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## MUM INSIGHT

ISSUE

*“The product is disgusting and sometimes my child vomits it”*  
*“It’s not easy to give to my child, I need to force him to drink it, he doesn’t like it”*

## MARKET TRUTH

- 38% of Kenyan mums find it hard to administrate ORS because of taste
- Bad taste especially with unflavored products is a recurrent feedback (*qualitative studies and field trips*)
  - Some health workers even recommend to add sugar to mask the salty taste!

## OPPORTUNITIES

- Flavored products > Unflavored
- Flavored test done in some countries (Madagascar, Mali) showing clear superiority of some flavored products against other flavored products
  - *Ex Madagascar ranking of orange flavored products*  
*Apex = FDC > Mission Pharma > Medipharm*

- Soft drinks are preeminent in developing countries



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## MUM INSIGHT

ISSUE

*“My child is not able to drink the full liter in 24 hours so I have to throw away the left over. It’s such a waste”*

## MARKET TRUTH

- Average consumption 400ml (WHO)
- Average consumption (PATH quant study)
  - <2yo: 500ml
  - 2-5yo: 1000ml

## OPPORTUNITIES

- Smaller sachet size
  - Bangladesh where scale up has been successful = 500ml
  - India: 200ml sachet doing very well in deep rural especially due to purchasing power
  - Cola life 200ml



Bangladesh



Zambia

- Resealable sachet



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## MUM INSIGHT

ISSUE

*"It is cumbersome to prepare"*  
*"I'm busy either in the field or at home, so I don't have time to prepare medicine for my child"*

## MARKET TRUTH

- Mums ask systematically to the drugshop or the RMP rather than referring to the pack itself (*Qual research in Nigeria, Uganda; field trips*)

## OPPORTUNITIES

- Clear pictorial in the back of the pack
- More practical sachet : shape, easy opening



USA

- Dispersible Tablet



UK

- Premix
  - Strong expectations in Kenya and Nigeria (PATH studies)



India



USA

7

ISSUE

## MUM INSIGHT

*"I don't have clean water at hand"*  
*"It is cumbersome to boil the water"*  
*"I just heat the water, it's too costly to boil it for 15 minutes"*

## MARKET TRUTH

- Lack of safe water
  - 41% of Kenyan
  - 37% of Nigerian
  - 35% of Ugandan
  - 8% of Indian



## OPPORTUNITIES

- Improve back of the pack instruction
- Propose a kit ORS + water purifier



- Mix ORS with water purifier
- Premix



India



USA

8

## MUM INSIGHT

*"I usually stop treatment when my child has recovered, after 3 or 4 days"*

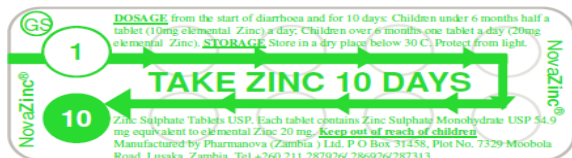
ISSUE

## MARKET TRUTH

- Average treatment duration:
  - 4 days in India
  - 6.5 days in Kenya

## OPPORTUNITIES

- Print blister



- Reduce treatment duration: research ongoing

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## MUM INSIGHT

## MARKET TRUTH

ISSUE

*“Can I use the zinc I am using in the field for my children?”*

- Very low “branding” on the tablet blisters especially in public sector

## OPPORTUNITIES

- Make sure product is not only named “Zinc”



Bangladesh

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ISSUE

## MUM INSIGHT

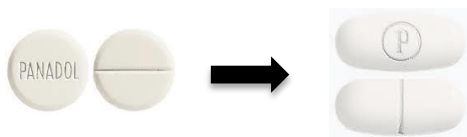
*"It's not easy to break a zinc tablet, it crumbles" (For a less than 6 month old child )*

## MARKET TRUTH

- Fewer diarrhea episodes for children below 6 months old

## OPPORTUNITIES

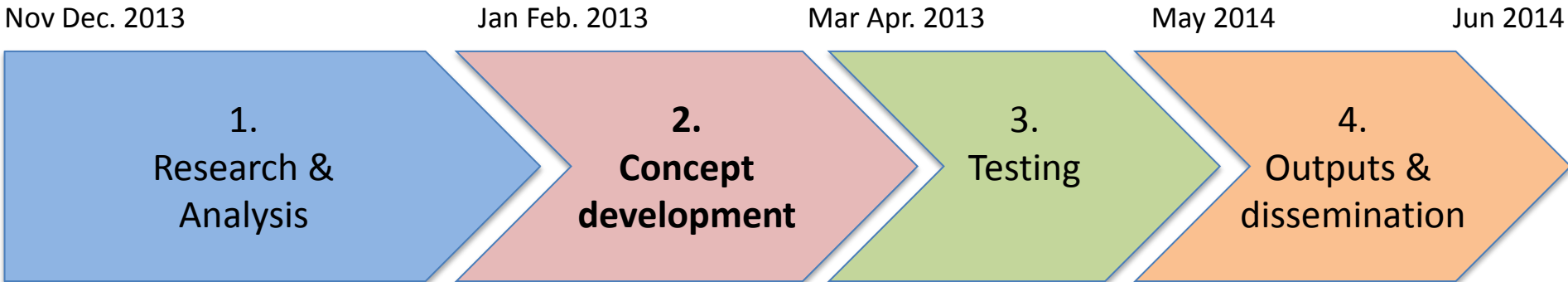
- 10 mg tablet
- Change the shape
  - Make scored tablet compulsory
  - Oval ex: Panadol learning: from round to oval







# Phase 2 – Concept Development



# Key product barriers:

## 1 - ORS preparation and administration to the child

- Bad taste
- Cumbersome preparation
- Inaccurate preparation
- Wastage

## 2 - ORS and zinc dual therapy are neither known nor visible

- Low category top of mind awareness
- Low dual therapy awareness

## 3- Compliance to Zinc treatment

- 10 to 14 days compliance

- Comprehensive desk research, market observations and key learnings from phase 1
- In-country brainstorming sessions
  - India: 10/12/2012
  - Uganda: 01/07/2014
  - Kenya: 01/21/2014
  - Nigeria: 01/22/2014
- Complementary interviews with a range of stakeholders

**50**  
**ideas**



Selection based on:

- Fit with the issue to solve
- Feasibility

**6 concepts illustrated by 10**  
**products**  
**3 pack design improvements**

# 1.1- ORS smaller sachet

2. Concept development

## PROBLEM SOLVED: Dosage, Waste

### CONCEPT TO BE DEVELOPED

#### Insight

1- My child can never finish the 1 liter within 24 hours. So I have to through away a lot, it is such a waste

2 (India)- 1 liter is really too much, so usually I only mix one spoon of ORS in a glass of water. But I'm not sure that's the right quantity

#### Benefits

- Just the right dose for the container available at home
- No waste
- Cheaper

#### Reason to Believe

Smaller sachet 200/500/600ml sachet depending on the local container (glass India, tempeco Uganda, Nigeria)

- **Product description:** Smaller sachet, size to be adapted depending on the local container

- **Example**



- **Illustration required:**

- Smaller sachet vs 1 liter sachet
  - India 200ml sachet (6x7cm)
  - Uganda 500ml sachet (7x8cm)
  - Nigeria XXXml sachet
- Hand emptying the powder in the local container:

- India 200ml glass



- Uganda 500ml Tempeco cup



- Nigeria ???

# 1.2- ORS pill

## PROBLEM SOLVED: Preparation, Dosage, Waste, Medicinal look

### CONCEPT TO BE DEVELOPED

#### Insight

- 1- ORS is not a proper medicine, I prefer to give pills/antibiotics
- 2- ORS is so cumbersome to prepare, you put powder everywhere

#### Benefits

So easy to mix, just have to put the effervescent tablet in a glass of water

#### Reason to Believe

Effervescent tablet

- **Product description:** Single wrapped effervescent tablet for one glass of water

- **Example**



- **Illustration required:**
  - Single wrapped tablet
  - Effervescent tablet in a glass of water

# 1.3- ORS premix

**PROBLEM SOLVED:** Dosage, Preparation, Clean water, Waste

## CONCEPT TO BE DEVELOPED

### Insight

Preparing ORS is not something easy, you need to get the right dosage, you need clean water and then you are supposed to finish it within 24 hours

### Benefits

Ready to drink solution in smaller quantities

### Reason to Believe

Premixed product in a small container

- **Product description:** 3 options
  - Option 1: tetrapack
  - Option 2: plastic bottle (Ex: soda)
  - Option 3: plastic pouch (Ex: Capri Sun)

### Example



- **Illustration required:**
  - Premix container
  - Child sitting on mother legs drinking the premix with straw for option 1 and 3, in a glass for option 2

# 1.4- ORS Pure

## PROBLEM SOLVED: Clean water, Preparation

### CONCEPT TO BE DEVELOPED

#### Insight

I don't have clean water at hand , I need to boil water or to buy clean water to prepare ORS. It is so troublesome/time consuming/costly

#### Benefits

Clean ORS in a second:  
easier and faster to prepare

#### Reason to Believe

A ready to use mix of ORS and water purifier

#### - Product description:

- Option 1: mixed powder as per current ORS
- Option 2: effervescent tablet

#### - Illustration required:

- Option 1:
  - Small sachet
  - Hand pouring the sachet in a glass of water
- Option 2:
  - As per ORS pill

# 1.5- Co-pack + container

**PROBLEM SOLVED:** Awareness of the dual therapy, Dosage

## CONCEPT TO BE DEVELOPED

### Insight

When my child has diarrhea I prefer to give antibiotics or local remedy, it is more effective and easier to give to my child

### Benefits

The best treatment combination to treat diarrhea and keep it away in a simple, easy to use kit

### Reason to Believe

A plastic pouch you can use as container containing the full treatment : the right amount of ORS sachets and Zinc tablets

- **Product description:** 1 graduated plastic pouch containing 4x500ml ORS sachet and 1 strip of 10 Zinc tablets

### - Example

<http://www.flickr.com/photos/colalife/11856771114/>

### - Illustration required:

- Kit as per Colalife example: plastic pouch should be slightly taller
- Open Kit to show the content
- Child drinking the ORS using the plastic pouch

