Comprehensive diarrhoea control in Zambia

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CIDRZ

COMIC RELIEF

ark
absolute return for kids

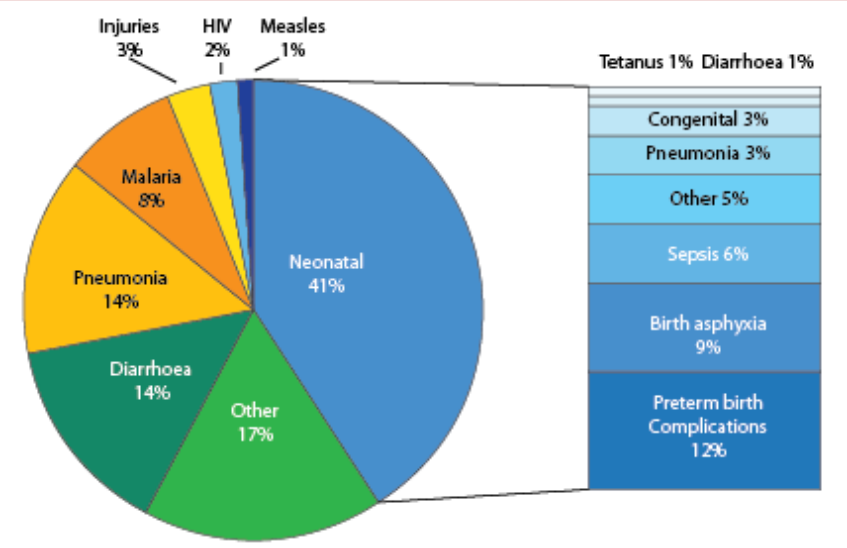
Why Target Diarrhea? A neglected childhood killer…

- Diarrhoea is one of the leading causes of deaths in the developing world, particularly for children, approximately 1.5 million related child deaths each year.

- Among infectious diseases, diarrhoea ranks as the third leading cause of both mortality and morbidity after respiratory infections and HIV/AIDS.

- Rotavirus is responsible for approximately 1/3 of U5 mortality due to diarrhea. This is entirely preventable.

Diarrhoea causes 14% of under-5 child deaths



MDGs & Diarrhoea

Millennium Development Goals & Diarrhoea

MDG 4 pledges to reduce child mortality, which includes the urgent need to tackle diarrhoea.

MDG 7 focuses on halving the proportion of the population without access to safe drinking water and basic sanitation.

Source: WHO/Child Health Epidemiology Reference Group (CHERG) estimates presented in The Lancet, June 2011-08-04

…that has a devastating effect on Zambia's 2.4m children

- Diarrhoea is the third biggest killer of children under-5 in Zambia
- Every day, 2000 children die from diarrhoea related causes in Africa, 40 in Zambia.

