



Possible benefits of community based nutrition care to malnourished adults with AIDS in setting with low VCT uptake

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Valid International

Programme supported by CWW

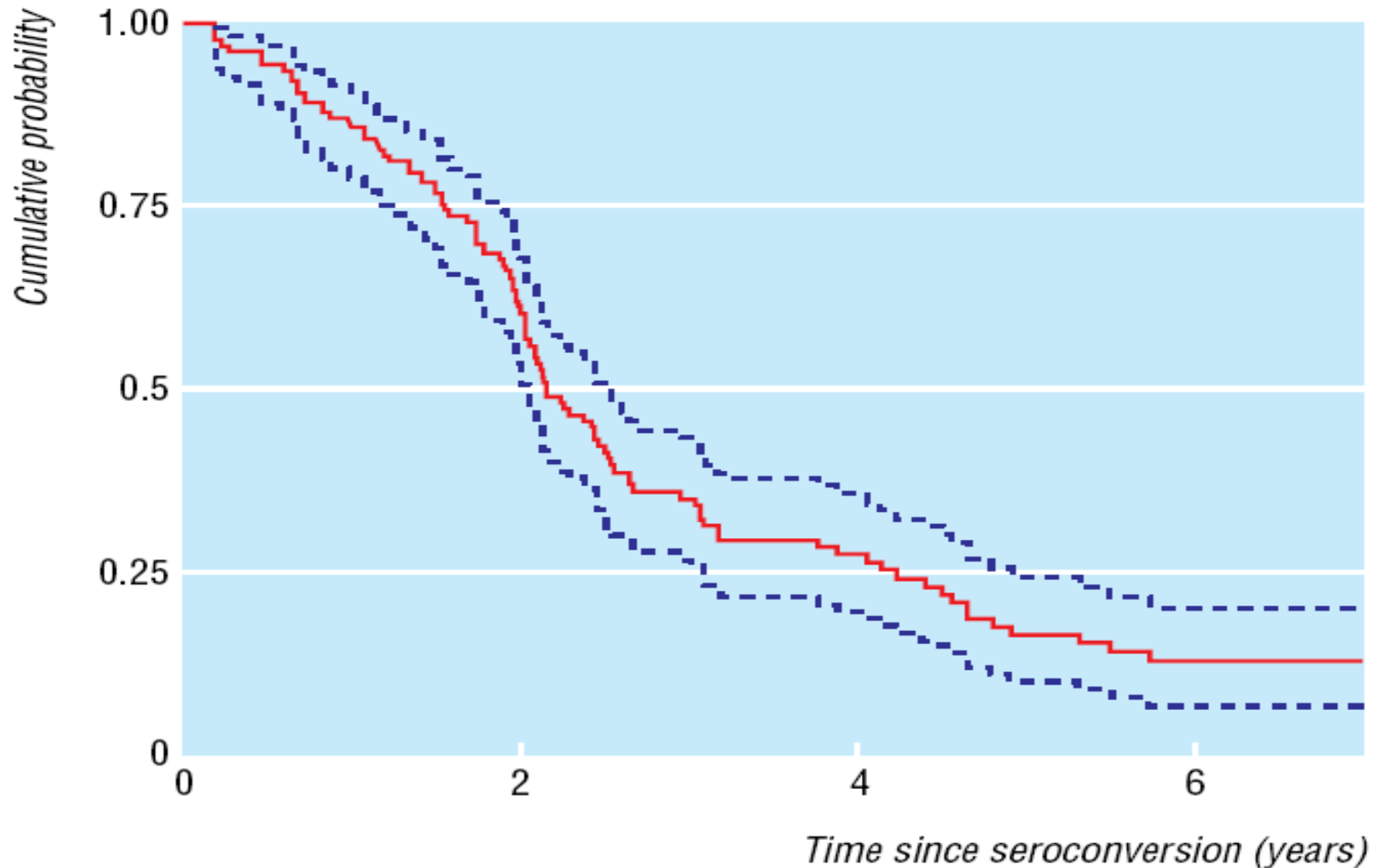


Content

- Background
- Experiences to date in Malawi with use of RUTF in HBC programmes
- Research priorities

Background

Progression of HIV in Uganda: seroconversion to stage 3



Natural history of HIV in developing countries

- Median time from seroconversion to
 - Stage 2 = 25.4 months
 - Stage 3 = 45.5 months
- Unintentional weight loss = common first AIDS defining condition

Survival time after first AIDS defining condition in a Uganda cohort

Morgan, Malamba, Orem, et al

Table 2 Reasons for developing AIDS and survival by initial AIDS defining condition

<i>AIDS defining category</i>	<i>Number</i>	<i>Median survival (months) (95% CI)</i>
All conditions	72	9.3 (4.3, 17.3)
HIV wasting syndrome	27	3.4 (1.9, 9.7)
Cryptosporidial diarrhoea		
>1 month	5	21.1 (2.0, —)
Cryptococcal meningitis	1	2.0*
Mucocutaneous HSV infection		
>1 month	13	20.1 (6.7, —)
Candidiasis of the oesophagus	19	3.1 (1.1, 8.9)
Extrapulmonary TB	7	>24 (4.1, —)
<i>Salmonella</i> septicaemia	1	7.0*
Kaposi's sarcoma	8	3.1 (1.3, 11.4)

*Actual value.

