

Data Management and Analysis

A PLACE Manual Guide for Using Epi Info Software





This guide was made possible by support from the U.S. Agency for International Development (USAID) under terms of Cooperative Agreement GPO-A-00-03-00003-00. The authors' views expressed in this publication do not necessarily reflect the views of USAID or the United States Government.

November 2005

MS-05-13 Epi Info Guide

Introduction

This technical document provides information you will need to know in order to manage and analyze the data collected during the PLACE assessment, as well as guidance in preparing the data tables used in a PLACE report. It begins with step-by-step instructions for preparing customized data entry screens in Epi Info for each questionnaire, so that data from the Community Informant Questionnaire (Form A), the Venue Verification Form (Form C), and the Questionnaire for Individuals Socializing at Venues (Form D) can be entered, stored, and analyzed in Epi Info. (The Venue and Event Report [Form B] does not require the use of Epi Info.) Instructions are also provided for modifying or creating a simple checking program to ensure that values entered during data entry fall within the parameters of "allowed" response codes. Lastly, instructions are provided to help you prepare the data and perform the analysis necessary to complete a PLACE report, which will summarize the PLACE findings in your priority prevention areas.

This document is presented in the same sequence of data management and analysis activities that are used in a PLACE study. Each of the four sections begins with a summary of the instructions that will follow. A flow chart illustrating the sequence of steps from preparing for data entry through the end of data analysis (Sections 1-3) is provided on the next page in Figure 1. The chart indicates which steps are covered within each of the first three sections of this document. Section 4, the final section, provides data use exercises. The two appendices provide information about Epi Info coding and commands.

Epi Info is a public domain software package developed by the U.S. Centers for Disease Control and Prevention (CDC). Designed for the global community of public health practitioners and researchers, it provides tools for easy form and database construction, data entry, and analysis with epidemiologic statistics, maps, and graphs. The software can be downloaded from the CDC Web site at: <u>http://www.cdc.gov/epiinfo/</u>.

This publication was written for Epi Info Version 6, which was the most current DOS version at time of publication. The instructions will also work with Epi Info Version 3.3.2, a Windows-based version that was released in 2005. A complete manual for Version 6 can be accessed at the CDC Web site at: <u>http://www.cdc.gov/epiinfo/Epi6/ei6manl.htm</u>. Tutorials on how to use Epi Info are also available at CDC, at: <u>http://www.cdc.gov/epiinfo/tutorials.htm</u>.

System requirements for using Epi Info for Windows are as follows: Windows 98, NT 4.0, 2000, or XP is required; 32 MB of RAM (64 MB for Windows 4.0 and 2000, 128 MB for Windows XP); 200 megahertz processor is recommended, 300 megahertz recommended for Windows XP; and at least 260 megabytes of free hard disk space to install, 130 megabytes after installation.





Table of Contents

SECTION 1: Preparing for Data Entry	1
How to Use This Module	
Modifying or Creating a Questionnaire Date Entry Screen	
Data Entry Exercise: Understanding Data Entry Screen Programming	
Data Entry Exercise: Modifying Data Entry Screens	
Setting Check Parameters for Data Entry	
Date Entry Exercise: Using the Check Entry Program Window	
SECTION 2: Data Entry	15
Entering Data	
Merging Files	
SECTION 3: Data Analysis	17
Producing Frequency Tables	
Data Analysis Exercise: Creating a Text File	
Cleaning Data and Outputting a New Data Set	
Instructions for Data Analysis	
SECTION 4: Data Use Exercies	27
Data Use Exercise: Documenting the PPA Selection Process	27
Data Use Exercise: Understanding PLACE Questionnaires	
Data Use Exercise: Understanding PLACE Questionnaire Legal Values	
Data Use Exercise: Understanding Data Cleaning	
Data Use Exercise: Cleaning Data in Epi Info	32
Data Use Exercise: Creating New Variables in Epi Info	33
Data Use Exercise: Filling in the PLACE Report Template Tables	36
APPENDIX: Epi Info Code	37
Questionnaire Data Entry Screens	37
Check Files for Data Entry	45
Cleaning Programs	65
Analysis Programs for the PLACE report template tables	71

▲ SECTION 1: Preparing for Data Entry

This section provides instruction in modifying Epi Info questionnaire data entry screens to reflect changes made to PLACE questionnaires when they were adapted for use in your priority prevention areas (PPAs). It also provides instruction for editing Epi Info check programs for each data entry screen, programs that prevent invalid responses from being recorded during data entry.

Epi Info Version 6 is a series of microcomputer programs for handling epidemiologic data in questionnaire format and for organizing study designs and results into text that may form part of written reports. A questionnaire can be set up and processed in a few minutes, but Epi Info also can form the basis for a powerful disease surveillance system database with many files and record types. It includes features used by epidemiologists in statistical programs, such as SAS or SPSS, and database programs like dBASE. Unlike commercial programs, however, Epi Info may be freely copied and given to friends and colleagues.

▲ Epi Info allows rapid setup of new entry forms and data files, easily customized data entry, and many data management and analysis techniques.

The instructions in this section are based on a learning module from the Northern Health Information Partnership and the Ontario Ministry of Health, Canada. Learning objectives are as follows:

- ▲ You will be able to create a questionnaire using the Epi Info word processor.
- ▲ You will be able to save a questionnaire.
- ▲ You will be able to retrieve a questionnaire for editing.
- ▲ You will be able to enter data into a record file.
- ▲ You will be able to set parameters to aid in the valid entry of data (i.e., to be able to set upper and lower ranges, legal values).
- ▲ You will be able to merge two files.

How to Use This Module

In many of the examples that follow, you will encounter text in **BOLD**. This indicates text displayed by EpiInfo or what should be typed into EipInfo. For example, "C:>cd\epi6" means that "cd\epi6" should be typed. Bold text is also used to indicate keys on your keyboard to be used during the execution of a step (e.g. "press **F9**" or "press "**Enter**.") This module is intended only to help the user become familiar with Epi Info Version 6. It is not intended to be a complete manual. (The complete manual is available at: <u>http://www.cdc.gov/epiinfo/Epi6/ei6manl.htm</u>.)

Questionnaire or Form	Questionnaire Data Entry Files	Data Entry Record Files	Data Entry Check Files	Cleaning Programs	PLACE Report Analysis Programs
Community Informant Questionnaire (Form A)	CI.QES	CI.REC	CI.CHK	CI_C.PRG	CI.PRG
Venue and Event Report (Form B)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Venue Verification Form (Form C)	VENU.QES	VENU.REC	VENU.CHK	VENU_C.PRG	VENU.PRG
Questionnaire For Individuals Socializing at Venues (Form D)	SOCIAL.QES	SOCIAL.REC	SOCIAL.CHK	SOCIAL_C.PRG	SOCIAL.PRG

Table 1.1 Guide to Epi Info Files on the PLACE CD

Each of the files above is located in the PLACE CD in the Epi Info section that also contains this document (located in the folder on this CD called "EpiInfo"). There are no Epi Info files for the Venue and Event Report (Form B) because data from Form B will only need to be entered into an Excel spreadsheet. The Epi Info data entry and check files and the cleaning and analysis programs for each of the three questionnaires are provided in the appendix of this document.

Getting Started

Double click on the Epi Info icon on your desktop or open the program as you usually do. As you enter the program you will see the following:



If you highlight "PROGRAMS" (appearing in green in the illustration), you will see the following choices:

EPED word processor: This is a word processor and is used to create questionnaires for the purpose of inputting data.

ENTER data: This part of the program allows you to enter data to a .REC file (or data file). It also allows you to revise the data even after they are entered.

ANALYSIS of data: This allows you to tabulate your data, produce frequencies, means, standard deviations, etc.. It also allows you to run some basic statistical tests on the data such as chi-squares, odds ratio, relative risks, ANOVA and stratified analysis.

CHECK customize entry: This allows you to set upper and lower ranges, legal values, automatic coding, etc. which acts as a built-in check and minimizes data entry errors.

IMPORT files: This selection allows you to bring in data from other programs or in other formats such as dBASE, Lotus, ASCII

EXPORT files: This allows you to export data from an Epi Info data file to a file format for other software. Most computer programs will accept at least one of the supported formats.

MERGE files: Allow you to combine data files and update previous records

STATCALC calculator: Calculates statistics from table values that you enter directly from the keyboard.

CSAMPLE analyze surveys: Calculates weighted analysis of population surveys (such as the Ontario Health Survey).

EPITABLE calculator: This part of the program allows you to compare means, calculate known chisquare, compare proportions, etc.

VALIDATE duplicate entry: This is used to compare two Epi Info files entered by different operators and reports any differences.

Notes: To increase the screen size, select ANALYSIS from the Programs Menu. The Epi Info screen size will increase to fill your computer screen. Return to the Main Menu by pressing **F10**.

File names can only be up to eight characters long in Epi Info Version 6. Epi Info will be unable to open a file if it has a name longer than eight characters.

Modifying or Creating a Questionnaire Date Entry Screen

The PLACE CD provides a questionnaire data entry screen for each of the three questionnaires for which data will be entered in Epi Info. Because of this, it is not necessary for you to create a new data entry screen. To save time, you may simply modify each questionnaire data entry screen provided that it fits the questionnaires that will be using in your PPAs.

