CTC in Lusaka

- **Started September 2005**
  - **Initially 4 of the 25 MoH clinics in Lusaka**
  - **Expanded to all MoH clinics over next 2 years**
- **Implemented by Lusaka District Health Management Team**
  - **Part of day to day health care delivery**
  - **Technical support from Valid International**
- **Standard CTC approach**
  - **MUAC only admission**
- **RUTF produced locally in Zambia**

Outcome data from Lusaka district CTC program Sept. 2005-Sept. 2007
n = 2523

Outcome	No.	%	(95% CI)	Standard error
Discharge recovered	1865	**73.9**	(72.2-75.6)	0.0087
Death	65	**2.6**	(2.0-3.3)	0.0032
Default	435	**17.2**	(15.8-18.8)	0.0075
Not recovered	8	0.3	(0.1-0.6)	0.0012
Referral to hospital	150	5.9	(5.1-6.9)	0.0047
TOTAL EXITS	2523	100		

Data inadequacies

- **Absence of coverage data**
  - **New SQUEAC technical to address this**

The cost-effectiveness of CTC

Analysis of cost effectiveness

- **CFRs in untreated severe acute malnutrition unknown**
  - **Hospital data – 20-30%**
  - **Poorly functioning centre - 50%**
- **Life expectancy assumption**
  - **30 years**
- **What happened to untraced defaulters, and those transferred out of program?**
  - **Assumed untreated mortality**

Costs

Table 2: Mean costs of community-based therapeutic care per child

Cost item	Unit cost ($)	Mean number of items per child	Mean cost per child ($)	% of total
RUTF (Kg)	6.20	11.70	72.52	35.8
Technical support	68.69	1.00	68.69	33.9
Hospital per day	41.35	0.83	34.16	16.9
Health centre visits	4.24	6.16	26.10	12.9
Community mobilisation	0.66	1.0	1.06	0.5
Total			202.53	100.0

Bachmann M, Costs effectiveness of community-based therapeutic care for children with severe acute malnutrition in Zambia – decision tree model. *Cost Effectiveness and Resource Allocation* 2009, **7**:2 (15 January 2009)

Cost effectiveness

Table 3: Costs and effects of community-based therapeutic care compared to no treatment

	CTC		No treatment		Difference	
	Mean	(95% CI)	Mean	(95% CI)	Mean	(95% CI)
Mean cost per patient ($)	203	(139–274)	0	0	203	(139–274)
Death rate (%)	9.2	(4.3–7.25)	20.8	(10.5–31.8)	11.5	(0.4–23.0)
Expected DALYs*	30.2	(29.3–31.2)	26.4	(22.7–29.8)	3.8	(0.14–7.7)

Bachmann M, Costs effectiveness of community-based therapeutic care for children with severe acute malnutrition in Zambia – decision tree model. *Cost Effectiveness and Resource Allocation* 2009, **7**:2 (15 January 2009)

Cost effectiveness

		95% CI
● **Cost / patient**	**$203**	**(139 – 274)**
● **Cost / life saved**	**$1,760**	**(592 – 10,142)**
● **Cost / DALY gained**	**$53**	**(18 – 306)**

Bachmann M, Costs effectiveness of community-based therapeutic care for children with severe acute malnutrition in Zambia – decision tree model. *Cost Effectiveness and Resource Allocation* 2009, **7**:2 (15 January 2009)

Cost effectiveness of strategies for child health

Intervention	Average cost / DALY gained ($)
Vit A fort. (@95%)	32
Vit A Suppl (@50%)	52
Lusaka district CTC program	**53 (18 - 306)**
ARI case Mx (@50%)	62
Measles vacc (@80%)	64
Emergency CTC (@74%)	**96[*] (60-132)**
ORS (@50%)	109
Vit A suppl (@80%)	168

* Assuming 30 year life expectancy and no residual disability

Key constraints

- **High staff turnover**
  - Absence of pre-service training
- **Salaries and incentives**
- **Distribution of essential supplies**
- **Central budgetary provision**