



## Water and Sanitation Program

An international partnership to help the poor gain sustained access to improved water supply and sanitation services

### Africa Region



Water, sanitation and hygiene are vital components of sustainable development and the alleviation of poverty. Across Africa, political leaders and sector specialists are generating new momentum in these important areas. This Field Note, together with the others in the same series, constitutes a timely contribution to that work. It is intended principally to help politicians, leaders and professionals in their activities. As the Water Ambassador for Africa, invited by the African Development Bank and endorsed by the African Water Task Force and the African Ministerial Conference on Water (AMCOW), I commend it to your attention.

**Salim Ahmed Salim**  
Water Ambassador for Africa



# Hygiene Promotion in Burkina Faso and Zimbabwe: New Approaches to Behaviour Change



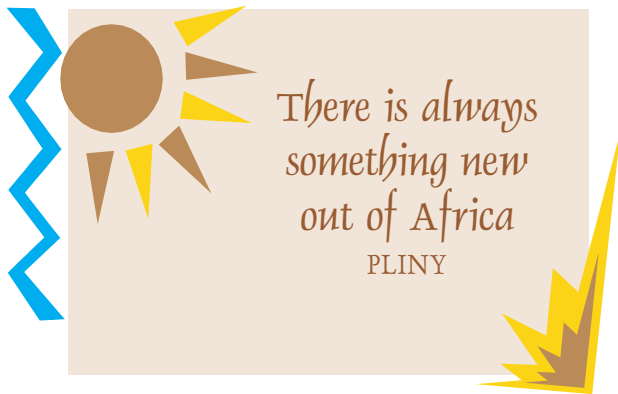
*Community Health Club members celebrate the production of home-made soap as part of the Makoni Preventive Health Campaign, Zimbabwe.*

## Summary

After years of debate, most people working in water and sanitation now agree that hygiene promotion is vitally important. But even now, many programmes and projects either ignore it or do it badly.

This Field Note describes two African hygiene promotion programmes that have successfully used new approaches: Programme Saniya in Burkina Faso, and ZimAHEAD in Zimbabwe. They both concentrated on understanding how people actually behave and hence how to change that behaviour, and they both demonstrated ideas that can be applied at a larger scale.

Changing human hygiene behaviour is a long process that is difficult to measure, and both of these programmes still have obstacles to overcome. However, this work indicates that systematic and carefully managed hygiene promotion programmes can achieve improvements in hygiene behaviour and hence reduction in diarrhoeal diseases.



## Background

Diarrhoeal diseases are still a leading cause of mortality and morbidity in children under five. Each child in Africa has an estimated five episodes of diarrhoea per year and approximately 800,000 African children die each year from diarrhoea and dehydration. Hygiene improvement on a huge scale is urgently needed, to reduce this burden of disease and to maximise the health benefits of water and sanitation interventions.

Public health professionals have tried various approaches to reduce diarrhoeal diseases. In the 1980s major investments aimed to improve the coverage of drinking water and sanitation facilities. However, evidence collected over the past decade shows that changes in hygiene behaviour significantly augment the health benefits that arise from drinking water and sanitation projects. The principle is therefore well established that hygiene promotion should play a part in water and sanitation programmes.

In practice, programmes have found it hard to achieve good results for a number of reasons:

- Engineering programmes do not naturally lend themselves to the methods and timescales that hygiene promotion requires.
- Hygiene professionals have been hard to find, and old-fashioned didactic approaches based on education

about germ theory and threat of disease have been the norm.

- Though some programmes have undoubtedly been successful in changing hygiene behaviour, such private practices are hard to measure and so results have often been unconvincing.