10.5 million episodes of diarrhea in Zambia

↓

840,000 visit a health facility at least once for diarrhoea

↓

63,000 are hospitalised

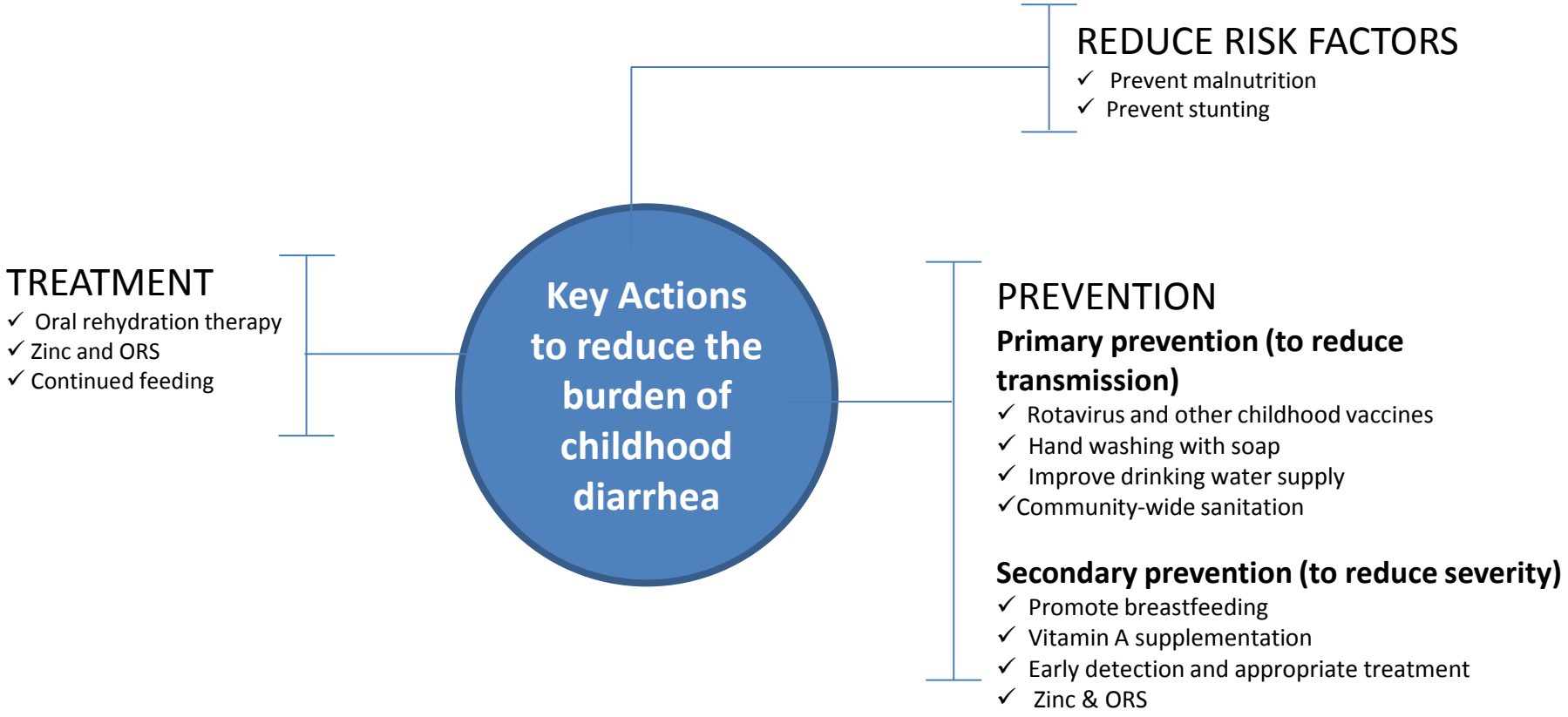
↓

15,000 die from diarrhoea related causes

25% of this burden is attributable to the rotavirus infection

Source: ARK International Analysis (2012)

Combating Diarrhoea



Source: Adapted from the Child Health Epidemiology Reference Group, 2009.

Our intervention focusses on key prevention and treatment methods…

Key Interventions to Reduce the Burden of Childhood Diarrhea

Prevention – Supply and Demand

Primary Prevention (to reduce transmission)

- **Rotavirus and other childhood vaccines**
- **Handwashing with soap**
- Improve drinking water supply
- Community-wide sanitation

Secondary Prevention (to reduce severity)

- **Promote breastfeeding**
- **Zinc and ORS supply**
- Vitamin A supplementation
- Early detection and appropriate treatment

