



Developing and pre-testing research tools

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Research into the sustainability of hygiene promotion activities carried out several years earlier should not itself alter people's behaviour. This article describes the techniques that were chosen – focus group discussions, pocket voting and direct observation – to record people's hygiene behaviour, without altering it.

The tools described here were chosen to test hypotheses relating to the sustainability of hygiene behaviours in research carried out in Africa and Asia (for more details see the Bolt article and the Shordt and Cairncross article in this issue). For this we selected data collection methods to provide information that was:

- suitable to test the hypotheses
- as unbiased as possible
- would increase our insight and so improve future hygiene promotions.

We used non-participatory and participatory tools, which would produce both quantitative and qualitative information. The tools were developed over several stages: first design, pre-testing, adaptation, first round of data collection, assessment of data quality and adaptation, and use in second round of data collection.

Non-participatory data collection tools

These tools were meant to find out about the number of people performing a particular behaviour according to a set of criteria (for example, washing hands using soap, using at least one cup of water and rubbing hands in three different directions). The most commonly used research tool is a questionnaire. However, we felt that simply asking people by using a questionnaire would not always give us reliable information. People may give socially desirable answers, in particular when it concerns sensitive issues, such as the use of a latrine. Therefore we also developed observation checklists and demonstration protocols to obtain or cross-check information.

Observation. It is impossible to observe everything at the same time, so it is important that our observations

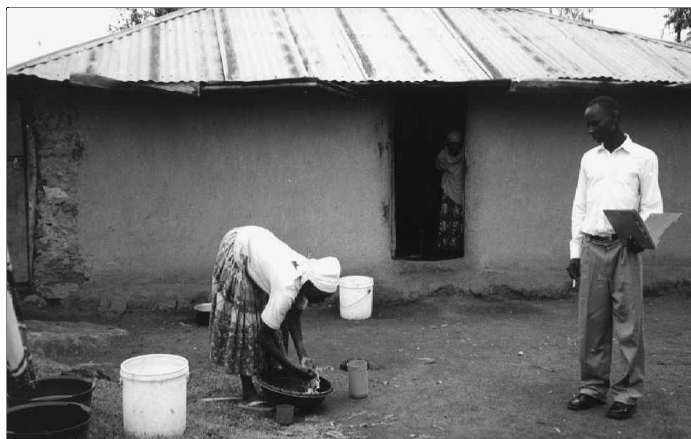
are 'focused' and 'structured'. By 'focused' we mean that the observations are strictly directed at what we want to know, learn and understand. By 'structured' we mean that the observation follows a fixed plan, so that things are observed in a thorough, efficient and unbiased way. Observation checklists were made to guide the data collectors for assessing issues such as latrine use and water storage.

Demonstration. Asking for a quick demonstration can also be useful, but clear protocols have to be developed in order to make sure people behave in an unbiased manner (see Figure 1).

Pocket voting. A chart made of cloth consists of a row of pockets beneath pictures showing places where people might defecate, e.g. forest, stream, open field, latrine.¹ In India, family members 'voted' their responses confidentially at home while the field workers carried out other tasks. The chart



Pocket voting exercise taking place in Kenya



An enumerator observes handwashing practice in Kenya

<p>Demonstration of handwashing, preferably by child or woman (Note: if child is not present, ask an adult woman if she would please demonstrate.)</p> <p>Child, could you please show me how you usually wash your hands?</p> <p>If yes, ask the child or woman to show this in the place where people usually wash their hands.</p> <p>➡ Ask others present not to correct the person or talk during the demonstration</p> <p>➡ Thank the person after completing the demonstration</p> <p>➡ Code this question afterwards, not in front of the family</p>		
	Yes	No
Is someone pouring water over the child's hands?		
Uses some cleaning agent? (e.g. soap, mud or ash)		
Rubs both hands together?		
Subtotal (no. of times 'yes')		

Figure 1 Demonstration protocol for handwashing, as used in Nepal

was carried from house to house, and the votes were counted later. Men, women and children used different coloured voting papers, so that the responses of these three groups (but not of individuals) could be analysed separately. This tool allows people to record their behaviour by voting anonymously, so the likelihood of getting correct answers is greater than when asking face to face.

Using this method in India, fewer people claimed to wash their hands with soap – almost certainly a more honest and accurate response than that obtained through direct questioning.

Participatory tools

Participatory tools are generally used for obtaining qualitative information. We used the Focus Group Discussion (FGD) and the Pocket Chart with discussion. We realized that the mere use of participatory tools is likely to stimulate and trigger behavioural change and can therefore be considered a hygiene promotion intervention in itself. In order not to disturb the results of our research into hygiene promotion, participatory tools were used only in the last round of data collection activity. This allowed us to obtain information about the motives for people's behaviour and at the same time may

have led to more awareness among the respondents about the usefulness of hygiene.

Focus Group Discussion. At the beginning of our research the FGD was used to test the usefulness of our hypotheses. For example, one hypothesis was that there was a relationship between handwashing practices and proximity to a water supply. Should an FGD have revealed that all households had equal access to water, the testing of this hypothesis would not have been useful. Because such FGDs may trigger behav-

ioural change and would therefore disturb the research, only people who were not part of the research study group were involved in these focus group discussions.

The other FGDs took place in the last round of data collection only. An FGD requires skilful moderation and the use of open questions (see Box 1).