3 by 5 progress

(June 2005)

- 6.5 million in need
- 970,000 (15%) accessing ARV.
- Sub-Saharan Africa, 500,000 accessing (11% of needy)

Estimated ART coverage in selected countries, mid 2005, WHO / UNAIDS

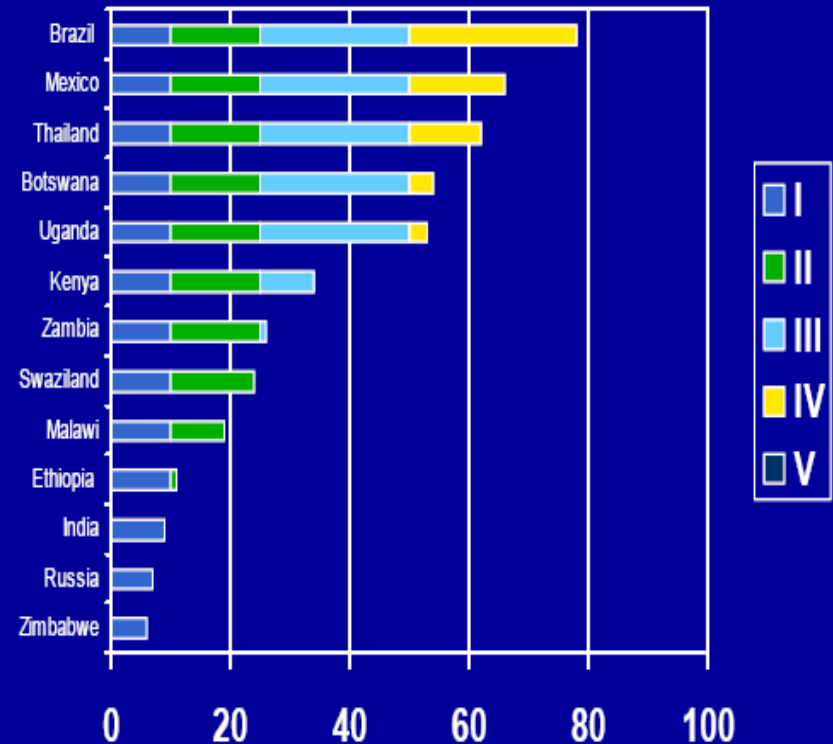
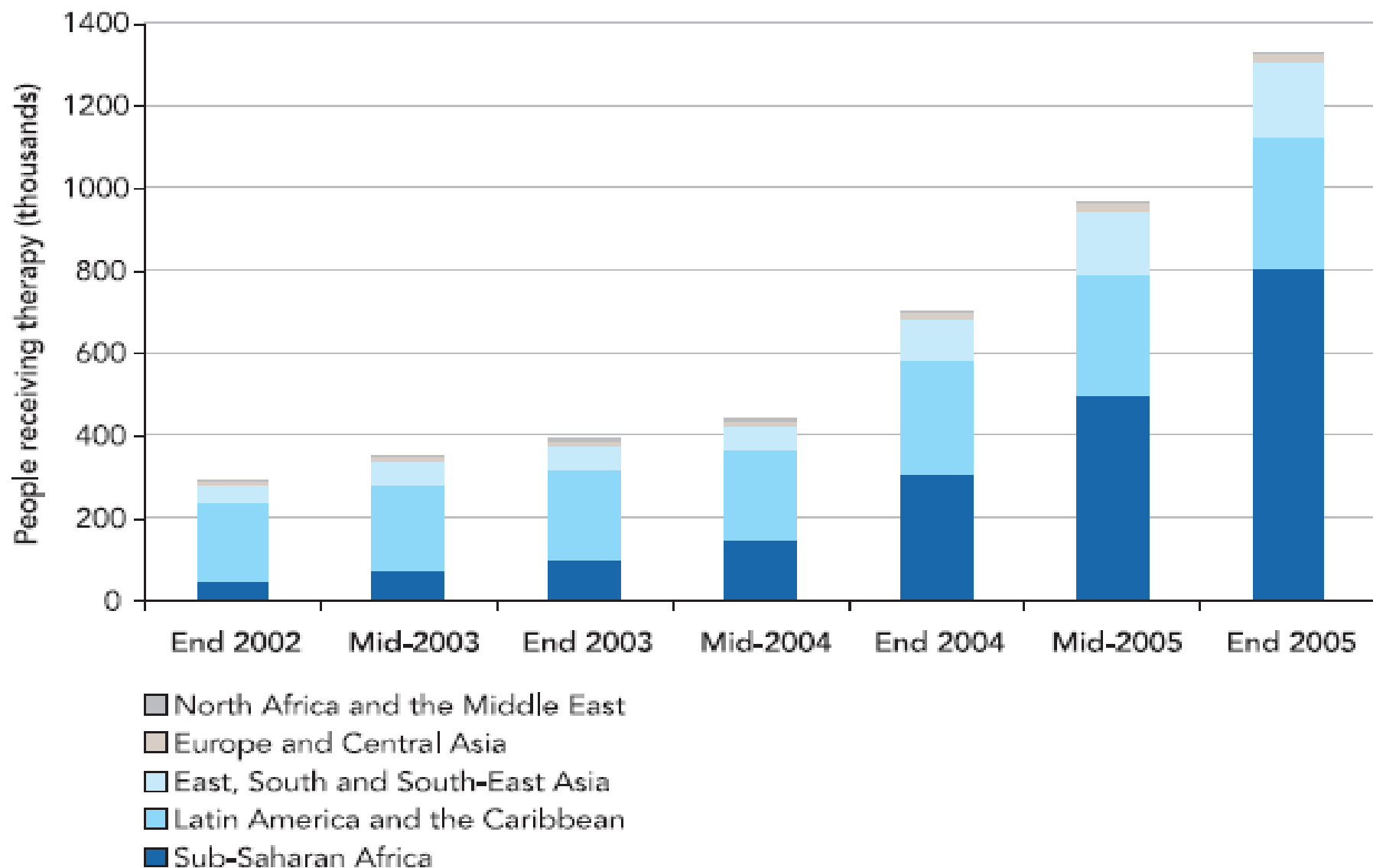


