



## Water in the house - women's work

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IT HAS BEEN a struggle of the past three decades to promote the involvement of women in decision-making in rural water supply. This may have now reached a stage where paradoxically more emphasis needs to be placed on men's roles. A quiet revolution is taking place, in that men are becoming more prepared to assist in water collection, and this needs to be brought out, so that others can see that it is increasingly normal behaviour, and does not have to lead to loss of dignity, or ridicule. The role of women in decision-making still needs to be promoted, but this should not be so laboured that men feel they have no role to play and no responsibility.

In practical terms, this paper also looks at how effective women in rural Zambia are being in providing safe and adequate water in the house, and in promoting good personal hygiene within the family. Information is based on data collected during base-line surveys in smaller poorer communities which mostly still use traditional water sources. It indicates that in hygiene education in the areas studied, that more emphasis might be put on water storage capacity and children's hand washing, and less on water collection and storage practice

### Water collection

Water utilisation studies carried out in the mid-1980's in Western Province, Zambia, and repeated in some of the same communities during the last two years tend to show a significant increase in the amounts of water carried by men and older boys. This has not really affected the amounts carried by girls, but has led to a significant reduction in the amount carried by women (from two-thirds to less than half of all water consumed in the house). A similar pattern of water collection has also been observed in a larger number of communities in other parts of the country, where collection by men is now observed quite frequently.

The main reasons for this may relate less to an overall change of attitude of men to work previously regarded as

the female domain, and more to the change in the type of containers used for water collection. Men generally regard it as a great loss of dignity to carry loads on their heads, while women find this the least onerous way to do so. In the past water was mainly transported in open bowls and buckets. These are very difficult to carry without water slopping out on the way, and carriage on the head, combined with the use of leaves or plastic bags floating on the surface was the normal method of transport. This could only easily be done by women.

The advent of plastic jerrycans has meant that containers can be closed, and have handles for easy carriage. They can be stacked on carts, perched on bicycles, heaved into wheelbarrows, balanced on donkeys and even piled into car boots. The result has been that trips to collect water can now involve features of the household which are the men's preserve. At the same time many sources which required wading in water, or scooping from holes surrounded by mud, have now been replaced or improved so that access to water may no longer be the physical challenge that it previously was. The loss of dignity which was associated with water collection has therefore been reduced.

A survey of those who don't collect water suggests that a change has occurred. After about 25 years of age, the proportion of men who say they won't/ don't carry water appears to double. However traditionally males did not carry out such task from about 15 years old. At this age women could no longer tell what were then 'young men' to help with household chores. There seems therefore to have been a change in attitude in the last ten years. As Table 1 shows women and girls are still the main carriers, but the contribution of men and boys has doubled and now constitutes a third, rather than a sixth.

The change in container types is also leading to a reduction in the number of trips to provide the same amount of water in the house.

**Table 1. Western province - percentage water by volume collected by:-**

	No. of villages	Girls	Boys	Women	Men
Average 1990	12	21%	10%	63%	6%
Average 2001	11	20%	16%	48%	16%

## Water storage and treatment

In the house, the amount of water used depends very much on the volume of storage available. Men and women may decide together on what is needed for the house, but the man will take the ultimate decision, and carry out any purchase. A study of water collection and storage in 270 households found that 40% felt that they would have liked to be able to store water for longer, but it was used quickly because storage capacity was inadequate. There was a significant correlation between storage capacity and amount of water used per household, suggesting that discussions on promotion of more storage containers could lead to greater water use. There was no correlation with distance to water, but less than 5% of households used water sources which were more than a kilometre away.

For drinking, most regarded short water storage as providing better water quality than longer, as they felt water went stale, and less than a quarter like to store water overnight. Thus bacterial die-off is generally limited. Despite this, it would seem that the way water is collected and stored, and the overall domestic hygiene means that water is very seldom badly contaminated between the source and consumption in the house (see Fig 1). Less than 5% are badly contaminated and more than half are the same or better than the water in the source.

Despite this pattern, hygiene promotion at present tends to put much emphasis on household water quality, and good water collection and storage practices, on the assumption that they are poor. Certainly in the two provinces for which data at present exists, it is apparent that this is not so, and that in any discussion of such issues, the dominance

of good existing practices should be able to influence the minority at risk, just using the experience of the women who set household standards in this respect, and without resorting to explanations and theorising from outsiders.

The prevailing water quality in houses also tends to justify the lack of treatment of drinking water. At most, people leave it to settle, in a belief that bacteria sink to the bottom. Only one in sixty households ever boils water in Western Province, although in cholera prone areas of Luapula, boiling water or standing it for protracted periods is more common (25% of households) suggesting that health education has had an impact.

It is normally the responsibility of the wife to keep the house and children in a way that people will admire. Judgement of the status and well-being of a house are said to be made largely on the basis of how clean the house, its surroundings and the children are. Women's tasks also include keeping the latrine clean, heating bathing water for the husband, and pouring hand washing water for him in the few houses (less than 6%) where this method is practised. Very few people out of 270 households interviewed, made any link between personal cleanliness and incidence of diarrhoeal disease, most blaming bad water and bad food, or too many vegetables, but not linking disease to dirt or faecal contamination. There therefore seems still to be considerable scope for improving the understanding of faecal-oral routes of transmission.

However the 'marketing' message might also link more to pride in a well-kept house and the poor image projected by lack of hygiene, in 'Model' can set the example.

