

ColaLife Operational Trial Zambia

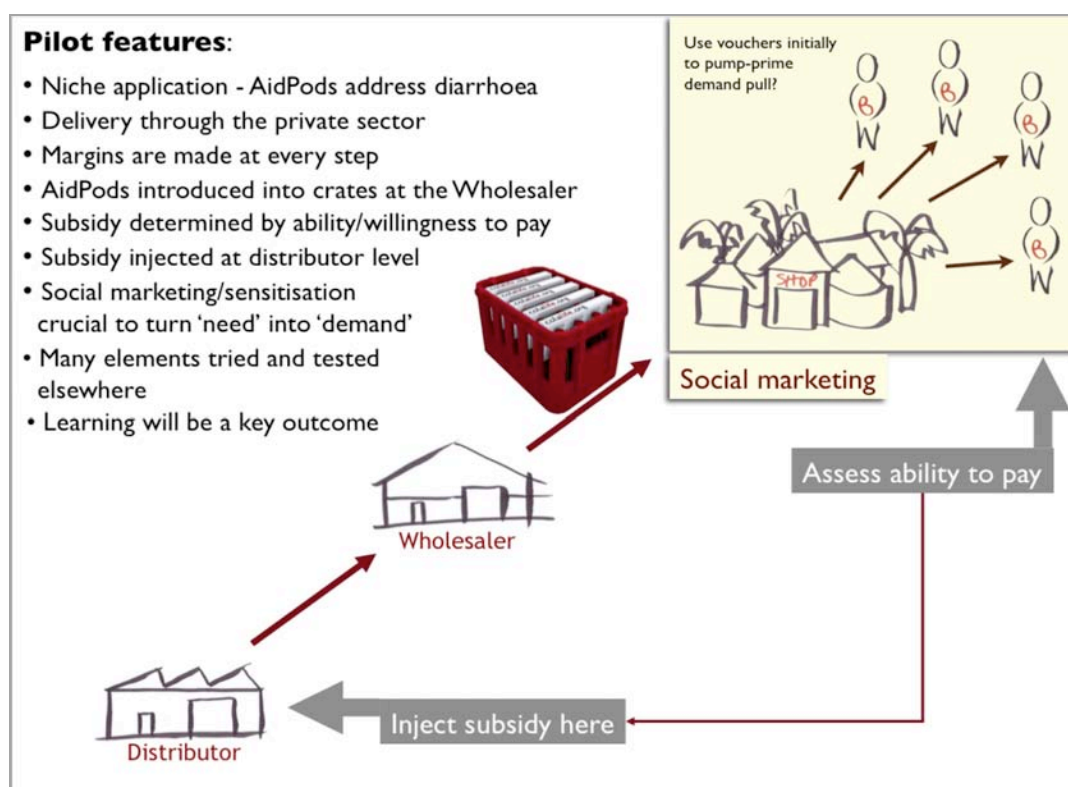
A plan for the first operational trial of the ColaLife concept, in Zambia

An Executive Summary and Key Diagrams

Project Outline

ColaLife is a non-profit that builds unlikely alliances and develops 'shared value', promoting business innovation to help solve developing world issues. A first operational trial with cross-sector partners will take place in Zambia and will piggy-back 'AidPods' on Coca-Cola's secondary distribution chain. Fitting into the unused space between crated bottles, each AidPod carries an Anti-Diarrhoea Kit (ADK) for home use by mothers/care-givers in underserved rural communities. Comprised of Oral Rehydration Salts (ORS), zinc, soap and information, education and communication (IEC) materials, they will be sold at an affordable, subsidised price by trained local retailers in communities, supporting improved livelihoods. Mobile phones provide voucher redemption, authentication and information services. Proof of concept will be assessed through a pre-post test with a comparison area as a control, and full evaluation. It will include the collection and dissemination of key lessons learned and proposals for scale up and/or future adaptations.

