

Chapter 2

FORM-MAKING

INTRODUCTION

Several computer programs are available to help conduct field studies. You have already learned to use two such programs, *Epi Info* and *Stata*, which are useful for entering, processing and analyzing survey data in a timely manner. This chapter will help you learn how to use the *Tables* feature in your word-processing program for creating the forms necessary to manage a field investigation.

Most studies require two types of forms: first, interview or examination forms (termed "schedules"), and second, management or control forms. **Schedules** are used to gather the actual data to be analyzed. Schedules (that is, the interview or examination forms) are usually created with a word-processing program. In order to benefit from the collective wisdom of multiple experts, draft versions of the schedules are distributed for critique. The various revisions are incorporated into a follow-up draft and again distributed. When the investigator is satisfied with the schedules, they are tested in a small group of people with characteristics similar to the survey population. Such a test is termed a "feasibility study." If the subjects have problems understanding the questions or the field staff has troubles carrying out the procedures, further revisions are made and the field tests continue. Finally when the schedules are set, a small pilot study may be done in a community similar to the one where the study will eventually be conducted. This final step helps ensure that all aspects of the study work as intended. To do all of this quickly, a good word-processing program is essential, although if none are available, the word processing component of *Epi Info* could be used.

Management forms are different from schedules in that they are not used to collect data. Instead, they are used to keep track of who has:

- been invited to participate in the study (i.e., the eligible population),
- consented to participate (i.e., respondents), and
- provided analyzable data (i.e., subjects).

The field supervisor uses management forms to cite the percentage who participated in the study and to summarize the final disposition of each participant. Management forms are typically created with word-processing programs using the table-creation feature, as shown later in this chapter. After forms have been created for one study, they can quickly be modified and used for other studies as well.

■ **AIDS Risk Factor Cluster Survey.** In Chapter 1 you used an fictitious data set to help learn *Epi Info* and *Stata*. Chapter 2 will show how to create management forms for the fictional survey. Assume that we are planning the community-based study of 20-39 year-old men in 360 households, as described in Chapter 1. Thirty clusters will be randomly selected with probability proportionate to size (that is, PPS) sampling. Twelve households will be selected in each cluster. The first household will be selected randomly, and the remaining eleven chosen in a organized but non-random manner from neighboring occupied households. All men of the correct age in the occupied households will be asked about their views of factors related to AIDS, injection practices and sexual activities. The forms are intended to help the field staff conduct the investigation.

The study, as described in Chapter 1, is made up for this teaching manual. While the field methods are reasonable, the study was never done. Four management forms need to be created for the fictional study. They are shown in the next section of this chapter.

MANAGEMENT FORMS

The *AIDS Risk Factor Cluster Survey* will be our first study. Therefore the Study Number is 001. The study number and the name of the study are included with the descriptive information at the top of each form.

■ **Form 1 - Map of Households.** In many rural communities of developing countries there is no available map, nor are houses numbered. Instead homes may be situated in a circular pattern near a well, health clinic, religious shrine, administrative office, school or some other landmark. A starting household must be selected randomly from among all homes in each of the 30 clusters. We term this starting point the "*random start household*." Random selection means that every household in the community has the same chance of being selected. When no household list is available, one method favored by the World Health Organization (WHO) is to go to the center of the village, randomly select a direction, walk to the periphery of the village and count all houses passed along the way, and select randomly one house from this total count. This is the random start household.

For example, assume the direction to be traveled from the center of the village to the periphery was randomly selected to be northeast. Form 1 is used to draw a map, starting at the bottom with a structure in the center of the community (e.g., a health clinic). Sixteen houses are passed along the way and numbered on Form 1 (see Figure 2.1). Using a random number table (to be created later in this chapter), household 7 is selected to serve as the starting household.

Form 1 documents the selection process. It should have identifying information for the cluster at the top and sufficient space in the middle for drawing a map. There should also be space at the top for an arrow indicating which way is North. Usually the form is turned in a diagonal direction, so that the starting point can be drawn in the bottom left of the page, and the ending point is shown in the top right of the page. An example of **Form 1** is shown in Figure 2.2. The messages in shadow boxes are not part of the forms, but rather are guides for this manual.