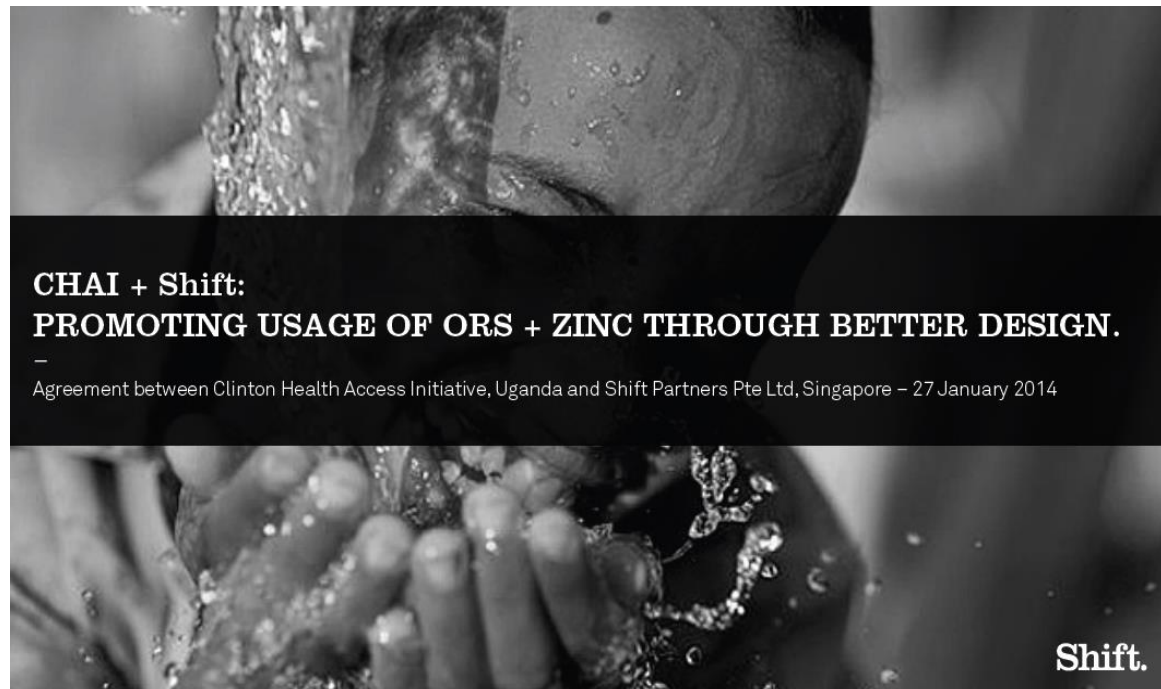


# Pack improvements to be tested

2. Concept  
development

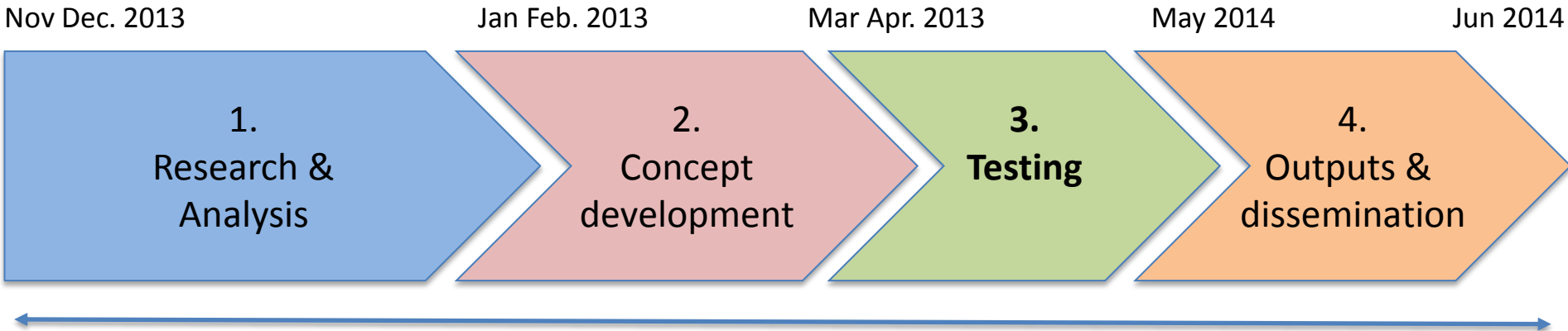
1. ORS Front pack
  1. Medicinal positioning
  2. Energy/Tonic positioning
2. Back of the pack instruction
  1. Identify relevant steps
  2. Optimized pictorials
3. Zinc tablet - adherence

- Shift Partners packaging design specialists recruited





# Phase 3 – Concept Testing



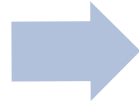
# Testing conducted by IPSOS in 3 countries

- **Target:**
  - Main target: rural mum with kids below 5 years old
  - Secondary target (for check purpose only): rural providers
- **Location: 3 countries**
  - Nigeria: rural areas in 3 states (Lagos, Rivers, Kano)
  - Uganda: rural areas in 2 districts (East and North)
  - India: rural areas in 2 states (UP, MP)

# Testing methodology

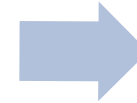
## STAGE 1 - Respondent Screening and Recruitment in the Households

- Mothers/caregivers of children under 5 years, incidence of diarrhea in their young children under 5 years in the last 3 months



## STAGE 2 - Central Location Testing (CLT) with all respondents

- Central Location Testing venue in the same village on the following day
- Interviewers take each one of them through the concepts and packs available and their responses recorded on digital platform



## STAGE 3 - Focus Group Discussions with respondents selected during the CLT

- Results from the CLT session help identify areas of focus for further discussion.
- Attributes that came out negatively or that didn't come out clearly are probed in a smaller group setting.

## Secondary Target: Semi-Structured Interviews (qualitative research)

- These were conducted with persons in rural drug shops/rural medical practitioners (India) and Community Health Workers (CHW)
- Contained both closed ended questions and open ended questions and will seek to obtain both qualitative and quantitative data.
- Conducted at the respondents convenient location
- A token of appreciation was provided to the respondents.

# Summary Of Interviews With Respondents

Mothers with children under 5 years:

Country	States	Districts	No. Of FGDs	CLT Interviews Per Area	Providers:	
India	Madhya Pradesh	Barwani	1	30	180	42
	Madhya Pradesh	Ujjain	1	30		
	Uttar Pradesh	Deoria	1	30		
	Uttar Pradesh	Barabanki	1	30		
	Uttar Pradesh	Allahabad	1	30		
	Uttar Pradesh	Sitapur	1	30		
Nigeria	Lagos	Lekki	1	25	225	42
	Lagos	Ikorodu	1	25		
	Lagos	Epe	1	25		
	Rivers	Etche	1	25		
	Rivers	Opobo	1	25		
	Rivers	Oyigbo	1	25		
	Kano	Kura	1	25		
	Kano	Wudil	1	25		
	Kano	Geziwa	1	25		
Uganda	East	Kamuli	1	25	150	35
	East	Mbale	1	25		
	East	Tororo	1	25		
	North	Gulu	1	25		
	North	Lira	1	25		
	North	Koboko	1	25		

RESPONDENT CLASSIFICATION				
	Total (592)	India (201)	Nigeria (237)	Uganda (154)
Current user of ORS	36%	35%	34%	42%
Lapsed User of ORS	31%	36%	32%	23%
Non-User	33%	29%	35%	36%

# A sequential approach

- Concepts and designs first showed separately to evaluate:
  - Appeal: How much they like it?
  - What in particular do they like / dislike / would like to improve?
  - Willingness to pay
  - Purchase intent:
    - Would they recommend the product?
    - Would they buy the product in a pharmacy or drugshop?
- Concepts and designs then shown together to evaluate:
  - Ability to overcome current challenges vs current product(Wastage, Long and messy preparation, Measurement/dosage, Difficult to give to a child, Clean water)
  - Overall preference

# Willingness to pay methodology

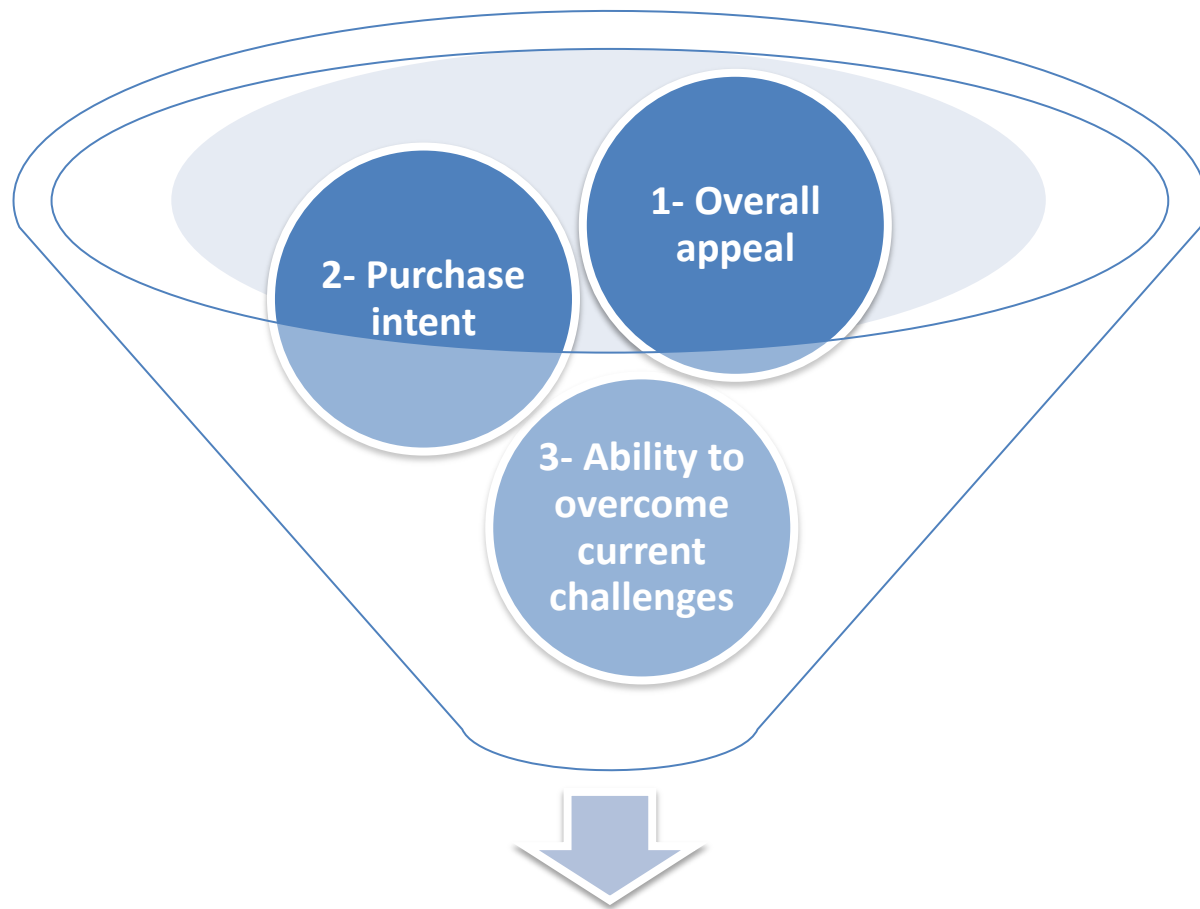


For each concept:

1. We showed the respondents a list of prices and asked them:
  - The ideal price
  - The price that they would consider too expensive
  - The price that they would consider too cheap
2. We then showed them the price we would sell it in the market and asked them whether they would buy the product at this price



# How to analyze a concept?



**Potential for impact**

## KEY DEFINITION

**Appeal:** how much a concept is liked? (without knowing the price)

**Purchase intent:** would they buy the product in a pharmacy or drugshop? (knowing what would be the price in the market)

**Current challenges:** product barriers to the usage

# Precautions

- Study on users, lapsed-users and non users didn't show any differences so analysis is presented on total caregiver population
- If not mentioned findings on providers are similar to caregivers
- Comparison of figures between countries is not recommended as caregivers have different attitudes towards surveys

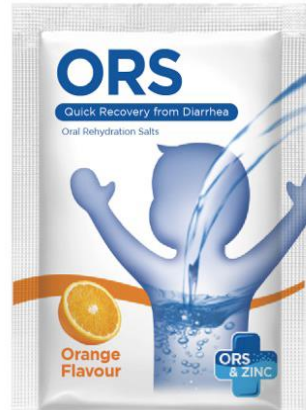


# Phase 3 – Concept Testing

India 

# 3 ORS and Zinc front packs tested

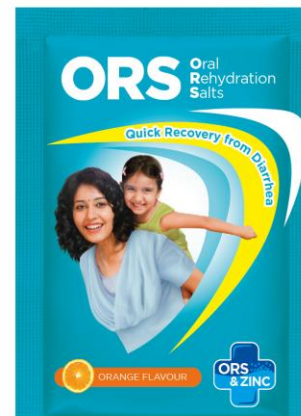
## Pack 1



## Pack 2



## Pack 3

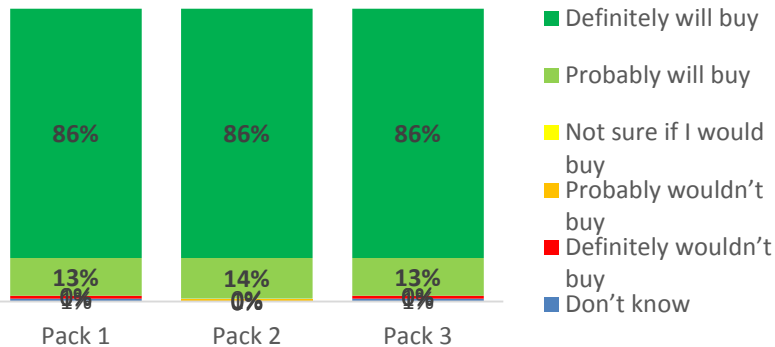


# ORS front pack designs



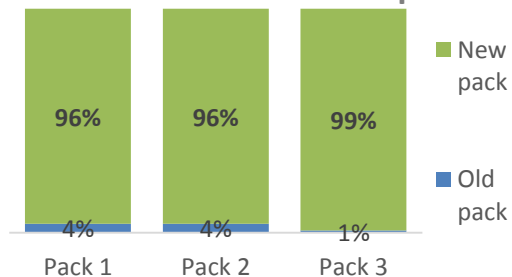
## Strong purchase intents and preference vs current product for the 3 new packs

Purchase intent



Q: Would you buy a product with such a pack?

Preference vs current pack



Q: Comparing a product with this kind of pack with what is currently found here (show sample) which pack do you prefer?

A strong **trust** in these packs. Pack 2 and 3 are especially trusted at respectively 99% and 100%

Q: Does this feel like a pack for a product you can trust?

**The 3 packs convey key messages very well especially:**

- Will treat diarrhea
- Will rehydrate
- Will give back energy and strength to my child
- Is suitable for children

Pack 1 is slightly underscoring on “my child will like it”

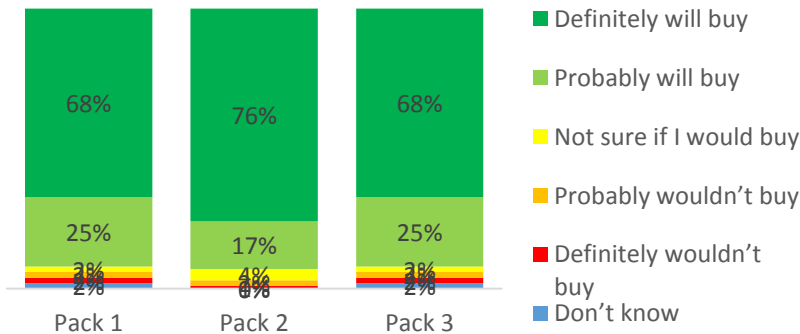
Note: Indian caregivers were **very price sensitive** so new pack design should not look too expensive

# Zinc front pack designs



## Strong purchase intent for the 3 new packs

Purchase intent



Q: Would you buy a product with such a pack?

A strong **trust** in these pack.

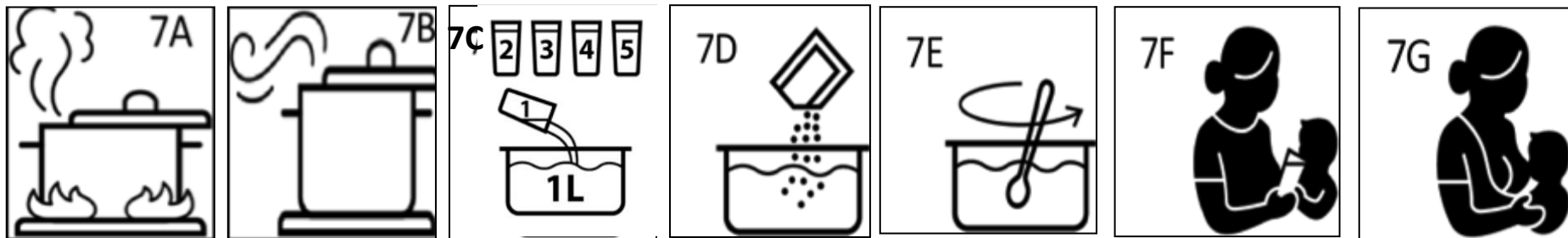
Q: Does this feel like a pack for a product you can trust?

**The 3 packs convey key messages very well especially:**

- Will treat diarrhea
- Will give back energy and strength to my child
- Is suitable for children

**Pack 2** is underscoring on “this product will taste good”, as it is neither colored nor mentioning the taste

# ORS back of the pack pictorials



## A strong appeal

- **99% of caregivers prefer** this back of the pack pictorials **to current**
- **96% of the caregivers think these are the right back pack design** for such a product as **ORS**
- **Priority steps** should be:



Boil the water

Allow the water to cool without getting contaminated

Mix the ORS to the water with clear measurements

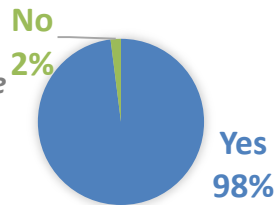
Keep on giving it to the child

- Nevertheless pictures **7C** and **7F** were **confusing**:
  - **7C**: it having the unit to measure water and having the cups created confusion
  - **7F**: interpreted by many respondents as a mother reading a book to a child

# Zinc blister & logo

## Potential to help caregivers complete the full treatment

Q: Do you think such blister printing will help you complete the full course of treatment?



69%



31%



Q: Of the two blister printings I have just showed you, which one would you prefer?

Q: of the logos I have shown you which one of the two do you think is showing zinc tablet as a dispersible tablet?

28%



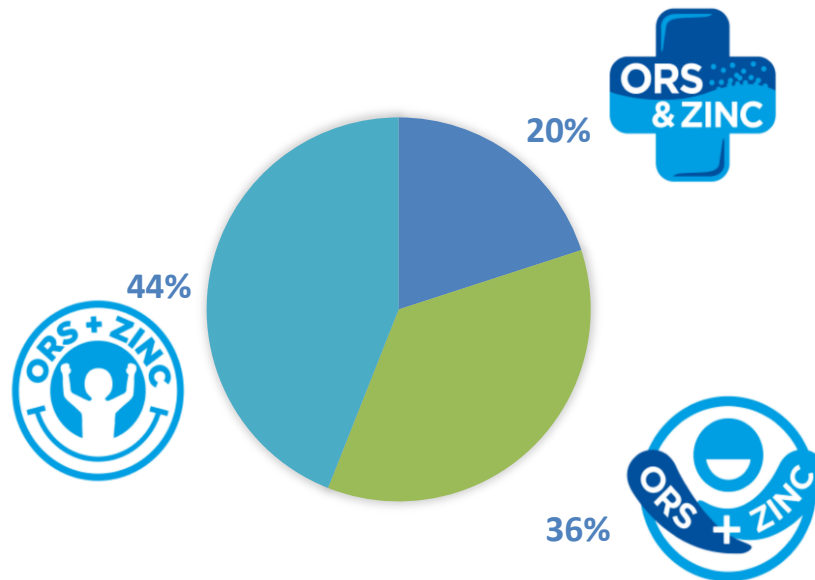
72%





# Zinc & ORS logo

## Logo to express best combination treatment for diarrhea



Q: These are logos we are thinking to use for a product for the treatment of diarrhea showing the best treatment for diarrhea; among the three of them, which logo do you prefer the most?