If you would like to create a new questionnaire data entry screen, follow these steps:

- ▲ Under the *Programs* menu, highlight **EPED** word processor and press **Enter**.
- ▲ Type in a questionnaire.
- ▲ To save your questionnaire, press **F9**.
- ▲ You will see File Name to Save <Esc> or no entry to Discard recent work. To save the file you have created type "A:\TEST.QES." note that all questionnaires that are to be used later to enter data must have a file type ending "QES". Now, your work will have been saved in a file called "TEST.QES."
- $\bullet \quad \text{Press } \mathbf{F10} \text{ to exit.}$

If you would like to MODIFY one of the provided PLACE questionnaire data entry screens so that it incorporates changes made to the PLACE questionnaires for your PPA, follow these steps:

- ▲ Under the *Programs* menu, highlight **EPED** word processor and press Enter.
- ▲ Press **F2**, and select **Open File This Window**.
- ▲ You will be asked to enter the location and file name of the questionnaire that you want to work with. If the questionnaire is on your CD drive "E", for example, and you want to edit the Community Informant Questionnaire, you would type "E:\EPIINFO\CI.QES" and press enter.
- ▲ Enter any changes you want to make to the questionnaire. Press **F10** when you are finished.
- ▲ You will see: Leaving program. Do you want to save recent work (Y/N)? To save the changes you have made, press Y; your changes will be saved and you will be returned to the main Epi Info menu.
- ▲ Before you are ready to modify or create data entry screens, you will need to understand the Epi Info symbols that are used in questionnaire data entry screen files. A portion of the first page of the Community Informant Questionnaire (Form A), available as a Word document on the PLACE CD and appearing in the PLACE Manual under the Forms tab, is shown on the next page. The corresponding Epi Info data entry screen appears after the questionnaire.

Epi Info uses the first eight digits of a variable name unless you define the variable name using curly brackets "{ }." In the example below, we have defined the variable names so they are standard across all studies. All of the answers in this questionnaire are numbers. Each "#" symbol represents one digit. Where there are two "#"symbols, two digits can be entered. In the event that you have a questionnaire that requires letters to be input, you use the symbol "_" (an underline key stroke). As before, each underline "_" you put in represents one character.

An example of a questionnaire and corresponding Epi Info ".QES" file is given below.

COMMUNITY INFORMANT QUESTIONNAIRE

No.	Questions			Coding categories
A1	Priority Prevention Area		<name area="" of="" prevention="" priority=""> 1</name>	
A2	Location of Interview in <name area="" of="" prevention="" priority="">.</name>		<name 1="" of="" zone=""> 1 <name 2="" of="" zone=""> 2 <name 3="" of="" zone=""> 3</name></name></name>	
A3	Interviewer Number Community Informant Number		A. B. Cor	Interviewer Number: mmunity Informant Number:
A4	Date (DD/MM/YY)	(DAY)	/ (MON	TH) /(YEAR)
A5	Gender of Community Informant			MALE 1 FEMALE 2

Community Informant Questionnaire (Form A) Data Entry Screen File Location and Name: E:\EPIINFO\CI.QES

Community Informant Questionnaire

- {A1} Priority Prevention Area Code ###
- {A2} Location of Interview in PPA ##
- {A3A} Interviewer Number ##
- {A3B} Community Informant Number ###
- {A4} Date <DD/MM/YYYY>
- {A5} Gender of Community Informant #

In the example above, you can see that up to 999 Priority prevention area codes can be entered, and up to 99 interview locations are possible. Question A3 has two parts, an interviewer number and a community informant number. As you can see, the code for the Epi Info data entry screen refers to these parts as separate variables: A3A and A3B. A3A can be two two digits long and A3B can be three digits long. The date of interview (A4) allows two digits for date and month and four digits for year. Question A5, the gender of community informant, can be either "1" for male or "2" for female; one digit only is included, indicated by the fact that there is only one "#" mark. Each of these parameters can be edited, as you will learn below.

Other examples of Epi Info data entry field types are described in Table 1.2, below:

Example	Field Type	Explanation		
ADDRESS Text		For every dash you will be allowed one character (or letter),		
(Shift underline)		any character can be entered.		
AGE ## or AGE ##.#	Numeric Fields	Only numbers or spaces will be accepted. The number of digits is indicated by the number of #s. Decimal point must be specified.		
Name <a>	Upper Case Field	These are similar to "underline" fields in that all characters are allowed in data entry, however, <a> indicates that all characters will be converted to upper-case.		
DogBite <y></y>	Yes/No Field	Only Y , N space, or Enter are accepted. Entering a space or pressing Enter will be interpreted as missing data in the analysis.		
Date <mm dd="" yy=""> or Date <dd mm="" yy=""> or Date <dd mm=""></dd></dd></mm>	Date Fields	The dates will be checked when entered, the Date program provides the separating slashes to delineate days/months/years.		
Phone <phonenum></phonenum>	Phone Fields	The first example, a local phone number is entered as XXX-XXXX.		
r none Pielus		The second example, a long distance phone number <long distance=""> is entered (XXX)XXX-XXXX.</long>		

Table 1.2 Field Types in EPI INFO

Data Entry Exercise: Understanding Data Entry Screen Programming

<u>Written Exercise</u>: On scrap paper, write out a data entry program for the following questionnaire using the explanation on the previous pages as a guide. Don't forget that you need one "_" or "#" for each character or digit to be entered. Answers are provided on the next page – try to finish the exercise on your own before you look at the answers!

Note: This is a portion of the Venue Verification Form (Form C).

C14	Gender of respondent		MALE 1 FEMALE 2		
C15	Position at the venue		OWNER, MANAGER, STAFF 1 PATRON 2 OTHER 3		
C16	16 How old are you? IF RESPONDENT IS YOUNGER THAN <age eligibility="" of="">, END INTERVIEW AND FIND AN OLDER PERSON KNOWLEDGEABLE ABOUT THE VENUE. IF RESPONDENT IS <age eligibility="" of=""> OR OLDER, ASK: Are you willing to answer these questions?</age></age>		A. AGE: B. YES, WILLING 1 NO, NOT WILLING 2		
RECO	RECORD IN C17 WHETHER THE INTERVIEW CAN CONTINUE ON TO C18. C17 CANNOT BE LEFT BLANK.				
C17	WAS AN INTERVIEW INITIATED? IF NO, WHY NOT?		YES 1 NO WILLING RESPONDENT 2 RESPONDENTS TOO YOUNG 3		

<u>Exercise Answers</u>: The answers below are from the Epi Info questionnaire data entry screen for the Venue Verification form.

{C14} Gender of respondent #

{C15} Position at venue #

{C16A} How old are you? ##

{C16B} Are you willing to answer these questions? #

{C17} Was an interview initiated? #

As you can see, a space is left between each new questionnaire number. For question C16, there are two parts; no space is left between these two items, indicating that they are part of the same question. Every question has only one # mark except for C16A. That is because a response of only one digit is required for each question except for "How old are you?" — we're assuming that the informants interviewed during venue verification will be younger than 100 years old.

The complete text for the Epi Info data entry screens for each of the three questionnaires is provided in Appendix 1 of this document.

Data Entry Exercise: Modifying Data Entry Screens

<u>Computer Exercise</u>: Each questionnaire that interviewers use in your PLACE study will be modified from the version provided on the PLACE CD in Microsoft Word. Obviously, a data manager must make corresponding changes in the corresponding Epi Info data entry screen for each questionnaire so that the questionnaire seen on screen in Epi Info during data entry matches the questionnaire used in the field by interviewers. Each questionnaire has questions that will be modified, as locally appropriate. For some questions, the names of local PPAs and districts need to be inserted. For others, categories may need to be added, as indicated. Lastly, if your PLACE assessment didn't include the tuberculosis (TB) or injection drug use (IDU) modules in Form D (optional questions D62-D69), then you will need to remove the TB and IDU module questions from the data entry screen file for this form in Epi Info (SOCIAL.QES) and update the corresponding .REC file.

Note: Once you have modified the .QES file and updated the .REC file, you will also need to edit the .CHK file!

In this exercise, you will work through some of the modifications that may need to be made in the data entry screen for the Questionnaire for Individuals Socializing at Venues (Form D), as an example.

First, let's look at question D51 in the form (forms are available on the CD and are reproduced in the manual under the Forms tab). This question will need to be modified to include additional locally important types of health education programs, if any, and to remove the line that says "<OTHER LOCALLY APPROPRIATE>."

No.	Questions	Coding	cate	gories
D51	We want to know		YES	NO
201	whether you have heard or been to any	A. ATTENDED AN AIDS EDUCATION PROGRAM?	1	2
	health education programs. In the past	B. SEEN AN AIDS VIDEO?	1	2
	three months, have	C. HEARD AN AIDS PROGRAM ON THE RADIO?	1	2
	-	D. SEEN AN AIDS PREVENTION POSTER?	1	2
		E. TALKED ABOUT HIV OR AIDS WITH A HEALTH WORKER?	1	2
		F. OBTAINED A CONDOM AT THIS VENUE?	1	2
		G. <other appropriate="" locally=""></other>	1	2

The data entry screen in Epi Info for this question will initially look something like this:

D50 Do you have a condom with you now?
D51A Attended an ALDS education program?
D51B Seen an ALDS vI deo?
D51C Heard an ALDS program on the radio?
D51D Seen an ALDS prevention poster?
D51E Talked about HIV or AIDS with a health worker?
D51F Obtained a condom at this venue?
D51G Other Locally appropriate

We would like to modify the data entry screen to either remove the "D51G" line, or to change it to a local health education program that should be included. If, in your PPA, for example, there is a street theater program that you want to include as a health education program, you might want to replace "<OTHER LOCALLY APPROPRIATE>" with "Watched HIV/AIDS Street Theater Performance?"

- ▲ Under the *Programs* menu, highlight **EPED** word processor and press Enter.
- ▲ Select **F2**, and select **Open File This Window**.
- ▲ You will be asked to enter the location and file name of the questionnaire that you want to work with. If the questionnaire is on your CD drive "E", for example, and you want to edit the Questionnaire for Individuals Socializing at Venues, you would type: "E:\EPIINFO\SOCIAL.QES" and press enter.
- ▲ Enter any changes you want to make to the questionnaire: Delete "D51G Other locally appropriate #" and type "D51G Watched HIV/AIDS Street Theater Performance? #". This indicates that you are adding a locally appropriate category to question D51; the new variable name is D51G.
- ▲ Press **F10** when you are finished.
- ▲ You will see: Leaving program. Do you want to save recent work (Y/N)? To save the changes you have made, press Y; your changes will be saved and you will be returned to the main Epi Info menu.