Figure 1: The ColaLife business model



Version: Executive Summary and Key Diagrams, June 2011

'[Children's health] policies will need to be coupled with strengthened distribution systems and new delivery strategies to make a real difference in the availability of the new [ORS] formula to children with diarrhoea.'

WHO/UNICEF, October 2009 'Diarrhoea: Why children are still dying and what can be done'

Abbreviations

ADK	Anti-Diarrhoea Kit
ACTs	Artemisinin Combination Therapy (anti-malarial drugs)
COTZ	ColaLife Operational Trial Zambia (name of this project)
IEC	Information, Education and Communication
KZF	Keepers Zambia Foundation
M&E	Monitoring and Evaluation
MoH	Ministry of Health
MSL	Medical Stores Ltd
MTZL	Mobile Transactions Zambia Ltd, trading as Mobile Transactions
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
SMS	Short Message Service (a text message)
WASH	Water, Sanitation and Hygiene programmes and techniques
WHO	World Health Organisation
UNICEF	United Nations Children's Fund

Authors:

Jane Berry, Voluntary Director, ColaLife
Simon Berry, Voluntary Director, ColaLife
Rohit Ramchandani, MPH, DrPH candidate, Johns Hopkins University, USA, previously Senior Advisor, Canadian International Development Agency (CIDA).

Contributors:

UNICEF, Zambia
Jesper Moller, M&E Specialist
Dr Ngawa J Nyongani Ngoma, EPI Officer, Health, Nutrition and HIV and AIDS
Dr Rodgers K Mwale, Child and Maternal Health Specialist
Lusako Sichali, Planning Officer
Dr Charlotte Harland, Chief of Social & Economic Policy, Planning, Monitoring & Evaluation
Dr Nilda Lambo, Chief, Health, Nutrition and HIV and AIDS.

SABMiller/Zambian Breweries
Chibamba Kanyama, Corporate Affairs Director
Andrew Ross, Head of Sales and Distribution
Panji Banda, Head of Logistics

Keepers Zambia Foundation
John Msimuko, Executive Director
Ruth Mitimangi, Programme Manager

Medical Stores Ltd
Ian Ryden, Director of Logistics
Chipopa Kazuma, Essential Drugs Project Manager

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Any errors are the authors' own and apologies are offered for any inaccuracies.

Executive summary of Plan: ColaLife Operational Trial Zambia (COTZ)

The ColaLife concept is based on 3 facts: 1) you can buy a Coca-Cola virtually anywhere in developing countries; 2) in some of these same places, 1 in 7 children die before their 5th birthday from simple, preventable causes like dehydration from diarrhoea; and 3) over the past 2 decades there has been very slow incremental improvement. A step-change is required to meet the Millennium Development Goals (MDG) for child mortality, which will require truly innovative approaches.

Globally, diarrhoea is the second leading cause of mortality in children under 5 years of age, accounting for approximately 15% of all childhood deaths. Six years ago, the World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF) released a joint statement recommending low-osmolarity oral-rehydration salts (ORS) and zinc supplementation for diarrhoea, yet still few children in the developing world receive these life-saving interventions. Given the scientific consensus and recognition that zinc and low-osmolarity ORS are critical in reducing childhood mortality from diarrhoea, it has been estimated 75% of diarrhoea deaths can be prevented by full coverage and use. Various experts concur that the problem is worse in rural parts of the developing world, where for millions of people ORS/zinc are often not available locally, either because of distance, cost, or stock-outs. Providing ORS/zinc solely through public sector clinics has not been effective, comprehensive or sustainable in any country. The roll-out of these effective and simple tools, essential to improving child survival, is in line with current global health policy priorities, but has lost momentum, with calls to re-examine approaches.