# 5 concepts:

## ORS Smaller Satchet



## ORS Premix



## ORS Effervescent Tablets



## ORS + Water Purifier



## Co-pack in a plastic pouch



# ORS smaller sachet



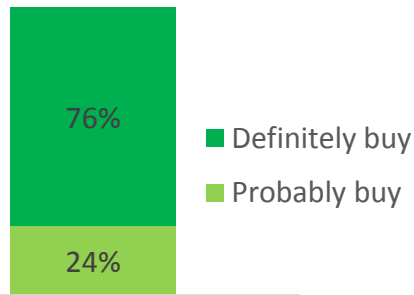
## Good appeal and purchase intent

93% of caregivers liked it very much or extremely



Q.: How much do you like or dislike this concept overall as described?

100% of caregivers would buy it



Caregivers India (201)

Q: If you found this product in a shop/pharmacy, would you buy it?



Driven by the fact that it **reduces waste** and is **economical**



But some typical ORS challenges remain, especially the **bad taste**



**High willingness to pay**  
Unprompted ideal price is INR 5  
**At INR 4, 95% of caregivers would buy** the ORS smaller sachet

Q: At what price amongst the ones I have just showed you would you consider this product to be IDEAL for you to consider purchasing it for each episode of diarrhea?

Would you be willing to buy this product at the price shown on the show card?

# ORS effervescent tablet



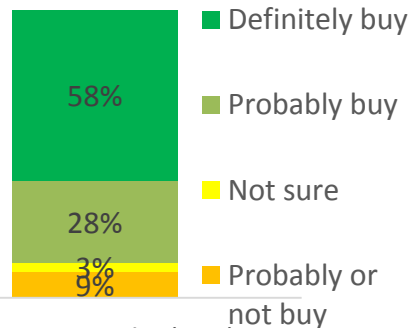
## A good appeal and purchase intent

85% of caregivers liked it very much or extremely



Q.: How much do you like or dislike this concept overall as described?

86% of caregivers would buy it



Caregivers India (201)

Q: If you found this product in a shop/pharmacy, would you buy it?



Driven by the **medicinal positioning** and **ease of preparation**

*"It dissolves very easily in the water – no need to stir – doesn't leave a sediment – therefore it is very easy to handle during preparation."*



**Medium willingness to pay**

Unprompted ideal price is INR 5

**At INR 6, 78% of caregivers would buy** the ORS effervescent tablet

# ORS Premix



% of caregivers **liked** it very much or extremely

Tetra pack

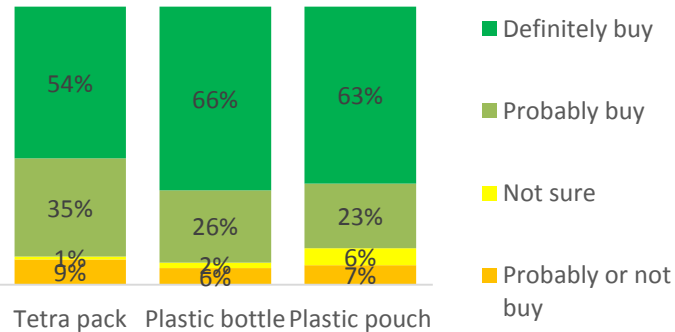
Plastic bottle

Plastic Pouch



Q.: How much do you like or dislike this concept overall as described?

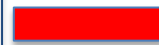
% of caregivers would buy it



Q: If you found this product in a shop/pharmacy, would you buy it?



Driven by the fact that there is **no preparation**  
 + *Tetra pack*: looks like juice => easy to give to a child, no need to get safe water, attractive pack (no breakage)  
 + *Plastic bottle*: it has a lid => no risk of spillage  
 + *Plastic pouch*: looks not too expensive



**Difficult for a baby to suck or drink from bottle**  
 - *Tetra pack*: no lid  
 - *Plastic pouch*: no lid, strong fear of spillage



- *Tetra pack*: **at INR 25 65% would buy.**  
 Unprompted ideal price is INR 20  
 - *Plastic bottle*: **at INR 20 86% would buy**  
 - *Plastic pouch*: **at INR 20 78% would buy**

# ORS + Water purifier



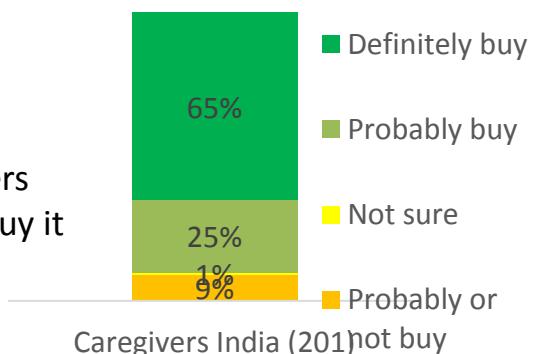
## A good appeal and purchase intent

89% of caregivers liked it very much or extremely



Q.: How much do you like or dislike this concept overall as described?

90% of caregivers would buy it



Q.: If you found this product in a shop/pharmacy, would you buy it?



Driven by the fact that it has a **double action and ease of preparation**

“It saves the time for boiling water and preparation in general. The concept gives double protection and treatment”



Water Purifiers have an **unpleasant taste and smell** – that will interfere with the taste and smell of ORS



**Medium willingness to pay**

Unprompted ideal price is INR 6

**At INR 7, 80% of caregivers would buy**

# Co pack in plastic pouch with measurement



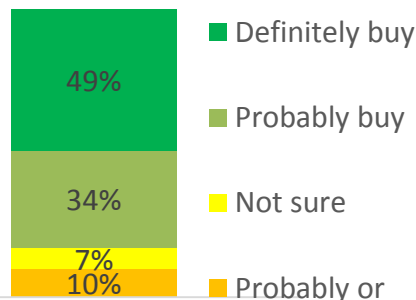
## Less appeal than other concepts

**73%** of caregivers liked it very much or extremely



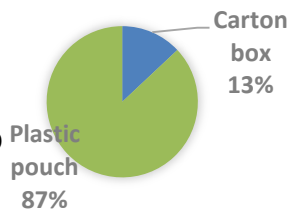
Q.: How much do you like or dislike this concept overall as described?

**90%** of caregivers would buy it



Caregivers India (201) not buy

**87%** of caregivers prefer plastic pouch to carton box



- All drugs are in one pack  
"No need to move around looking for different drugs. It saves time. It saves transport money"
- Both mixtures can be prepared together (*understanding issue!*)
- Transparency : "I can see what's inside"



- Too many drugs – not easy to administer
- Might be too expensive
- So complex that cannot administer without asking the doctor



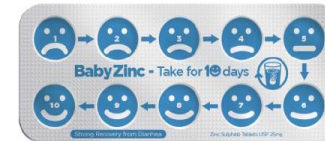
### Lower willingness to pay

Unprompted ideal price is INR 30

**At INR 60 60% of caregivers would buy**

# Key take away for India

- Indian caregivers are **very price sensitive**
- Awareness, purchase intent and compliance to dosage and treatment can be significantly improved using **more relevant packaging** to caregivers



- There are **2 concepts** that have strong potential to succeed to increase diarrhea treatment preference and usage:
  - **ORS smaller sachet** : this concept is answering some of the ORS challenges and is a real opportunity to lower the price per purchase act and thus could have a good impact especially in very poor rural settings. Ensuring this product has a good taste would increase the potential of the product
  - **Premix in plastic bottle** : this is the concept that answer most of current ORS challenges and thus could have a big impact, nevertheless affordability could be an issue



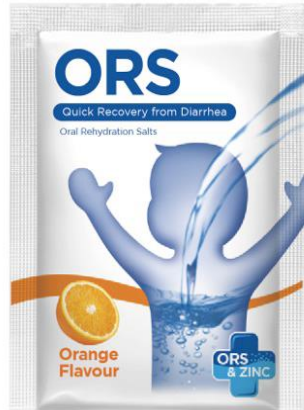


# Phase 3 – Concept Testing

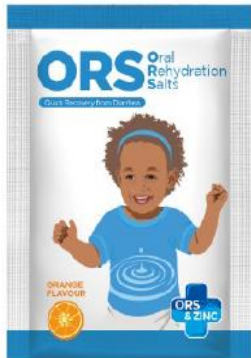
Uganda 

# 3 ORS and Zinc front pack tested

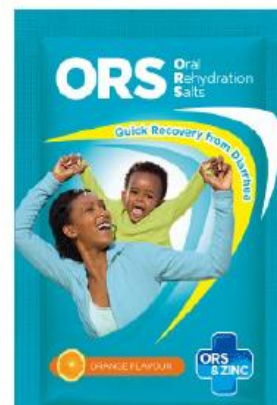
Pack 1



Pack 2



Pack 3

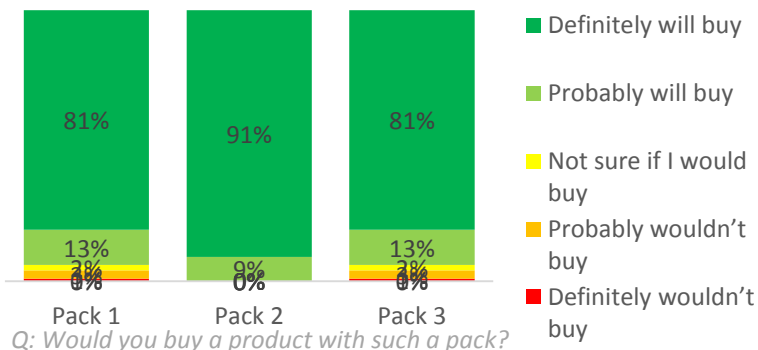


# ORS front pack designs

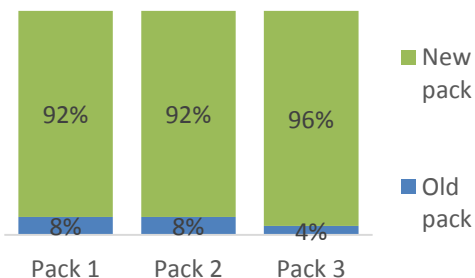


## Good purchase intent and preference vs current pack

Purchase intent



Preference vs current pack



**A strong trust in these packs.**

Pack 2 and 3 are especially trusted at both at 99%

Q: Does this feel like a pack for a product you can trust?