FIGURE 7.1

Number of people on antiretroviral therapy in low- and middle-income countries, 2002 to 2005



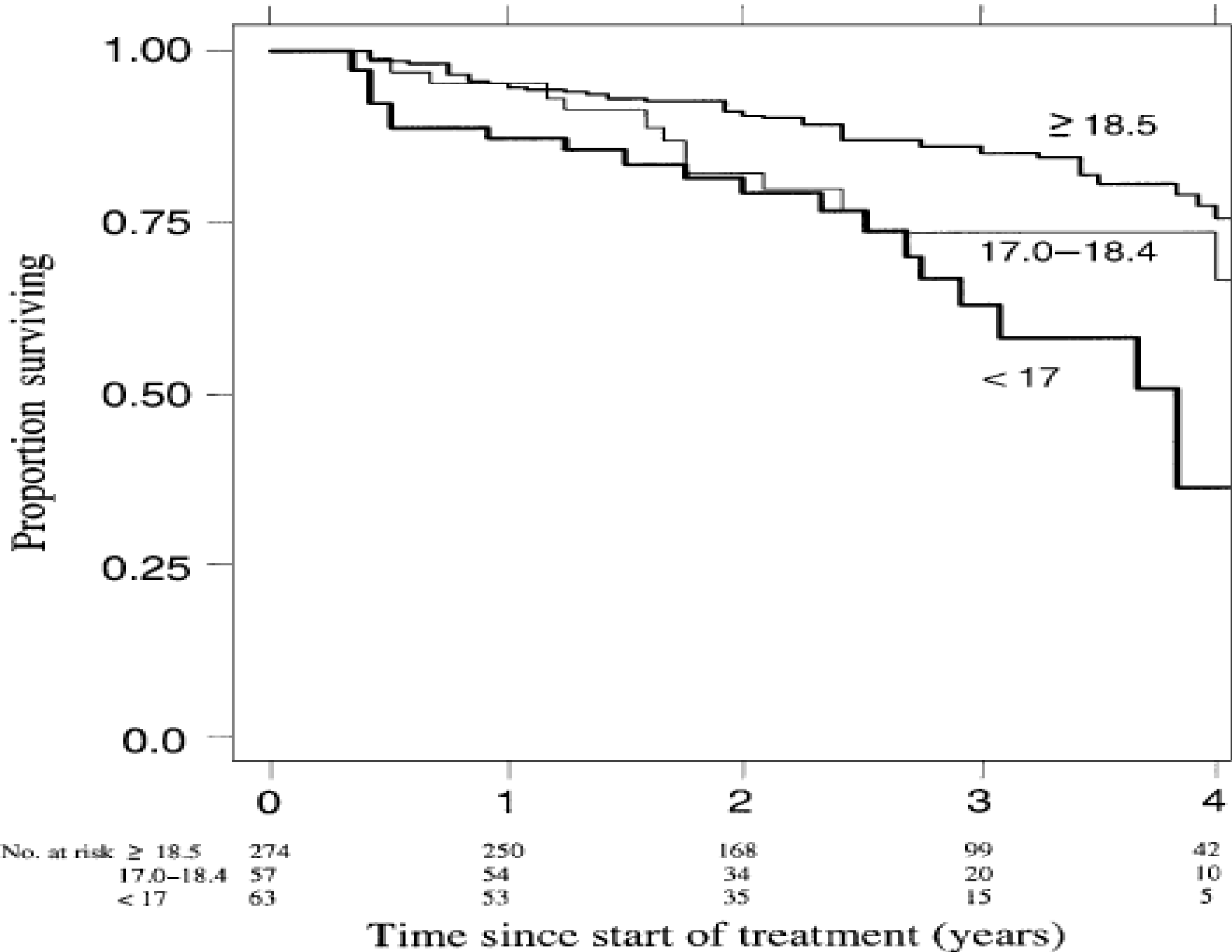
Source: WHO/UNAIDS (2005). Progress on global access to HIV antiretroviral therapy: An update on "3 by 5."