ColaLife has developed an 'AidPod' package that fits between the necks of crated bottles, in un-used space, adding no extra volume and very little weight to a crate. It is working with Coca-Cola and its independent, in-country bottlers to find practical ways to open up their distribution channels in developing countries - in particular the secondary distribution chain - to carry simple medicines and social products the 'last mile', to save children's lives. Local agencies will determine the required interventions and models to trial (for example private/retail models; public sector models; hybrid models) and items to distribute, depending on their needs and priorities (eg ORS, zinc, vitamin A, anti-malarials, water purification methods, other medicines or 'social products'). The model is transferrable to a range of other drinks distributors, commercial operators and products, whilst bearing in mind Base of Pyramid success factors, aspects such as localisation, product sizing and packaging, and costing and pricing could produce a variety of sustainable business models where last mile transport costs are eliminated.

For the past 3 years, the concept has been under development through an 'open innovation' process, online and through conferences and meetings. This process continues to be supported by expert leaders in logistics and global health on a pro-bono/voluntary basis, by the ColaLife voluntary Directors, by a large number of supporters and by The Coca-Cola Company and its in-country franchise bottlers.

The last year has involved intensive partnership development, focusing on the localisation of the ColaLife concept for Zambia. Here, limited access of the health supply chain beyond District depots and the line of rail/road, poor availability, stock outs and weak supply management and forecasting beyond district level have led to interest in innovative delivery strategies and private-public partnerships to address issues. Innovation, reach into underserved areas and better promotion of hand-washing are instilled in the local UNICEF Country Plan. A first operational trial has been co-designed to start in late 2011. Costing an estimated USD 1.354m it will focus on delivering Anti-Diarrhoea Kits (ADKs) for mothers and care-givers of under-fives in under-served rural areas, using a subsidised retail model. The implementation partners in Zambia are the Coca-Cola bottler, Zambian Breweries plc (subsidiary of SABMiller plc), UNICEF Zambia, Medical Stores Ltd, and Keepers Zambia Foundation, under guidance from Zambia's Ministry of Health as well as academics, with project management from ColaLife.

Key, overarching research questions for this first trial are:

- To what extent can the informal Coca-Cola distribution chains be used to improve access to ORS, zinc and other simple interventions through 'last mile' retailers in under-served rural communities?
- What effect does this have in supporting mothers/care-givers in home-based management of diarrhoea in children 0-59 months of age?

1 Introduction

ColaLife is a UK-based non-profit organisation specialising in innovation and in creating ‘unlikely alliances’, bringing in the expertise and assets of corporates to assist in solving developing world health issues, creating ‘shared value’, promoting and supporting ‘business innovation’ and testing the potential of ‘hybrid value chains’¹. This project will harness the distribution chain of Coca-Cola, recognised globally as one of the most effective in the world², offering widespread rural penetration in less developed countries³. The secondary Coca-Cola distribution chains, managed independently within an informal market, comprise small scale retailers and often function via bicycle, motorcycle or cart penetrating rural areas more effectively than bespoke public health delivery systems. The model (Figure 1) if effective, is transferrable to other medicines or packs, other distribution chains and countries, and offers potential for rapid scale up.

This plan outlines a novel public-private partnership, built on 3 years’ investment in research and concept development, including 9 months’ local partnership development and co-design in Zambia. The ColaLife Operational Trial Zambia (COTZ) will test a highly innovative solution for ‘last mile’ reach of an Anti-Diarrhoea Kit (ADK), using the secondary Coca-Cola⁴ distribution chain to reach underserved rural communities. Here, diarrhoea accounts for approximately 15% of childhood deaths. Globally, it is the second leading cause of mortality in children under 5 (Figure 2). Research shows that reaching MDG 4 (reduced child mortality) by 2015 will require innovation and a step change in practice (Figure 3).

‘Coca-Cola cannot do this on its own. If we did, we’d [rightly] be accused of taking over the public health service and meddling where we are not qualified.’