**Packs 2 and 3 convey key messages very well especially:**

- Will treat diarrhea
- Will give back energy and strengths to my child
- Will effectively treat diarrhea
- Is suitable for children

**Pack 1** conveys the key messages correctly but **underscores** compared to pack 2 and 3

**Pack 2** has further **strengths**:

- The baby looks healthy and happy,
- The words can be easily read thus easy to interpret

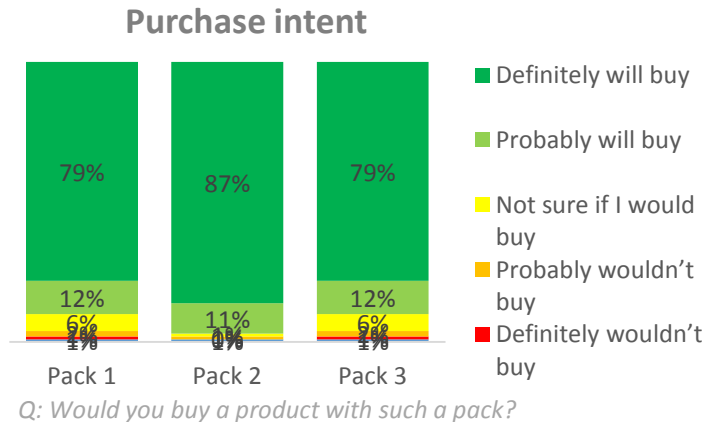
**Pack 3** raised some concerns with the **mother swinging the baby**:

- dangerous
- unreal for any product to have that quick of an effect

# Zinc front pack designs



## Strong purchase intent, especially for pack 2



A strong **trust** in these packs. **Pack 2 and 3** are especially **trusted** respectively at 94% and 97%

*Q: Does this feel like a pack for a product you can trust?*

**Packs 2 and 3** convey key messages very **well** especially:

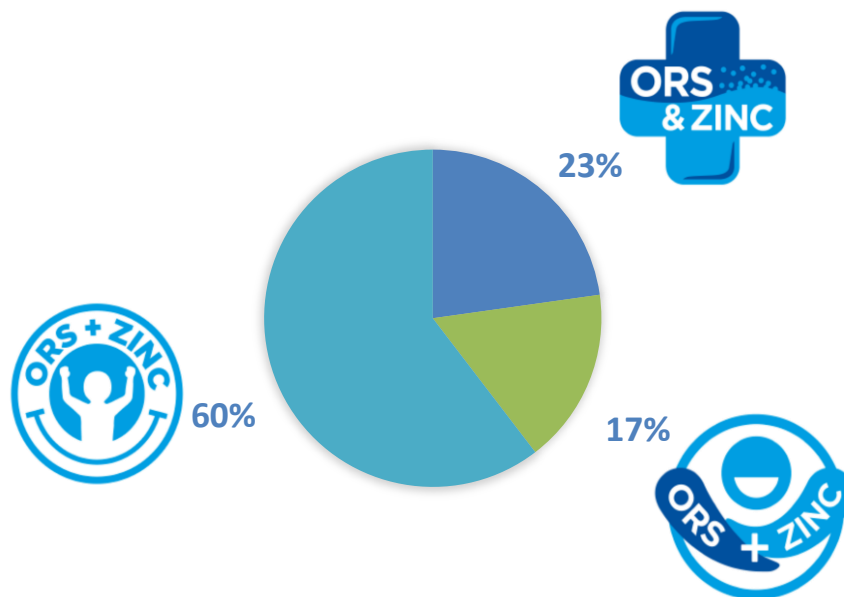
- Will treat diarrhea
- Will give back energy and strengths to my child
- Will effectively treat diarrhea

**Pack 1** conveys the key messages correctly but **underscores** compared to pack 2 and 3

**Flavors descriptor for zinc** doesn't seem key

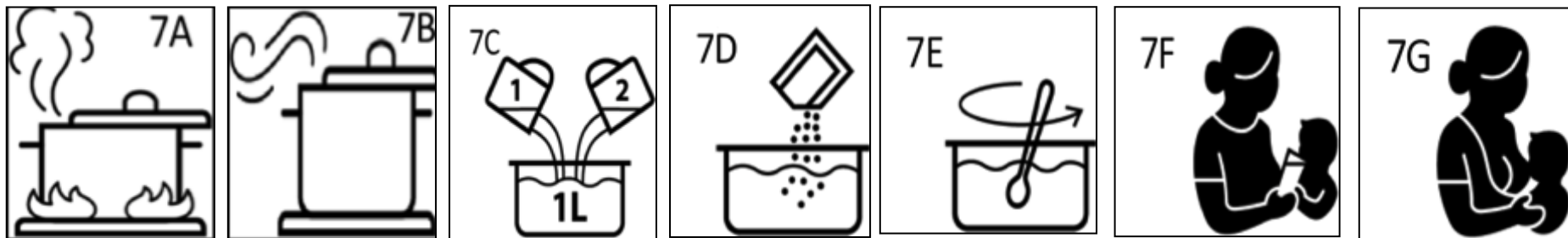
# Zinc & ORS logo

## Logo to express best combination treatment for diarrhea



*Q: These are logos we are thinking to use for a product for the treatment of diarrhea showing the best treatment for diarrhea; among the three of them, which logo do you prefer the most?*

# ORS back of the pack pictorial



## A strong appeal

- **95% of caregivers prefer this back of the pack pictorials to current**
- **99% of the caregivers think these are the right back pack design** for such a product as **ORS**
- **Priority steps** should be:



Boil the water

Allow the water to cool without getting contaminated

Mix the ORS to the water with clear measurements

Keep on giving it to the child

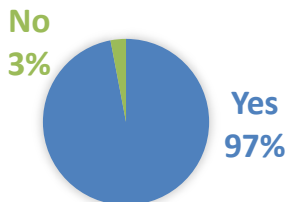


- Nevertheless pictures **7C** and **7F** were **confusing**:
  - **7C**: it having the unit to measure water and having two cups created confusion
  - **7F**: interpreted by many respondents as a mother reading a book to a child

# Zinc blister & logo

## A strong potential to help caregivers to complete the full treatment

Q: Do you think such blister printing will help you complete the full course of treatment?



62%



38%



Q: Of the two blister printings I have just showed you, which one would you prefer?

Q: of the logos I have shown you which one of the two do you think is showing zinc tablet as a dispersible tablet?

31%



69%



# 5 concepts:

## ORS Smaller Satchet



## ORS Premix



## ORS Effervescent Tablets



## ORS + Water Purifier



## Co-pack in a plastic pouch



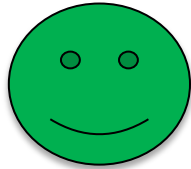


# ORS smaller sachet



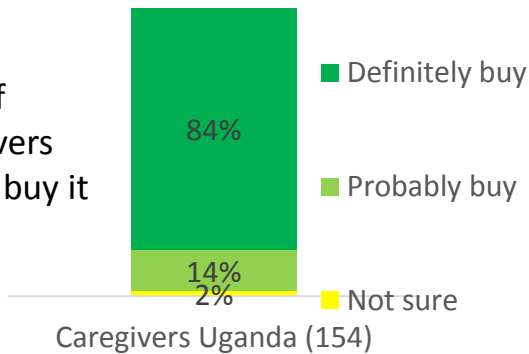
## Good appeal and purchase intent

93% of caregivers liked it very much or extremely out of which 61% liked it extremely



Q.: How much do you like or dislike this concept overall as described?

98% of caregivers would buy it



Q: If you found this product in a shop/pharmacy, would you buy it?



Driven by the fact that it **reduces wastage** and it is thus **economical**



But some typical ORS challenges remain especially the **bad taste** and the **cumbersome preparation**



### High willingness to pay

At UGX 300 96% of caregivers would buy it, even though, caregivers unprompted ideal price is UGX400. Providers trend shows a lower willingness to pay at UGX 275

Q: would you be willing to buy this product at the price shown on the show card?

Q: At what price amongst the ones I have just showed you would you consider this product to be IDEAL for you to consider purchasing it for each episode of diarrhea?



# ORS effervescent tablet



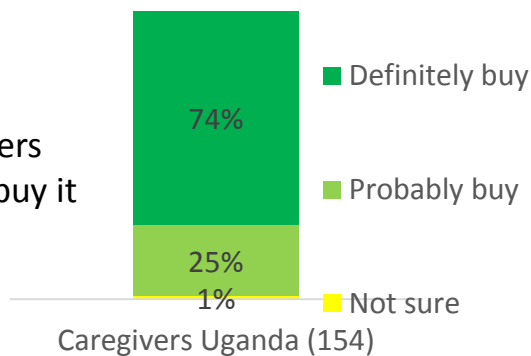
## A good appeal and strong purchase intent

86% of caregivers liked it very much or extremely



Q.: How much do you like or dislike this concept overall as described?

99% of caregivers would buy it



Q: If you found this product in a shop/pharmacy, would you buy it?



Driven by the **medicinal positioning** and the fact that it is **faster** to prepare  
"It dissolves quickly in the water."