HIV in Malawi

- Prevalence (DHS 2004): 12% (F=13% and M=10%)
- Adults never tested: 83%.
- Patients in Need of ART: 160,000 (NAC, 2003)
- Patients on ART by DEC 2005:
 - **13,183 (Dec 2004) – 37,640 (Dec 2005)**
- Mortality on ART: 10% in the first 3 months (National data)
 - 19% in 8.3 months (MSF-France cohort)

Malnutrition at time of commencing ART reduce chance of survival

*Paton NI et al.,
HIV medicine 2006, 323-330*



More than 2 time risk of dying after starting ART for BMI<17

BMI group (kg/m²)*

≥ 18.5	274	42	1		
17.0-18.4	57	15	1.68	(0.93, 3.03)	0.087
<17.0	63	22	2.76	(1.65, 4.64)	<0.001



First pilot programme in Malawi

Salima (SASO) & Nkhota Kota (NASO)

Case study 1



- Bedridden > 12 months
- at inclusion: 39 kg & bedridden & dependent on mother + 2 daughters care
- 3 months later: 48 kg and care for herself, walk to the clinic and improve her house
- This case study illustrates the potential of nutrition care and of RUTF in HBC

Assess acceptability, effectiveness of RUTF delivered through HBC organisations in restoring good nutritional status and activity in chronically sick adults.