Now, view the data entry screen for this questionnaire to make sure you have made the modifications as you wanted. Because you have changed the questionnaire data entry screen, you must update the .REC file used for entering data. To do this,

▲ Select the *Programs* menu from the main Epi Info menu, highlight Enter Data and press Enter.



▲ You will get the following menu:

- ▲ Type: E:\EPIINFO\SOCIAL.REC as indicated in the above figure, and press Enter.
- ▲ Type 2 for "Create new data file from .QES file" and press Enter.

- ▲ When the program asks for Questionnaire file (.QES), type in the name and location of the questionnaire file that you just revised: E:\EPIINFO\SOCIAL.QES and press Enter.
- ▲ Choose Y and press Enter. A red box will appear with the text, "Overwrite EXISTING C:\EPIINFO\SOCIAL.REC with new file? (Y/N/<Esc>)". Press Y to overwrite the .REC file with the new version of the questionnaire data entry screen that you just created.
- ▲ A new data entry screen will appear it should look like this:



Setting Check Parameters for Data Entry

Before you can set parameters for data entry for a particular questionnaire, using Epi Info's *Check* menu, you have to establish a record file for that questionnaire. If you have created a new .QES file and want a .REC file to go with it, the directions on the previous page can be used to create a new .REC file as well as replace an old one.

Whenever you make any changes to a .QES file, you will need to re-establish a connection between that file and its .REC counterpart. In the data entry exercise above, you modified the .QES file and thus had to re-establish a connection between the data entry screen file SOCIAL.QES and the record file SOCIAL.REC.

After you have established a link between the questionnaire data entry screen file (.QES) and a record (.REC) file, through either creating a new .REC file or replacing an old one, you are ready to create a customized checking program for data entry!

Note: If you have modified the .*QES* file and updated the .*REC* file, you will also need to edit the .*CHK* file (data entry checking program)!

Epi Info's **Check customize entry** program assigns an acceptable range or list of values to every question on the data entry screen. Use of this program is an important way to increase accuracy during data entry. It will catch typo errors that occur when an invalid response value is entered. For example, if a question has only two possible answers, "1" or "2", you would set up the check program only to accept these values. Then, if the values "3", "11", "22", or "9" are entered, Epi Info will not accept them.

Warning: The check program will not prevent an <u>incorrect value</u> that is in the <u>acceptable range</u> from being entered!

Instructions for accessing the "Check customize entry" program are provided below. As an example, you will view the customized entry program for the Questionnaire for Individuals Socializing at Venues (Form D).

Check Menu

- ▲ Under the *Programs* menu, highlight **Check customize entry** and press Enter.
- ▲ You will get the following menu, which allows you to create a .CHK file for a .REC file, or to edit a .CHK file already associated with a particular .REC file. At this point, you will just be using the **Check customize entry** program to look at the .CHK program [test] so that you can understand how it works.



▲ Type in E:\EPIINFO\SOCIAL.REC and press Enter (if the PLACE CD is in your computer's E: drive).

- ▲ The computer will lead you to a screen that looks like the questionnaire data entry screen. Grey boxes after each question indicate where data are entered. You can move the cursor from box to box using the up and down arrow keys on your computer's keyboard.
- ▲ Move the cursor to the grey box after question D1. You should see text at the bottom of the screen that reads, "D1: Integers allowed." Integers are the only valid values for this field because, in the questionnaire data entry form (E:\EPIINFO\SOCIAL.QES), "###" was entered after question D1, indicating that up to three integers could be entered —it is therefore not possible to enter any characters other than numerals.
- ▲ Below, you will be asked to complete an exercise based on this check program. Leave the Epi Info check program screen open, and read below to complete Exercise 3.

Date Entry Exercise: Using the Check Entry Program Window

For this exercise, you will be using the Check Entry Program window for the Questionnaire for Individuals Socializing at Venues (Form D) as a guide. Move the cursor from question to question (using the up and down arrow keys on your keyboard) to determine the allowed values for the variables listed below. Remember that the allowed values for the variable where your cursor is positioned will be described at the bottom of the screen.

The answers are provided on the next page. Try to complete the exercise without looking at the answers.

Note: The Check Entry Program window for the Questionnaire for Individuals Socializing at Venues (Form D) is the screen that you opened following the instructions above, under "Check Menu."

Questions (write down your answers, then compare with answers on the next page):

- 1. List all the values allowed for the variable D3.
- 2. Why do you think those values are allowed?
- 3. List all the values allowed for the variable D26.
- 4. List all the values allowed for the variable D27.
- 5. List all the values allowed for the variable D46B.

Answers to Exercise 3:

- 1. List all the values allowed for the variable D3: *All entries allowed*.
- 2. Why do you think those values are allowed? *Because for a venue name, you may need to enter a mix of numbers and letters.*
- 3. List all the values allowed for the variable D26: *Valid values 1 to 8*.
- 4. List all the values allowed for the variable D27: *Valid values 1 to 2*.
- 5. List all the values allowed for the variable D46B: Valid values 1, 2, and 9.

Check Menu Syntax

If, in your questionnaire, for the first question there are only four possible responses 1, 2, 3, and 4, you can program the appropriate field to accept only 1, 2, 3, and 4. This can be done two ways. For example, presume the variable is called A1:

Method 1

- ▲ Place your cursor in the space next to A1.
- Type 1 and then press F1 (min).
- In the same space, type 4 and then press F2 (max).
- $\bullet \qquad \text{Press } \mathbf{F10} \text{ to exit.}$
- Write data to disk (Y/N)? Type **Y**.

Method 2

- ▲ At A1, type **1** and press **F6**. Now type **2** and press **F6**, the same for C and D. At the bottom of the screen you will see the following 1,2,3,4 This means that only 1,2,3,4 will be allowed to be inputted into that field.
- ▲ Press **F10** to exit.
- Write data to disk (Y/N)? Type **Y**.

Both of these methods are setting the minimum allowed value to 1 and the maximum allowed value to 4. Anything from 1 to 4 will be allowed. Another "other than" that will not be allowed.

Deleting Parameters

What if you want to delete a set of parameters? Instead of 1, 2, 3, and 4, you want only 1, 2 and 3 as options:

- ▲ Enter the **check** program as before.
- ▲ Place the cursor on the variable you wish to edit.
- $\bullet \qquad \text{press } \mathbf{F9} \text{ (edit field).}$
- ▲ You will get a different screen.
- ▲ Move your cursor to the material you want to delete and then press **delete**. If you only want values 1, 2, and 3, put your cursor over the 4 and press delete. Then type **3** (if you used Method 1 to create the check program).
- ▲ Type **ESC** to return to the original screen.

This section provides instructions for entering data using Epi Info data entry screens, saving data that has been entered, and merging all of the questionnaire records you have entered into one large .REC file for cleaning and analysis.

Entering Data

- ▲ Under the *Programs* menu, highlight **Enter Data** and press **Enter**.
- ▲ At data file (.REC): type the name of the file you wish to enter data into. (This is the same procedure you went through to create the .REC file before you could set parameters.) Press **Enter**.
- ▲ Enter 1 since you have already created the .REC file, and press Enter.
- ▲ Type **Y** at OK, and press **Enter**.

You can now start entering data into the .REC file.

As you enter the data you will note that the cursor will automatically move to the next variable when you have entered the data for one field; otherwise the enter key or the down arrow key will move the cursor to the next variable. The cursor can be moved back by pressing the up arrow key.

To save the data, enter **Y** when you get to the end of the record.

Merging Files

Merging files can be useful if the data are entered on two different computers and then need to be combined so that analysis can occur. The steps below illustrate how to merge data when all the variable names within two .REC files are identical. For example, if you have entered data on two different computers and therefore have two .REC files called "TEST.REC" and "TEST2.REC," you can create a new .REC file called "TEST3.REC" using the following instructions:

▲ Under the *Programs* menu, highlight **Merge data file** and press **Enter**. You will see the menu shown on the next page.

EPI6.EXE	_ 🗆 ×
EPI Info MERGE Vers 6.04d	
File Merge =====	
×.REC	
File 2	
×.REC	
•utput file	
Herge options (+) Concatenate () Update	
<u>()</u> Join () Revise	
OK Cancel	
F1 Help F10 Quit Select the first file to be merged.	

- ▲ In the **File 1:** space type **test.rec.**
- ▲ In the **File 2:** space type **test2.rec.**
- ▲ In the **Output File:** space type **test3.rec** this file is a new record file in which the record file TEST and TEST2 will be combined.
- ▲ In the **Merge options** section, select **Concatenate** using the cursor keys.
- ▲ Select **OK** to execute the commands.
- ▲ A screen will appear telling you what was merged and how many records were involved.

SECTION 3: Data Analysis

This section provides step-by-step instructions for cleaning your data before analysis and for the actual analysis of data collected in your PLACE survey. First, you will be instructed to print a document with the frequencies of each variable. This printout will enable you to determine whether you need to clean your data to change invalid responses to "missing data." (This won't be necessary if you used the Epi Info Check Program!) Programs have been provided for data cleaning, but before you can run these programs, you will need to adapt them so that they match with any changes you made to the questionnaire. Analysis programs are provided for you, as well, to save you time. These programs instruct Epi Info to produce tables with all of the information you will need to complete a PLACE report, using the PLACE report template provided on the PLACE Manual's CD. Before you use these programs, you need to edit them to reflect any changes to the questionnaires that you may have made when you adapted them to your local setting. Lastly, instructions are provided for running the analysis programs. After you run these programs, PLACE report tables can be filled in with your results!

In this section, you will learn how to:

- ▲ read a data set into Epi Info;
- ▲ create frequency tables; and
- \blacktriangle output results to a text file.
- Note: Epi Info code for each data entry questionnaire file and check file, as well as for the cleaning and analysis programs, is provided in the appendix of this document. The code is also available on the PLACE Manual's CD, in files that can be read directly by Epi Info. The code is provided in the appendix as a reference and in order to facilitate editing of the code to fit your local data needs.