Treatment

Case Management

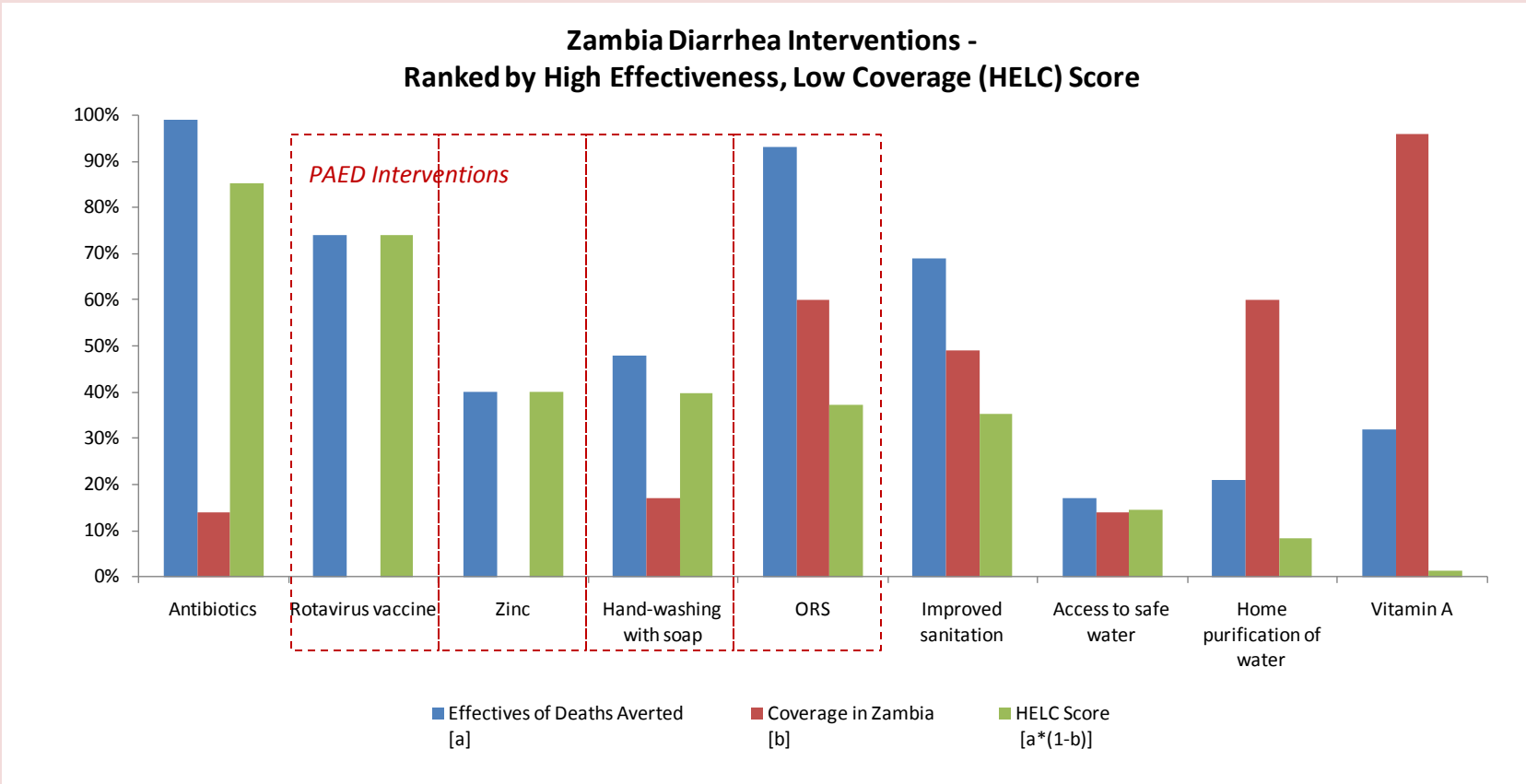
- **Oral Hydration Therapy**
- **Zinc**
- **Continued Feeding**
- Parenatal therapy (NG/IV)

	ORS 	**Zinc** 	**Rotavirus Vaccine**
Efficacy	ORS can avert estimated **93%** of diarrhea deaths	**40%** reduction in treatment failure/ death; **25%** reduction in episode duration	**74%** reduction in diarrhea deaths
Suppliers	Extensive: ~57, including local manufacturers	Extensive: ~36, including local manuf. and producers of syrups	Extensive – led by GSK
Retail price	~US$ 0.08-0.13/ sachet	~US$ 0.25/10 tablets (high end; price varies strongly)	~US$ 1 per course

Source: 'Scaling Up Diarrhea Prevention and Treatment Interventions: A Lives Saved Tools Analysis', Walker et al (2011); ARK International Analysis (2012)