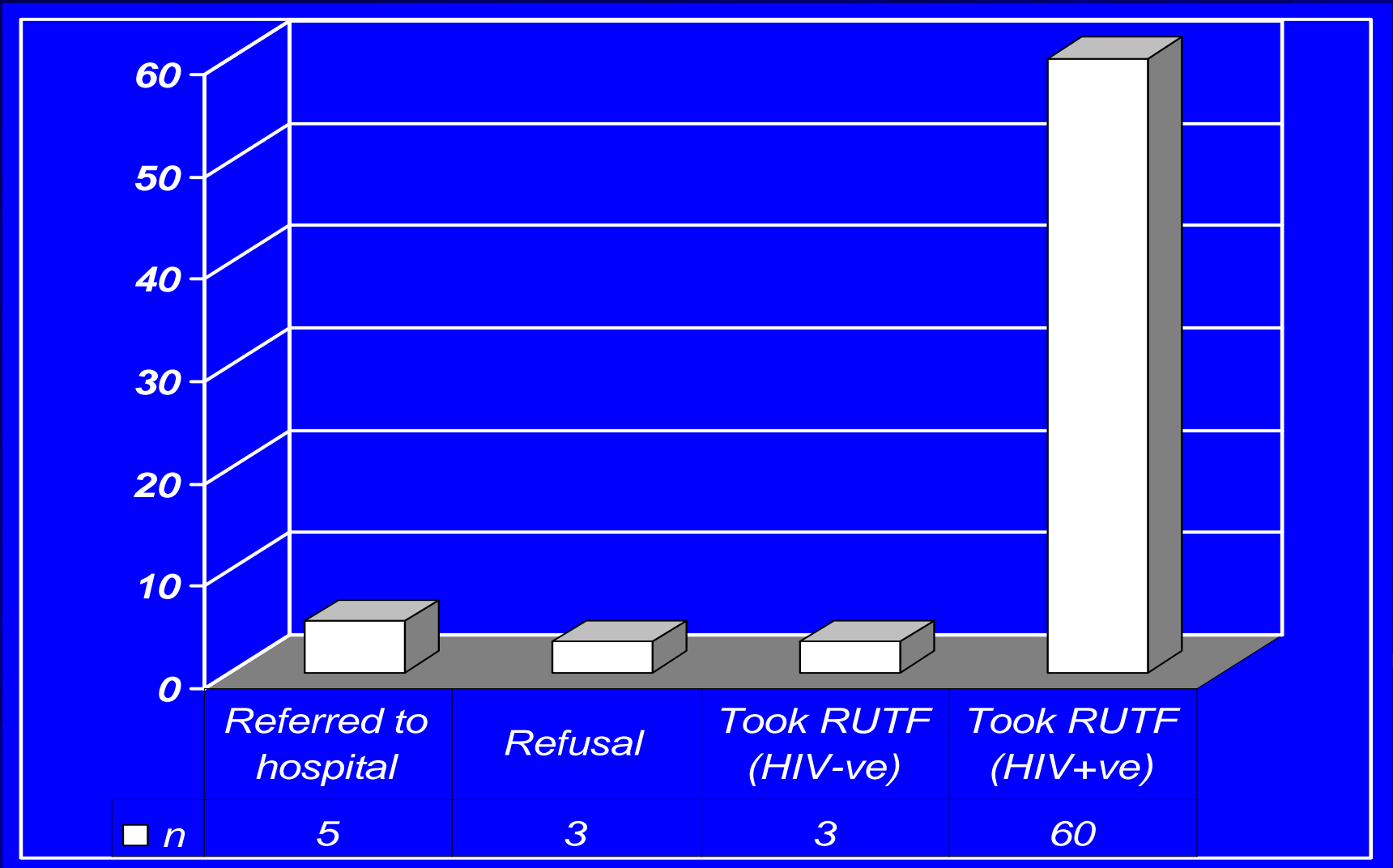
Questions

Studies already showed RUTF works for HIV+ve malnourished children

Questions for adults were:

- Is adults going to eat RUTF?
- With RUTF, what is the weight gain and recovery rate?
- What are the other potential benefit?
- Is there side effects?
- Can nutrition intervention through HBC work

Admission



Disease stage

n=60

- WHO stage 3 = 25%
- WHO stage 4 = 75%

BASELINE NUTRITIONAL STATUS

n=56

- Means (SD)
 - BMI = 16.1(1.7)
 - MUAC = 19.5(1.8)

Intervention

- 3 months of 500 g /day of RUTF (chickpea-Sesame based)
- Routine cotrimoxazole

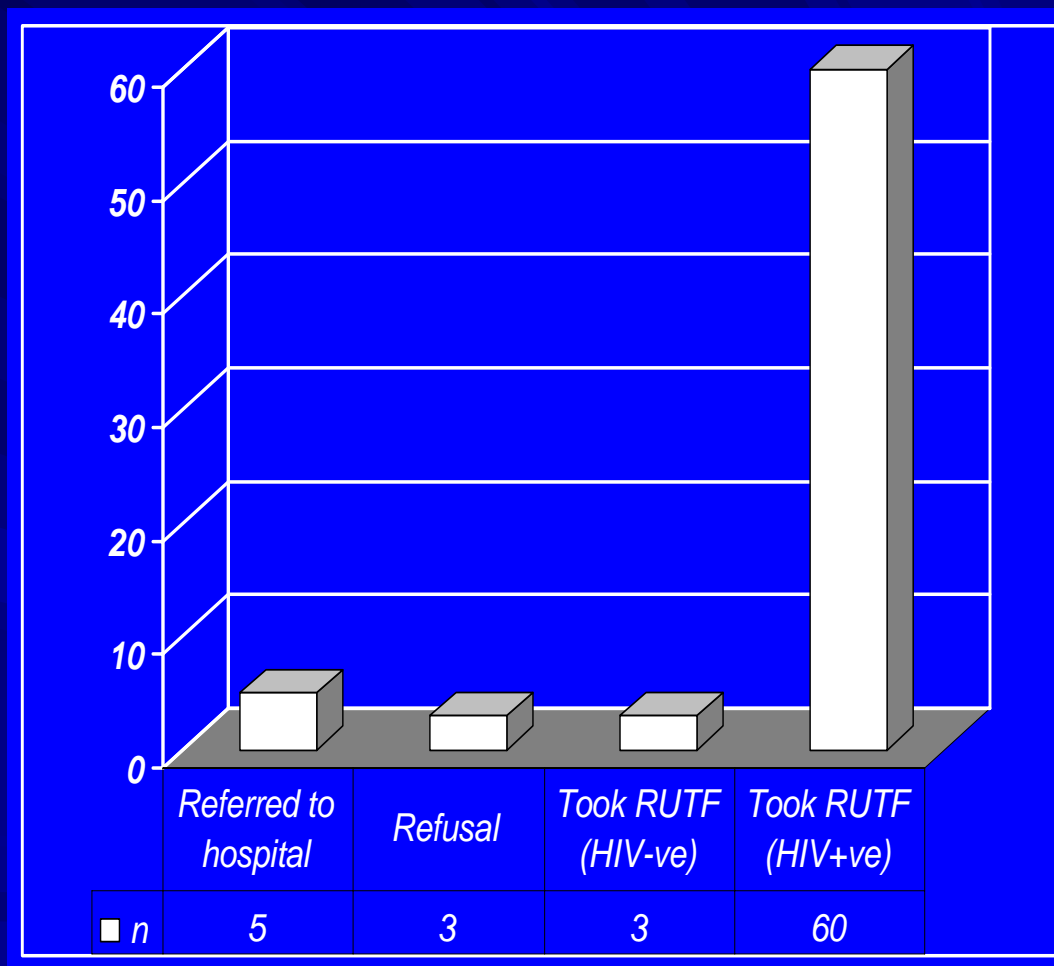
Outcomes of the programme

n=60

	n	%
Absconded	5	8.3
Moved	2	3.3
Died	11	18.3
Completed 3 months	42	70.0

Acceptability (1)

