TAKING PHAST THE EXTRA MILE THROUGH COMMUNITY HEALTH CLUBS:

THE A.H.E.A.D METHODOLOGY (Applied Health Education and Development)

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Acronyms

A.H.E.A.D.	Applied Health Education and Development
CHC	Community Health Clubs
DFID	Department for International Development
EHT	Environmental Health Technician
HHE	Health and Hygiene Education
IDP	Internally Displaced Person
IRWSS	Integrated Rural Water and Sanitation
NGO	Non Governmental Organisation
NZAID	New Zealand Aid
MOHCW	Ministry of Health and Child Welfare
PLWAs	People Living with Aids
PHE	Public Health Education
PHAST	Participatory Hygiene and Sanitation Transfer
RAC	
RWSG-ESA	Rural Water and Sanitation Group-East Africa
WSP-AF	Water and Sanitation Programme- Africa
ZimAHEAD	Zimbabwe Applied Health Education and Development (Organisation)

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Executive Summary

The current debate over the cost-effectiveness of PHAST in East and Central Africa prompts us to re-present this paper which was in fact submitted to WSP-AF in 2001, when the first concerns with the outputs of PHAST were raised at the RAC in Nairobi at that time. The programme described below was a variation of the PHAST Methodology and was implemented by Zimbabwe AHEAD, a local NGO, during the same period as the national PHAST training was taking place through the Ministry of Health in Zimbabwe. The NGO was working closely with UNICEF in the initial phase of the PHAST programme and was a major contributor to the National PHAST Tool Kit which was used throughout the country for training. Whilst the training efforts for the PHAST programme in Zimbabwe were substantial with over 9,000 trainers introduced to PHAST, this did not translate into community programmes except in two districts. Even there, the cost-effectiveness of hygiene behaviour change could not be assessed accurately as the target audience was undefined and the outputs were unspecified and not measurable. Appreciative of this shortcoming, the NGO sought to 'add value' to PHAST by developed a system of monitoring and evaluation that is able to quantify levels of behaviour change. This methodology seeks to use the standard participatory training method of PHAST but within a more structured programme i.e. 'structured participation'. Health promotion is the entry point into a four stage process which has become known as the AHEAD Approach (Applied Health Education and Development). Community Health Clubs are the 'vehicle' for hygiene promotion with the benefit of having a consistent membership who attend health sessions weekly and who are monitored using membership cards. The concept of the 'club' is a subtle but important difference between this approach and standard PHAST interventions. In addition, a structured 'syllabus' of health information is followed with standardised recommended hygiene practices for each member. Thus PHAST is 'repackaged' into a methodology that has now been proven to provide the missing 'social' link that is needed if we are to persuade people to change their behaviour. (Waterkeyn,1999, 2000, 2003)

To evaluate the cost-effectiveness of the AHEAD approach, an extensive survey was conducted in three districts of Zimbabwe in 2001, with 1,250 health club members and a control of 260 non members, with spot observations of randomly selected households. Taking an average of the eighteen observable proxy indicators, there was a significant difference between health club members and non members of 50% in Tsholotsho, 18% in Makoni, and 7% in Gutu ($p=>0.001$). Health Knowledge increased by 48% in Tsholotsho, 20% in Gutu and 8% in Makoni. In many cases particularly in Tsholotsho, the difference was highly significant with 92:3% for pouring method of handwashing, 95:46% use of ladle, 97:22% for use of individual plates and 86:10% use of individual cups, whilst cat sanitation increased from nil to 57%, with an increase of latrine construction of 40% ($p=>0.001$). It has been calculated from detailed project records that in Makoni District where 14 trainers conducted 746 health sessions in seven months running 141 clubs with 10,620 members, the project cost amounted to 43c (US$) per beneficiary. With the latest study in Uganda now estimated from US$16-24 per beneficiary (Palmer Group, 2004), the Zimbabwe experience should be revisited. With such immense investment in PHAST in the past ten years it would be wasteful to abandon the approach - rather it needs to be taken the extra mile. The recommendation of this article, based on empirical evidence is this: situate PHAST within a Health Club structure and it will provide cost effective behaviour change. (Waterkeyn & Cairncross, 2004)

1. Background to PHAST in Zimbabwe

Participatory Health and Sanitation Transfer (PHAST) was formally introduced into Zimbabwe in 1994 when the first Training of Trainers Workshop, sponsored by UNDP/World Bank through the Regional Water and Sanitation Group for Eastern and Southern Africa (RWSG-ESA), was held. Prior to this PHAST initiative, a participatory HHE training material tool-kit, developed and designed by ZimAHEAD, had already been extensively pre-tested by the Domboshawa Training Centre (sponsored by WHO).