Pocket voting. When used without discussing the outcome, pocket voting is not likely to stimulate behavioural change. However, when it was used in the second round of data collection the outcome was discussed with those who voted, and the tool became a participatory one. Using the pocket chart was a great success not only for obtaining data, but results were discussed immediately and related to realities. Even potential solutions were discussed.

Initial design

In the development of the data collection tools we were guided by the hypotheses we wanted to test. Initially we were inclined to collect far too much data, some of which would have been interesting, but not related to the hypotheses. Sometimes we wanted to ask questions, where systematic observation would probably have given more reliable data.

Pre-testing and adaptation

In Kenya, pre-testing of the tools revealed that the school health clubs

Box 1. A possible line of questioning for a FGD

I wonder if you all remember the hygiene campaign in this area?
What did you feel about that campaign:

- The people who led it?
- The way they behaved?
- The things they were urging you to do?

Do you think it changed what people did at all? In what ways?

What do you think affected whether people changed their behaviour:

- Were certain behaviours easier to change?
- Did certain groups of people change? Which?
- Why did some people continue in the old ways?
- If it had been done differently, would that have convinced more people?
- Do you think things were different in other villages?

Has anyone continued with the new behaviour until now?

- What has helped them to keep it up for so long?
- What do you think has led others to give up?
- If things had been done differently, what might have helped more people to continue?

were not functional. Hygiene promotion, especially on personal hygiene and cleaning of the school compounds, was dependent on duty rosters developed by the teachers. Our Kenyan colleagues therefore had to remove the questions on school health clubs. In India, we found that the observation checklist and the questions were good at generating the required data, but the pictures for the pocket voting needed to be redrawn.

Using the tools

The findings from the first round of data collection suggested new avenues of enquiry in the second round. In Nepal, when we tested the hypothesis that women's educational level had an impact on hygiene behaviour, we defined the cut-off point as 'having had five years of primary level education'. The first round of data collection revealed that only three out of 150 women had this level of education, so that testing the hypothesis as it stood was useless. We therefore changed the cut-off point into 'being literate through a few years of formal education or attending an adult literacy programme'. Likewise there was no point in testing a hypothesis about water availability and handwashing before eating, since handwashing before eating is customary and almost universally practised in Nepal. It appeared much more useful to find out about handwashing after handling children's faeces.

Conclusion

The purpose of the study was not to compare the effectiveness of hygiene promotion between countries, but to look at its effectiveness over time within countries. This allowed us to design our own study and to develop our own tools. We realized that the quality of the tools is one of the major determinants of the quality of the research data.

About the authors

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webwatch

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There are plenty of websites relating to improving hygiene behaviours and here are some of them.

- **NGO Forum for Drinking Water Supply and Sanitation**
NGO Forum's 'Community mobilizing activities' are targeted to ensure WatSan and hygiene promotion, community mobilization and capacity building to effect behavioural and attitudinal change in the community and among partners. The website outlines the different promotional and mass awareness activities and capacity building of these audiences.
www.ngo-forum.org
- **International Water and Sanitation Centre (IRC)**
IRC's thematic section on hygiene promotion features training events, an update on UNICEF/IRC's online resource centre on School Sanitation and Hygiene Education and a link to 'The sustainability of changes in hygiene behaviour' project described elsewhere in this edition of *Waterlines*.
www.irc.nl/projects/susthygb/
- **Sanitation Connection**
Prepared by the EHP project, the hygiene behaviour topic node of the Sanitation Connection web portal provides access to key documents and publications on the subject, many of them available in full text downloadable format. There are also descriptions and links to useful, relevant websites and mailing lists.
www.sanicon.net/titles/topicintro.php3?topicId=19
- **The Global Public-Private Partnership for Handwashing with Soap**
This is a global initiative to promote handwashing with soap to reduce diarrhoea. It aims to get private industry and the public sector working together to develop programmes to promote handwashing, open to all interested parties, targeting those most at risk through mass media, direct consumer contact and government channels of communication.
www.globalhandwashing.org
- **The SKAT Foundation Resource Centre for Development**
This resource centre promotes exchange of knowledge and experience in development co-operation. 'Health', 'Hygiene behaviour, education and promotion' are all featured as part of their '20 basic books' initiative.
www.skat-foundation.org/resources/downloads/htm/ws/20BB/20BB_health.htm
- **The International Institute for Environment and Development (IIED)**
The International Institute for Environment and Development (IIED) 'Drawers of water' page covers water-related infectious diseases, sanitation, hygiene behaviour and the determinants of diarrhoea.
www.iied.org/sarl/dow/summary/chapter9.html
- **EHP Environmental Health Project**
This searchable website allows access to 'The hygiene improvement framework' for diarrhoeal disease prevention, other EHP research and publications, news and related sites.
www.ehproject.org
- **WSSCC WASH Campaign**
The WSSCC site explains the history and the political and social imperatives behind the WASH Campaign. The range of information covers WASH-related activities, publications and advocacy materials.
www.wsscc.org/index2.cfm?CFID=6470&CFTOKEN=33118248
- **London School of Hygiene & Tropical Medicine**
Val Curtis is Senior Lecturer in Hygiene Promotion at the LSHTM. This site covers her current research on hygiene promotion, sanitation and washing with soap, and lists a range of publications on the subject.
www.lshtm.ac.uk/dcvbu/staff/valspage.htm
- **Wateraid UK**
This site features 13 case studies from each of the countries that WaterAid works in and each tells the account of a person or community whose lives have been changed by WaterAid's water, sanitation and hygiene education projects.
www.wateraid.org.uk

Compiled by Julie Fisher, Water, Engineering and Development Centre, UK.