ZAMBIA Programme (2001-2008): Honorary Country Director Dr Peter Wilkinson

In 2001, Dr Peter Wilkinson, a recently retired consultant paediatrician from the UK, began this programme by undertaking a needs assessment trip to Zambia that led to the establishment of outreach clinics for malnourished children, aiming to help 3,000 children in the first phase of the programme.

Shocking statistics

- In Zambia, in 2001, 168 out of every 1000 children died before their fifth birthday. The major causes of death were malaria, diarrhoea, pneumonia and measles. Malnutrition was a factor in 54% of these deaths.
- Nearly half (47%) of children aged under 5 years had malnutrition severe enough to cause permanent stunting of growth.
- In hospital, the mortality for children with severe malnutrition was around 40%. Poverty, late arrival to hospital, underlying infections such as pneumonia, diarrhoea, TB and HIV/AIDS contributed to this high mortality rate.
- 58% of children on the malnutrition ward were HIV positive.
- 30% of admissions were re-admissions, indicating that children had returned home to the same adverse conditions.
- When children were discharged home from hospital, only 50% returned to clinics for essential follow-up.

Community-based malnutrition programme

Because of these worrying statistics, a community- based (outreach) programme was planned - the aim being to prevent the development of severe malnutrition by earlier intervention in the community and before the malnutrition became severe, with its associated high mortality. The programme was a joint initiative between MCAI, the University Teaching Hospital (UTH) Lusaka and the School of Medicine, University of Zambia. The work was undertaken by specialist paediatric nurses from the Malnutrition Ward at UTH. The medical coordinator at UTH was Dr Beatrice Amadi, a consultant paediatrician.

By 2003 the outreach programme for malnutrition clinics had been set up caring for under 5 year old children in the two poorest districts of Lusaka, Chipata and Panyana. Statistics showed that these two districts accounted for 32% of the admissions to the malnutrition ward (A07) at UTH.

This is how many people bring their children to hospital in Zambia. Others don't bring their children as the problems of travel and fear of medical costs are too much. This is why it is so important MCAI was setting up community outreach clinics

Nurse on outreach team visits a family in their home

The programme identified malnourished children, treated associated infections, such as malaria, diarrheal illnesses and pneumonia and tested for HIV/AIDS. This accessible, service was popular in the community as carers did not have to make a difficult and expensive journey to hospital.

MCAI involved the local community by giving nutritional advice to carers with providing and cooking demonstrations.

Emphasis was also given to training for the health care workers in the outreach clinics, giving them improved skills and techniques in the management of malnutrition to ensure sustainability.

Some statistics relating to the clinics from December 2002 to December 2003 are shown in the table below:

Month	Chipata Clinic			Panyana Clinic			Ref UTH
	New patients/ follow-up clinics	Total supplements	Ref to UTH	New clients/ follow-up clinics	Total supplements	Ref to UTH	
Dec 2002	24		5	Xmas		New Year	
Jan 2003	32		5	12		16	
Feb	37		4	14		5	
Mar	56		5	8		2	1st Training Workshop
Apr	53		2	4		12	2nd Training Workshop
May	21		3	15		1	
Jun	10		3	12		3	
Jul	29		12	1		-	
Aug	36		26	-		10	Supplementation started
Sep	45	41	4	31	29	2	
Oct	72	67	5	137	128	9	
Nov	75	70	5	123	117	6	
Dec	95	90	5	173	165	8	

This child was brought to the hospital but was listless and not interested in food. Mum's concern was that the child never seemed hungry and was losing weight

By 2006, weekly clinics were run in four of the most deprived districts in Lusaka with between 20 and 50 children seen in each of the clinics. Children with signs of moderate malnutrition were seen, received a medical examination; investigations were arranged if required; and medicines are given for infections. Children also received high-energy protein supplements, families received detailed practical nutritional advice and were referred for voluntary counselling and testing if HIV/AIDS was suspected. Education was a high priority and several workshops were organised for local healthcare workers, to improve awareness and understanding about malnutrition. There was a high success rate in preventing the development of severe malnutrition, with its associated high mortality. Most children, with the help of the MCAI/UTH Outreach Programme attained their target safe weight and could be discharged from the clinics after 6 – 8 weeks.

During 2006-7, the main emphasis was on the training of local healthcare workers, employed by the Lusaka District Health Management Board (LDHMB) – in order for the department to be in a position to take over a similar service to cover the whole of Lusaka. The training for 96 community healthcare workers consisted of 3-day workshops for 4 healthcare workers from each of the 24 health clinics in Lusaka. There were three workshops, each training 32 healthcare workers (nurses, nutritionists, clinical officers). MCAI's main outreach nurses continued to visit all 24 clinics to assist in their further development.