Producing Frequency Tables

Upon completion of this section, you will have a text file containing the one-way frequencies of all variables in the three data sets. This allows you to examine each variable to determine whether any invalid responses were recorded during data entry. The data will not have been cleaned if you used the Check Programs during data entry, because no invalid entries are allowed when a Check Program is used.

Getting Started

Open Epi Info. Under the **Programs** pull down menu, select **ANALYSIS of data**. An analysis window will open. To read your data into Epi Info, after the EPI6> prompt at the bottom of the screen type:

READ *<pathway for file>.*

For example, if your data set is called cidata.rec and is located in a directory called Data on your hard drive (designated as the C drive on your computer), you would type:

READ C:\Data\cidata.rec.

If you do not remember where your files are located or the name of your file, type "READ" and press enter. A pop-up window will appear. You current location is listed at the top of the box (C:\EPI6*.rec) and all .REC files in that directory are listed. Use the arrow keys to select your file or directory and press **Enter**. To go to a high level folder, select the "...\" symbol in the top left hand corner and press **Enter**.

Adjusting Your Settings

Turning off the statistics associated with the frequency output is helpful if you do not need all the statistical analysis Epi Info can provide. To limit the output from Epi Info to the information that will be useful to you to complete the tables, type:

SET statistics=off.

You can also include missing values in your frequency output. To make sure that all observations are included in your tables (including those observations where the response is missing), type:

SET ignore=off.

Producing One-way Frequency Tables

To produce a frequency table for a variable in the selected data set, type:

FREQ <variable_name>.

For example, if you want to produce the frequency table for the type of community informant variable, type:

FREQ A6.

Notice in your output that not all values for this variable are displayed. For example, if you did not interview any traditional healers, there will not be a row in your table for the value of 25. To produce a frequency table for all variables in your data set, a more efficient way to do this, is to type:

FREQ *.

If you do not want to include a few variables in your output, then type:

FREQ * NOT var1.

For example, if you wanted to output all of the variables in your key informant data set except the community informant number, then you would type:

FREQ * NOT A3B.

Writing Output to a Text File

To create a text file containing your output, type:

ROUTE filename.txt.

The output from all subsequent statements that are submitted will be written to a text file located in the same directory as your data set. The filename you select can be no more that eight characters long. To close the file and start writing output to your screen, type:

ROUTE screen.

For example, if you want to output one-way frequencies for all variables in your community informant data set to a text file named ci_tabs.txt, you would type:

ROUTE ci_tabs.txt FREQ * ROUTE screen.

Data Analysis Exercise: Creating a Text File

For your community informant, venue verification, and socializing individuals data sets, create a text file for each data set that contains the one-way frequencies of all variables in the data sets.

Remember your will need to READ in the data set, ROUTE the data to a text file, produce FREQuency tables, and ROUTE the output back to the screen. Give the text file for each data set a unique name.

After using the FREQ * command to create a printout of the frequency of every variable in your data set, visually check the printout:

- ▲ Look for duplicates (in venue identifier).
- ▲ Look for variables with a lot of missing values (especially C18 in venue verification, D13 in individual).
- ▲ Look for variables with values out of range.
- ▲ Look for venues outside the PPAs.

Cleaning Data and Outputting a New Data Set

To reduce the number of data entry errors, a check program can be used when entering data that only allows valid responses to be entered for each question. If a check program was not used when entering the data, range checks can be used to recode invalid data entries to a missing value.

In this portion of the data analysis section, you will learn:

- ▲ commands for cleaning data using range checks;
- ▲ how to create a new, clean data set; and
- ▲ how to modify and run the provided range check cleaning programs which automate the entire process.

Cleaning Data

Before you start cleaning your data, you need to read in the data set that you want to clean. Also, remember to turn off statistics and ensure that missing values will be included in your frequency tables.

Start by setting valid ranges for variables. For example, in the community informant data set, to restrict the data to valid responses for the gender of respondent the code would be:

IF a5=1 or =2 THEN a5=a5 ELSE a5=.

The above line of code tells Epi Info if the value for A5 (gender of the respondent) is equal to 1 or is equal to 2, then the variable is equal to itself (that is, the value for the variable does not change). Otherwise, if A5 is equal to anything else, then the value of A5 should be changed to a missing value. In Epi Info, a period or full stop mark (a ".") signifies a missing value.

Creating a New Clean Data Set

After you have checked the ranges of all variables, the next step is to create a new, clean data set.

ROUTE cleanci.rec WRITE recfile.

The above code creates a new .REC file named cleanci that contains your cleaned data with the newly defined analysis variables.

Adapting the Provided Cleaning Programs

IMPORTANT! Epi Info has the capability to create programs that contain many lines of code that can clean data and save it to a new data set. To save time, we created programs that clean the variables for the community informant, venue verification, and socializing individuals data sets (CI_C.PRG, VENU_C.PRG, and SOCIAL_C.PRG). The programs replace out-of-range data with missing values. You will not need to run them if you used Epi Info's Check Program. The programs also create new clean data sets after variables have been cleaned. Review the code for each of these programs, found in the appendix of this document. Notice that you have learned how to do all of the tasks included in the programs.

Before you can run these programs, you need to make sure that the programs are updated according to changes made when each questionnaire was adapted for your local study. For example, if an additional category was added to a variable, you want to make sure that value is within the allowed range for that variable. Or, if you did not use the TB or IDU modules for Form D, delete these lines from the cleaning program. *It is very important to make sure the program is correct for your data – otherwise, you may end up replacing valid data with missing values!*

Make sure that the range check commands are correct for your data set. To make changes, open the .PRG files in the Notepad program or another text editor and change as necessary.

Using the Provided Cleaning Programs

To run a program in Epi Info type:

RUN <*filename.pgm*>.

For example, to run the venue verification cleaning program from the PLACE CD (if the CD is in your E drive) you type:

RUN E:\EPIINFO\VENU_C.PRG.

The program will ask you for the name of your unclean data set and then when it is finished running will tell you that it created a clean data set named VENU_C.REC. Use this data set for all future analysis of data.

Instructions for Data Analysis

The objective of this activity is to teach participants how to:

- ▲ select a subset of records for analysis;
- ▲ calculate frequencies;
- ▲ calculate means;
- ▲ create a 2 X 2 table to look at 2 variables at once;
- ▲ define new variables; and
- ▲ learn how to modify and run the provided analysis programs that automate the entire process.

The analysis part of the program can be used to produce lists, frequencies, and cross tabulations as well as to conduct basic statistical tests. Instructions for these basic analyses are provided, below. While you will probably not need to type these commands into Epi Info yourself, because we have provided you with analysis programs to run in Epi Info, it will be useful to understand Epi Info's code language. You may want to try other analyses that are not part of PLACE report tables!

Instructions are also provided for defining new variables. You will want to be able to define new variables in analysis so that you can look at age in categories, or in order to create a composite variable of partnership levels that uses information from several questionnaire variables at once, for example.

Lastly, instructions are provided for using the provided Epi Info analysis programs. These programs automate analysis, providing output that can be entered into the PLACE report template tables (the template is available on the PLACE manual CD).

Getting Started

As previously described, Epi Info Version 6 can output analysis results to three different destinations — on screen, to a printer, or to a text document. In some cases, it is preferable to output results to a text document that can be maintained for data quality reasons or easily integrated into a report. These text documents are generated by the "Analysis of data" sub-program, found in the "Programs" menu. Once the "Analysis of data" sub-program is started, commands are submitted by means of the "EPI6>" command line at the bottom of the page. Multiple commands can be submitted in the form of a program, which is a text document containing lists of commands and has a *.PRG file extension.

The first step to analysis is to select the Epi Info data file (with the *.REC extension) that you want to use. Do this by typing "READ" and the name of the data file. If you wanted to analyze the data collected from community informants, and it was located on the A drive, for example, you would type:

READ A:\CI.REC.

Or, if you cleaned data and produced a new data set named CI_C.REC, type:

READ A:\CI_C.REC.

The data file you selected can now be accessed for analysis. The next step is to specify the output destination of the analyses performed. The default is the screen. To specify output to a document, type "**ROUTE**" and the file path and name of the text file you wish to create. For example, typing "**ROUTE C:\EPI6\SOCIAL.TXT**" will create the document SOCIAL.TXT in the C:\EPI6 directory. Once the ROUTE command has been utilized, all output generated by the "Analysis of data" program will be saved to that file. When you are finished writing to your text file, type:

ROUTE SCREEN.

Selecting a Subset of Records for Analysis

If you want to subset your data to look at the characteristics of people in your data that meet certain criteria, you can select only those records that fulfill a certain condition. For example, if you are using the Community Informant Questionnaire (CI.REC), type:

SELECT A8=1.

The above statement tells Epi Info to include only individuals in the analysis who were willing to answer the questionnaire (A8=1). These records will remain selected until you deselect them. To deselect records, type:

SELECT

and press Enter.

If you want to select individuals based on more than one characteristic, then type:

SELECT A8=1 and A5=1.

The above statement tells Epi Info to include only male individuals (A5=1) in the analysis who where willing to answer the questionnaire (A8=1).

Calculating Frequencies

To calculate a frequency, type:

FREQ <variable_name>.

Multiple variables names (up to 15) can be included per FREQ statement. They are listed individually:

FREQ A5 A6 A7 A8.

Calculating a Mean, Median, or Sum

To calculate the mean, medina, or sum of a continuous variable, set the value of the statistics function back to "on." To turn the statistics on, type:

SET STATISTICS=ON.

Then at the bottom of the frequency output for the variable of interest will be the mean, median, and sum values:

SET STATISTICS=ON FREQ A8.

The above statements are used to produce the mean, median, and sum of A8 (age of respondent) and other variables throughout the data analysis process.

Create a 2 X 2 Table to Look at Two Variables at Once

In the community informant data set, we have two variables — gender of community informant (A5) and willing to answer (A8). Consequently, we would like to construct a 2 X 2 table using these variables.

At the epi6 prompt, type the following:

tables A5 A8

and press Enter.

This will produce a table, chi-square value, degrees of freedom, and probability value.