- **71 referred by volunteers :**
 - 5 very sick not included and referred to hospital
 - 3 refused - fear of stigmatization
 - **63 (88.7%) consumed RUTF including 3 HIV-ve**

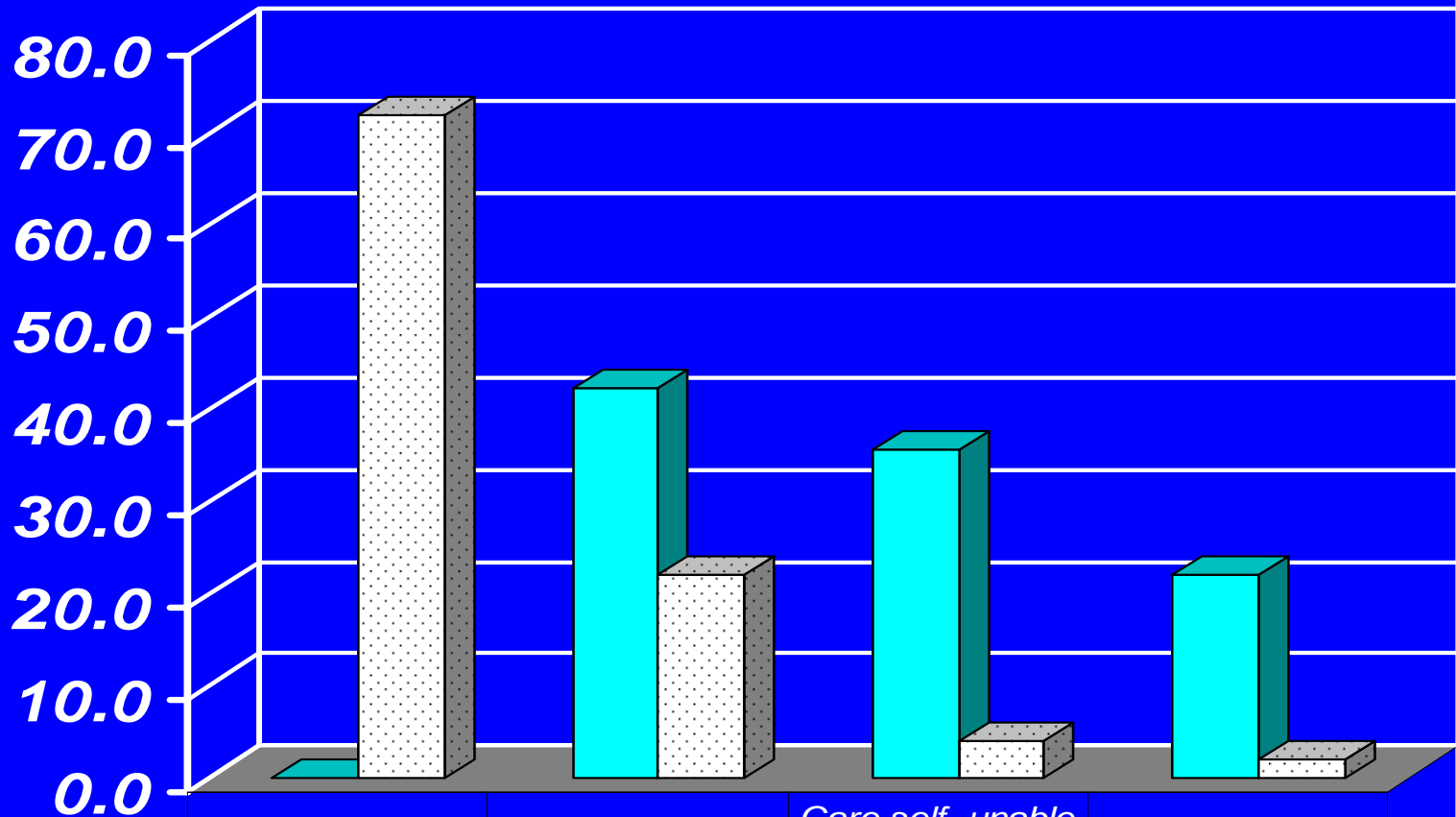


Acceptability (2)

- **Average RUTF intake= 300 g/day**
 - 1600 Kcal/day (offered 2600 kcal/day)
 - 40 g of proteins (offered 70 g/day)
- **Consumption increased with time**
 - some >2 pots/day especially if staying alone
- Usually RUTF not taken as sole daily food but was major food (**taken as a therapeutic supplement**)