It has become clear that hygiene promotion programmes should focus their efforts on producing real and measurable change in key hygiene behaviours. This Field Note describes two such programmes that appear to have had positive results within a reasonable timescale:

- Programme Saniya in Burkina Faso, which demonstrates the role of formative research
- The ZimAHEAD Community Health Clubs in Zimbabwe, which institutionalise the process of behaviour change

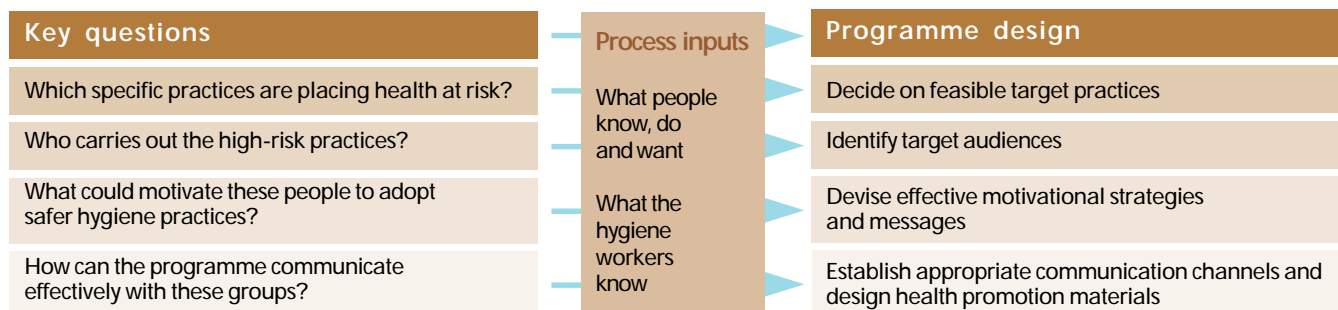
## Programme Saniya in Burkina Faso and the role of formative research

### Background

Bobo-Dioulasso is the second city of Burkina Faso. By the early 1990s, the town had a well-managed modern water supply and most households had pit latrines. However, its population of about 300,000 was growing rapidly, putting sanitation infrastructure under increasing strain. In the early 1990s a series of studies undertaken in the city showed that certain poor hygiene practices put children at risk of diarrhoeal diseases, but that changing hygiene practices would not be straightforward. A relatively new systematic approach – formative research – was used to design a city-wide hygiene promotion programme entitled Programme Saniya (*saniya* means cleanliness in the local language, Dioula).

### What is formative research?

Formative research is a pragmatic method of planning



work programmes. Researchers devise key questions that are specific to the community in which they are working, and use the answers to form a plan of action. Formative research has attributes that have made it a particularly useful component of water supply and sanitation (WSS) programmes:

- It is flexible and easily adapted to the needs of a particular community.
- It can provide possible solutions to problems within the limited timescale that is generally available to field workers.
- It enables solutions to arise out of the interaction between the needs of the target community and the knowledge of the field workers.

In the context of hygiene promotion, the diagram (see page 2) shows how the community members and hygiene workers can analyse key questions in order to design a work programme.

A standard method for carrying out formative research in a WSS context over a period of two to four months has been developed and published in a series of four manuals.<sup>1</sup> These manuals have been used worldwide over the last ten years, and the method has been tested and adapted successfully in many programmes.

### Description of the programme

Programme Saniya was carried out in Bobo-Dioulasso between August 1995 and July 1998. The programme was implemented by the Ministry of Health of Burkina Faso with technical assistance from the London School of Hygiene and Tropical Medicine (LSHTM) and funded by the United Nations Children's Fund (UNICEF). It aimed to promote a small number of safe hygiene practices, was based on the existing local motivation for hygiene, and used local channels of communication to reach the target groups.

### The target behavioural practices

The initial research showed that the incidence of diarrhoeal disease was more related to failure to dispose of children's excreta effectively, and failure to wash hands with soap after contact with excreta, than to water quality. So the programme focused on changing these specific practices.

### The target groups

The primary groups targeted for the intervention were mothers, older sisters and maids (young girls who help with housework), who are the principal carers of young children in Burkina Faso. However, the behaviour trials showed that school-aged children were also keen to participate, so a curriculum for primary schools was added to the programme. Secondary target groups were those people in the immediate social circle of the primary audience – for example, mothers-in-law, fathers and neighbours – who might influence the primary groups. The tertiary target group comprised opinion

leaders, decision makers and potential programme funders.