Caregivers **hated bubbles** and were afraid of side effects  
"Might burn the child's tongue, the bubbles might cause wounds in the stomach of the child"



**High willingness to pay**  
**At UGX 250 94% of caregivers would buy it**, even though, caregivers unprompted ideal price is UGX400

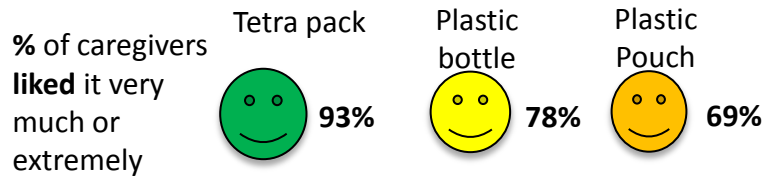
Q: would you be willing to buy this product at the price shown on the show card?  
Q: At what price amongst the ones I have just showed you would you consider this product to be **IDEAL** for you to consider purchasing it for each episode of diarrhea?



# ORS Premix

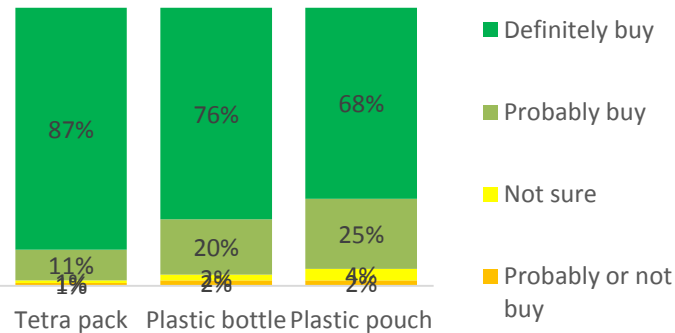


## Overall Tetra pack is the most attractive premix



Q.: How much do you like or dislike this concept overall as described?

### % of caregivers would buy it



Q: If you found this product in a shop/pharmacy, would you buy it?



Driven by the fact that there is no preparation  
 + *Plastic bottle*: it has a lid => no risk of spillage, content is visible  
 + *Plastic pouch*: portable



Difficult for a baby to suck or drink from bottle  
 - *Tetra pack*: no lid  
 - *Plastic bottle*: Risk of contamination (mouth)  
 - *Plastic pouch*: no lid, strong fear of spillage, look like alcohol, could require fridge



**High willingness to pay both for Tetra pack and plastic bottle**  
 - *Tetra pack*: at UGX 1000 93% of caregivers would buy it  
 - *Plastic bottle*: at UGX 900 95% of caregivers would buy it, unprompted ideal price is UGX 1000  
 - *Plastic pouch*: at UGX 900 89% of caregivers would buy it, unprompted ideal price is UGX 1000

Q: would you be willing to buy this product at the price shown on the show card?  
 Q: At what price amongst the ones I have just showed you would you consider this product to be IDEAL for you to consider purchasing it for each episode of diarrhea?



# ORS + Water purifier



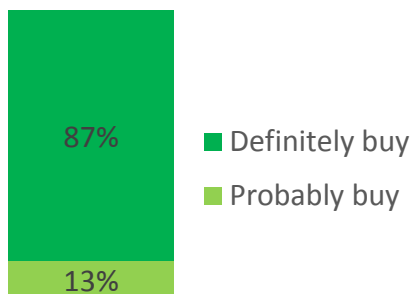
## A good appeal and strong purchase intent

87% of caregivers liked it very much or extremely



Q.: How much do you like or dislike this concept overall as described?

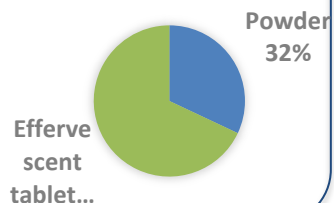
100% of caregivers would buy it



Caregivers Uganda (154)

Q: If you found this product in a shop/pharmacy, would you buy it?

68% of caregivers prefer tablet



Driven by the fact that it has a **double action and ease of preparation**

“Impurities in the water will be killed. No need of boiling water”



- Water Purifiers have an **unpleasant taste and smell** – that will interfere with the taste and smell of ORS

- Caregivers fear side effects of the bubbles



**High willingness to pay**

**At UGX 300 97% of caregivers would buy it, unprompted ideal price is UGX 400**

Q: would you be willing to buy this product at the price shown on the show card?

Q: At what price amongst the ones I have just showed you would you consider this product to be **IDEAL** for you to consider purchasing it for each episode of diarrhea?



# Co pack in plastic pouch with measurement



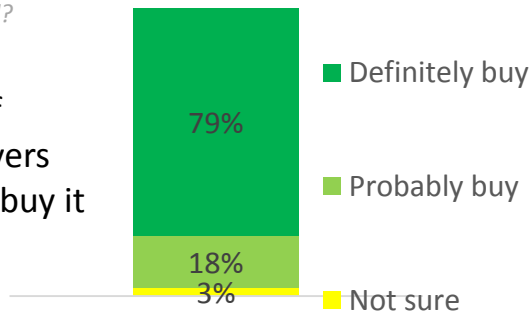
## A good appeal and very strong purchase intent

91% of caregivers liked it very much or extremely



Q.: How much do you like or dislike this concept overall as described?

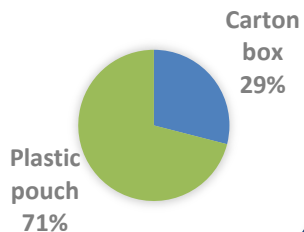
97% of caregivers would buy it



Caregivers Uganda (154)

Q: If you found this product in a shop/pharmacy, would you buy it?

71% of caregivers prefer plastic pouch



- All drugs are in one pack  
"No need to move around looking for different drugs. It saves time. It saves transport money"  
"Contains a full dose for the treatment of diarrhea"
- Transparency : "I can see what's inside"



- Too many drugs – not easy to administer
- Might be too expensive
- Dosage is too long



**Medium willingness to pay**  
At UGX 1800 83% of caregivers would buy it, the caregivers unprompted ideal price is UGX 1850

Q: would you be willing to buy this product at the price shown on the show card?  
Q: At what price amongst the ones I have just showed you would you consider this product to be IDEAL for you to consider purchasing it for each episode of diarrhea?



# Key take away for Uganda

- Awareness, purchase intent and compliance to dosage and treatment can be significantly improved using **more relevant packaging** to caregivers



- The **concepts** that have the best potential to succeed to increase diarrhea treatment preference and usage :
  - **Premix in tetra pack or plastic bottle**: this is the concept that answers most of current ORS challenges and thus could have a big impact pending competitive pricing
  - **ORS smaller sachet** with an improved ORS taste: this concept is answering some of the ORS challenges and is a real opportunity to lower the price per purchase act and thus could have a good impact especially in very poor rural settings
- The **copack could be revised** : the use of transparent plastic is very well appreciated compared to a carton box and allow a high purchase intent

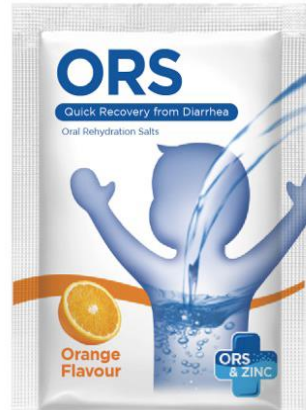


# Phase 3 – Concept Testing

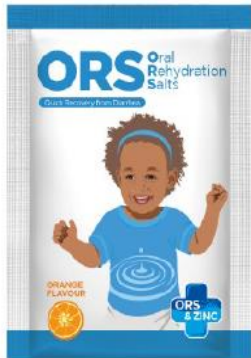
Nigeria 

# 3 ORS and Zinc front pack tested

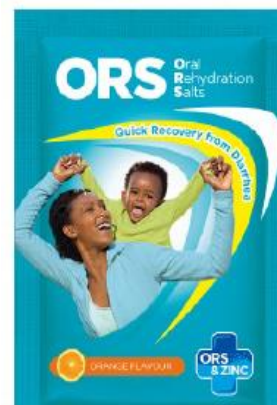
Pack 1



Pack 2

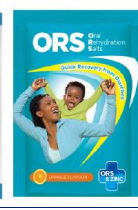


Pack 3



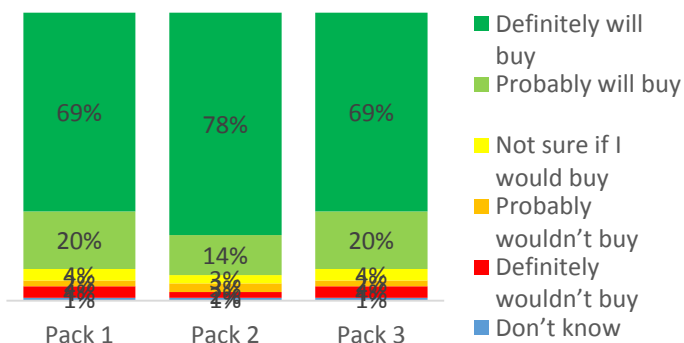


# ORS front pack designs

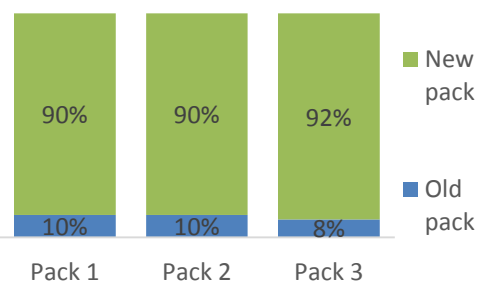


## Strong purchase intent and preference vs current pack for the 3 new packs

Purchase intent



Preference vs current pack



Q: Comparing a product with this kind of pack with what is currently found here (show sample) which pack do you prefer?

A strong trust in these packs.

Pack 2 and 3 are significantly trusted at 98% and 96%

Q: Does this feel like a pack for a product you can trust?

The 3 packs convey key messages very well especially:

- Will treat diarrhea
- Will give back energy and strength to my child
- Will effectively treat diarrhea
- Is suitable for children
- This product will taste good

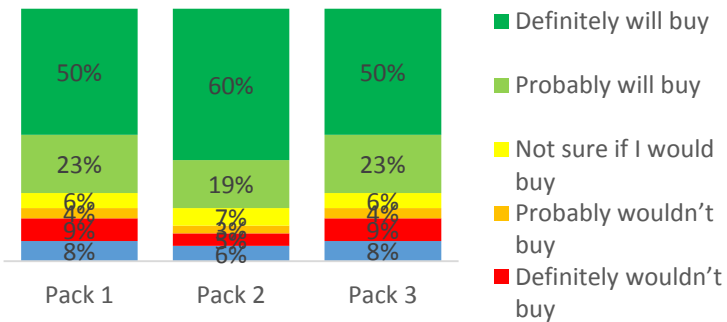
For Nigerians, making the packs look trendy, modern and captivating is important

# Zinc front pack designs



## Average purchase intent

### Purchase intent



Q: Would you buy a product with such a pack?