Under the 1994 PHAST initiative UNICEF, through the Ministry of Health, launched an impressive training scheme which eventually covered most of the Environmental Health staff of the 57 Districts in Zimbabwe. The ZimAHEAD designs were incorporated by UNICEF into "Tool Kits" which were distributed to over 800 Environmental Health Technicians (EHTs) stationed throughout the country. In the following four years, an excess of US$2 million was spent on funding PHE (Participatory Health Education) in Zimbabwe.

The following figures are presented in WSP's report (1999) as the training achievements:

Provincial teams	8
District personnel (MoHCW and other agencies)	1,337
NGO personnel supporting PHE	94
Community Leaders	649
Teachers	507
VHPs	120
Ward level extension workers	4,690
Overall estimate:	**9,232**

The report also comments:

> *'Due to expanded training there has been limited capacity for follow up and the future plans will be based on consolidation of activities. There is a clear differentiation between awareness (which is given to policy makers) and training which is given to extension workers who are then expected to apply participatory methods at community level.'*

Whilst the numbers that were trained in PHE was impressive, the weakness of the programme lay in the fact that once trained, the EHTs were expected to set up their own programmes and 'use participatory' with communities with minimal backup in terms of monitoring, evaluation, or material inputs into water and sanitation projects.

In two Districts, Gwanda and Beit Bridge, a more intensive programme was supported by UNICEF and the community responded well. However, for the rest of the districts the PHE training was an interesting academic exercise but, for the most part, the tool kits remained unused and the programme stalled.

2. "Structured Participation" by Zimbabwe A.H.E.A.D

Zimbabwe A.H.E.A.D adapted the PHE methodology of PHAST. By using the same training materials, AHEAD developed a more structured programme for a Pilot Project in Makoni District. Whilst still using the participatory approach to transfer knowledge, the main objective was to develop a 'Culture of Health' within the community through the establishment of Community Health Clubs (CHCs).

Unlike the PHAST approach, whereby an EHT would facilitate PHE with loosely formed gatherings from a community; the CHC strategy concentrated on an identifiable and consistent group, mainly of women, who would meet with the EHT every week for 1 – 2 hours over a 6 – 9 month period in order to cover the 20 health topics that were listed in a membership card.

Attendance was carefully monitored by the clubs themselves, who specified that to gain a certificate, a full attendance of all 20 sessions was required. The sessions were recorded on the membership cards, which were signed by the EHT at each session. This meant that the health education could actually be quantified in terms of 'amount achieved.' The number of health education sessions that had been conducted by the EHT and the number of attendances by members could be accurately recorded, and had to be certified by the Club Chairwoman before the EHT could claim his own monthly allowance. This inversion of control, whereby the monitoring of the fieldworker was the responsibility of the community, proved to be invaluable, in that activities of the EHT could be quantified, and the average attendance for each EHT calculated and offset against his own expense claims.

3. Cost of Hygiene Promotion

In Makoni District, 15 EHTs operated an intensive Health Education Campaign between March 1999 and March 2001. By this time there were 11,450 members in 265 health clubs. Beneficiaries from the programme as calculated as the family members of every health club member as the assumption is that if the mother improves her standards of home hygiene the health of the entire family will benefit. Therefore the number of health club members is multiplied by 6 for the average size of a rural family making a total of 68,700 beneficiaries.

Expenses for each EHT in the Zimbabwe A.H.E.A.D programmes consists of two items: firstly, the cost of running the motor bike for 1,200kms per month, to ensure full mobility to facilitate the Health Clubs; and secondly a nominal allowance for meals which provided the necessary incentive. The programme ran with zero breakdown of motorbikes and without a single failure of commitment from the 30 EHTs. Thus only marginal costs for Health Promotion are calculated to give a cost per beneficiary.

Additional Costs not included are US$ 47,709 (40%) for Sanitation (3128 VIP latrines in two years); US$ 36,878 (30%) for establishing over 500 income generating projects, as well as US$ 10,242 (10%) on Administration. The Total Project cost for 2000 was US$120,000, of which only 20% was spent on Health Promotion.