### Designing the messages

The content of the messages reflected the findings of the qualitative research, which suggested that mothers desired

hygiene, not for the sake of avoiding diarrhoea, but for aesthetic and social reasons. Messages were thus built around the respect they might gain from being hygienic, and the improvements gained in quality of life when excreta were removed and could therefore not be seen or smelt. Germ theory of disease did not figure in any of the messages addressed to the adults, although it did form a part of the hygiene curriculum for schools.



### Choosing effective communication channels

The programme used focus-group discussions and a small questionnaire survey to identify local channels of communication suitable for specific target groups. Although two-thirds of mothers regularly listened to local radio, the programme staff decided that face-to-face domestic visits would also be needed, because other people who cared for children had little exposure to any type of communication except word of mouth. Messages were also transmitted during a 'djandjoba' (social event with music and dancing), which provided a good environment for disseminating them.

### Components of the work

The programme was launched in August 1995 with a municipal ceremony, a mass clean-up of public spaces, and a phone-in on local radio. Subsequently six activities took place over the three years of the programme:

- Community volunteers conducted monthly domestic visits.
- Health staff were trained to add participatory discussions related to hygiene to their normal programme of health centre talks.
- A theatre group created a play that was performed weekly.
- A set of twelve radio spots was broadcast on three local radio stations.
- Teachers were trained and a curriculum devised for six hygiene lessons in primary schools.
- Schools received a starter box of soap and buckets to encourage children to wash their hands.

<sup>1</sup> Available through <http://www.unicef.org/programme/wes/pubs/hyg/hyg.html>

# Monitoring

## Monitoring included:

- Five project workers accompanied community volunteers in a rotating programme of home visits and reported on theatre activities.
  - Health centres completed forms that recorded their activities.
  - Volunteers listened to a specified sample of broadcasts from local radio stations.
  - Primary schools inspectors made visits to monitor progress.
- The results are summarised at the bottom of the page.

## Cost-effectiveness

A study of the cost-effectiveness of Programme Saniya compared the incidence of childhood diarrhoeal disease before and after the programme. Total and incremental costs of the programme were estimated retrospectively from the perspectives both of the Ministry of Health and of the households.

The total cost of the programme was US\$302,000 over three years, or about US\$0.30 per head of the population per year. An estimated 8,638 cases of diarrhoea, 864 out-patient consultations, 324 hospital referrals and 105 deaths were averted by the programme. Total savings associated with the programme (reduced medical costs, days of productive work lost) were greater than the costs at US\$394,000. The programme could be widely replicated at a lower cost,

through savings in the international research input and start-up costs. The programme was judged affordable at less than 0.001% of the annual health budget of Burkina Faso.

## Scale

Programme Saniya operated within one city in Burkina Faso. However, the basic principles can be applied to work at a larger scale. The most important aspects for scaling up successfully are to have enough qualified professional staff to carry out the analysis and programme design, and to use the published manuals to reduce the time and effort devoted to the research stage. Most of the activities, such as radio programmes or teacher training, are easily scaled up.



Village health meeting, Burkina Faso.

## Objectives versus results

Objectives	Results
• Increase the percentage of children (0-35 months of age) who defecated into a potty from 74% to 85%	• 82% of children observed used a potty
• Increase the proportion of occasions in which children's excreta were disposed of in a latrine from 80% to 90%	• Very little change and remained below the target of 90%
• Increase the proportion of occasions in which mothers washed their hands with soap after cleaning a child's bottom from 13% to 30%	• 31% of mothers were observed using soap after handling children's excreta
• Increase the proportion of occasions in which mothers used soap to wash their hands after using the latrine from 1% to 15%	• 17% of mothers washed their hands with soap after using the latrine

# ZimAHEAD's Community Health Clubs: institutionalising the process of behaviour change

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## Background

In the 1990s participatory approaches seemed to provide an ideal way to involve communities in hygiene improvement and hence to ensure the sustainability of projects. However, such approaches are costly in human resources and training, and convincing results are scarce.

