

DESIGNING CO-PACKAGING FOR ZINC & ORAL REHYDRATION SALTS (ORS) TO INFLUENCE CAREGIVER AND PROVIDER BEHAVIOURS FOR TREATING CHILDHOOD DIARRHOEA IN GUATEMALA

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ABSTRACT

Objective: The purpose of this study was to design effective co-packaging for zinc and ORS, informed by social-marketing, to influence both caregivers' and providers' behaviours in a demonstration project.

Methods: Local concepts, perceptions and experiences relating to diarrhoea and care seeking were explored in 8 focus group discussions (n=82) and 24 key informant interviews with caregivers at the health post level in the department of San Marcos, Guatemala. Prototype co-packaging and messages were developed and reviewed with 14 mothers and 10 providers in 4 municipalities to pretest the candidate materials.

Results: Formative research identified two major challenges to correctly using zinc and ORS to treat childhood diarrhoea with regards to: 1) the concept of adherence to zinc once symptoms disappeared; and 2) dissolving a tablet in a spoon was a new skill. A campaign of Zinc-10 was created and tested to promote the concept of 10 days of adherence to zinc; additional visual aids focussed on showing dissolving of zinc on a spoon. These candidate concepts and messages were highly accepted by caregivers and providers, yet revisions were needed for images and materials used.

Conclusions: Using a social-marketing approach, packaging and promotional messages were developed that were more acceptable to caregivers and providers than the original prototypes.

- Prototype posters and co-packaging with diarrhea treatment messages were developed and reviewed with 14 mothers and 10 providers in 4 municipalities in San Marcos, Guatemala to pretest the candidate materials for form and content.
- Co-packaging and posters were revised and re-tested and the final versions were endorsed by the Guatemalan Ministry of Health and Social Assistance (MSPAS).



Researcher Rosario getting the perspectives of health providers on candidate images and messages, in San Marcos, Guatemala.

FIGURE 2: FINAL LABEL DEVELOPED FOR ZINC & ORS CO-PACKAGING IN THE PILOT STUDY



FIGURE 3. POSTER DEVELOPED TO REMIND PROVIDERS TO GIVE BOTH ZINC & ORS, AND TO EXPLAIN HOW TO USE ZINC FOR THE FULL 10 DAYS



CONCLUSIONS

A campaign with branding of "Zinc 10" was developed based on insights from mothers and health providers.

Two key messages were communicated to mothers: 1) Dissolve zinc in a spoon; and 2) Give your child the ORS for 2 days but the zinc for a full 10 days.

The final co-packaging products are appealing to both caregivers and health providers and are being tested in a randomized community trial in San Marcos, Guatemala.

If successful, the new co-packaging and messages will be implemented nationally in the MSPAS program.

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REFERENCES

- Fischer Walker CL, Fontaine O, Young MW, and Black RE (2009). Zinc and low osmolality oral rehydration salts for diarrhoea: a renewed call to action. Bull World Health Organ;87 (10):780–786.
- Fischer Walker CL and Black RE (2010). Zinc for the treatment of diarrhoea: effect on diarrhoea morbidity, mortality and incidence of future episodes. Int J Epidemiol; 39(1): i63–i69.
- Ministerio de Salud Pública y Asistencia Social (MSPAS), INE, UVG, CDC, USAID, ASDI, APRESAL/UE, PNUD et al. (2003). Encuesta Nacional de Salud Materno Infantil 2002. MSPAS, Guatemala; 295 p.

INTRODUCTION

- Globally, diarrhoea affects 2.5 billion children annually, more than any other disease (Fisher et al. 2009), and in Guatemala is the second greatest cause of child mortality (MSPAS et al. 2003).
- Zinc supplements taken with ORS not only can help children recover faster, but it can even save their lives (Fisher et al. 2010).
- The Government of Guatemala is committed to providing zinc and ORS through the public health system to treat diarrhoea in children 6–59 months of age; yet coverage and use remain low.

OBJECTIVES

- To design co-packaging for zinc & ORS that would appeal to both providers and caregivers, and influence behaviour change to increase the coverage and use of zinc as an adjunct to ORS for treating diarrhoea in the western province of San Marcos, Guatemala

METHODS

- Through 24 key informant interviews with caregivers and 8 focus group discussions with 82 mothers of children under 5 years of age we explored local concepts, perceptions and experiences relating to diarrhoea care seeking and treatment.

RESULTS

- Zinc was new to many mothers, but ORS was well known.
- Adherence of taking zinc for 10 days, especially when symptoms went away, was an unfamiliar concept for most.
- Dissolving zinc was a novel practice to the mothers.
- Treatment messages were valued by mothers, but they felt preventative messages implied blame when child already had diarrhoea.
- Mothers preferred the reusable plastic bag to a co-packaged box, for its ease of transport and durability.

FIGURE 1. EVOLUTION OF THE ZINC & ORS CO-PACKAGING THROUGH PILOT TESTING AND REVISIONS



The first photo shows zinc tablets and ORS in simple bag; second photo shows zinc & ORS for diarrhoea treatment, and zinc & antibiotics for pneumonia (Guatemalan MSPAS recommendation); third photo shows pneumonia co-pack in blue and diarrhoea co-pack sticker in orange.