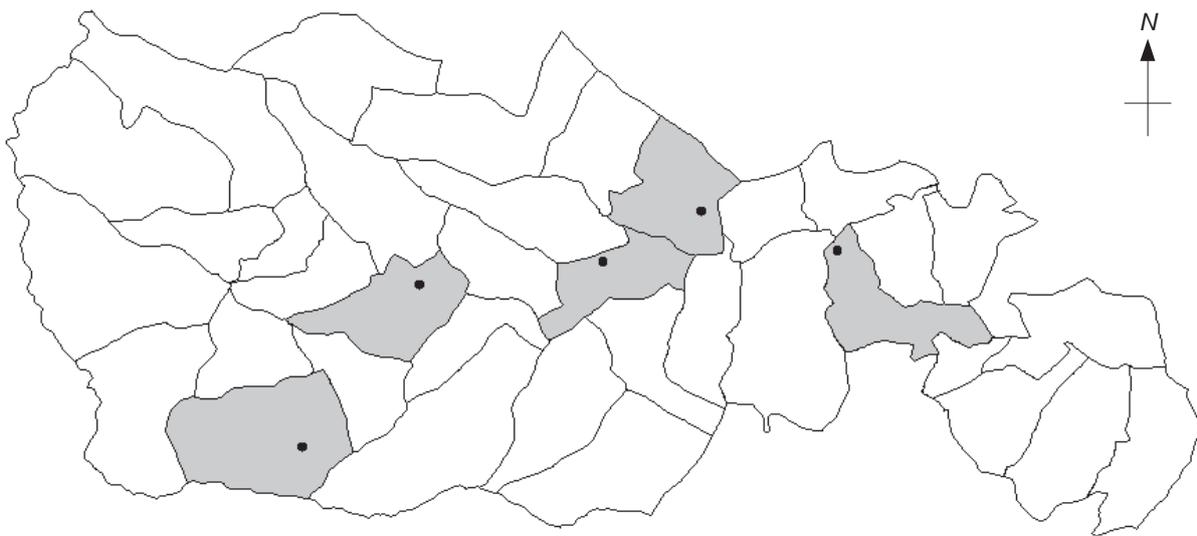


Case Study: Sampling without Maps or Lists

This case study describes how a likelihood survey sample was taken in a SQUEAC assessment when neither maps nor useful village lists were available. A similar method could also be used for a SLEAC survey.

Figure 84 shows the most detailed map of the program area that was available at the time of the assessment. The map showed only district and sub-district boundaries. The shaded areas on the map represent the sub-districts in which the CMAM program was active. The filled circles on the map represent the approximate locations of CMAM clinic sites.

Figure 84. The most 'detailed' map available



Attempts to take a systematic sample of villages using an official list of villages in each sub-district proved difficult because administrative boundaries, the names of administrative areas, and the official names of villages had been subject to frequent change as the result of ongoing government reorganisation. It was found that a large number of villages had official names that were different from their everyday 'folk names' and were not recognised by residents. Village names recorded on patient records cards often did not match official village names.

After spending 2 days trying to find villages using official names the assessment team decided that they needed to create their own list of villages. Interviews with program outreach workers validated by informal group discussions in markets, guesthouses, 'tearooms', and at CMAM clinic sites indicated that the 'parish' (i.e., the catchment area of a named church) was a stable areal designator that was readily recognisable by the entire population regardless of their religion. Key informants (program outreach workers, priests, council leaders, and agricultural extension workers) were asked to list the parishes in their home sub-district. They were then asked to list the villages belonging to each of the listed parishes. A second list was made using different key informants. The two lists were compared and discrepancies resolved with the assistance of a third, fourth, or fifth key informant. The list was then (partially) checked for completeness by checking that all of the village names recorded on patient records cards were also present in the list. This process resulted in a list of villages in each sub-district stratified by parish and validated by triangulation by source and method.