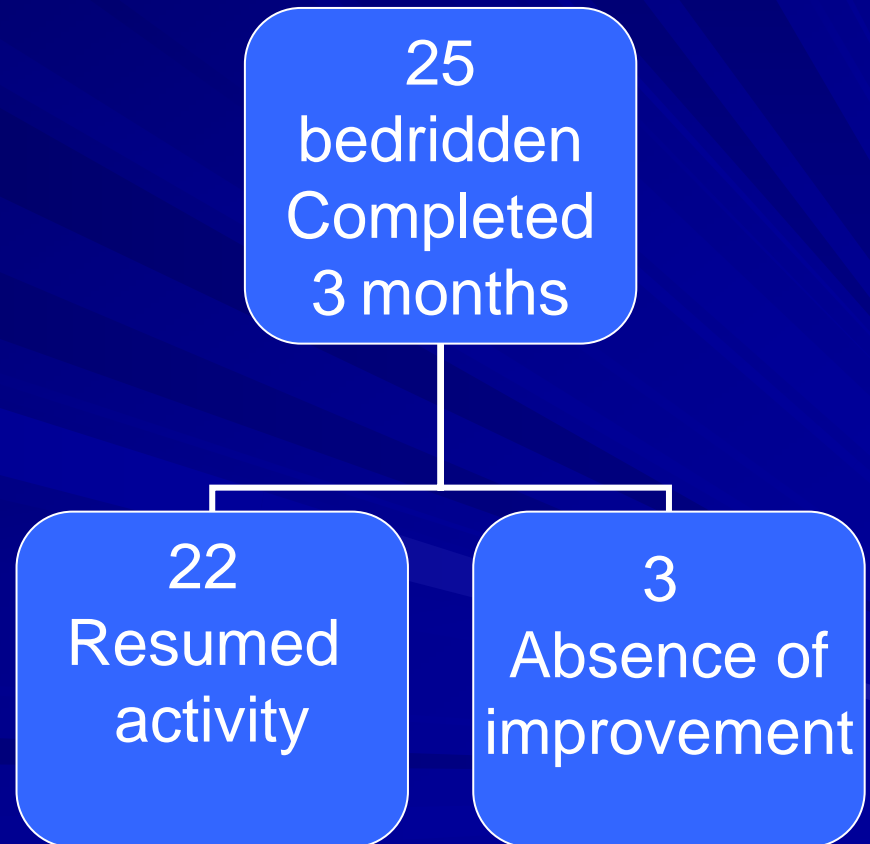
Activity performance



■ Admission (n=60)	0.0	42.4	35.6	22.0
■ End of programme (n=50)	72.0	22.0	4.0	2.0

Accessing clinics

- 34/60 (56.7%) not able to walk to the clinic at admission
- 22/34 (73.5%) able to walk to the clinic after being into the programme
- In total, 47/60 (78.3%) resumed productive activity



Weight gain in Kg

All participants	n	WTg
After 1 week	37	1.0
After 2 week	37	1.9
After 1 month	53	2.5
After 2 months	45	3.8
After 3 months	38	4.8

Weight gain (2)