Note that if you press **F3**, you will get a list of variables. **F2** will allow you to list all the commands utilized by Epi Info

In most cases, the command is listed first followed by the variable names. For a list of commands available in analysis, see the Epi Info manual available from CDC at: <u>http://www.cdc.gov/epiinfo/Epi6/ei6manl.htm</u>.

Defining New Variables

A new variable can be created from an existing variable in one of several ways. Names of variables in Epi Info can be no longer than eight characters. For example, if you want to recode an age variable with values that range from 0 to 99, you would use the following code:

DEFINE ageg _ _ _ _ _

RECODE a7 TO ageg 0-15=0_15 16-19=16_19 20-24=20_24 25-29=25_29 30-34=30_34 35-39=35_39 40-99=40+.

The first line should be typed and then entered. The DEFINE statement tells Epi Info to create a new variable named AGEG. The "____" signifies that it will be a character variable. Each blank space ("_") stands for a separate character value. If you had wanted to define a new numeric variable, the code would be DEFINE ageg #. The pound sign ("#") signifies that it will be a numeric variable with one digit. As with the character variable, each pound sign ("#") signifies a separate digit (e.g., "##" indicates a two-digit number, "###" indicates a three digit number, etc).

The second line of text tells Epi Info to recode variable A7 (age of respondent) to the newly define AGEG variable. If A7 has a value of 0 to 15 then the value of AGEG will be 0_15. If A7 has a value of 16 to 19 then the value of AGEG will be 16_19, etc.

Using "If/Then/Else" Statements

Another option to creating new variables is to use an "if/then/else" statement. For example:

IF (A7>=16 and A7<=25) THEN youth=1 ELSE youth=0.

The above code creates a new variable called "youth." If the value of A7 (age of respondent) is greater than or equal to 16 yet less than or equal to 25, then the value for "youth" is achieved (youth = 1). Otherwise, respondents who do not fall into that age group do not achieve the value for youth (youth = 0).

Adapting and Utilizing the Provided Analysis Programs

Multiple commands can be submitted in the form of a program, which is a text document containing lists of commands and has a file extension of "*.PRG." When many analyses are to be performed, submitting commands one by one would be tedious. For this reason, the analysis batch program files are already created for you, to save you time.

These programs (CI.PRG, VENU.PRG, and SOCIAL.PRG) provided on the PLACE CD produce analysis results from the community informant, venue verification, and socializing individuals data sets for you to enter into the PLACE report template tables (the template is also available on the CD). The programs output frequencies from each data set in the order that the information is needed for entry in the PLACE report tables template. You can find the contents of each of these programs reproduced in the appendix of this document. Above, you have been shown the Epi Info code for most of the analyses included in each program.

Review the code for each of the programs. There are specific spots that you will want to edit to take into account data which are specific to your PLACE survey. For example, when you are describing the characteristics of the venues where interviews with socializing individuals took

place, you will need to enter the venue identification numbers in the SELECT command so that analyses will pertain only to those venues.

The program files will save all output to the C:\EPI6\ directory. If the project computer has the Epi Info program saved somewhere else, the ROUTE command in the program will need to be changed in a text editor. If you have named your data sets differently than CI.REC, VENU.REC, and SOCIAL.REC, you will need to rename the data sets or change the program text to recognize the actual data set names. (For example, if you created new, clean data sets named CI_C.REC, VENU_C.REC, and SOCIAL_C.REC, then you will need to modify the programs to use these different names when opening the data sets for analysis.)

The text for each program file is found in the appendix. You can edit the programs using Notepad or Wordpad – just open the Epi Info program that you want to edit from within either of these two simple word processing programs. *It is very important to make sure the programs are updated with any changes made to questionnaires for your PLACE study – otherwise, you may end up with nonsensical results*! If variable or data set names have been changed for your study, for example, you must make sure that those changes are reflected in the analysis programs.

Instructions for Using Provided Analysis Programs

To run each file, type the name and filepath of the program:

RUN E:\EPIINFO\SOCIAL.PRG

You will see:

Enter the name and location of your dataset.

Then enter:

C:\SOCIAL.REC

if, for example, your data set is on your C drive.

The program files included with the PLACE manual contain the ROUTE command that is necessary to specify the output destination and generate the PLACE summary reports. The program files will save all output to the C:\EPI6\ directory (unless you have edited the program files to direct output to another directory location).

▲ SECTION 4: Data Use Exercies

The following exercises, taken from a MEASURE Evaluation workshop on data use, will help supplement your understanding of PLACE data and how they can be used, including how to use the data when preparing a PLACE report.

Data Use Exercise: Documenting the PPA Selection Process

Objective

To review the PLACE objectives, outputs, and data sets with a focus on documenting why in Step 1 the district and PPAs were selected.

Needed Materials

You will need PLACE questionnaires, the PLACE report template, and background information about how the PPA was selected. A summary of Steps 1.3 through 1.5, the relevant activities for selecting of PPAs, is provided in Table 4.1 on the next page. (The questionnaires and template are on the PLACE manual CD. A complete list of PLACE objectives and outputs for all Step 1 activities can be found on pages 38-39 of the PLACE manual.)

Activity

In this exercise, we will focus on an important aspect of Step 1: PLACE Strategy — documenting why specific PPAs were selected for the study. It is important to document why each PPA was selected and to describe the important contextual factors in each PPA that could contribute to HIV transmission and opportunities for reducing transmission.

Do you know why each PPA was selected for PLACE? Ask for a list of the criteria used to identify PPAs and determine which criteria were met by your PPA. Summarize your findings in two sentences here and add them to the PLACE report template narrative (*Section 1.4: Identification, Selection, and Description of <this PPA>*).

Determine whether you have the rest of the information necessary to complete the table describing the PPA (Table 1.4.1 of the template report). Identify a pair of people to work together to write one or two pages for the report describing:

- ▲ the Let's Get in PLACE Workshop (who attended the workshop, the agenda, and the decisions that were made);
- ▲ the PPA or PPAs that were identified and the salient characteristics of each;

- why each particular PPA was selected; and the characteristics of each PPA.

Table 4.1 Step 1 Activities Involved in Selecting PPAs

	Objective
Step 1.3 — Collect and synthesize information to identify PPAs	Obtain contextual data, epidemiologic reports, maps and air photos to inform the strategy
Step 1.4 — Convene a workshop to prioritize assessment areas	Identify and prioritize prevention areas where PLACE will be implemented
Step 1.5 — Make PLACE protocol decisions	Summarize key monitoring and evaluation indicators and maps, and adopt protocol to local context

Data Use Exercise: Understanding PLACE Questionnaires

Objective

To review the PLACE questionnaires.

Needed Materials

You will need a copy of each PLACE questionnaire, available on the PLACE manual CD.

<u>Activity</u>

In this workshop activity, participants divide into pairs and take turns being the interviewer and the respondent (you will need a partner to practice this exercise). First interview your partner using the Community Informant Questionnaire (Form A) and record the venues that the community informant identifies on the Venue and Event Report (Form B). Choose one of the venues reported by the community informant (your partner in the exercise). Use the Venue Verification Form (Form C) to ask the venue representative (your partner) about the characteristics of the venue. Finally, take turns pretending to be an interviewer and a person socializing at the venue and complete the Questionnaire for Individuals Socializing at Venues (Form D). The first person pretending to be a person socializing at the venue should have multiple sexual partners. When roles are switched, the person socializing at the venue should be a person who has never had sex.

Answer the following questions:

▲ What is the age of eligibility for each of the following questionnaires?

Community informants (Form A):
Venue verification (Form C):
Socializing individuals (Form D):

▲ If a respondent is eligible and willing to answer the questions, how many questions should be left blank in the Venue Verification Form (Form C) and Questionnaire for Individuals Socializing at Venues (Form D)?

Venue verification (Form C):_____ Socializing individuals (Form D): _____

- ▲ What questions on the Venue Verification Form (Form C) will provide the most important information for planning AIDS prevention programs? Why?
- ▲ What questions on the Questionnaire for Individuals Socializing at Venues (Form D) will provide the most important information for planning AIDS prevention programs? Why?

Note: Because answers vary from study to study depending upon local decisions and needs, correct answers are not given in this guide.

Data Use Exercise: Understanding PLACE Questionnaire Legal Values

Objective

To understand the legal values associated with each question on the questionnaires.

Needed Materials

You will need the PLACE questionnaires (available on the PLACE manual CD).

<u>Activity</u>

Complete columns 2 and 3 in the table below for each variable with the appropriate question number and legal values. The first two have been done for you. A "legal value" is a number that is an acceptable code for a response.

Variable Content	Question Number	Legal Values
Type of community informant being interviewed	A6	1-12, 20-27, 30-39, 98
Whether school holidays are a busy time of year for the venue	C24A	1,2
The total number of people who are socializing at a venue according to the venue representative		
The day of the week that an individual socializing at a venue was interviewed about his or her behavior		
How frequently a person visits a venue		
Whether a respondent has ever attracted a new sexual partner at the venue		
The number of people that the respondent has had sex with for the first time in the past four weeks		

Table 4.2 Legal Values Exercise Answer Sheet
Data Use Exercise: Understanding Data Cleaning

Objective

To identify cleaning problems in the data

Materials Needed

You will need the printout of the uncleaned data that you created in Section 3 of this guide (in "Data Analysis Exercise: Creating a Text File," which begins on page 19), as well as the venue verification and socializing individuals questionnaires (Form C and Form D).

<u>Activity</u>

- ▲ For each variable you listed on the printout produced in Section 3, look at the questionnaire and determine if the printout shows any values for each variable that are not legal. If a value is not legal, circle it with a red pen on the printout.
- ▲ C2 is the unique venue number. Look at the printout of the original data for C3. Does any number appear two or more times? Each venue number should only appear once. If a number appears more than once, tell the leaders of the workshop.
- ▲ C3 indicates if the venue was inside the PPA or outside the PPA. Were venues outside the PPA supposed to be visited for venue verification or not in your PLACE assessment?
- ▲ What is your assessment of how clean the data are?
- ▲ Make a list of what needs to be cleaned in the venue and social data sets:

List of duplicate unique venue numbers (C2):

Variable out of range or illegal value for these variables:

Data Use Exercise: Cleaning Data in Epi Info

Objective

To gain more understanding of how to clean data using Epi Info and Epi Info cleaning programs.