…selected for their high effectiveness and low coverage in Zambia

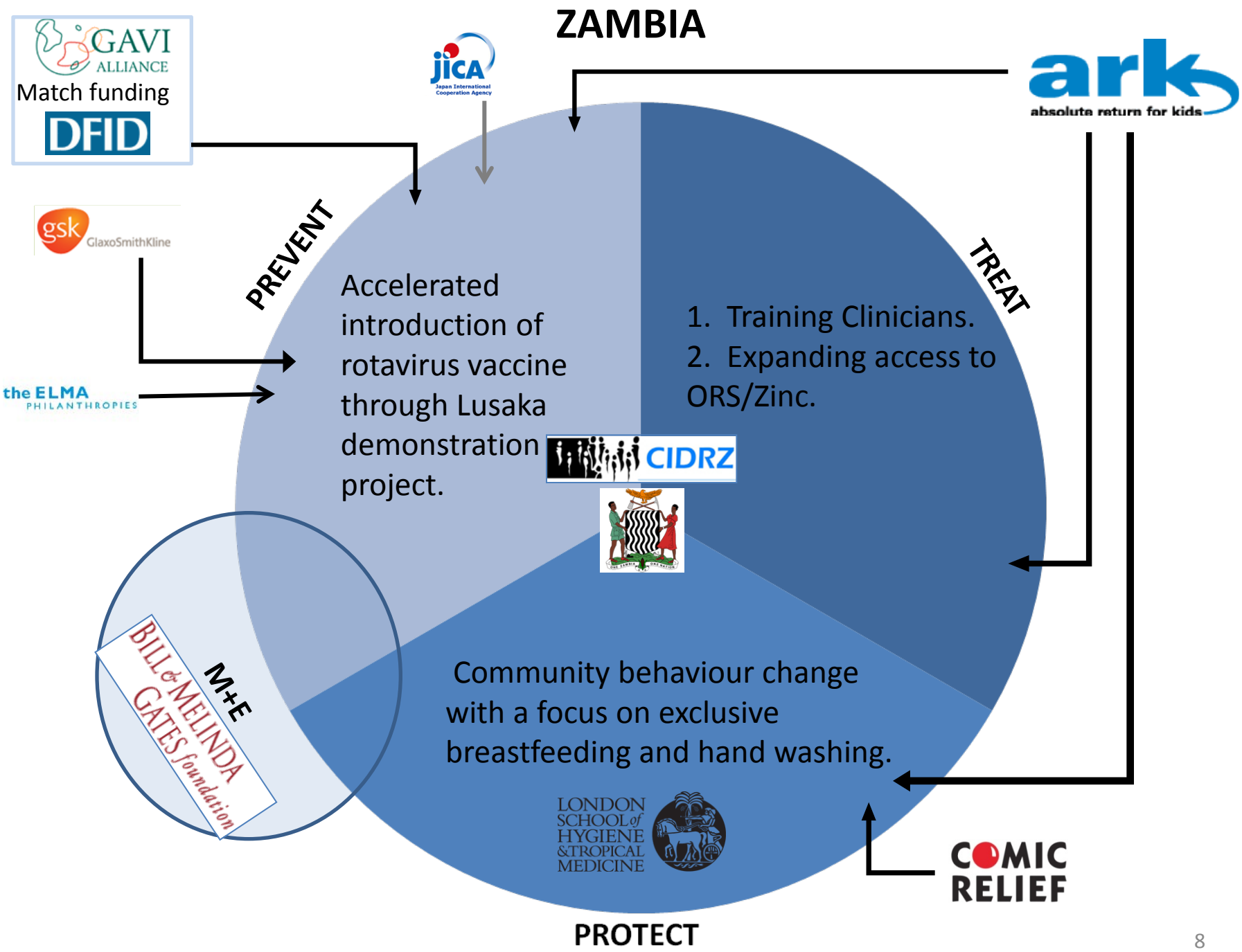
• ARK has developed it's strategy for targeting Childhood Diarrhea by analysing the effectiveness of intervention and current coverage rates, and will currently administer four of the most impactful interventions for diarrhea in its Zambia programme.