Salvatore Gabola, The Coca-Cola Company’s Head of Stakeholder Relations, June 2008

Zambia has been selected because:

- The Ministry of Health policy is to encourage innovation and public private partnerships
- UNICEF Zambia and other agencies supported the trial design from an early stage
- Awareness of ORS alone is good; zinc usage is low
- Private sector supply of ORS/zinc is very weak, especially in rural areas
- Diarrhoea mortality and dehydration in under 5’s still remains a problem
- Ease of doing business is relatively high, with English widely used
- Mobile phone ownership and penetration is fairly good and improving quickly⁵
- Mobile money initiatives are established and are developing quickly⁶
- Projects exist locally from which we can learn⁷
- The Coca-Cola bottler, Zambian Breweries plc, is supportive, with a track record of innovative CSR projects

Health and wealth are inextricably linked; for example, it has been estimated that a 5% improvement in child survival rates can raise economic growth by one percentage point a year over the following decade⁸. The ColaLife model seeks to improve incomes of the smallest rural retail kiosk-owners, for example in this COTZ trial, by enabling them to earn a margin on every ADK they carry and sell, and by supporting them

¹ Ashoka defines these as business models for commercial partnerships between businesses and citizen sector organizations that leverage critical strengths of each actor to transform markets and meet these critical needs through market access

² For example, in Zambia, Coca-Cola accounts for 73% of the sparkling beverages market. See: Exploring the Links between international business and poverty reduction, SABMiller, The Coca-Cola Company and Oxfam America, 2010.

³ A recent fieldwork visit by UNICEF Zambia staff to the very remote Shangombo District indicates that even here, the Coca-Cola wholesaler supplied sufficient crates to retailers to cover the number of ADKs required for all of the annual births in the area.

⁴ In this document we use the term Coca-Cola to mean the Cola-Cola brand and marketing operation (HQ in Atlanta); the independent in-country bottlers; and the distributors and small businesses that work with them to form the distribution chain.

⁵ 40% -50% now own a phone in most rural provinces, with phone borrowing common, raising access to 60%+. See for example, Mobile Communications in Zambia, A demand-side analysis based on the AudienceScapes Survey, David Montez, InterMedia, October 2010

⁶ Montez, 2010, Op cit.

⁷ eg MSL and MoH work in health logistics; use of retail routes and subsidised product models eg ACT Anti-malarials; use of e-vouchers by NORAD and others; UNICEF’s Social Cash Transfer programme.

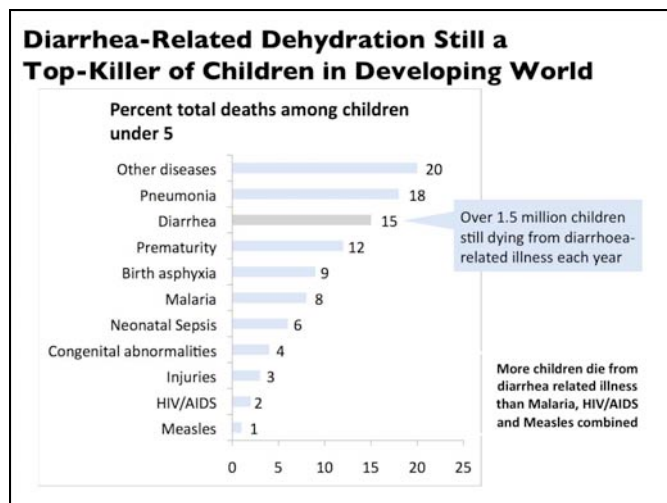
⁸ Anderson and Hague (2007) The Impact of Investing in Children: Assessing the Cross-Country Econometric Evidence, ODI Working Paper 280 cited in Eliminating World Poverty: Building our Common Future, Dfid 2009, UK Stationery Office ISBN: 978-0-10-176562-6

with training. In Zambia, SABMiller/Oxfam estimate that a third of these are women⁹. Future projects might also require micro-finance, which will be a point of learning from this project. A longer term aim is to localise the production of the ADKs through: the local manufacture of the ADK Packaging and the local manufacture and/or sourcing of the ADK components¹⁰.