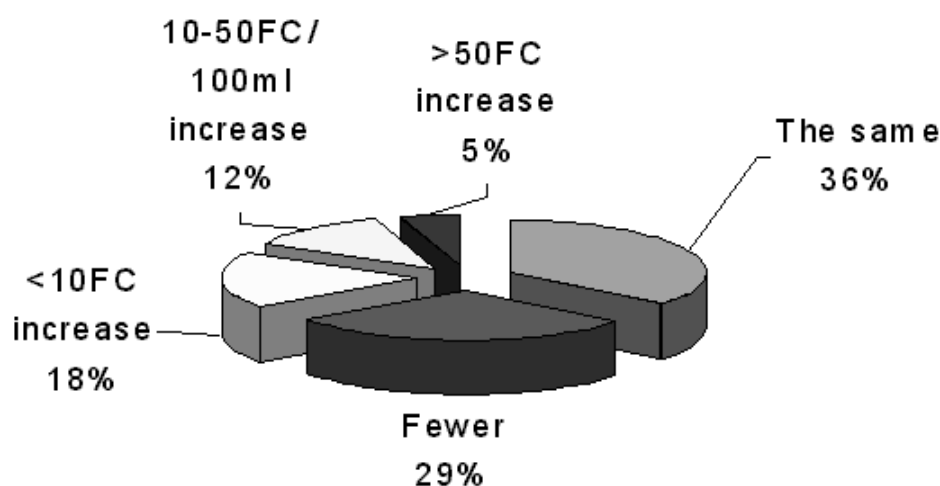


Figure 1. Faecal coliform in household water compared with source water

## Hygiene

### Handwashing

Men are more likely to wash their hands when they see dirt on them as they return from the fields, than they are after defecating when hands may look clean. People are reluctant to wash hands with soap before eating as it affects the taste, and only use soap afterwards if they need to get rid of a strong smell from oily or fishy food. It could be that the strong smell (for instance of fish), even when there is no longer visible sign food on the hands, could be used to illustrate that bacteria are as invisible as the particles causing a fishy smell, but just as real.

Education on hand-washing has been received by most (75-80%), particularly women, as they are most often present at hygiene promotion sessions in the village and at the rural health centre. They are aware that they have not passed this on to their children. Fig 2 shows that few children wash their hands on a regular basis according to discussions within 270 households. Women say that they tend to use soap when they bathe, but usually after they have finished washing, when they apply soap as a moisturiser and for its clean smell.

Since children are the group with greatest vulnerability and the highest risk of contamination, an improvement in their handwashing would seem a priority. However they are not likely to respond to messages such as the joys of fresh-smelling soap and skin conditioning which may be

used for adults. Alternative messages need to be explored, and health risks alone appear unlikely to influence the majority.

## Conclusions

While women are the arbiters of good hygiene practice, they have tend to be much more successful at exhibiting good practice in water collection and storage than they have been in establishing good hand-washing practice. This may be because the messages used to try and change behaviour do not relate well to the reasoning of those few people who are already (hand) washing with soap on a regular basis.

Increasing access to water in the house, and reducing the burden on women can be achieved not just by bringing sources closer to the house, but also by encouraging a) men to collect water more often, and b) by increasing available household-level storage. Whilst water collection is still 'women's work' the promotion of their involvement in decision-making should not be done in such a way that men are discouraged from what is, at present, their increasing contribution to the accessibility of water in the house.

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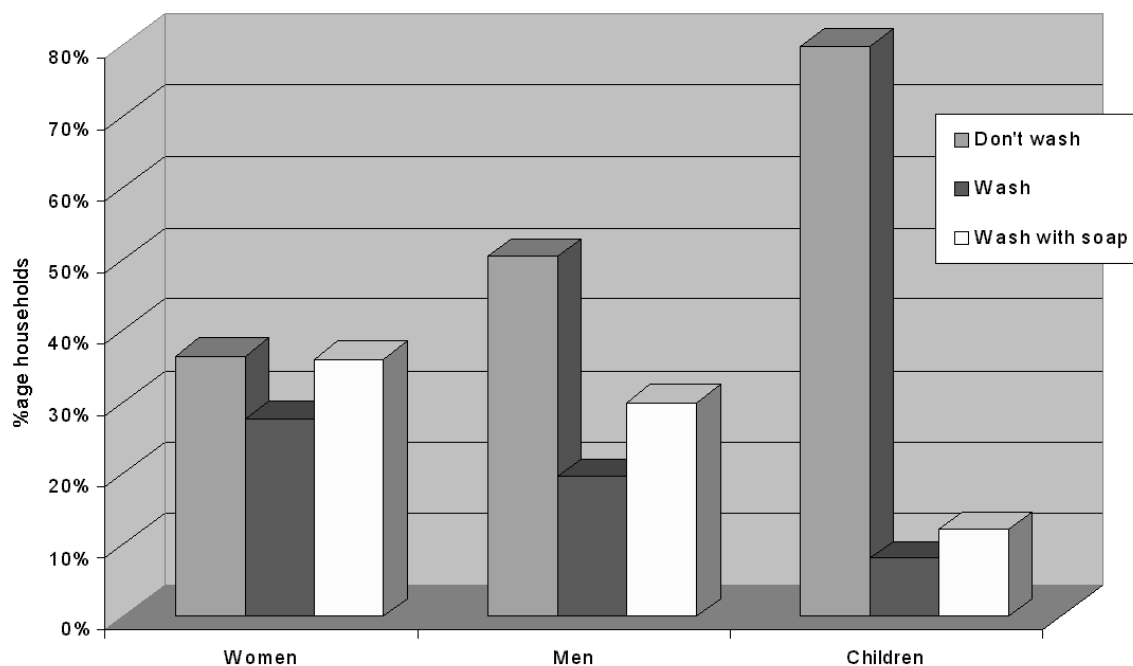


Figure 2. Handwashing after toilet

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**Acknowledgements.**

The work of the Community Education and Participation group, Mongu is gratefully acknowledged, as is the baseline survey work carried out by EHTs in five districts.

This document is an output from a project funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID.

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