Source: 'Scaling Up Diarrhea Prevention and Treatment Interventions: A Lives Saved Tools Analysis', Walker et al (2011); 'Transforming Diarrhea and Pneumonia Treatment: Developing Ambitious Solutions', BMGF, UNICEF, CHAI (2011).

PAED Interventions, Coverage by Programme Year

Intervention	Baseline	Targets		
	2011	2012	2013	2014
	Pre-intervention	YR1	YR2	YR3
Hand washing	20%	23%	25%	27%
Rotavirus Vaccine	0%	84%	90%	90%
Exclusive Breast Feeding	35%	37%	43%	45%
ORS	53%	64%	70%	75%
Zinc for treatment	0%	20%	30%	40%

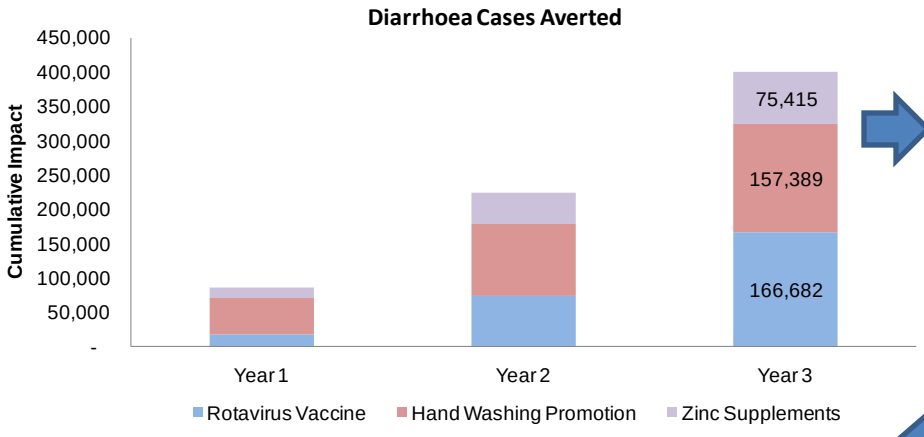

ZAMBIA
GAVI ALLIANCE
Match funding
DFID
JICA
Japan International Cooperation Agency
ark
absolute return for kids
gsk
GlaxoSmithKline
the ELMA PHILANTHROPIES
PREVENT
Accelerated introduction of rotavirus vaccine through Lusaka demonstration project.
TREAT
1. Training Clinicians.
2. Expanding access to ORS/Zinc.
CIDRZ
M+E
BILL & MELINDA GATES foundation
Community behaviour change with a focus on exclusive breastfeeding and hand washing.
LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE
COMIC RELIEF
PROTECT