Key publications on serving those at the ‘Base of the Pyramid’ have summarised success factors, which this project attempts to emulate. Improvements in health and wealth are linked. This project seeks ways to improve the livelihoods of those who serve the rural poor, as well as improving health. The following success factors are compiled from CK Prahalad (2010)¹¹ and Ashish et al (2009)¹²:

- Affordability; low cost products (e.g. production localised or adapted for affordability)
- Desirability: maintaining quality and desirability of product
- Access and availability, delivering products when and where customers need them
- Potential to scale up/drive down costs
- Adapted business models with a full understanding of the market and customers
- End to end organisation of the supply chain
- Focus, to build a value system around a narrow range of products
- Using ‘soft funding’ to investigate/establish innovations which then convert to marketable products
- Time to develop and scale up
- ‘Para-skilling’ of non experts (e.g. shop-keepers in simple medicines)
- Piggy-backing distribution
- Ability to communicate the value proposition to all customers and stakeholders
- Sustainability (based on an appropriate combination of at least some of the above factors)

Figure 2: Diarrhoea in relation to developing world causes of death in under 5s



Source: UNICEF

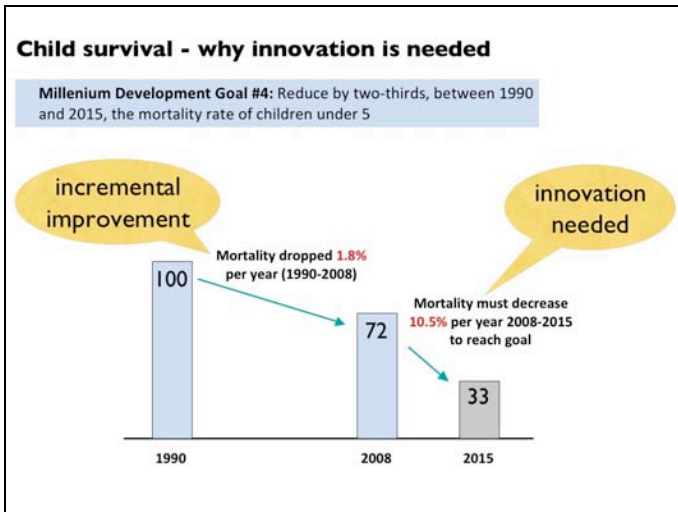
⁹ Exploring the links between international business and poverty reduction. The Coca-Cola value chain impacts in Zambia and El Salvador, Oxfam America, The Coca-Cola Company and SABMiller, 2011

¹⁰ Local assembly of the ADKs by Medical Stores Ltd is already a part of this trial.

¹¹ The Fortune at the Bottom of the Pyramid, Eradicating poverty through profits, 5th Edition, C K Prahalad (2010)

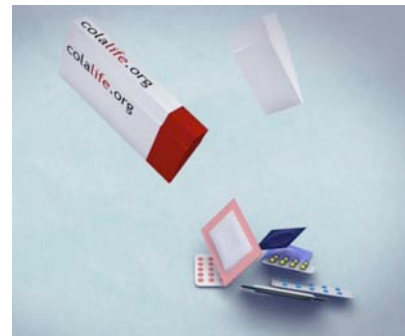
¹² Emerging markets, Emerging Models, Market-based solutions to the challenges of global poverty, Ashish Karamchandani, Michael Kubzansky, and Paul Frandano, March 2009