In the second year, cost per beneficiary dropped from 0.91 in Year 1, to only 0.35c. (*See:Table 1.)* This token amount can improve health knowledge of the mother, which can result in upgrading of family hygiene and the prevention of many diseases. When this budget is recalculated as a ***cost per trainer***, (including training, equipment, motorbike and running costs), this amounts to only US$3,144 for two years. (Waterkeyn, 2003)

	1999	2000
Wards	20	20
EHTs	14	15
Health Clubs	72	265
Club Members	3,856	11,450
Beneficiaries	23,136	68,700
Health Sessions	1,448	2,283
Total EHT costs	7,990	21,811
Training costs	4,065	2,179
M/Bike purchase	9,210	nil
CHC costs	nil	405
TOTAL COST	**21,265**	**24,395**
Health Ed. Cost per member	5.51	2.13
Cost per beneficiary	**US$ 0.91**	**US$ 0.35**
Cost per Trainer	**1,518**	**1,626**

Table 1 :
Cost of Health Promotion in Makoni District:
March1999– March 2001

The figures above represent only the cost to the provider (NGO/donor) and does not take into account:

- Cost to the Ministry of Health which supports the salaries of 14 EHT's and approximately 100 VCW's.
- Voluntary time given by Health Club Committees, Members, Councillors
- Costs accrued by each household in buying new items recommended
- Saved time and the cost of developing necessary visual aids which had already been funded by other donors and were thus brought from A.H.E.A.D at cost price.

4. Quality of CHC Health & Hygiene Education

With a cost of only 35c per beneficiary it would be normal to assume that the quality of the health education is deficient. However this programme does not consider that the conventional one-off talk at a clinic or a couple of home visits, will supply sufficient reinforcement or peer pressure to ensure change. Instead for US$2.10 each health club member receives an intensive weekly training for 6 months, involving at least 50 hours of participatory training in order to be awarded a certificate. Over 50% of members achieved this level of commitment. The 'quality' of the training is measured, not only in terms of the level of health knowledge of each CHC members, at least six months after the training had officially finished, but more specifically, by their actions and levels of behaviour change as observed by spot checks of proxy indicators at their homes.

Members had been advised of practical steps to family health which included among many other recommended practices: safe sanitation, safe hand-washing practices, safe storage of water, the use of individual plates and cups, safe storage of plates, and cooking pots, and cleanliness around the home which involved keeping compounds free from faecal contamination and solid waste disposal in well managed rubbish pits. The assumption is that if members change their behaviour and sustain it over time, the health campaign can be judged to have been a success.

Many hygiene promotion campaigns target one or two key messages such as hand-washing with soap and disposal of children's faeces, (WSP, 2002) the AHEAD programme is more comprehensive seeking to achieve a raft of 50 new practices, to prevent diseases including diarrhoea, dysentery, cholera, malaria, skin and eye infections, bilharzia, worm infestation and HIV/AIDS. *(See Table.1.below)*.

Table 1: Behavioural Change through CHCs in Makoni, Tsholotsho and Gutu

Practice	**Makoni %**		**Tsholotsho %**		**Gutu %**	
	Member ***N=375***	**Non-mem** ***N=113***	**Member** ***N=360***	**Non-Memb** ***N=50***	**Member** ***N= 375***	**Non-mem** ***N=87***
Hand wash facilit	45	26	80	.03	42	31
Water in HWF	31	18	35	nil	39	39
Pouring method	90	50	92	3	30	11
Use of soap	7	1	39	2	15	13
Ladle	52	42	95	46	94	45
Use of ladle	45	22	95	3	56	47
Covered water*	87	91	97	89	82	100
Individ. cups	98	66	97	22	99	79
Individ. plates	97	64	86	10	92	74
Active veg/gd	99	79	60	19	92	87
Less Bush san	12	41	0.3	98	8	1
Less Cat san	14	nil	57	Nil	30	42
More VIP	65	59	42	2	51	51
Rubbish pit*	93	82	64	25	83	87
Clean latrine	62	58		N/a	38	46
Pit well managed	55	29	60	29	62	64
Pot rack*	93	82	78	40	82	81
Yard clean*	44	37	73	49	69	74
Average	**67**	**49**	**72**	**22**	**65**	**58**