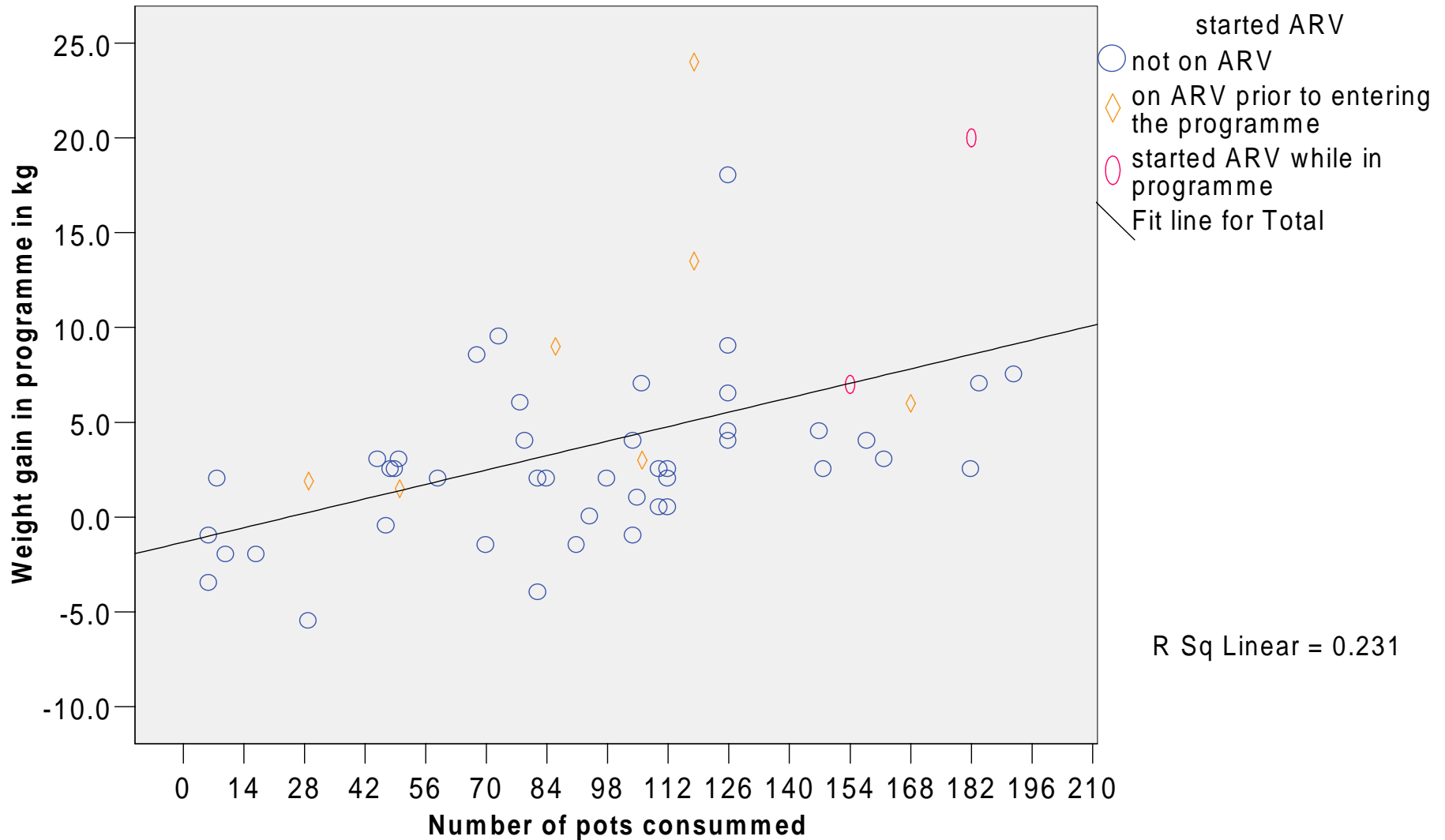


Figure 2b

Case study 2



**1 Month ARV pre-RUTF
weight gain (WT)=
1Kg**

**2 Months ARV + RUTF
WT gain = 21 Kg**

**1 Month post- RUTF
WT gain =2 Kg**

Nutrition stabilisation

- **BMI**

- $20/60 = 33.3\%$ reached BMI > 18.5
 - $5/32 = 15.6\%$ if admission BMI ≤ 16
 - $15/28 = 53.6\%$ if BMI admission > 16

- **MUAC**

- $25/60 = 41.2\%$ reached MUAC ≥ 22.5
 - $4/19 = 21.0\%$ if MUAC admission ≤ 18.5
 - $21/41 = 51.2\%$ if MUAC admission > 18.5

Lessons learned-1

- Majority eat CS-RUTF
- Using RUTF allows effective nutrition care to malnourished chronically sick PLWHA.
- Benefits the intervention = improved physical activity performance and nutrition stabilisation

Improved physical activity performance



restoration of hope, willingness to undergo HIV testing and improved access to care including ART.

Lessons learned-2

- Nutrition **stabilisation** prior to commencing ART possible for some patients
- Duration of **3 months** = short especially for the very thin patients (BMI < 16)
- MUAC not BMI can be easily included in community HBC providers
- Nutritional support a relief for guardian and relatives.

Programmatic implications

- Decentralisation Nutrition support to PLW
- RUTF in HBC kit
- Nutritional stabilisation prior to commencing ART
or Combination of RUTF and ART
- Linkage between HBC and ART clinics

Research priorities



Mangochi District-Malawi programme

Research priorities-1

1. Determine suitable duration of RUTF supplementation.
2. Determine and compare baseline characteristics of responders and non-responders.
3. To describe body composition change – type of weight gain
4. Determine impact on physical performance using grip-strength



Research priorities-2

5. To determine impact on serum haemoglobin level and CD4 count.
6. Use of RUTF/nutrition care in delaying HIV disease progression
7. Adaptation of RUTF composition to the need of HIV and AIDS patients

Conclusion-1

- RUTF inclusion in HBC Kit will improve it and improves impact and motivation of community based workers (volunteers);
- The improvement in nutrition status is associated with improved physical activity performance that improves capacity of accessing other essential care including ART, transforming a short term benefit to a long term benefit;

Conclusion-2

- Nutrition intervention with RUTF prior to ART may improve response to ART.
- Researches are needed to confirm the benefit of RUTF for the cure of malnutrition in PLWHA and to explore the use of RUTF in preventing malnutrition and delaying HIV disease progression.