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Form 1

MAP OF HOUSEHOLDS

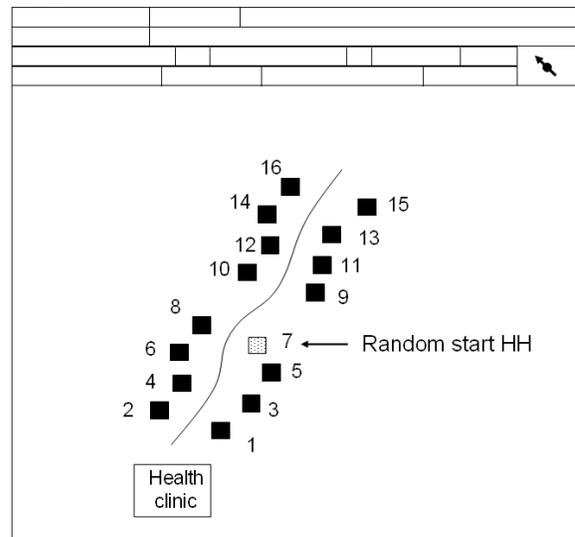


Figure 2.1 Map of households used to select random start household.

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Form 1

MAP OF HOUSEHOLDS

Study No.	001	Study Name	AIDS RISK FACTOR CLUSTER SURVEY				
Cluster No.		Community Name					
Assigned Interviewer(s)	1		2		Spin Dial No.		
Total HH Along Line		Random Start HH No.		Show North -->		o ^	
<div style="border: 2px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> This section is left blank for the hand-drawn map </div>						Draw line through o showing which way is North	

CONTINUE ON BACK OF PAGE IF NECESSARY

Figure 2.2 Example of study management Form 1.

The form can be generated in Word using the Table command (see Figure 2.3) to create a table of 10-12 columns and 6-7 rows. Then by merging cells and expanding or contracting rows and columns, a table resembling

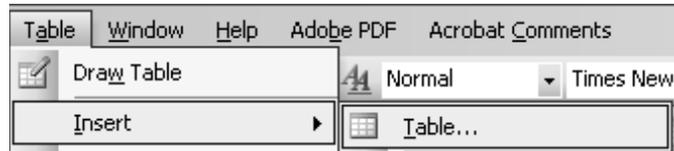


Figure 2.3 Tables command in Word.

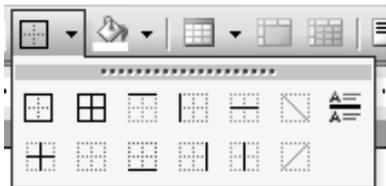


Figure 2.4 Borders in Word.

g Figure 2.2 can be created. The internal and external lines are created by highlighting the specific cells and clicking on the border symbol, as seen in Figure 2.4.

■ **Form 2 - Random Number Table.** In order to select the random start household, a table of random numbers needs to be created. If there are always fewer than 1000 households from the center of a cluster (i.e., village) to the periphery along a given tangent, then a random number form can be created with numbers between 1 and 999 numbers, as shown using Excel in Figure 2.5.

	A	B	C	D
1	824	47	443	304
2	283	185	133	207
3	238	470	696	495
4	590	261	623	907
5	580	595	488	202
6	111	27	23	826

Figure 2.5 Integer random numbers from 1 to 1,000.

If there are always less than 100 households along such a line, then the form may be comprised of two digit random numbers (see

	A	B	C	D
1	41	18	4	83
2	43	41	72	71
3	15	13	40	87
4	11	91	22	10
5	25	28	18	39
6	41	36	41	11

Figure 2.6 Integer random numbers from 1 to 100.

Figure 2.6). Most of the time in rural areas, 2-3 digits will suffice. Once the random numbers are created, they are copied into a table in the word processing program (e.g., Word) which includes the proper **Form 2** heading. Two tables, one with numbers up to a 100 digits (shown in Figure 2.7) and a second with numbers up to 1,000 digits, could also be created as part of this form.

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Form 2 **TABLE OF RANDOM NUMBERS**

26	65	19	67	11	57	10	60
25	89	85	81	53	41	44	45
43	70	29	62	16	40	77	13
47	10	79	17	23	29	4	41
97	64	21	56	85	68	28	45
85	75	83	25	12	66	89	22
69	35	65	16	17	77	36	63
97	52	98	32	17	5	42	35
27	49	63	33	22	34	63	35
47	71	45	44	21	70	42	2
72	18	34	34	63	8	54	11
54	92	67	65	30	16	97	29
76	67	16	4	3	35	28	40
36	73	18	15	23	2	37	37
34	4	52	4	46	90	74	90
47	40	55	50	92	61	9	72
1	90	88	90	84	53	44	64
29	56	37	81	87	66	68	24
38	7	67	31	35	81	49	23
50	87	14	91	58	97	76	53
57	25	22	28	94	76	46	2
42	40	77	90	40	24	84	95
28	80	71	26	48	94	81	85
1	82	82	93	14	23	37	1
21	45	58	82	3	26	50	22
99	18	34	36	99	98	26	2
59	32	49	4	20	17	41	36

Figure 2.7 Example of study management Form 2.