* practices commonly promoted by MoH in Zimbabwe

4.1 Survey of Behaviour Change

Between 2000 - 2001, an extensive survey was conducted on the knowledge and levels of behaviour change within the CHCs and this has been contrasted with that of ***non*** CHC areas. A random sample of 75 clubs were taken, 25 from each of the three Districts of Makoni, Gutu and Tsholotsho where Zimbabwe A.H.E.A.D has been running programmes. Within each club, a random sample of 15 members was individually surveyed, giving 1,125 respondents interviewed in total. A further 260 respondents were interviewed as a control. These were taken from similar communities adjacent to the project areas. In addition, case studies of each club were recorded and a personal interview of 20 members added qualitative richness to the quantitative survey. Participatory Pair-wise Ranking exercises were also conducted in 20 health clubs in Makoni in 2004. Table.1, above, highlights only some of the many quantitative results showing highly significant differences between health club members and non members. Health club members had attended an average of 17 health sessions, and whilst non-health club people living in adjacent areas had not been exposed to the programme.

The figures below reflect a significant shift in behaviour change showing that the activities of health club members have resulted in the recommended practices being undertaken by members, whilst non members persist in traditional behaviour. The most impressive district is Tsholotsho where there is a vast gap in behaviour between project and non-project areas: an average of 72% practising new positive behaviour as compared with only 22% in non project areas. Although the difference between CHC members and non-members is still evident in Makoni and Gutu districts, these are less extreme. It is surmised that this is due to the fact that both of these districts have been particularly well favoured with development projects in the past whilst Tsholotsho reflects little investment in water and sanitation. This is apparent when one examines the various levels of existing sanitation. For example, in Tsholotsho, only 2% of the control group or non-project areas have VIP sanitation, whereas the control group for Makoni has 59%. In Gutu, there is no difference in VIP coverage between project and non-project areas where both have over 50% coverage.

It should be noted particularly in Makoni, that many practises are common in Zimbabwe such as the use of pot racks (93:82), covered water (87:91), and swept yards (44:37), have been promoted for many years by MoHCW, and in these practices the difference between health club members and non members is marginal. Whereas new recommendations that can be attributed almost entirely to the CHC programme such as use of a ladle (95:3 in Tsholotsho, 45:22 in Makoni), pouring method for hand-washing (95:3 in Tsholotsho, 90:50 in Makoni), use of a hand-washing facility (45:26 in Makoni; 80: .03 inTsholotsho), individual family member cups and plates (97:64 in Makoni, 86:10 in Tsholtosho) show a highly significant difference between health club and non-health club members (p=>0.001).

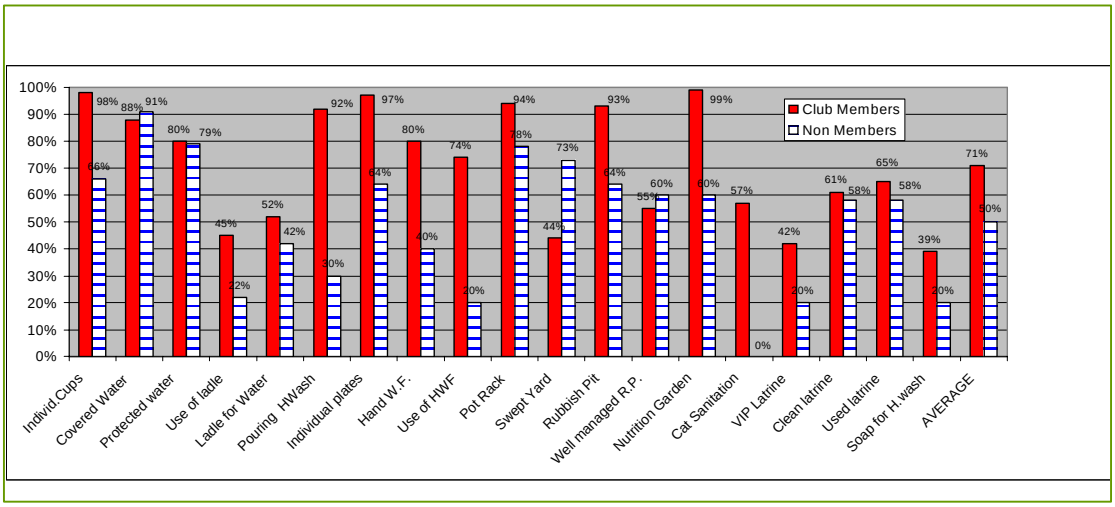

Fig 1: Difference of Prevalence of observed Hygiene Indicators between Community Health Club members and non members in Tsholotsho

One of the most relevant results from Tsholotsho in particular is the total change in sanitation: 98% of the people in the control group are still practising uncovered/open defecation whereas CHC members are either practicing 'Cat Sanitation' (57%) or have already constructed a new latrine with concrete slab. Thus in the project area, there has been a 100% improvement towards safe sanitation with 43% constructing new latrines. *(See Fig 1 above)*

4.2. Increase in Health Knowledge

Why have CHC members changed their hygiene behaviour? Could it be due to peer pressure or does it indicate an understanding of the hazards of poor hygiene? Perhaps a genuine ***'culture of cleanliness***' has been created and members are doing things for the 'right' reasons. In which case we need to know how much more health clubs members know about the germ theory and disease transmission than non members.