**Trust in these packs is lower vs ORS. Pack 2 and 3 are more trusted** respectively at 77% and 80%

Q: Does this feel like a pack for a product you can trust?

**Packs 2 and 3 convey key messages well especially:**

- Will treat diarrhea
- Will give back energy and strengths to my child
- Will effectively treat diarrhea
- Is suitable for children
- This product will taste good

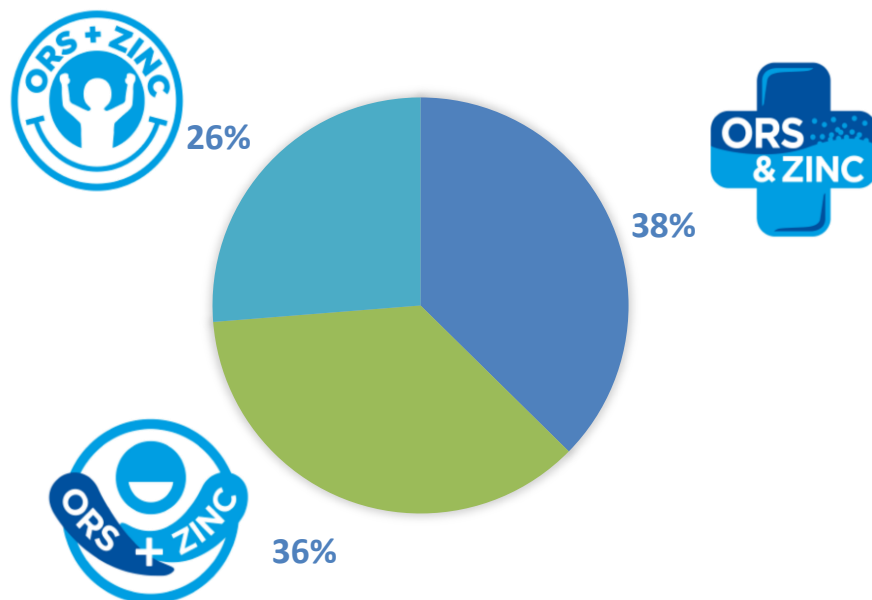
**Pack 1** conveys the key messages but is scoring slightly lower vs pack 2 and 3

**But caregivers found the pack not very appealing:** monotonous colours

=> they suggested colours for the same to make it look flashy and appealing.

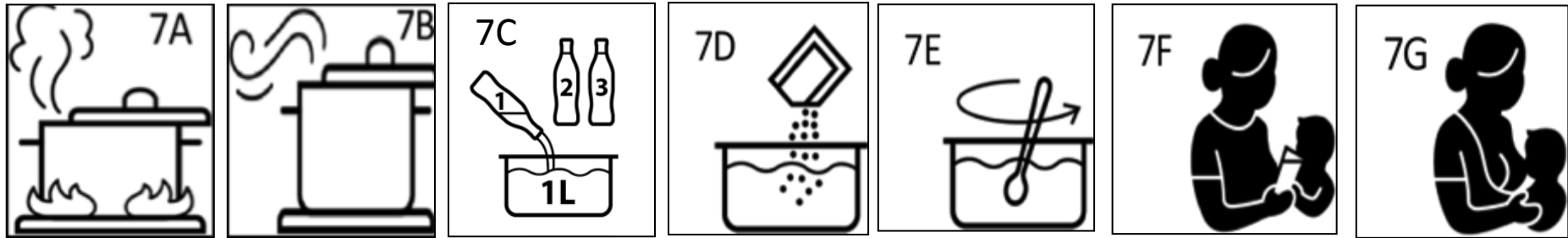
# Zinc & ORS logo

## Logo to express best combination treatment for diarrhea



*Q: These are logos we are thinking to use for a product for the treatment of diarrhea showing the best treatment for diarrhea; among the three of them, which logo do you prefer the most?*

# ORS back of the pack pictorial



## A strong appeal

- **94% of caregivers prefer this back of the pack pictorials to current**
- **97% of the caregivers think these are the right back pack design** for such a product as **ORS**
- **Priority steps** should be:



Boil the water

Allow the water to cool without getting contaminated

Mix the ORS to the water with clear measurements

Keep on giving it to the child

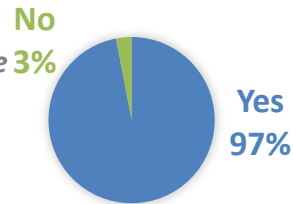


- Nevertheless pictures **7C** and **7F** were **confusing**:
  - **7C**: it having the unit to measure water and having the bottles created confusion
  - **7F**: interpreted by many respondents as a mother reading a book to a child

# Zinc blister & logo

## A strong potential to help caregivers to complete the full treatment

Q: Do you think such blister printing will help you complete the full course of treatment?



77%



23%



Q: Of the two blister printings I have just showed you, which one would you prefer?

Q: of the logos I have shown you which one of the two do you think is showing zinc tablet as a dispersible tablet?

77%



23%



# 5 concepts:

## ORS Smaller Satchet



## ORS Premix



## ORS Effervescent Tablets



## ORS + Water Purifier



## Co-pack in a plastic pouch



# ORS smaller sachet



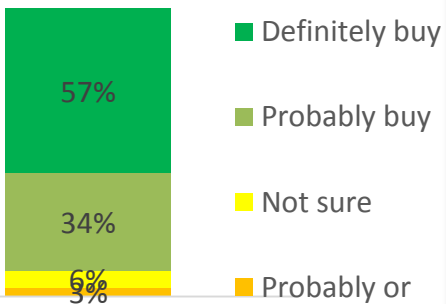
## A good appeal and purchase intent

63% of caregivers liked it very much or extremely out of which 61% liked it extremely



Q.: How much do you like or dislike this concept overall as described?

91% of caregivers would buy it



Caregivers Nigeria (237)

Q: If you found this product in a shop/pharmacy, would you buy it?



Driven mostly by the fact that it **reduces wastage**, it is **economical**, but also because it answers a lot of other ORS challenges (preparation, dosage, quantity)



Nevertheless issues on **taste** still need to be addressed



**High willingness to pay**  
At NGN 15, 92% of caregivers would buy, even though, most caregivers noted they would be willing to buy the same for NGN20

Q: would you be willing to buy this product at the price shown on the show card?  
Q: At what price amongst the ones I have just showed you would you consider this product to be IDEAL for you to consider purchasing it for each episode of diarrhea?

# ORS effervescent tablet



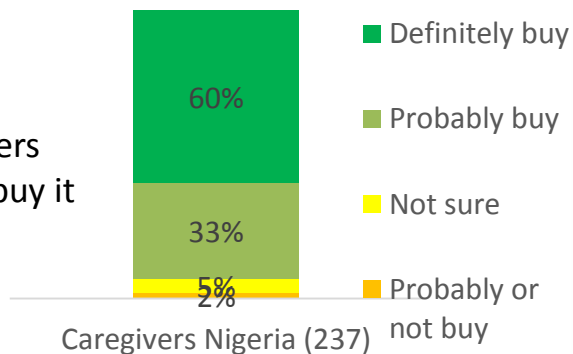
## A good appeal and purchase intent

73% of caregivers liked it very much or extremely



Q.: How much do you like or dislike this concept overall as described?

93% of caregivers would buy it



Q: If you found this product in a shop/pharmacy, would you buy it?



Driven by the **medicinal positioning** and **ease of preparation** (time & measurement)

"It dissolves quickly. No measuring of water – you use a glass."



**High willingness to pay**

**At NGN 15, 94% of caregivers would buy** the ORS effervescent tablet, even though, most caregivers noted they would be willing to buy the same for NGN20

Q: would you be willing to buy this product at the price shown on the show card?

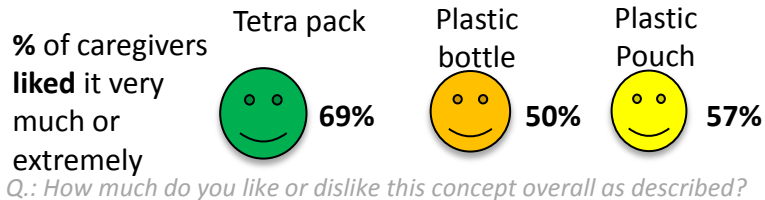
Q: At what price amongst the ones I have just showed you would you consider this product to be **IDEAL** for you to consider purchasing it for each episode of diarrhea?



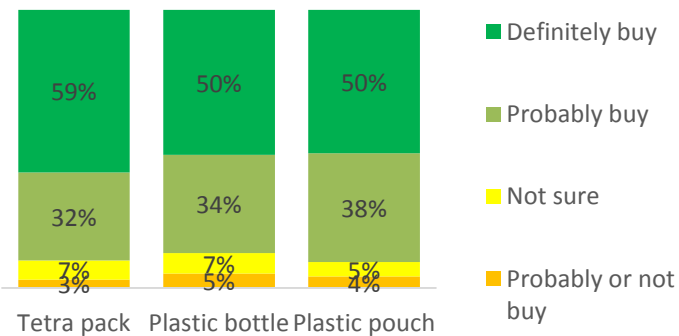
# ORS Premix



## Overall Tetra pack is the most attractive premix



### % of caregivers would buy it



Q: If you found this product in a shop/pharmacy, would you buy it?