Figure 3 - Why innovation is needed



Source: UNICEF

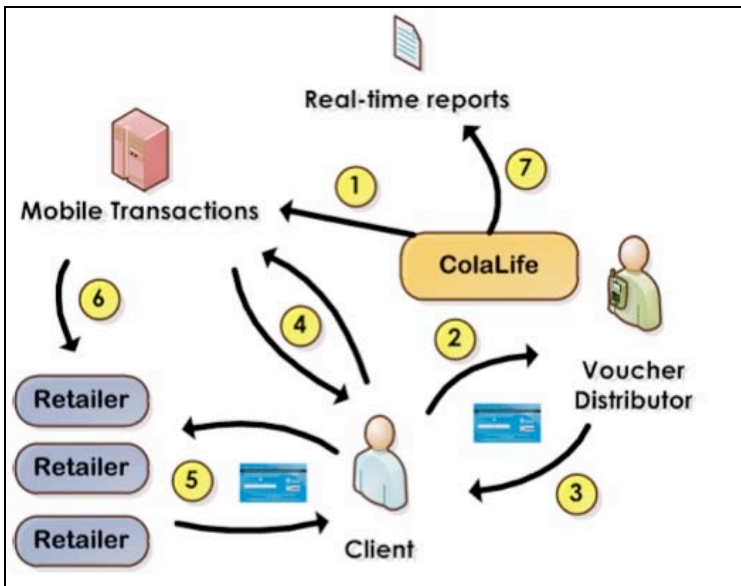
Figure 4: Unused space in Coca-Cola crates | AidPods in crate | Sample AidPod contents



Source: ColaLife

Title:	Figure 5: ColaLife Operational Trial Zambia	Project Number:	2011/1	Responsible Officer:	Simon Berry, ColaLife	
Country:	Zambia	Budget:	USD 1.354m	Duration:	20 months	
Final Outcome	Contribution towards MDG 4 – reduced childhood mortality – by reducing incidence (and severity) of diarrhoea in children 0-59 months in underserved rural communities					
Intermediate Outcomes	Mothers and care-givers of children 0-59 months in underserved rural communities: <ul style="list-style-type: none"> increase use of ORS and Zinc in household treatment of diarrhoea increase use of appropriate hand washing practices 			Lessons learnt /results disseminated Sustainability / exit strategy implemented Public Private Partnership established for Last Mile supply chain model to scale up		
Immediate Outcomes	(A) Improved access to [affordable] ADKs (anti-diarrhoea kit) in underserved rural communities via profit-driven supply chains	(B) Increased awareness of ADKs and benefits of contents (ORS, Zinc, Soap) among mothers/care-givers	Relevant data effectively collected and analysed Sustainability/exit strategy agreed			
Outputs	1 ADKs meet needs at all levels in value chain 2 Novel leverage of the Coca-Cola supply chain meets demand for ADKs in under-served communities 3 Retailers and wholesalers trained in benefits of ADKs	4 IEC/Social marketing programme for mothers/care-givers on benefits of ADKs designed and implemented	Effective M&E programme and learning framework designed and implemented			
Activities	1 Design Anti-Diarrhoea Kit (ADK) to meet all needs in the value chain <ul style="list-style-type: none"> Procure contents: ORS/Zinc, soap Design costing, margins, pricing, subsidy/credit availability, vouchers and tracking Test affordability, desirability and attractiveness of product Design and test packaging (functionality, fit, robustness/damage, tamper-proofing, attractiveness, messaging) 2 Design and implement novel supply chain leveraging Coca-Cola Last Mile distribution, to meet demand <ul style="list-style-type: none"> Implement packing and fulfilment process for the ADK product Distribute ADKs to wholesaler level Leverage last mile distribution via Coca-Cola retailers/entrepreneurs 3 Design/deliver awareness raising, training and follow-up to convey benefits of ADKs to retailers and wholesalers 4 Design, test and deliver a social marketing campaign to convey to mothers/care-givers the benefits of ADKs <ul style="list-style-type: none"> Design, test and produce IEC materials for inclusion in/on ADKs Design, test and deliver household-level awareness-raising & training Design, test and deliver community level activity and media channels 			Design and implement effective M&E programme with separate M and E functions and learning framework Formative dissemination of activities and issues (open innovation approach) Design sustainability or exit strategy Learning with partners to include: feasibility of manufacturing products on larger scale; of aligning complementary projects and partnerships that increase the livelihoods and disposable incomes at community level, and approaches to improve outcomes in children with diarrhoea.		
Results chain A : Supply Chain ↑		Results Chain B : KAP among Mothers/Care-givers ↑		Knowledge translation ↑		