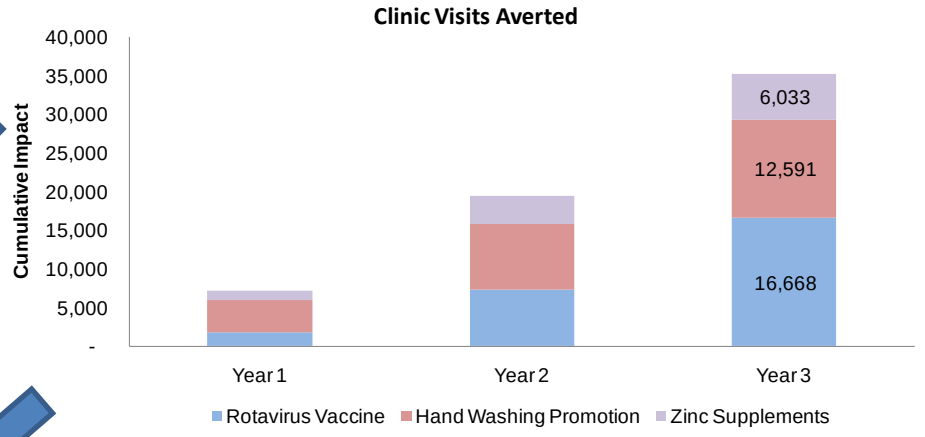
Expected PAED impact

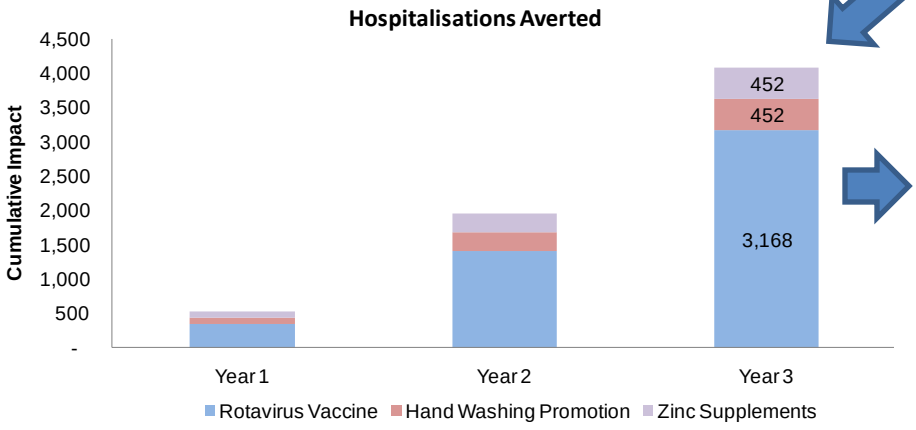
We have input these estimates into the Lives Saved Tool (LiST Model) assuming a 3 year coverage and output yield is 15% reduction in all cause *post-neonatal* under 5 mortality

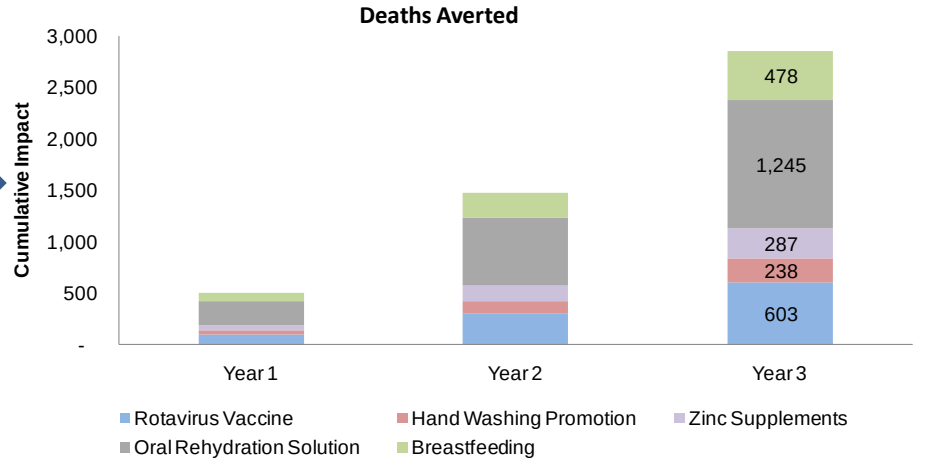
Targets: to reduce U5 diarrhoea related mortality by 50% and overall U5 mortality by 15%, averting over 2,850 deaths

PAED will significantly reduce infant mortality









Diarrhoea Cases Averted: 399,486

Clinic Visits Averted: 35,292

Hospitalizations Averted: 4,072

Deaths Averted: 2,851

Source: ARK International Analysis (2012)

Programme progress

- 82000 children vaccinated with first dose, 60000 fully immunised – coverage rates
- 281/560 health workers trained on IMCI but over 400 trained on rotavirus vaccine
- Over 200 000 caregivers/families reached
- Unlocking value from the ORS/Zn supply chain
- Formative research for behavioural change interventions:
  - Awareness and subsequent increased uptake of Zn /ORS
  - Exclusive breastfeeding
  - Hand-washing with soap