Driven by the fact that there is no preparation  
 + *Tetra pack*: robust packaging, child friendly  
 + *Plastic bottle*: it has a lid => no risk of spillage  
 + *Plastic pouch*: easy to use



Difficult for a baby to suck or drink from bottle  
 - *Tetra pack*: no lid  
 - *Plastic bottle*: Risk of contamination, not attractive  
 - *Plastic pouch*: no lid



### High willingness to pay

- *Tetra pack*: at NGN 65 89% of caregivers would buy it, unprompted ideal price is NGN 50  
 - *Plastic bottle*: at NGN 55 90% of caregivers would buy it, unprompted ideal price is NGN 50  
 - *Plastic pouch*: at NGN 55 85% of caregivers would buy it, unprompted ideal price is NGN 60

Q: would you be willing to buy this product at the price shown on the show card?  
 Q: At what price amongst the ones I have just showed you would you consider this product to be IDEAL for you to consider purchasing it for each episode of diarrhea?

# ORS + Water purifier



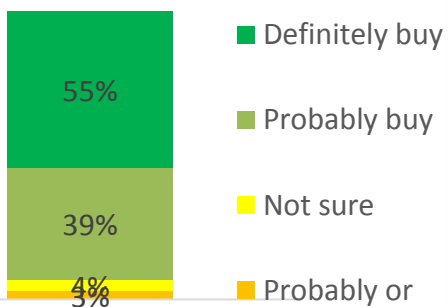
## An average appeal but a good purchase intent

64% of caregivers liked it very much or extremely



Q.: How much do you like or dislike this concept overall as described?

94% of caregivers would buy it



Caregivers Nigeria (237)

Q: If you found this product in a shop/pharmacy, would you buy it?



Driven by the fact that it has a **double action and ease of preparation**

“Impurities in the water will be killed. No need of boiling water”



- Water Purifiers have an **unpleasant taste and smell** – that will interfere with the taste and smell of ORS

- Preparation process is still long  
“You still have to fetch water”



**High willingness to pay**

**At NGN 20 98% of caregivers would buy the ORS + water purifier**

Q: would you be willing to buy this product at the price shown on the show card?

Q: At what price amongst the ones I have just showed you would you consider this product to be **IDEAL** for you to consider purchasing it for each episode of diarrhea?

# Co pack in plastic pouch with measurement



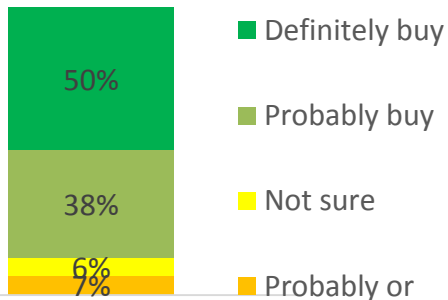
## A medium appeal, but good purchase intent

59% of caregivers liked it very much or extremely



Q.: How much do you like or dislike this concept overall as described?

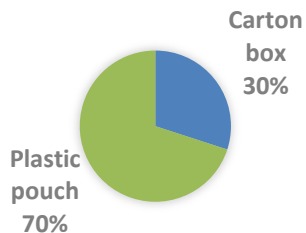
88% of caregivers would buy it



Caregivers Nigeria (237)

Q: If you found this product in a shop/pharmacy, would you buy it?

70% of caregivers prefer plastic pouch



- All drugs are in one pack  
"No need to move around looking for different drugs. Contains zinc supplements in it – which can be difficult to obtain. It saves time. It saves transport money."
- Has all the required instructions to administer the dosage
- Transparency : "I can see what's inside"



- Too many drugs – not easy to administer
- Might be too expensive
- Dosage is too long



### High willingness to pay

**At NGN 100 95% of caregivers would buy it, even though the caregivers unprompted ideal price is NGN 90**

Q: would you be willing to buy this product at the price shown on the show card?  
Q: At what price amongst the ones I have just showed you would you consider this product to be IDEAL for you to consider purchasing it for each episode of diarrhea?

# Key take away for Nigeria

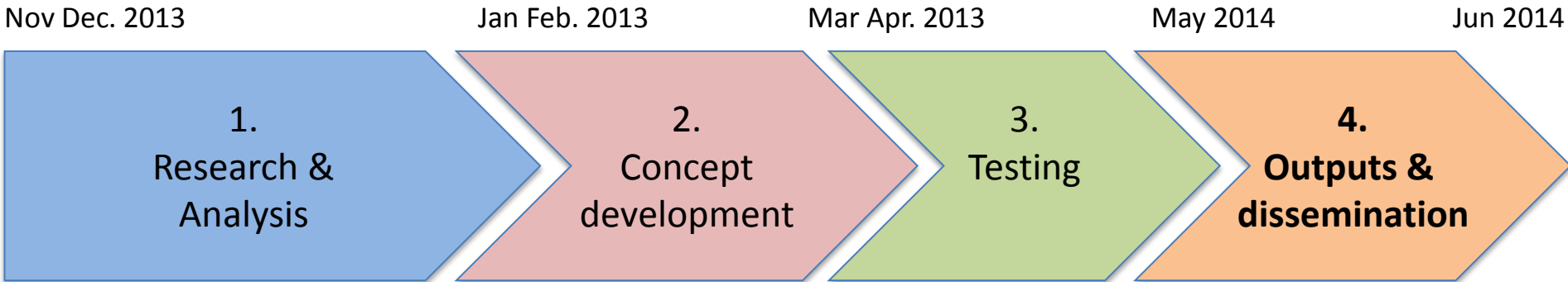
- Awareness, purchase intent and compliance to dosage and treatment can be significantly improved using **more relevant packaging** to caregivers



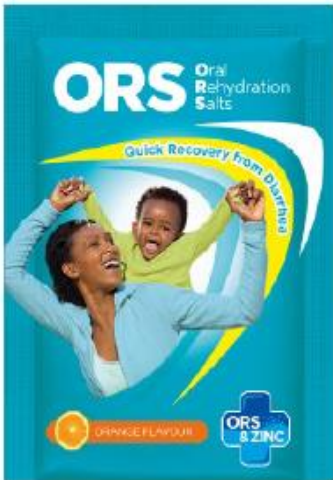
- These **concepts** that have good potential to succeed to increase diarrhea treatment acceptance:
  - **ORS smaller sachet** with an improved ORS taste: this concept is answering a lot of ORS challenges and is a real opportunity to lower the price per purchase act and thus could have a high impact especially in very poor rural settings
  - **ORS effervescent tablet**: this concept is attractive and answer 2 big ORS challenges and thus could have a big impact
  - **Premix in tetra pack**: this is the concept that answers most of current ORS challenges and thus could have a big impact with competitive pricing



# Phase 4 – Outputs & Dissemination



# Elements driving the preferences



Clear and easy to understand packs (not too many messages and graphics)  
*=> This a medicine to treat diarrhea and that will help my child to recover*

Image or graphic of a healthy and full of energy baby

Color codes (blue, white) that shows that this is a medicine they can trust

Good taste appeal: showing the orange flavor using the fruit and orange color

# Pack refinements:

Alternate image of mum and child



# Pack refinements:

Alternate zinc packaging increasing modernity cues



Option 1



Option 2



# Pack refinements (Back Of Pack):

## India:

The back of the sachet for India features four numbered icons: 1. Boiling water on a stove, 2. A pot cooling on a stand, 3. A hand pouring powder from a sachet into a bowl, and 4. A woman feeding a child. Below the icons are the following instructions:

- 1 Boil the water  
XXXXXX XXX XXXX
- 2 Let it cool  
XXXXXX XX XXXX
- 3 Measure 1 liter of clean water and mix ORS  
XXXXXX XXX XXXXXX  
XXX XXXXXX
- 4 Give the ORS to the child  
XXXXXX XXX XXXX  
XX XXXXXX

**COMPOSITION** Each sachet contains

Sodium Chloride I.P.	2.60g
Potassium Chloride I.P.	1.50g
Sodium Citrate I.P.	2.90g
Dextrose Anhydrous I.P.	13.50g
Excipients	q.s

Manufacturing by XXX company  
Address XXX XXXXX XXXXXXXXXX XXXXXXX XXXXXXXX

Batch number / manufacturing date / Expiry date

1 Litre sachet  
80 x 105mm

## Uganda:

The back of the sachet for Uganda features four numbered icons: 1. Boiling water on a stove, 2. A pot cooling on a stand, 3. A hand pouring powder from a sachet into a bowl, and 4. A woman feeding a child. Below the icons are the following instructions:

- 1 Boil the water  
XXXXXX XXX XXXX
- 2 Let it cool  
XXXXXX XX XXXX
- 3 Measure 1 liter of clean water and mix ORS  
XXXXXX XXX XXXXXX  
XXX XXXXXX
- 4 Give the ORS to the child  
XXXXXX XXX XXXX  
XX XXXXXX

**COMPOSITION** Each sachet contains

Sodium Chloride I.P.	2.60g
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Sodium Citrate I.P.	2.90g
Dextrose Anhydrous I.P.	13.50g
Excipients	q.s

Manufacturing by XXX company  
Address XXX XXXXX XXXXXXXXXX XXXXXXX XXXXXXXX

Batch number / manufacturing date / Expiry date

1 Litre sachet  
80 x 105mm

## Nigeria:

The back of the sachet for Nigeria features four numbered icons: 1. Boiling water on a stove, 2. A pot cooling on a stand, 3. A hand pouring powder from a sachet into a bowl, and 4. A woman feeding a child. Below the icons are the following instructions:

- 1 Boil the water  
XXXXXX XXX XXXX
- 2 Let it cool  
XXXXXX XX XXXX
- 3 Measure 1 liter of clean water and mix ORS  
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Excipients	q.s

Manufacturing by XXX company  
Address XXX XXXXX XXXXXXXXXX XXXXXXX XXXXXXXX

Batch number / manufacturing date / Expiry date

1 Litre sachet  
80 x 105mm

# Dissemination results to date:

## Uganda:

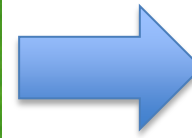
- Research presented to key manufacturers/suppliers
  - One manufacturer will introduce small sachet
  - Two manufacturers implementing pack design improvements
  - One manufacturer launching a co-pack



# Dissemination results to date:

## India:

- UP government implementing pack design improvements



## Nigeria:

- Research presented to key manufacturers/suppliers
  - One interested in the blister pack design
  - Two interested in pack design improvements
  - Interest in smaller sachets in the longer term



Results presented to two global pharmaceutical companies with R&D capabilities

# More information?

**Questions/comments/more information - please contact:**

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