LATRINE USE IN RURAL SARAWAK, MALAYSIA

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Abstract. A cross-sectional survey covering 976 households in 41 rural villages covered by the Rural Health Improvement Scheme in Sarawak was carried out to determine the type of latrines they have and their usage of pourflush latrines. The survey was carried out by inspection and interview.

Fifty-six percent of the households had pourflush latrines and upon inspection 91.3% of them showed signs of recent use. Based on the interview, ninety percent of the women responded that they always use the latrine for defecation. It was also reported that 86.5% of the husbands and 47.6% of the children below five years, always used the latrine for defecation.

The most common reason for not using the latrine among adults was the lack of water to flush the latrines as well as not being home when the need arises. The reason for using the latrines were to keep the compound clean, convenience and health reasons.

It is recommended that building latrines continue to be a prerequisite for getting water supply under the program and that non health-related reasons be emphasized in health education which aim to motivate people to build and use the latrines.

INTRODUCTION

The Sarawak Medical Department has been providing water supply and sanitation to the rural areas since 1967 (Chen, 1982). Up to 1987, 3,326 villages had benefitted from the program. Sixty-six percent of them have gravity feed, 19.3% have rain water tanks, 9.7% have dug wells, 4% have mechanical pumps and 1% have hydraulic rams. In the case of gravity feed and mechanical pumps a tap outlet is provided for each household. For rain water tanks 360 gallon or 400 gallon tanks are provided to each household. The Department guideline is that a household or village complete the building of its latrines before any water supply will be provided to the villagers.

In the initial stages of the program pit latrines were recommended, with the Department supplying the cement slabs that were to be placed above the pits. Later on pourflush latrines were recommended. The Department provided the plastic latrine bowl, six-inch diameter polyvinyl chloride downpipe and one-half bag of cement. The villagers provided the materials for the superstructure and the labor for digging the pits and installation of the latrines. The installation is done under the supervision of a Rural Health Supervisor.

Since the latrines are prerequisites for getting water supply (which is the villager's primary interest) there is concern that the villagers built the latrines merely to fulfill the conditions for getting the water supply, without any intention of using them later on.

As part of a survey of the functioning, utilization and impact of rural water supply and sanitation in Sarawak it was decided to survey the coverage and usage of the latrines as well as to determine the reasons for not using the latrine as well as the reasons for using the latrines.

MATERIAL AND METHODS

The cross-sectional survey was done in Sarawak, Malaysia between August 1989 and December 1989. It was based on stratified cluster sampling and only villages in the rural areas which had water supply and sanitation were included in the frame. Of the 3,326 villages, 41 were selected; they were distributed over 13 of the 25 Districts in the

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Table 1

Percentage of household members who used the latrine for defecation by religion.

Household members and frequency of latrine use	Non Muslims	Muslims	Total
Woman	(n=411)	(n=98)	(n=509)
Never	1.2	0.0	1.0
Sometimes	11.4	0.0	9.2
Always	87.4	100.0	89.8
Husband*	(n=351)	(n=80)	(n=431)
Never	1.7	1.6	1.4
Sometimes	14.5	1.6	12.1
Always	83.8	97.4	86.5
Children			
(<5 years)+	(n=228)	(n=47)	(n=275)
Never	29.0	38.3	30.6
Sometimes	25.4	4.3	21.8
Always	45.6	57.5	47.6

* Only in households that had pourflush latrines and the woman interviewed had a husband.
\+ Only in households that had pourflush latrines and had at least one child below five years.

State. Inspection was done in each household in the villages selected to determine the presence of pourflush latrine, its condition and signs of recent use (*eg*, stains in latrine bowls). A total of 976 households were inspected.

Further information regarding latrine use and reasons for use and non-use were obtained by interviewing an adult female (18 years old and above) in the household. Eight-hundred-and-thirty-five households were interviewed. Households which were closed at the time of the survey and households where there was no adult female were excluded from the interview. Twenty-five percent of the respondents had no formal education, 47.8% had one to six years of schooling and the remainder had seven to 13 years of schooling.

The survey was limited to pourflush latrine because it is the recommended latrine.

RESULTS

In the 976 households that were inspected 549 (56.2%) had pourflush latrines, 2.8% had pit latrines, 11.3% had 'hanging' latrines (so called because they overhang rivers and streams) and the remaining 29.7% had no latrine. Thirty-four percent of the pourflush latrines were in the house; the remainder were outside. Ninety percent of the pourflush latrines were good while the remainder had bowls which were broken at the rim or inside the bowl or had no water seal. Based on inspection, 91.3% of the latrines showed signs of recent use.

Ninety percent of the women interviewed in households with pourflush latrines responded that they always use the latrines for defecation. It was also reported that 86.5% of the husbands always use the latrine for defecation and that 47.6% of children below five years always use the latrine for defecation (Table 1).

Latrine use varied with religion. For example, all the Muslim respondents reported using the latrine always, compared with 87.4% of the non Muslim respondents.

Among the women, latrine use increased with the level of education. Eighty-two percent of those with no formal education reported always using the latrine compared to 92.3% among those with seven or more years of schooling (Table 2). The percentage of latrine use among the women did not vary with their ages or type of water supply available.

Table 2

Frequency and percentage of latrine use among women* by educational level.

Latrine use	No formal education	1-6 years of school	7-13 years of school
Never	2.3	0.6	0.0
Sometimes	16.0	8.3	7.7
Always	81.7	91.1	92.3
Total	100.0	100.0	100.0

* Only in households that had pourflush latrines.

The most common reasons for not always using the latrine among adults were: (1) the lack of water needed to flush the latrine after use and (2) they were not at home (*eg* they were in the farms) when they needed to use the latrines. Among children the main reason for not always using the latrine was that they were too small to do so.

Among those women who always used the latrine for defecation the reasons for them doing so were : (1) to keep the compound clean (55.3%), (2) the latrines were convenient to use obviating the need to look for a place (16.2%), (3) the latrines were near (9.5%), (4) to keep the compound from being smelly (5.6%) and (5) to prevent the spread of illness (2.4%).

DISCUSSION

This survey showed that among those households which had pourflush latrines the villagers did use the latrine and not just because it is a prerequisite for getting water supply. Nonetheless it is good to continue with this requirement because it is the water supply in which the villagers are primarily interested and if the latrines were not mandatory the coverage may be lower.

The percentage of women using the latrine was similar to that in South Indian settlements (Hebert, 1985).

Since one of the reasons for not using the latrines was the lack of water to flush the latrines, it is possible that having one additional outlet tap near the latrine may increase the latrine use, at least in villages with gravity feed and mechanical pumps.

It may not be practical to supply latrines at the farm sites because most of villagers practise shifting cultivation and the farm sites vary from year to year.

It is noted that health reason is last in the list of reasons given by the women for using the latrine. This is similar to what Solomons (1978) noted, namely: that 'people may, indeed, use latrines but that health related reasons may appear well down the list after privacy, status...'. This has implications for health education where health reasons are used as the prime one to motivate people to use latrines. Perhaps it would be more effective if the other reasons given by the women in this survey were used to motivate the others to build and use the latrines.

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