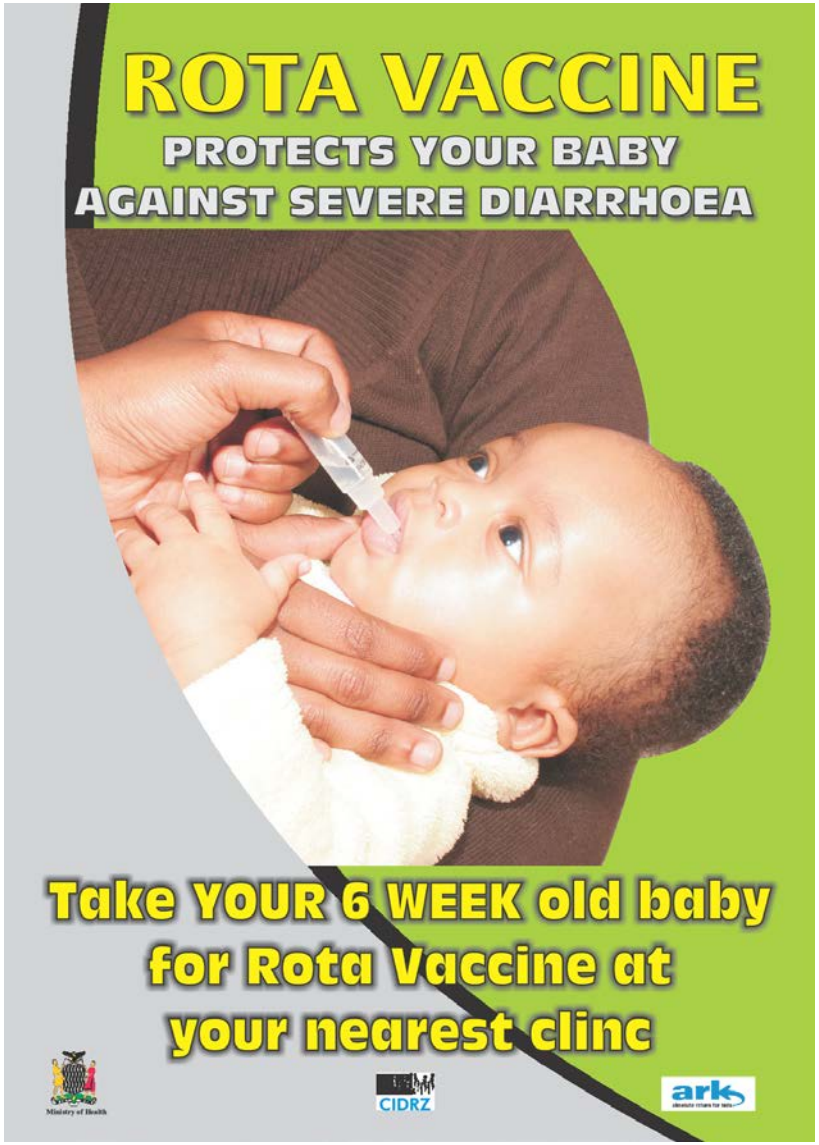
PAED clinic and training facility

Housing a public paediatric clinic with 4 consulting rooms, an observation bay, satellite lab, ultrasonography, offices, a board room and a training hall