Figure 6: The mobile phone tracking system



Source: Mobile Transactions - MTZL

1. COTZ deposits funds into their Mobile Transactions account to cover the value to be transferred to retailers for voucher redemption.
2. A voucher distributor (community-based Promoters) optionally registers a client (mother/care-giver) using a mobile phone and collects monitoring and evaluation information, including but not limited to mobile number.
3. A voucher distributor uses a mobile phone interface to optionally link a client (eg at a clinic or other convenient location) to a specific voucher scratch card so that only that person may later redeem the card voucher.
4. Client goes to a participating retailer to redeem the voucher and receive/purchase an ADK.
5. Retailer redeems the voucher using the Mobile Transactions mobile interface to verify the authenticity of the voucher and optionally that the client has been linked to the voucher.
6. After successful redemption, funds from the COTZ/ Mobile Transactions account are automatically transferred to the retailer's account for any subsidy/discount.
7. Real-time reports available to COTZ on system transactions (registered mothers/care-givers, voucher distribution/redemption)

Not depicted:

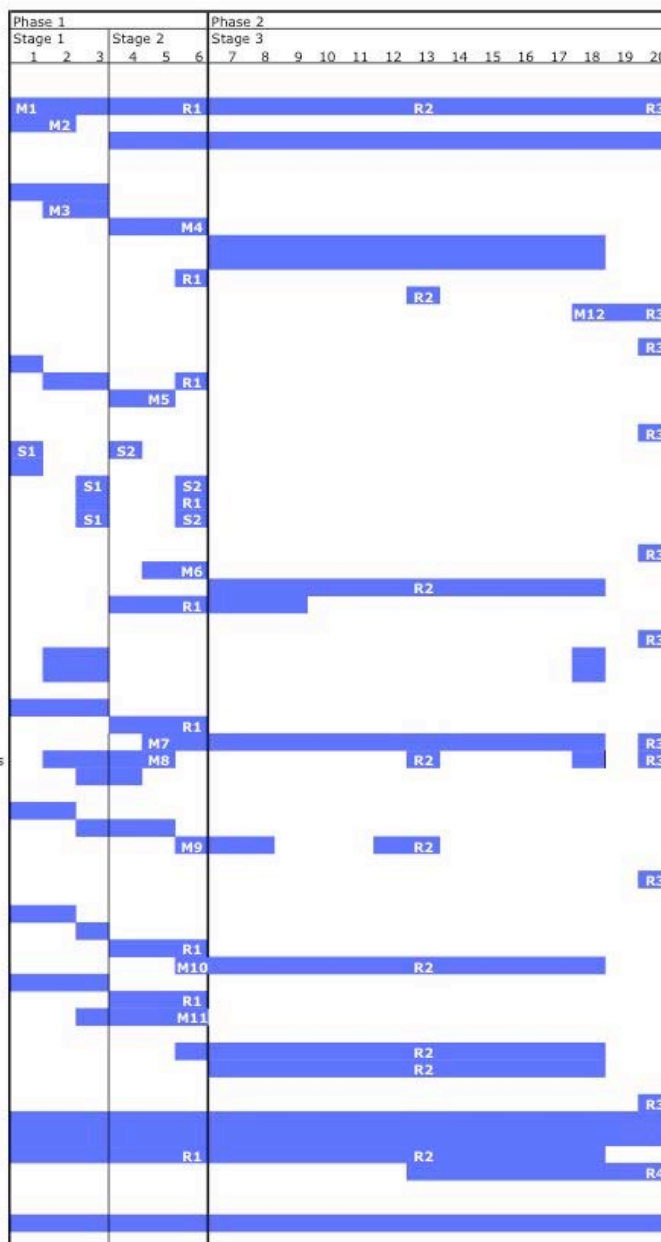
8. Clients may be auto-registered for health messaging (mobile number collected at voucher distribution)
9. COTZ project partners may load health messages into a database using an online interface.
10. The SMS system will periodically send health messages from the database to those registered to receive messages.