In Zimbabwe, however, the ZimAHEAD programme has tried to show that participatory approaches can be cost-effective and sustainable. In 1994 ZimAHEAD developed the concept of structured participation via Community Health Clubs, using existing participatory methods but with a structured process and rigorous follow up. This programme builds capacity within communities through participatory training and also demonstrates effective action on the ground, which can be quantified and costed. It is still a comparatively new programme, but is demonstrating some initial positive results.

## Description of the programme

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### What is ZimAHEAD?

Zimbabwe Applied Health Education and Development (ZimAHEAD) is a Zimbabwean NGO that has pioneered an innovative methodology to mobilise rural people through the establishment of Community Health Clubs. A Community Health Club (CHC) is a voluntary community-based organisation formed to improve family health in each village. It is open to men and women of all ages, educational levels and religions, and ideally includes as many villagers as possible.

In 1994, the CHC concept was tried out in a small field study in which twelve clubs were established and monitored during six months of training in two wards of Makoni District, in Zimbabwe. The uptake was good and it was further expanded into a pilot project in 1996/97. In 1998 ZimAHEAD was founded to enable the approach to be implemented on a larger scale.

By 2000, the CHC approach had the potential to expand into a national programme. There were 350 clubs and over 20,000 beneficiaries in Z i m A H E A D project areas, and training was also being provided to other agencies to set up a further 150 clubs. However, the political situation in Zimbabwe deteriorated to such an extent that all major funding agencies felt obliged to withdraw governmental support. Meanwhile, the replicability of the approach is indicated by the fact that CHCs have also been established in a pilot project in rural areas of Sierra Leone.



### Conceptual framework of the ZimAHEAD hygiene promotion model

The following principles guide ZimAHEAD's CHC approach:

- Health education, hygiene promotion and advocacy should be integral components of an holistic approach to development.
- People respond positively when they clearly understand and direct their own change.
- Engendering a 'common unity' of purpose is a vital first element of community mobilisation.

The project involves retraining Ministry of Health Environmental Health Technicians (EHTs) in the CHC methodology and the use of Participatory Hygiene and Sanitation Transformation (PHAST) training materials. The CHC system is participatory by nature, and its structured programme enables behaviour change to be monitored and health awareness measured.

### Activities

ZimAHEAD's activities in a particular community evolve in four phases spread over four years.

- Phase 1: CHCs are formed and health knowledge is passed on to their members, who are likely to apply this knowledge practically in their homes, working with their families to improve their living conditions and general hygiene standards. Small inexpensive changes in the home might include installing hand-washing facilities, and any safe method of excreta disposal.

- Phase 2: The focus is on increasing the material output of the project, such as an appropriate water supply and means of safe sanitation.
- Phase 3: Economic skills for better income generation and financial management skills are developed.
- Phase 4: This stage includes both a literacy programme and a programme centred on taking care of the terminally ill in the society (for example AIDS patients).

### Monitoring and evaluation in ZimAHEAD

Monitoring and evaluation present problems in most community-based hygiene promotion programmes. It is often difficult to quantify either the health education being carried out or the change of behaviour. ZimAHEAD's programmes have been specifically designed to overcome some of these problems through:

- Giving membership cards to CHC members, which confer a sense of identity and help give structure to the monitoring process.
- Establishing a yearly estimate of health sessions held and average attendance via special forms that contain the topic covered and the number of members who attended each session.
- Assessing the quality of health education received by informal health quizzes and activities such as songs, drama, clean-home competitions and sport.
- Developing fifteen non-intrusive hygiene indicators which are used to compare behaviour change in CHC members with that in control groups.

### Cost-effectiveness

ZimAHEAD can estimate the cost of health awareness per beneficiary. For example in one district, for which costs were accurately recorded (the main costs being the acquisition, mileage and maintenance of motorcycles and daily allowances to augment the salary of the EHT), the total annual cost per member was US\$2.60. As improved practices of each member also affect the rest of the family, this number can be divided by five (the average family size in the population) to obtain an estimated annual cost per person of US\$0.52.