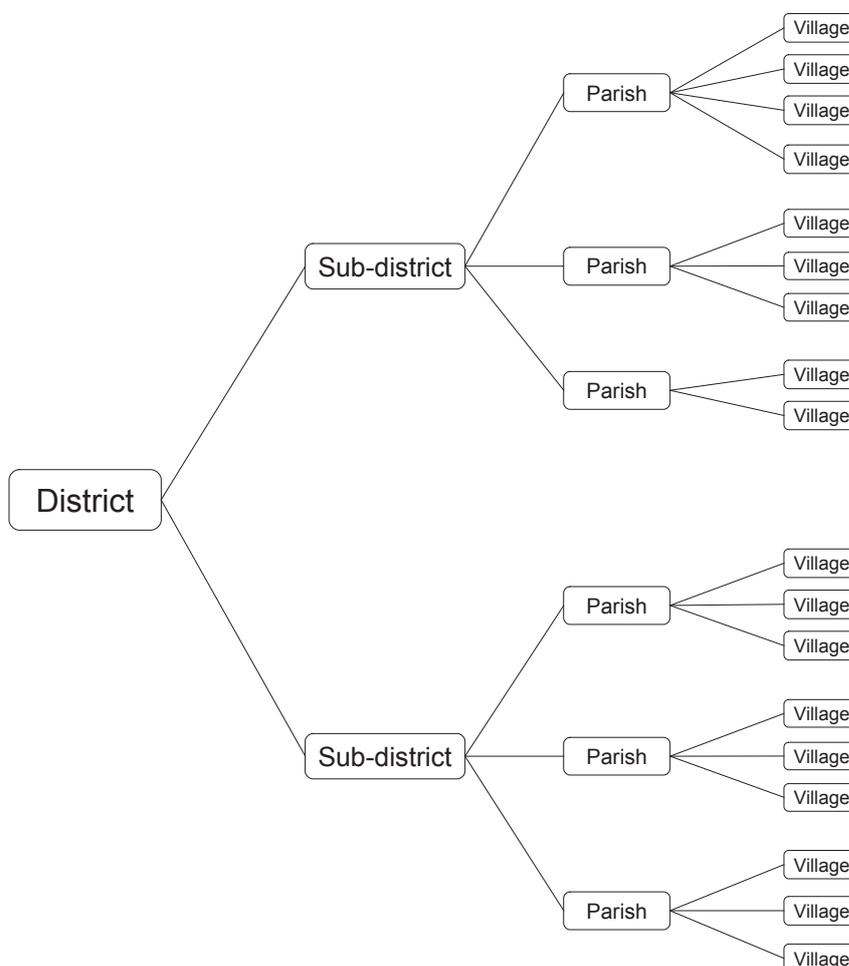
A systematic sample was selected from this list:

- It was calculated that a sample of 40 villages was required.
- The list of villages was sorted by sub-district and parish (see **Figure 85**).
- There were 218 villages in the list, so a sampling interval of:

$$\text{Sampling interval} = \left\lfloor \frac{218}{40} \right\rfloor = \lfloor 5.45 \rfloor = 5$$

was used. A random starting position of 2 (selected using `=RANDBETWEEN(1, 5)` in a Microsoft Excel spreadsheet) was used. This led to a systematic sample of 44 villages being selected.

Figure 85. The list of villages was sorted by sub-district and parish



The selected villages were sampled using house-to-house screening. House-to-house screening was used because it was the case-finding method used by program outreach workers and each survey team contained at least one program outreach worker who could share their experience with other members of the team. The adoption of house-to-house screening reduced training overheads and saved the time and effort required to develop and test an adaptive and active case-finding procedure.

Villages close to a market town were not visited on the market day. Also, sampling did not take place on days when CMAM sessions were held at the local CMAM clinic site.

The use of parish as the areal designator proved easy to use in the field. Teams started by finding the parish church and were then directed to the villages selected for sampling by the parish priest or another church official.

Additional validation of the within-parish lists of villages with the parish priest or church official revealed very few errors. An additional seven small villages were identified (i.e., the list was estimated to be about 97% complete). These additional villages were not sampled.

The process of creating the list in each sub-district took 1 day. The process of creating the complete list, selecting the sample, and planning the fieldwork took 4 days.