Success story

By 2008 the programme was successful in reducing the need for hospital admission:

- 80% of children on the programme attained their target weight within 6 weeks.
- There was earlier identification of children who were HIV positive.

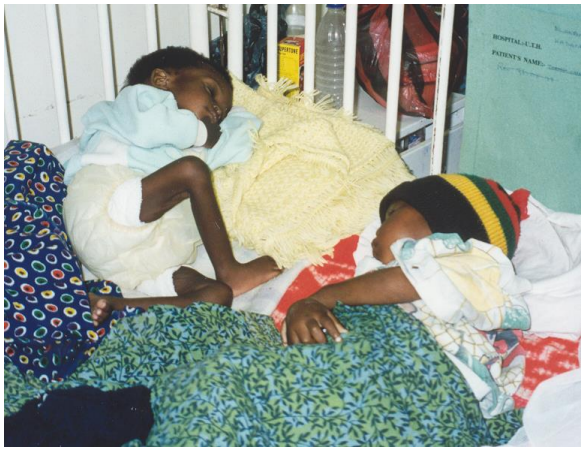
Families attending one of the clinics

Young child holding his medicine

The community-based outreach programme for the prevention of severe malnutrition in under 5 year old children in Lusaka, proved to be a sustainable model and responsibility for the project was taken over by the Lusaka District Health Management Team. At this stage more than 37,000 children were attending the Community Clinics each year.

Although by 2008, on-going funding had ceased, the MCAI Programme Manager (Dr Peter Wilkinson) was retained in a supervisory role to visit the clinics to provide support. MCAI donated a supply of pre-packaged weaning foods and essential medicines. The MCAI vehicle with its driver was handed over to the new Paediatric Centre for HIV/AIDS which allowed for continuing use of the vehicle on supervisory visits to the clinics.

Taking Food and Medical Care to some of the poorest children in Lusaka, Zambia (an MCAI report from 2006)



James aged 3 received help for malnutrition at the follow-up clinic and also vitamin A to prevent blindness – a common problem from severe malnutrition.

Photos: *Top* - A concerned father discusses his daughter's failure to thrive. *Above* - Explaining nutrition on the Malnutrition Ward. For 1 in 4 of the children who reach the hospital it is already too late. *Right*: Two young patients share a cot. Both need follow-up at community level.

A community based service helping ill and malnourished young children in Lusaka,

Weighing stations are held in many different places – churches, market places, car parks etc. In a half completed Baptist Church with no roof, over 100 mothers attended bringing their children for immunisation, nutritional advice and monitoring.

Background – the Problem

Zambia is now one of the poorest countries in Africa. The health of the children is suffering through HIV/AIDS and famine as families struggle to survive.

Half of the under 5 population in the country are estimated to be suffering from severe malnutrition, sufficient to cause stunting of growth.

Many children are unable to make the journey to hospital and receive no treatment if they cannot

Up to 30% of the children in the capital, Lusaka, are HIV positive as a result of mother to child transmission.

The average wage is just

£35 per month

Lusaka's main hospital admits between 10-15 children every day with severe malnutrition.

For these children there are just 65 beds but there are rarely less than 100 children sharing these beds; often more. Many are also suffering from serious infections including malaria, pneumonia and tuberculosis - as well as AIDS.

Many families can ill afford any trip to the hospital. Even when children did reach hospital, due to a difficult journey and fear of cost, as many as 50% of children were unable to attend follow-up visits to continue their treatment.

Children continued to suffer an ongoing cycle of malnutrition and illness – malnutrition leaves children more susceptible and vulnerable to opportunistic infections

Samson aged 2 is cared for by his Grandmother – his mother is too ill with AIDS to look after him. Samson has severe malnutrition and TB – he almost certainly has HIV/AIDS

Esther aged 2 also has severe malnutrition, TB and suspected HIV/AIDS. Her mother cannot afford to get to the hospital but is now able take Esther to the local clinic for treatment.

Nelson aged 2 was admitted to Chipata clinic with malnutrition and very severe oral thrush. He was so dehydrated he had no tears. He was admitted to the ward where he received treatment. Nelson's mother was too poor to take him to the hospital and without the local clinic Nelson would have died.

Aaron aged 3 years has lost both parents to AIDS and is now cared for by a distant cousin – his only relative. His carer has no job and struggles to care for Aaron and ensure he receives treatment for severe malnutrition and hydrocephalus. This programme now means he receives high protein feeds.