Steps in Mapping and Household Listing

The household listing operation involves three main steps: locating each cluster, preparing the location and sketch maps of each cluster, and the listing all households found in each cluster. In some cases, segmentation is required, which is described later in this module.

Step 1: Locating the Cluster

Upon arrival in a cluster, the team should first tour the cluster to identify its boundaries and create the location map of the cluster (described below). This should be done with the assistance of the local authorities where the cluster is located. During this first tour of the cluster, the listing team should determine an efficient route of travel for listing all structures in the cluster.

In most cases, the cluster boundaries are recognizable natural features such as streams or rivers, or features such as roads or railroads. However, in some cases such as in rural areas where the cluster boundaries may not be marked with visible features, particular attention should be paid to the information provided on the base map. In such cases, assistance from local authorities will be particularly helpful.

Following the identification of the cluster boundaries, the listing team will tour the cluster a second time to create the listing and draw the sketch map of the cluster. A sketch map is a detailed map of the cluster showing all its structures and features such as roads.

Step 2: Preparing Location and Sketch Maps

The mapping of the cluster and the listing of the households should be done in a systematic manner so that there are no omissions or duplications. The cluster should be divided into parts if possible, and a part can be a block of structures. The team should finish each block before going to the adjacent one. Within each block, start at one corner of the block and move clockwise around the block. In rural areas where structures are found in small groups, the team should work in one group at a time. In each group, start from the centre and move clockwise around it.

Location map

During the first tour of the cluster, using the Cluster Information Form, the mapper will:

- 1. First enter the identification information of the cluster. This information is provided by the supervisor.
- 2. Using page 1, the mapper will then prepare a location map of the cluster. This involves drawing a map that shows the location of the cluster along with its boundaries and the boundaries of the parts that comprise the cluster. This location map should include all instructions on how to get to the cluster and any information that can be used to find the cluster and its boundaries.

Sketch map

During the second tour of the cluster, using page 2 of the Cluster Information Form, the mapper will draw a sketch map of all structures found in the cluster as follows:

- 1. Marking the starting point with a large 'X', identify on the map each structure by a small square at the spot where it is located in the cluster. Non-residential structures should be identified by their use (e.g. school, shop, or factory).
- 2. Number all structures in sequential order beginning with "1". Whenever there is a break in the numbering of structures (e.g. when moving from one block to another), use an arrow to indicate how the numbers proceed from one set of structures to another. Although it may be

- difficult to pinpoint the exact location of the structure on the map, even an approximate location is useful for finding the structure in the future.
- 3. Add to the sketch map landmarks, public buildings (e.g. park, school, or temple) and streets or roads. Sometimes it is useful to add to the sketch map landmarks that are found outside the cluster boundaries, if they are helpful in identifying other structures inside the cluster. Symbols that are usually used are shown below.
 - 4. With permission, use the marker to write on the door or frame of the entrance to the structure the number that has been assigned to the structure on the sketch map. Note that this is the serial number of the structure that will be assigned on the household listing form. In order to distinguish the micronutrient (MN) survey number from other numbers that may exist already on the door/frame of the structure, write MN in front of the structure number, for example MN/60 for structure number 60.
 - 5. Ensure that all of the structures within the cluster boundaries are covered.

The listing team should be careful to locate hidden structures. In some areas, structures have been built so haphazardly that they can easily be missed. If there is a pathway leading from the listed structure, check to see if the pathway goes to another structure. People living in the area may help in identifying any hidden structures.

Step 3: Listing of Households

Using the Household Listing Form, the Lister will record all structures and households found in the cluster as follows:

- 1. Begin by entering the identification information of the cluster.
- 2. Leave blank the first two columns which are reserved for office use.
- 3. **Column (1)** [Serial Number of Structure]: Record for each structure the same structure serial number that the mapper enters on the sketch map.
- 4. **Column (2)** [Address/description of structure]: Provide the street address of the structure or any description of the structure that helps to locate it.
- 5. **Column (3)** [Residence (Yes/No)]: Indicate whether the structure is used for residential purposes (eating and sleeping) by circling **Y** for "Yes". In cases where a structure is used for commercial or other purposes, circle **N** for "No". Structures used for both residential and commercial purposes (for example a combination of store and home), should be classified as residential (i.e. circle **Y** in column 3). Make sure to list any dwelling unit found in a non-residential structure (for example, a guard living inside a factory or in a church).

All structures must be listed, including vacant structures and structures under construction, as well as structures where the household members refuse to co-operate, or are not at home at the time of listing.

- 6. **Column (4)** [Serial Number of Household in the structure]: This is the serial number assigned to each household found in the structure. There can be more than one household in a structure. The first household in the structure will always have number "01". If there is a second household in the structure, then this household should be recorded on the next line, and "02" is recorded in column 4. If the structure is an apartment building, assign one serial number to the entire structure (only one square with one number appears on the sketch map), but complete columns 4 through 7 for each apartment in the building individually.
- 7. **Column (5)** [Name of the Head of Household]: Write the name of the head of the household. There can only be one head per household.

- 8. **Column (6)** [Households with children under 5]: Indicate whether the household includes children under age 5. Note that this column is optional and is used when households with children under 5 are to be oversampled such as in countries with low fertility rates. The column should be deleted if not applicable.
- 9. **Column (7)** [Status of dwelling]: Circle "1" if occupied. If a dwelling is unoccupied, observations or information from neighbours will advise the appropriate code to circle. Under special circumstances where an unoccupied dwelling cannot be classified as vacant "2" or with the household temporarily absent "3", "Other" should be circled and accompanied by the specifics of the situation in column (8).
- 10. *Column (8)* [Observations]: Record any special information about the household or structure (e.g. non-residential structure, under construction, or household refusal).

Adapted from UNICEF MICS5 mapping and listing manual http://mics.unicef.org/tools

Symbols for Mapping and Listing

Orientation to the North	$\hat{\Psi}$
Boundaries of the cluster	~~~~
Paved road	
Unpaved (dirt) road	
Footpath	
River, creek, etc.	~~~
Bridge	=
Lake, pond, etc.	
Mountains, hills	
Water point (wells, fountain, etc.)	Ø
Market	M
School	S
Administrative structure	AB
Church, temple	\Box
Mosque	ightharpoons
Cemetery	
Residential structure	

Non-residential structure	2 22
Vacant structure	∇
Hospital, clinic, etc.	+
Electric pole	十
Tree or bush	\mathfrak{Q}

From: ICF International. 2012. *Demographic and Health Survey Sampling and Household Listing Manual*. MEASURE DHS, Calverton, Maryland, U.S.A.: ICF International

Segmentation Form

PSU number:			
	TOTAL APPROXIMATE NUMBER OF DWELLINGS		
Name			
Cluster number:			
Mapper's name and number:	Lister's name and number:		
Name	Name		
Number of segments to be created:			

Segment number	Number of dwellings	Percent of total	Cumulative percent of total
1			
2			
3			
4			
5			
Total			1 0 0

Segment selected:	
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