

# A brief introduction to the CSAS coverage survey method

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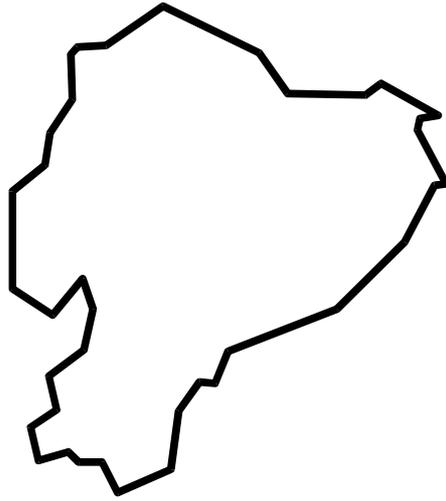
Version 1.00 • July 2006



## Overview

The traditional way of estimating program coverage is to use a two-stage cluster sampled survey. This method can only provide a single coverage estimate for an entire program area. This is a major weakness because identifying areas with poor coverage is essential for improving program coverage and, hence, program impact.

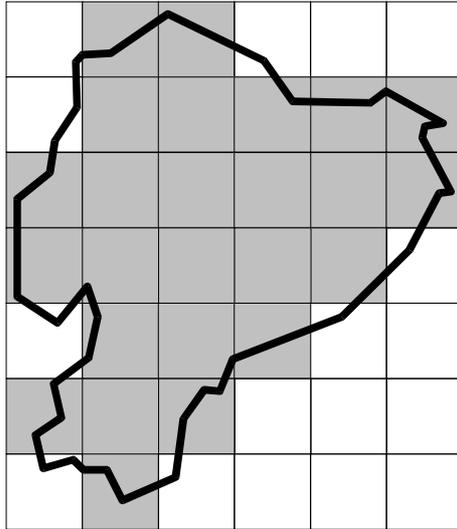
This article gives a brief overview of the coverage method developed for the *community therapeutic care* research program. This new method allows you to estimate coverage in the usual way but also allows you to identify areas with poor coverage within a program area.



### **Step 1 : Find a map**

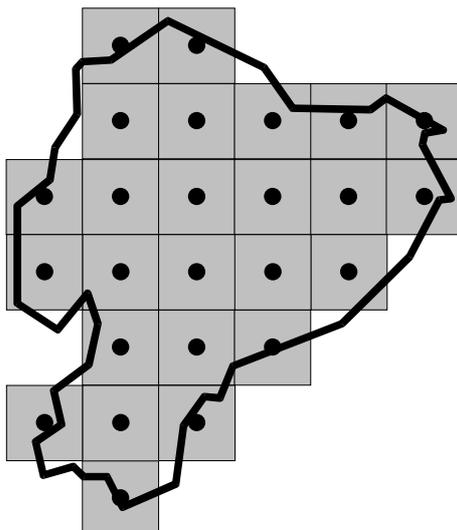
The first step in the new coverage estimation method is to find a map of the program area. Try to find a map showing the location of town and villages. A map of 1:50,000 scale is ideal.





### **Step 3 : Select the squares to sample**

Select the squares with about 50% or more of their area inside the program area.



#### **Step 4 : Select the communities to sample**

Select the community closest to the centre of each square. If prevalence is low then you might need to select more than one community from each square. Select the communities closest to the centre of each square. Select the communities to be sampled and the order in which they should be sampled *in advance* of visiting the square.



## Step 5 : Case-finding

When you visit a community find cases using an *active case-finding* method. It is usually sufficient to ask community health workers, traditional birth attendants, traditional healers or other key informants to take you to see “children who are sick, thin, or have swollen legs or feet” and then ask mothers of confirmed cases to help you find more cases. You could also use door-to-door screening. It is important that the case-finding method that you use finds all, or nearly all, cases in the sampled communities. Each case is confirmed by applying the program's entry criteria (e.g.  $< 70\%$  of the median weight-for-height from the NCHS reference population and / or bilateral pitting oedema). When you find a confirmed case you should then find out whether that child is in the program. Remember to follow-up on children reported to be in a therapeutic feeding centre or at a distribution point on the day of the survey.

X	Y	Cases	Covered
1	2		
1	4		
1	5		
2	1		
2	2		
2	3		
2	4		
2	5		
2	6		
2	7		
3	2		
3	3		

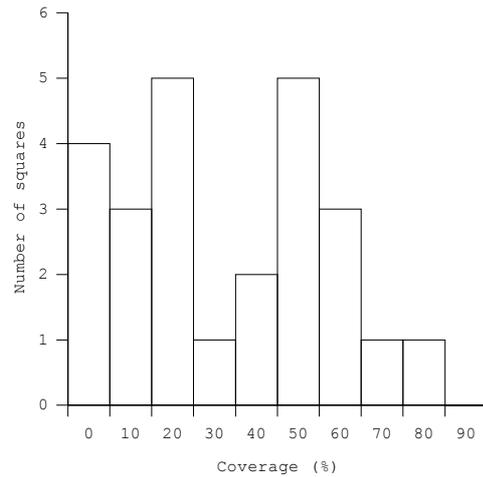
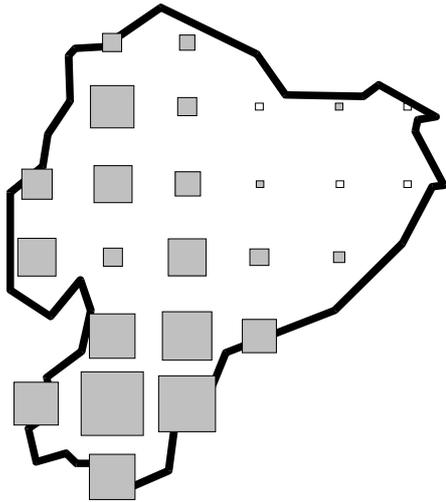
### Step 6 : Record the data

You need only record the number of cases found and the number of those that are in the program for *each* sampled square.



### **Step 7 : Calculate coverage**

Coverage is calculated as the number of cases that you found that are in the program divided by the number of cases that you found. You should calculate this separately for each square as well as for all of the squares together. You could use a weighted method to calculate the coverage for all of the squares combined but this is not essential.



## Step 8 : Plot the data

Coverage data is plotted as a *mesh map* and as a histogram. The length of the sides of the filled squares on the mesh map reflects the level of coverage found in each square (calculated in step 7). The small open squares indicate quadrats with zero coverage. You might find it helpful to mark the location of feeding centres, distribution points, health posts, and roads on the map. This will help you interpret the results of the coverage survey.