Needed Materials

You will need: the printout of the uncleaned data (the printout you created in "Data Analysis Exercise: Creating a Text File" in Section 3, beginning on page 19) and the cleaning programs for the venue verification and socializing individual data sets. (The text for these programs, .CHK files for data entry, is in the appendix of this guide.)

<u>Activity</u>

Compare the cleaning program with the printout of the original data sets.

Data that are out of range or have an illegal value can be fixed with a statement such as this:

If C24=1 or C24=2 then C24=C24 else C24=.

The way Epi Info reads the above statement is:

if C24equals 1 or C24=2, then C24 can stay unchanged, but if C24 does not equal 1 or 2, then delete the value for C24 and make the value for C24 "missing." (A full stop or period punctuation mark is how Epi Info indicates that a value is missing.)

Review the variables that had illegal values in your data and write the Epi Info statements that would clean these variables here:

Check your statements by finding the statement in the cleaning program that cleans the variable.

Data Use Exercise: Creating New Variables in Epi Info

Objective

To gain a better understanding of how to create variables using Epi Info.

Needed Materials

You will need the Venue Verification Form (Form C) and the analysis programs for the venue verification data set. The text for this program (VENU.PRG) is provided in the appendix of this guide.

Activity

There are several new variables created in the analysis programs. In the analysis program for the venue verification data, six new variables are created to identify venues where key populations are socializing. These venues should be a higher priority for AIDS prevention. Six new variables are created to identify venues where people meet new sexual partners, sex workers solicit, and where IDUs, students/youth, mobile populations, and men who have sex with men socialize. Finally, a seventh variable summarizing the total number of key populations socializing at each venue is created.

Look at the analysis program for the venue verification data in the appendix. Find the code that creates these seven new variables. Look at Venue Verification Form (Form C) to find the questions that are used to create these new variables and try to understand the logic of the code.

The new variable identifying venues where people who meet new partners socialize is called "meet_new." It is determined by responses to questions C22A and C22B in the questionnaire.

Write out questions C22A and C22B below:

Now, look at the code creating "meet_new":

if (C22A=1 or C22B=1) then meet_new=1 else meet new=0

This code tells Epi Info to create a new variable called "meet_new" that will be equal to zero unless C22A=1 or C22B=1. If C22A=1 or C22B=1, then "meet_new" will also be equal to 1.

Now, look at the code creating the variable that summarizes the number of key populations socializing at each venue:

total=meet_new+sex_sol+idu_soc+sy_soc+mob_so
c+msm soc

This code tells Epi Info to create a new variable called "total" that will be equal to the sum of meet_new, sex_soc, idu_soc, sy_soc, mob_soc, and msm_soc.

For all the other variables that show where key populations are socializing, write out the new variable names, the questionnaire items used to create the new variables, and the Epi Info code that creates them. Fill in this information in the table below. The first row has been done for you. (Answers are given on the next page.)

Variable Description	Variable Name	Questionnaire Items Used to Create Variable	Epi Info Code Used to Create Variable
Identifies venues where people meet new partners	meet_new	C22A, C22B	if (C22A=1 or C22B=1) then meet_new=1 else meet_new=0
Identifies venues where sex workers solicit			
Identifies venues where IDUs socialize			
Identifies venues where students/yuth socialize			
Identifies venues where mobile populations socialize			
Identifies venues where men who have sex with men socialize			
Sums up the total number of key populations socializing at each venue			

Table 4.3 Creating New Variables Exercise Answer Sheet

What other variables would you like to create?

How would you write the code for these variables?

Answers to Table 4.3 (from the previous page) are as follows:

Variable Description	Variable Name	Questionnaire Items Used to Create Variable	Epi Info Code Used to Create Variable
Identifies venues where people meet new partners	meet_new	C22A, C22B	if (C22A=1 or C22B=1) then meet_new=1 else meet_new=0
Identifies venues where sex workers solicit	sex_sol	C22E	if C22E=1 then sex_sol=1 else sex_sol=0
Identifies venues where IDUs socialize	idu_soc	C30K, C31K	if (C30K>0 or C31K>0) then idu_soc=1 else idu_soc=0
Identifies venues where students/youth socialize	sy_soc	C30D, C30E, C31D, C31E	if (C30D>0 or C30E>0 or C31D>0 or C31E >0) then sy_soc=1 else sy_soc=0
Identifies venues where mobile populations socialize	mob_soc	С30Н, С31Н	if (C30H>0 or C31H>0) then mob_soc=1 else mob_soc=0
Identifies venues where men who have sex with men socialize	msm_soc	C31M	if C31M>0 then msm_soc=1 else msm_soc=0
Sums up the total number of key populations socializing at each venue	total	meet_new, sex_sol, idu_soc, sy_soc, mob_soc, msm_soc	total=meet_new + sex_sol + idu_soc + sy_soc + mob_soc + msm_soc

Data Use Exercise: Filling in the PLACE Report Template Tables

Objective

To begin filling in tables in the PLACE report template with values from the analysis printouts.

Needed Materials

You will need the PLACE questionnaires, report template, and printouts created from running the analysis programs (CI.PRG, VENU.PRG, and SOCIAL.PRG) on each of the Epi Info data sets. If you had to clean a data set, make sure to use the cleaned version of the data set for analysis.

<u>Activity</u>

Print out the results from analysis of each data set. If you used the provided Epi Info programs for analysis, your results should be in a text file in the EPI6 folder of the C:\ drive. Files names should be: ci_t.txt, venu_t.txt, and social_t.txt.

Begin with the results from the community informant interviews that will be entered into the PLACE report tables. Notice that the printout indicates which table each result should be entered into. Results are in the order that they are found in the table template. You will need to cross-reference the Community Informant Questionnaire (Form A) in order to understand which values should be entered into each row. For example, Table 2.2.1 in the report template is the first table you will fill in with data from the Community Informant Questionnaire (Form A). The Epi Info code "freq A4" is the first command. Look up the meaning of variable A4 in the questionnaire.

What does A4 refer to?

You'll see that A4 asks for the date of the interview. The command "freq A4" creates a list of all the different dates when interviews with community informants took place. Add up the total number of unique dates to determine the total number of days of community informant interviews and enter this number into the appropriate row of Table 2.2.1.

Continue to fill in the tables with information provided in the rest of the community informant analysis printout. Then, complete the rest of the PLACE report template using the venue verification and socializing individuals analyses printouts.

This appendix lists Epi Info code for each questionnaire data entry screen (.QES files), each check file for data entry (.CHK files), each cleaning program and each analysis program (.PRG files). In a number of places, this guide refers you to these programs.

Providing the coding in printed form should help you to understand the logic and meaning of the Epi Info code used in your PLACE study, as well as provide you with an easy reference for determining what needs to be changed in your study questionnaires, check programs, and cleaning and analysis programs.

Questionnaire Data Entry Screens

Community Informant Questionnaire (Form A) Data Entry Screen File Location and Name: E:\EPIINFO\CI.QES

Community Informant Questionnaire {A1} Priority Prevention Area Code ### {A2} Location of Interview in PPA ## {A3A} Interviewer Number ## {A3B} Community Informant Number ### {A4} Date <DD/MM/YYY>> {A5} Gender of Community Informant # {A6} Type of Community Informant Code ## {A7} How old are you? ## {A8} Are you willing to answer a few questions? # {A10A} Venues inside this PPA ## {A10B} Venues outside this PPA ## {A10C} Events inside PPA ## {A10D} Events outside PPA ##

Venue Verification Form (Form C) Data Entry Screen File Location and Name: E:\EPIINFO\VENU.QES

Venue Verification Form

{C1} Priority Prevention Area Code ### {C2} Unique Venue Number ### {C3} Location of Venue Code ## {C4} How Many Community Informants Reported This Venue ### {C5A} Venue name {C5B} Address of Venue {C6} Interviewer Gender # {C7} Interviewer Number ## {C8} Date <DD/MM/YYYY> TIME {C9A} Hour ##:{C9B} Min ## {C10} Was the venue found? # {C11A} What is the proper name? {C11B} What is the correct venue address? GPS Coordinates {C12A} Latitude: ### {C12B} Longitude: ### {C13} What type of venue is this? ## {C14} Gender of respondent # {C15} Position at venue # {C16A} How old are you? ## {C16B} Are you willing to answer these questions? # {C17} Was an interview initiated? # {C18} How many years has this venue been in operation? # {C19A} Male staff: ## {C19B} Female staff: ## {C20A} People buy food and eat # {C20B} People socialize for an hour or more # {C20C} People can buy beer/alcohol to consume onsite # {C20D} People bring beer/alcohol to consume # {C20E} TV Viewing # {C20F} VCR or CD video viewing # {C20G} Explicit sex videos shown # {C20H} Individual/group or couple dancing # {C20I} Exotic of go-go dancing # {C20J} Live music # {C20K} Recorded music # {C20L} Live DJ # {C21} Have you see used syringes lying around... in the past three months? # {C22A} Do men meet new female sexual partners here? # {C22B} Do women meet new sexual partners here? # {C22C} Do men meet male (gay) sexual partners here? #