Lessons learnt and questions that need answers

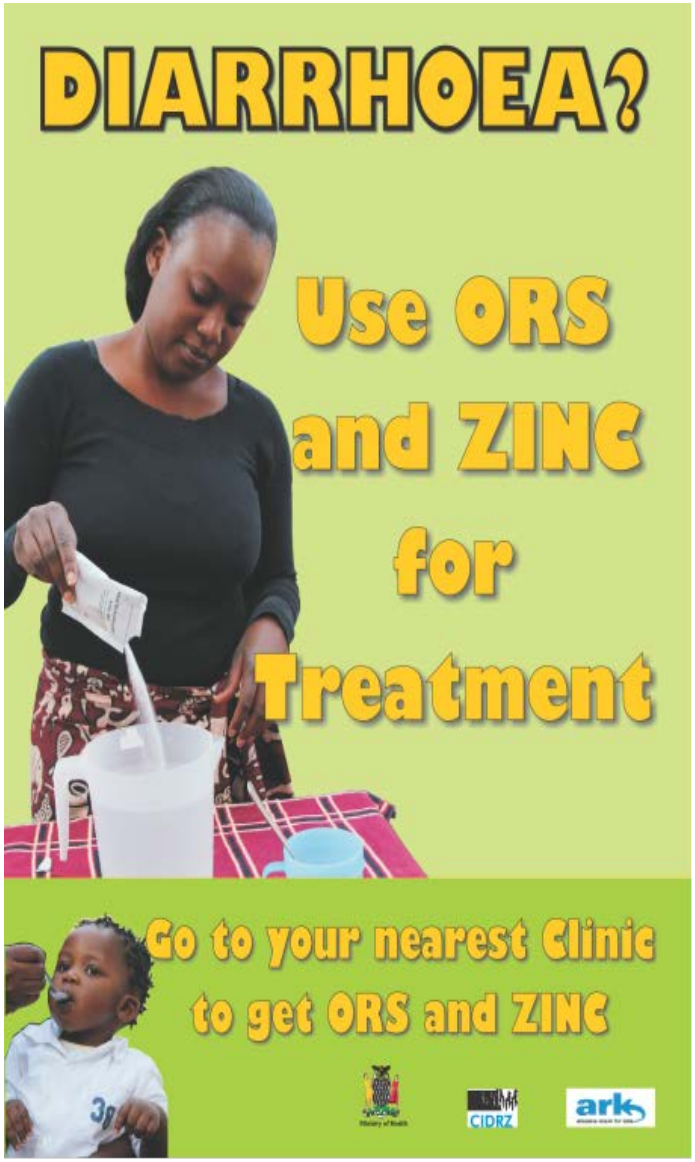
Programme lessons

- Government commitment may be slow to come in , but don't move without their buy in
- Measuring what you are doing is a must if you are to scale up – separate program ACADEMIC which is measuring program impact
- Behavioural change components hard to program and therefore often an afterthought - may lag behind – and yet we need evidence of what behavioural interventions need to be part of an optimal package
- Partnerships key in driving such projects – beyond the program partners one needs a community of practise around an intervention
- Continuous improvement is needed . We have completed a mid term program review and are adjusting some program elements accordingly



Questions than still need answers

- What have we learned about training of health care workers to treat and vaccinate?
  - Training is costly we need innovative ways for high quality training
- How does pneumo vaccine / amoxicillin compare with rota vaccine/ORS and zinc?
  - Perhaps it does, but bearing in mind the other is an antibiotic with different issues on resistance . ORS/Zn bundling is a challenge that needs separate
- What benefits does a comprehensive disease focused approach have? Is this the best way of addressing other health issues?
  - We are yet to see the results
- We have a complex partnership in place in Zambia – has the diversity of players contributed to success or does it add management cost/time? How do you get the right people around the table?
  - You cant go it alone , but boundary analysis is crucial



Concluding Reflections

We choose not to wait and see what happens,

rather we take courage in making decisions

today that will positively influence what

happens tomorrow. We are aware of the risks

From such commitments; but staying back is simply not an option.

AMESEGNALEHU
ASANTE SANA
BAIE DANKIE
BEDANKT
BINOBODONDI
DEUS PAGARAPUSUNKI
DHANJABHAT
DJERE DIEUFECHE DA
DZIĘKUJEMY
GELETOMA
HVALA
INKOSI
KANIMAMBO
KEALEBOHA
KEAITUMETSE
HARTELIJK DANK!
HVALA
KHOBKHUN MAG
KÖSZÖNÖN
MAHADSANIT
MAZVITA
MEDASE
MERCI
MISAOTRA
ZIKOMO

MILLE GRAZIE
MWASHU
NAGODE
NAMVERA
NATONDI
NDIYABULELA
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KIITOS
OKUHEPA
PANDU
REALEBOGA
SHUKRAN
SIYABONGA
SOSONGO
SPASIBA
TATENDA
TEŞEKKŰRLER
TWATASHA
TSE ZU TIN BA DEH
TWATOTELA
VIELEN DANK
VILLMOLS MERCI
YAQENYILEY

THANK YOU
ZIKOMO