The social and economic aspects of the CHC approach aim to ensure the long-term financial sustainability of the clubs' activities, independent of NGOs and external support agencies, for example through income generation schemes and associated skills transfer.

## Particular points of interest

### Strong adherence to the CHCs

Members do not receive any pay or any other type of material incentives, but feel a strong sense of commitment to the clubs. This is derived from the social opportunities they offer, their function as a secure platform for change and the generation of new ideas, and the intellectual stimulus of the hygiene promotion sessions, which can be otherwise lacking within the rural communities.

### Positive results from the Clubs

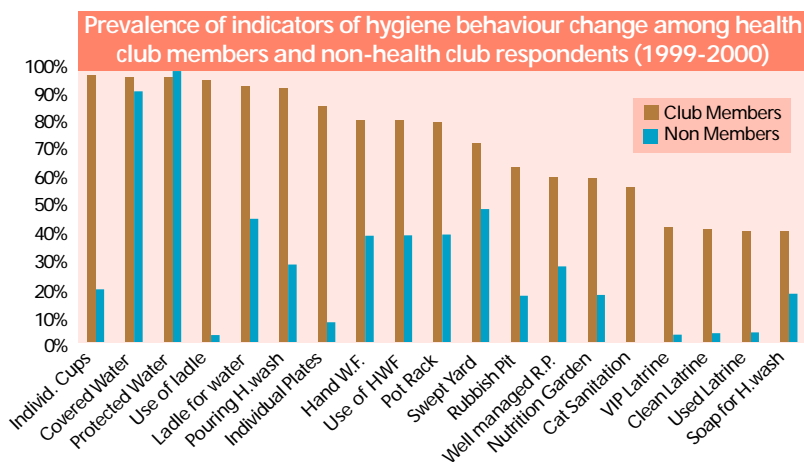
A programme of research, involving 1,125 respondents, was carried out in three districts in Zimbabwe to examine the achievements of randomly selected CHC members, compared to a control group in each district. The research measured improved health knowledge and positive hygiene behaviour change. The difference between the two groups was highly significant: the club members achieved 79% for prevalence of positive change for fifteen indicators, while the control group achieved only 38%. The figures present these results graphically.

Other positive results include:

- High demand for sanitation facilities from communities in which clubs were operating over the previous two years. For example, in the second half of 1999 ZimAHEAD club members constructed more than 2,500 latrines, approximately 30% of the total number of latrines constructed in the whole of Zimbabwe during the same period.
- Gaining recognition: among the thirty Ministry of Health EHTs who had initiated CHC projects, there was unanimous appreciation of the new methodology because it rationalised their workloads. The most encouraging indicator was that all three districts continued with this approach when project funding ended and ZimAHEAD ceased to support them directly.

### Structured process and appropriate follow up

ZimAHEAD designed and followed a structured process, which strongly emphasised participation of communities while also ensuring adequate quality control systems for monitoring and evaluation. This ensured that objectives were being achieved and sustained. The

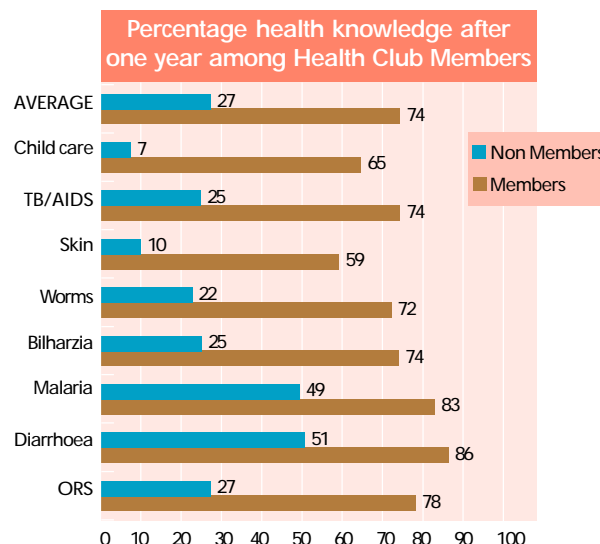


structure combined the flexibility and new ideas introduced by the NGO with the coverage and staffing available only through the government.