{C22D} Does someone onsite help partners hook up/link up? # (C22E) Do female sex workers solicit customers here? # {C22F} Do people have sex here at the venue? # C22G Do female staff meet new sexual partners here? # (C22H) Do male staff meet new sexual partners here? # {C23} Where do people socialize here? # {C24A} School holidays are busy #
{C24B} Public holidays are busy # {C24C} End of month is busy # {C24D} Now is a busy time of year # {C24E} OTHER LOCAL # {C25A} Busiest Day # {C25B} On DAY FROM ABOVE, Busiest Time # {C26A} Next-Busiest Day ## {C26B} On DAY FROM ABOVE, Busiest Time ## {C27} Approximately how many people... busiest day at the busiest time? ## {C28A} Code corresponding to total ## {C28B} Total Number Socializing #### {C28C} Men Socializing ### (C28D) Women Socializing ### {C29A} This PPA # {C29B} Elsewhere in district/province # {C29C} Other District/Province 1 # {C29D} Other District/Province 2 # C29E Elsewhere in Country # {C29F} Outside this Country # {C30A} Women live in PPA # C30B Women are secondary or high school students # (C30C) Women are unemployed # {C30D} Women are university/college students # {C30E} Women are less than age 18 # {C30F} Women live within a 10-minute walk of here # {C30G} Women come here at least once a week # {C30H} Women are from outside this district/province # {C30I} Women drink alcohol here # {C30J} Women find a new sexual partner here # {C30K} Women appear to be injection drug users # {C30L} Women appear to be selling or buying sex # {C31A} Men live in PPA # {C31B} Men are secondary or high school students # {C31C} Men are unemployed # {C31D} Men are university/college students # (C31E) Men are less than age 18 # C31F} Men live within a 10-minute walk of here # {C31G} Men come here at least once a week # (C31H) Men are from outside this district/province # {C31I} Men drink alcohol here # {C31J} Men find a new sexual partner here # (C31K) Men appear to be injection drug users # {C31L} Men appear to be selling or buying sex # {C31M} Men are men who have sex with men/gay/homosexual #

{C32A} Men... go to other locations to socialize and look for a new partner? # {C32B} Women... other locations to socialize and look for a new partner? # {C33A} Name of first venue: {C33B} Location ## (C33C) If in other district/province, SPECIFY: ______ {C33D} Venue Type ## C33E If other venue type, SPECIFY:_____ {C33F} Unique venue number ### {C34A} Name of second venue: {C34B} Location ## {C34C} If in other district/province, SPECIFY: {C34D} Venue Type ## {C34E} If other venue type, SPECIFY: {C34F} Unique venue number ### {C35A} Any HIV/AIDS prevention? # {C35B} Educational talk on HIV/AIDS? # {C35C} Peer health education program? # {C35D} Condom promotion? # {C35E} HIV/AIDS video shown at this location? # {C35F} HIV/AIDS Radio program broadcast? # {C35G} HIV/AIDS posters or leaflets? # {C35H} Other Local? # {C36} In the past year, how often have condoms been available here? # {C37} Are there any condoms here today? # {C38} In the past four weeks... any condoms been sold or taken freely? # {C39} Is it possible to get a condom... at night? # {C40} Willing to have some type of AIDS prevention program here? # {C41} Would you be willing to sell condoms here? # {C42A} Number of HIV/AIDS posters displayed ## {C42B} Number of HIV/AIDS brochures at venue ## {C42C} Number of condoms visible ### {C42D} Number of used syringes lying around ##

Questionnaire for Individuals Socializing at Venues (Form D) Data Entry Screen File Location and Name: E:\EPIINFO\SOCIAL.QES

Questionnaire for Individuals Socializing at Venues

{D1} Priority Prevention Area Code ###

{D2A} Interviewer Number #
{D2B} Interviewer Gender ##

{D3} Venue name

{D4} Unique Venue Number ###

{D5} Location of Venue Code ## {D6A} Date <DD/MM/YYYY> $\{D7\}$ Day of the week # TIME {D8A} Hour ##:{D8B} Min ## {D9A} MEN: ### {D9B} WOMEN: ### {D10} Individual Interview Number ## {D11} Gender of respondent # {D12} How old are you? ## {D13} Are you here with a parent or here on a family erand... ? # {D14} Are you Willing to answer these questions? # {D15A} Indicate whether respondent is capable of completing questionnaire # {D15B} Why Not? {D16} Do you live in PPA? # {D17} How would you describe where you live? # {D18} How long have you lived here/there? ## {D19} Where slept last night # {D20A} When did you most recently spend the night outside of PPA? # {D20B} Date <DD/MM/YYYY> {D21A} When did you most recently purchase medicine, drugs, vitamins... ? # {D21B} Date <DD/MM/YYYY> {D22A} When did you most recently smoke a cigarette? # {D22B} Date <DD/MM/YYYY> {D23A} When did you most recently have sex without a condom? # {D23B} Date <DD/MM/YYYY> {D24A} Before today, when did you most recently come to this place? # {D24B} Date <DD/MM/YYYY> {D25} When did you come to this place the first time? # {D26} How often do you come to this place? # {D27} Do you believe that some people come here to meet... partner? # {D28A} Socialize? # {D28B} Drink alcohol? # ${D28C}$ Look for a sexual partner? # {D28D} Work at my job? # {D29A} Other place been to: ## ${D29B}$ Other places will go to: ##

{D30} Have you ever had sex with a person you first met here? # {D31} When was the most recent time you met someone here... later had sex? # $\{D32\}$ The first time you had sex with this person, did you use a condom? # {D33} TOTAL IN PAST 4 WEEKS: ## {D34} 4 WEEK NEW: ## {D35} 12 MONTH TOTAL: ## {D36} 12 MONTH NEW: ## {D37} Did you use a condom the first time... most recent new partner? # {D38A} AGE OF YOUNGEST: ## {D38B} AGE OF OLDEST: ## {D39} SOCIALIZED AT THIS PLACE: ## {D40A} In past year... sex with someone not living with or married to? # {D40B} If yes, did you use a condom the last time you had sex... ? # {D41A} In past year... sex with someone living with or married to? # $\{D41B\}$ If yes, did you use a condom the last time you had sex...? # {D42A} Have you ever had sex? # {D42B} Age at first sex ## {D43A} MEN: Pain on urination? # (D43B) MEN: Unusual discharge? # {D43C} MEN: Sores? # {D44A} MEN: Get medication from a street vendor? # (D44B) MEN: Get medication from a pharmacy? # {D44C} MEN: Visit an herbalist? # {D44D} MEN: Go to a public clinic or hospital? # {D44E} MEN: Go to a private doctor? # {D45} MEN: How many men... have you had sex with in the past 12 months? ## {D46A} WOMEN: Lower abdominal pain? # D46B WOMEN: Unusual discharge? # {D46C} WOMEN: Sores? # {D47A} WOMEN: Get medication from a street vendor? # {D47B} WOMEN: Get medication from a pharmacy? # {D47C} WOMEN: Visit an herbalist? # {D47D} WOMEN: Go to a public clinic or hospital? # {D47E} WOMEN: Go to a private doctor? # {D48} Did you use a condom the last time you had sex? # {D49A} Have you given or received money in exchange for sex... ? # {D49B} IF YES, did you use a condom the last time money was given... ? # {D50} Do you have a condom with you now? #

{D51A} Attended an AIDS education program? # {D51B} Seen an AIDS video? # $\left\{ D51C \right\}$ Heard an AIDS program on the radio? # {D51D} Seen an AIDS prevention poster? # ${
m D51E}{
m \tilde{}}$ Talked about ${
m HIV}$ or AIDS with a health worker? # {D51F} Obtained a condom at this venue? # (D51G) Other locally appropriate # {D52A} Have you been tested in the past 12 months... or never tested? # {D52B} Did you get your test results? # {D53} Would you be interested in getting HIV test... next 12 months? # {D54} Are you currently a student? # {D55} What is the highest level of school you have completed? # {D56} Are you currently employed... or... are you looking for work? # {D57} Have you ever been married? # {D58A} Are you currently married or living with a sexual partner? # {D58B} How frequently do you use condoms with your spouse or live-in partner? # {D59} In your opinion, do people who inject drugs socialize at this venue? # {D60} Have you injected an addictive drug... in the past 12 months? # {D61} When did you last inject drugs? # Injection Drug Use Module {D62} With whom do you usually inject drugs? # {D63} Did you share a syringe the last time you injected drugs? # {D64A} Share a syringe #
{D64B} Take drugs from a common reservoir # {D64C} Use read-made drug solution without boiling # {D64D} Exchange a used for a new syringe # {D65A} TOTAL: ## {D65B} NEW: ## {D66} Can you get new syringes whenever you want? # TB Module {D67A} Cough lasting 3 or more weeks # {D67B} Blood-stained sputum # {D67C} Chest pain # (D67D) Loss of appetite # $\{D67E\}$ Loss of weight # {D67F} Fatigue # {D67G} Night sweats # {D68A} Do you know a disease with these symptoms? # {D68B} IF YES: What disease? # {D69A} Did you go to the clinic for these symptoms? #

{D69B} NUMBER OF TIMES: ##
{D69C} If yes, have you been asked to give a sputum sample at the clinic? #
{D100A} Unemployment #
{D100B} Violence #
{D100C} Access to health care #
{D100D} AIDS #
{D100E} Alcohol abuse #
{D100F} Lack of education #
{D100G} Getting food to eat #
{D100H} Injection drug abuse #

Check Files for Data Entry

Community Informant Questionnaire (Form A) Check File for Data Entry File Location and Name: E:\EPIINFO\CI.CHK

```
A4
 RANGE 01/01/2005 01/01/2055
END
A5
 RANGE 1 2
END
A6
 RANGE 1 98
END
A8
  LEGAL
    1
    2
    3
  END
END
```