During the survey, the respondents were asked to identify the causes transmission and cure, of the preventable diseases as well as topics that had been 'studied' within the health clubs such as correct child care and making Salt and Sugar Solution (SSS) for rehydration. This was carried out using picture codes as prompts and was standardised in terms of information that reflected three levels of knowledge: poor, partial and good.

Table 2 below summarises only those who proved to be in the 'good' category i.e. standard knowledge of transmission, prevention and cure.

Topic	Makoni %		Tsholotsho %		Gutu %	
	Member	Non-Member	Member	Non-Member	Member	Non-member
SSS	80	67	78	27	67	35
Diarrhoea	76	72	86	50	46	36
Malaria	62	47	83	49	47	32
Bilharzia	44	42	73	25	56	31
Worms	27	26	72	22	41	17
Skin	52	34	59	10	45	25
Hiv/AIDs	47	35	74	25	83	63
TB	28	18	65	7	31	28
Child care	64	29	70	17	66	32
Average	**51**	**43**	**73**	**25**	**53**	**33**

Table 2: Table showing the levels of knowledge of preventable diseases between health club and non health club members in Makoni, Tsholotsho and Gutu.

Much of the information disseminated at health club sessions has been taught at primary school. Therefore levels of knowledge should be affected by levels of education. In all three districts, the number who had completed primary school was similar with Gutu (38%) Makoni (34%) and Tsholotsho (40%). As for secondary education, 12% in Tsholotsho had completed secondary school, whilst in Makoni there were 8% and less in Gutu with only 6%.

However, there are significant differences of health knowledge between the three areas with only 8% in Makoni, 20% in Gutu but a 48% difference in Tsholotsho between members and non members. This may indicate that it may be the learning through the CHCs that could account for much of the difference between the project and control groups.

5. Institutionalisation of Community Health Clubs

By 2001, under the Zimbabwe AHEAD programme, there were 265 Community Health Clubs with an estimated 20,000 members (120,000 beneficiaries). However as the political climate in Zimbabwe deteriorated, there was a dramatic decrease in funding as donors pulled out leaving many projects stranded. Despite lack of external support many of the CHCs have continued. In all three Districts, the MoHCW has fully embraced the methodology and EHTs are now being supported by GoZ who have also taken over the running of the motorbikes. New CHCs continue to be formed and most old ones still flourish although there are some

that have necessarily folded for various reasons. Other Projects also replicated the CHC approach. CARE has 12 sites with Community Health Clubs in Masvingo Province and the DFID funded IRWSS Projects in both Lupane and Bikita Districts have been established on this model after ZimAHEAD had completed the training of trainers into the CHC methodology.[1]

6. Sustainable Livelihoods within a dysfunctional economy

Despite the economic and political freefall in Zimbabwe within the past four years, with inflation at 400% and 70% unemployment, the Community Health Clubs have not only survived but flourished. The NGO, surviving on an annual budget of only US $30,000, has managed to sustain its presence in Makoni, and with a small staff of five project officers, and 25 field staff and continues to promote long term and sustainable development. Supported by the New Zealand High Commission, and LEAD, activities focus mainly on survival skills to enable health club members to ride out the economic disaster affecting the country.

By 2001, the 265 CHCs had all completed the Health Education Phase, and half had also moved into the Sanitation phase. This was suspended in 2001 due withdrawal of major donors. However, in 2002, the programme moved into the 3rd phase of Social Development in ten wards with skills training and literacy classes being conducted in all clubs.