## Lessons from Programme Saniya and ZimAHEAD

The two programmes used different methods and different words to describe their work, but they both promoted hygiene through understanding and changing people's behaviour. A common set of lessons emerges from the two programmes:

- Hygiene promotion programmes should address behaviour change systematically and should focus on the changes that are needed. The key to changing behaviour is first to understand what drives and motivates it. This issue is far more complex than was once thought. Behaviour change is difficult to achieve and requires considerable resources.
- Communities are not passive recipients of hygiene education. They are active partners and should be consulted and involved in a systematic manner. Programmes that



conform to existing cultural patterns tend to be more successful than those that do not.

- Changes in hygiene behaviour are difficult to assess but structured observation using clearly defined criteria seems to give the most accurate results.
- Although quantifying behavioural changes and cost-effectiveness in hygiene programmes is extremely difficult,

### Comparison of various aspects of Programme Saniya and ZimAHEAD

	Programme Saniya	ZimAHEAD
<b>Approach</b> Both projects focused on changing hygiene practices sustainably through community mobilisation.	Used formative research to identify the target practices and establish effective communication channels.	Used Community Health Clubs as the basis for its participatory approach.
<b>Scale</b> These medium-scale programmes have yet to be scaled up to national level.	Operated at city level, but the techniques outlined in the manuals are felt to be operable at a larger scale.	Operated successfully at district level but the scaling up process was interrupted by political factors.
<b>Effectiveness</b> Importance of careful monitoring was stressed; results indicate success within frames of reference of both programmes.	Some reservations about cost and accuracy of monitoring hygiene practices. Not all targets were achieved, though improvement in each category.	Study showed that CHC members were superior to a control group in fifteen selected indicators of hygiene knowledge and behaviour.
<b>Cost</b> Both programmes sought to measure cost-effectiveness by quantifying processes; results indicate cost-effectiveness.	Cost was calculated at US\$0.30 per person per year. Quantified benefits were estimated to exceed total costs.	Cost was calculated (in one district study) at US\$0.52 per person per year.
<b>Sustainability</b> Both approaches aim to motivate communities to sustain change both socially and economically.	Some activities seem sustainable, such as the school curriculum; other activities have encountered motivational difficulties.	'Structured participation' leading to growth of development activities is seen as the basis for sustainability.
<b>Replicability</b> Aspects of both programmes lend themselves to replicability.	Through the toolkit of mini-manuals, the project could be widely replicated at a lower cost.	Programme works within rural African social structures, so should be replicable. CHCs have been established in Sierra Leone.

it can provide information which is vital to the structuring – and funding – of future programmes.

- The evidence of Programme Saniya and ZimAHEAD suggests that building such programmes to scale depends on several factors:
  - a) Tangible results emanating from a carefully constructed local pilot project
  - b) Community motivation based on perceived social and economic benefit
  - c) Integration of the programme with government health administration
  - d) Establishment of a committed NGO to direct the process of expansion

### Outstanding questions

- It may be difficult to identify which behaviours to target. While hand washing with soap is clearly one important practice to prevent disease, the relative importance of other domestic hygiene practices needs more investigation. For example, what should be the role of: the potty; child-friendly latrines; hand-washing stands; food preparation and storage; weaning food hygiene?
- Planners need evidence on which to base their decisions. This requires the professionals working in the sector to devise rigorous measures of impact.
- Both Programme Saniya and ZimAHEAD attempted to measure their cost-effectiveness; both seem to have achieved significant results at moderate cost. However, it is difficult to compare them with other, more conventional, hygiene promotion programmes because good cost-effectiveness data for other programmes are scarce. More rigorous analysis of costs from more programmes in more countries and contexts will allow a comparative picture to be built up.
- The responsiveness of the target community to different components of the programme is not easy to predict. Programme Saniya rejected a didactic approach, but ZimAHEAD found that CHC members responded positively to the academic stimulus of formal hygiene education.

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