■ **Form 3 - Household Disposition.** After the random-start household is identified, a search continues in a prescribed manner for twelve households with an adult present, selecting all men, aged 20-39, in the households. Each visited house is listed on **Form 3** in sequential order. The random-start household is always number 01, since it is the first visited household. Notice that the sequential number for visited households on **Form 3** is different from the number used on **Form 1** when drawing the map. The two sets of numbers have different purposes. At the first household, if no adult is home, the interviewer goes to the next nearest household and continues the search. This process is followed until 12 households with an adult present have been visited and all eligible men in these households are interviewed. There are no call-backs with **rapid surveys**. This is another reason why they can be completed quickly. Instead the interviewers continue from house to house until they have met their quota of twelve households with an adult present. To minimize non-response bias and maximize the number of men who are home, the interviewers should make their rounds in early mornings or late afternoons when most men are there. If there is no one home, the interviewer checks with a neighbor to determine if someone is currently living in the household. This information is used later to determine the potential size of non-response bias. If there is more than one eligible man in the household, the interviewer includes all of them. By the time the field work is completed, 12 or more men are interviewed in each of 30 clusters, for a total of 360 - 400 men. For design purposes (to be discussed in class), only one man might be selected from each of the 12 identified households. If more than one eligible male is present, the field person could select one with a random number table (i.e., Form 2) created with number between 1 and 10 (there would not be more than 10 men, aged 20-39, in a household).

Form 3 is used to record the sequential number of the visited households, if an adult is home, if that person is eligible to participate in the survey, and if there are problems encountered at the household. The form is used both by the interviewers to keep track of field activities and by the supervisor to monitor the field staff. As an example of the latter, using **Form 3** the supervisor can easily determine if interviewers understand the household visit instructions. If the ratio of visited houses to occupied houses is too near 1.0, the interviewers most likely did not follow the explained procedure. These interviewers may have asked for volunteers from among all men, aged 20-39, in the community. Why bother walking all over the place when you can sit under a shade tree and have ten men come to you? For these interviewers, **Form 3** would show very few empty or in-eligible households.

Like with Form 1, this form can be created using the Tables function in Word, then adding lines by clicking the Borders symbol. An example of **Form 3** is shown in Figure 2.8. As mentioned before for Form 1, the messages in shadow boxes are not part of the forms, but rather are guides for this manual.

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Form 4a **STUDY DISPOSITION**

Study No.	001	Study Name	AIDS RISK FACTOR CLUSTER SURVEY						
Cluster No.	Hhs with Adult at Home	Men Aged 20-39 Yr.		Participation (%)	No. of records in PC	Spin Dial No.	Interviewer Code No.		COMMENTS
		At home	Respondents				(1)	(2)	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									

To be filled out by the field supervisor at the end of the study

Figure 2.9 Example of study management Form 4a.

There is a place for the interviewer codes in each cluster, and the names and code numbers of all interviewers in the study (see **Form 4b** in Figure 2.10). Dates are requested at the bottom of the form for the beginning and end of the field activities, the time when the initial tables and graphs are submitted, and the date when the final report is done. There is also a small space for comments. Again, the messages in shadow boxes are not part of the form, but rather are guides for this manual.

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Form 4b STUDY DISPOSITION

Study No.		001		Study Name		AIDS RISK FACTOR CLUSTER SURVEY			
Cluster No.	HHs with Adult at Home	Men Aged 20-39 Yr.		Participation (t)	No. of records in PC	Spin Dial No.	Interviewer Code No.		COMMENTS
		At home	Respondents				(1)	(2)	
25									
26									
27									
28									
29									
30									
Total			v						

Tally the total for all clusters

MEMBERS OF INTERVIEW TEAM		MEMBERS OF INTERVIEW TEAM	
Code No.	Name	Code No.	Name

Space for up to 14 interviewers

DATES OF FIELD ACTIVITIES		DATE OF SUBMISSION OF FINDINGS		COMMENTS
Beginning	Ending	Initial Tables and Graphs	Final Report	

Figure 2.10 Example of study management Form 4b.

CONCLUDING REMARKS

This ends the *Form-making* chapter. You have seen what the forms look like, have an idea of their use, and been given suggestions on how they might be created. Once the process is done, the forms can be used for other studies, with appropriate modifications. With a portable inkjet printer, the forms can be created in the field, and appear almost as if they are typeset, adding to the professional appearance of your study.