Figure 7 Gantt chart and Timings

The timeline has been worked out through face to face meetings and a co-design workshop with partners. Up until project inception (anticipated last quarter 2011) preparatory work will continue to ensure all the required funding, legalities and governing documents are finalised. The implementation of the trial will begin with a 6-month preparatory period (Phase 1) which will cover product refinement with the target group (mothers/care-givers) and an end-to-end rehearsal of the distribution mechanism through one of the selected wholesalers to a small sample of retailers. A 12-month operational trial phase (Phase 2) allows for any variation across seasons. We have allowed for a 2-month period to wrap up the trial and undertake the summative evaluation. We anticipate a start before the end of 2011, subject to securing the funding package required. All implementation partners are ready to proceed.

**ColaLife COTZ Trial
Gantt Chart
Final draft - 15 June 2011**

- Workpackage (Proposed lead partner)**
Activities
- 1 Project management and communications (ColaLife)**
Design communications plan
Manage communications plan (inc supporter engagement)
 - 2 Monitoring and evaluation (UNICEF)**
Issue call for tenders, M&E subcontractor (as soon as funding confirmed)
Confirm successful tenderer; finalise districts and methodology
Establish baselines
Data collection from target communities
Data collection from retailers and wholesalers
Phase 1 report
Mid Phase 2 report on milestones
Final evaluation report
 - 3 ADK packaging (ColaLife)**
Design
Supply/test final prototype package
Manufacture and delivery
 - 4 ADK assembly (MSL)**
Procurement of ADK components
Design packing process
Receipt of ADK components
Test packing process
Assemble ADKs
 - 5 ADK distribution to selected wholesalers at district level (MSL)**
Trial run
Distribution runs to District/Wholesaler level
Promotional & support activities aimed at wholesalers
 - 6 The value chain (ColaLife in collaboration J&J, SABMiller and KZF)**
Assess/review what mothers would find attractive in an ADK
Assess/review ability/willingness to pay
Voucher system/tracking
Design system, labelling, vouchers
Test
Produce labels and vouchers; implement system
Establish/review supply chain margins; costing/pricing; value assessments
Recruit wholesalers/retailers
Training of wholesalers and retailers (inc on the benefits of the ADKs)
Design materials and methods
Test
Deliver
 - 7 Social marketing (KZF)**
Information Education and Communications materials
Research and identify existing materials
Re-configure materials for the pilot
Test and revise as necessary
Produce and distribute materials
Design the social marketing methods
Test and revise as necessary
Recruit and train "Promoters" in target communities
Roll-out
Media Campaign/community level activities
Household visits
 - 8 Governance (GRZ/MoH with ColaLife providing secretariat)**
Secretariat
Oversight
Public sector engagement in pilot areas
Succession planning / sustainability strategy (ALL)
 - 9 Accountable body/financial auditing**
Fulfilling the role of accountable body/financial reporting and audit



M1 Kick off workshop, all partners	M5 Receive final packaging	M9 Wholesaler/retailer training started
M2 Communications plan done and agreed	M6 Complete a full trial run	M10 IEC materials tested and ready
M3 Successful M&E subcontractor in place	M7 Labels, vouchers and tracking ready	M11 Promoters recruited and trained
M4 baselines established	M8 Finalise costing/pricing/margins	M12 Data collection complete
R1 Six month review; Report end Phase 1	R2 Report halfway into Phase 2 operation	R3 End Phase 2; R4 Sustainability plan
S1 First of a staggered procurement	S2 Second of a staggered procurement	