Of the original Community Health Clubs, 40 were split into over 500 income groups in a variety of projects such as soap making, oil pressing, paper making, mosquito net/fly cover making, peanut butter pressing, bee keeping, and the production of hand-washing tanks and interlocking bricks for pit lining are all common activities which in 2001raised approximately US$ 20,6000. The same year a soft loan of US$12,000 (US$400 per group) was awarded to 30 groups by Ministry of Youth and Employment Creation and with a further another US$ 12,000 in 2002. (RoE US$1: Zim$50)

By September 2004, there were 116 health clubs in Makoni, involved in a large scale programme to expand bee keeping, and herb growing sponsored by LEAD. The NZAID funded the rehabilitation of 100 boreholes and the establishment of productive water points, in the form of communal nutrition gardens. In 10 wards these are used to support orphans and provide for an orphan play group near the borehole. To-date there are 4005 individual nutrition gardens, 131 communal nutritional gardens and there are 320 herb growers and 2,035 bee keepers. In 2004, after only one year, US$2,544 was earned from sale of vegetables and herbs, and Z$3,811,000 (US$635) from the sale of honey.

At present (Sept, 2004) there is a highly sought after Home Based Care programme for PLWAs, with over 4,000 registered clients. Each health club has a Carer Trainer to assist those who need to nurse the terminally ill. Survival skills have become a major drive for people living with AIDS (PLWAs). The sale of vegetables, herbs and honey has supplemented the income of over 4,136 PLWAs. Improved nutrition and the use of medicinal herbs are providing relief for many suffering from opportunistic infections, enabling those affected to continue being productive for as long as possible.

Thus, since its early beginning with PHAST health promotion activities from 1995 – 2000, the health clubs have become a vehicle for a myriad of development activities: water and sanitation, productive water points, skills training, adult literacy, home based care, financial management, marketing, and viable income generation which are sustaining the community despite the harsh realities of daily life in Zimbabwe today. Through using the Structured Participation of the AHEAD Methodology, health promotion can become an entry point into sustainable development.

[1] Similarly, Care International has since also adopted the CHC methodology into their RWSS programme in Sierra Leone.

7. Taking the CHC Methodology to Scale

Whilst to date the CHC Methodology has been relatively small scale, there is no reason why this strategy cannot be taken to scale in countries where Ministry of Health has field based staff to conduct ongoing training amongst the community. In Sierra Leone where this does not exist, NGO staff from CARE have been trained and posted to do the same job, and this has been equally effective. In Uganda in 2004, CARE, with the assistance of Africa AHEAD, began using this strategy to deal with the mass influx of internally displaced people living in squalid IDP camps in Gulu District. In the past six months 120 community health clubs have been formed in fifteen IDP Camps with the expectation that by the end of the programme in June 2005, at least 12,000 people and their families will have improved hygiene behaviour. There is also an ambitious target to build latrines for at least half the health club members during this six month period. The AHEAD strategy is now being taken to scale as funds are being sought to spread the methodology to Pader and Kitgum Districts where over 98% of the population is displaced and living in unsanitary camps.

8. Conclusion

The AHEAD methodology has clearly demonstrated that it is capable of stimulating a strong demand for sanitation, that it has achieved exceptionally high rates of behaviour change and is extremely cost effective. Whilst health promotion is used as an entry point, community health clubs provide an on-going vehicle for development addressing issues of sustainable livelihoods and poverty eradication.

Above all it uses the PHAST approach to its fullest capacity. Although participatory by nature, it is within a structured programme, so that behaviour change can be monitored and health awareness measured. We believe that there is no need to 'exit' completely from PHAST. Rather it would make more sense to simply 're-package' PHAST into a more effective implementation strategy that moves on from 'Training of Trainers' to structured programmes. PHAST 'promoters' within WSP could play a role in this transformation of the PHAST methodology ensuring that past efforts are built upon rather than ignored.

There is a general concern to find an approach that will make a positive impact in Africa:

> '*Decades of public sector health education through traditional methods have had little impact. The key challenge is to identify affordable approaches to changing hygiene behaviour, which can work at scale. This requires building on sector successes and learning from successful approaches, especially those in the private sector, and other success.' (WSP.2001)*

The AHEAD approach has been recognised as one of two 'new and innovative approaches' to health promotion in Africa. (WSP, 2002) Whilst there is no blue print for success in hygiene promotion perhaps the time has come to be more pro-active in taking some of the existing approaches to scale in order to test their replicability. In Uganda, where there is an enabling environment given the recent undertakings nationally to focus on sanitation, many districts have planned to introduce Community Health Clubs on a national scale. Perhaps this may be an opportunity to demonstrate the cost-effectiveness of the community health clubs in promoting positive and sustainable hygiene behaviour change in order to improve family health.

4,475 words

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