Venue Verification Form (Form C) Check File for Data Entry File Location and Name: E:\EPIINFO\VENU.CHK

```
C6
 RANGE 1 2
END
C8
 RANGE 01/01/2005 01/01/2055
END
C9A
 RANGE 0 23
END
C9B
 RANGE 0 60
END
C10
 RANGE 1 5
END
C13
 RANGE 1 57
END
C14
 RANGE 1 2
END
```

```
C15
 RANGE 1 3
END
C16B
 RANGE 1 2
END
C17
 RANGE 1 3
END
C18
 LEGAL
  1
   2
   3
  9
 END
END
C20A
RANGE 1 2
END
C20B
RANGE 1 2
END
C20C
RANGE 1 2
END
C20D
RANGE 1 2
END
C20E
RANGE 1 2
END
C20F
RANGE 1 2
END
C20G
RANGE 1 2
END
C20H
 RANGE 1 2
END
C20I
 RANGE 1 2
END
C20J
 RANGE 1 2
```

```
END
C20K
 RANGE 1 2
END
C20L
 RANGE 1 2
END
C21
RANGE 1 2
END
C22A
RANGE 1 2
END
C22B
RANGE 1 2
END
C22C
RANGE 1 2
END
C22D
RANGE 1 2
END
C22E
RANGE 1 2
END
C22F
RANGE 1 2
END
C22G
RANGE 1 2
END
C22H
RANGE 1 2
END
C23
RANGE 1 4
END
C24A
 RANGE 1 2
END
C24B
 RANGE 1 2
END
C24C
 RANGE 1 2
```

```
END
C24D
 RANGE 1 2
END
C24E
 RANGE 1 2
END
C25A
RANGE 1 7
END
C25B
RANGE 1 4
END
C26A
 LEGAL
  11
   22
  33
   44
   55
   66
   77
 END
END
C26B
LEGAL
  11
   22
   33
   44
 END
END
C27
RANGE 1 14
END
C28A
 LEGAL
  1
   2
   4
   6
   9
   15
   19
   20
 END
END
C29A
 RANGE 1 3
END
```

```
C29B
 RANGE 1 3
END
C29C
 RANGE 1 3
END
C29D
 RANGE 1 3
END
C29E
RANGE 1 3
END
C29F
RANGE 1 3
END
C30A
RANGE 0 3
END
C30B
RANGE 0 3
END
C30C
RANGE 0 3
END
C30D
RANGE 0 3
END
C30E
RANGE 0 3
END
C30F
RANGE 0 3
END
C30G
RANGE 0 3
END
C30H
 RANGE 0 3
END
C30I
 RANGE 0 3
END
C30J
 RANGE 0 3
END
```

```
C30K
 RANGE 0 3
END
C30L
 RANGE 0 3
END
C31A
 RANGE 0 3
END
C31B
RANGE 0 3
END
C31C
RANGE 0 3
END
C31D
RANGE 0 3
END
C31E
RANGE 0 3
END
C31F
RANGE 0 3
END
C31G
RANGE 0 3
END
C31H
RANGE 0 3
END
C31I
RANGE 0 3
END
C31J
RANGE 0 3
END
C31K
 RANGE 0 3
END
C31L
 RANGE 0 3
END
C31M
 RANGE 0 3
END
```

C32A LEGAL 1 2 9
END END
C32B LEGAL 1 2 9 END END
C33B LEGAL 1 2 3 97 99 END Jumps 1 C33D 2 C33D 97 C33D 99 C33D
END END
C33D RANGE 1 10 LEGAL 99 END Jumps 1 C33F 2 C33F 3 C33F 4 C33F 5 C33F 4 C33F 5 C33F 6 C33F 7 C33F 8 C33F 9 C33F 99 C33F END END
C34B LEGAL 1 2 3 97 99 END Jumps

```
1 C34D
   2 C34D
   97 C34D
   99 C34D
 END
END
C34D
 RANGE 1 10
 LEGAL
  99
 END
 Jumps
  1 C34F
   2 C34F
   3 C34F
   4 C34F
   5 C34F
   6 C34F
   7 C34F
  8 C34F
  9 C34F
  99 C34F
 END
END
C35A
RANGE 1 2
END
C35B
RANGE 1 2
END
C35C
RANGE 1 2
END
C35D
RANGE 1 2
END
C35E
RANGE 1 2
END
C35F
 RANGE 1 2
END
C35G
 RANGE 1 2
END
C35H
 RANGE 1 2
END
C36
 RANGE 1 3
```

```
END
C37
 RANGE 1 3
END
C38
  RANGE 1 4
END
C39
  LEGAL
    1
    2
    8
  END
END
C40
 LEGAL
    1
    2
    8
  END
END
C41
 LEGAL
    1
    2
    3
    9
  END
END
```

Questionnaire for Individuals Socializing at Venues (Form D) Check File for Data Entry File Location and Name: E:\EPIINFO\SOCIAL.CHK

```
D2B

RANGE 1 2

END

D6

RANGE 01/01/2005 01/01/2055

END

D7

RANGE 1 7

END

D8A

RANGE 0 23

END

D8B

RANGE 0 59

END
```

```
D11
 RANGE 1 2
END
D13
 RANGE 1 5
END
D14
RANGE 1 2
END
D15A
RANGE 1 2
Jumps
1 D16
 END
END
D16
RANGE 1 5
END
D17
RANGE 1 5
END
D18
RANGE 0 97
END
D19
RANGE 1 5
END
D20A
 LEGAL
   1
   2
   3
   4
   6
   7
   9
 END
 Jumps
  7 D21A
  9 D21A
 END
END
D20B
 RANGE 01/01/2005 01/01/2055
END
D21A
 REPEAT
 LEGAL
  1
   2
```

```
3
   4
   6
   7
   9
 END
 Jumps
   7 D22A
  9 D22A
 END
END
D21B
 RANGE 01/01/2005 01/01/2055
END
D22A
 LEGAL
   1
   2
   3
   4
   6
   7
   9
 END
 Jumps
   7 D23A
   9 D23A
 END
END
D22B
 RANGE 01/01/2005 01/01/2055
END
D23A
 LEGAL
   1
   2
   3
   4
   5
   6
   7
   9
 END
 Jumps
  9 D24A
 END
END
D23B
 RANGE 01/01/1930 01/01/2055
END
D24A
 LEGAL
   2
```

```
3
   4
   5
   6
   7
   8
 END
 Jumps
  8 D25
 END
END
D24B
 RANGE 01/01/1930 01/01/2055
END
D25
RANGE 2 8
END
D26
RANGE 1 8
END
D27
RANGE 1 2
END
D28A
RANGE 1 2
END
D28B
RANGE 1 2
END
D28C
RANGE 1 2
END
D28D
RANGE 1 2
END
D30
 RANGE 1 2
END
D31
 LEGAL
   2
   3
   4
   5
   6
   7
   9
 END
END
```

```
D32
 LEGAL
 1
  2
  9
END
END
D37
 LEGAL
 1
2
9
 END
END
D39
RANGE 0 97
END
D40A
RANGE 1 2
END
D40B
LEGAL
 1
 2
9
END
END
D41A
RANGE 1 2
END
D41B
LEGAL
 1
2
9
END
END
D42A
RANGE 1 2
END
D42B
RANGE 0 97
END
D43A
 LEGAL
 1
  2
  9
 END
END
```

D43B LEGAL 1 2	
9 END END	
D43C LEGAL 1 2 9	
9 END END	
D44A REPEAT LEGAL 1 2 9	
END END	
D44B LEGAL 1 2 9	
END END	
D44C LEGAL 1 2 9	
END END	
D44D LEGAL 1 2 9	
END END	
D44E LEGAL 1 2 9	
END END	
D45 RANGE 0 97 LEGAL	

99 END END
D46A LEGAL 1 2 9
END END
D46B LEGAL 1 2 9
END END
D46C LEGAL 1 2 9
END END
D47A LEGAL 1 2 9 END
END
D47B LEGAL 1 2 9
END END
D47C LEGAL 1 2 9
END END
D47D LEGAL 1 2 9
END END

D47E LEGAL 1 2 9 END END D48 LEGAL 1 2 3 9 END END D49A LEGAL 1 2 3 9 END END D49B LEGAL 1 2 3 9 END END D50 LEGAL 1 2 3 9 END END D51A RANGE 1 2 END D51B RANGE 1 2 END D51C RANGE 1 2 END D51D RANGE 1 2 END

```
D51E
 RANGE 1 2
END
D51F
RANGE 1 2
END
D51G
RANGE 1 2
END
D52A
RANGE 1 3
END
D52B
LEGAL
 1
  2
  9
 END
END
D53
RANGE 1 2
END
D54
LEGAL
  1
   2
   3
   4
 END
END
D55
RANGE 1 4
END
D56
RANGE 1 4
END
D57
RANGE 1 2
END
D58A
RANGE 1 2
END
D58B
 LEGAL
  1
   2
   3
   9
 END
```

```
END
D59
RANGE 1 2
END
D60
RANGE 1 2
END
D61
LEGAL
 1
  2
  3
   4
   5
  9
 END
END
D62
LEGAL
 1
  2
  3
  4
  9
 END
END
D63
LEGAL
 1
2
9
END
END
D64A
LEGAL
 1
2
9
END
END
D64B
LEGAL
 1
2
9
 END
END
D64C
 LEGAL
  1
   2
   9
```

```
END
END
D64D
 LEGAL
  1
  2
  9
 END
END
D66
 LEGAL
  1
   2
   3
  9
 END
END
D67A
RANGE 1 2
END
D67B
RANGE 1 2
END
D67C
RANGE 1 2
END
D67D
RANGE 1 2
END
D67E
RANGE 1 2
END
D67F
RANGE 1 2
END
D67G
RANGE 1 2
END
D68A
RANGE 1 2
END
D68B
 LEGAL
  1
   2
  8
 END
END
```

```
D69A
 LEGAL
  1
  2
  9
 END
END
D69C
 LEGAL
  1
2
  8
  9
 END
END
D100A
RANGE 1 3
END
D100B
RANGE 1 3
END
D100C
RANGE 1 3
END
D100D
RANGE 1 3
END
D100E
RANGE 1 3
END
D100F
RANGE 1 3
END
D100G
RANGE 1 3
END
D100H
RANGE 1 3
END
```

Cleaning Programs

Community Informant Questionnaire (Form A) Cleaning Program File Location and Name: E:\EPIINFO\CI_C.PRG

* Name of Program: ci c.prg *Creating cleaning and new variable program for community informant data type " type "This program will create a new clean dataset called ci c.rec" type "from your community informant data and place it in the C:\EPI6\ drive." type "Use this program if you didn't use a check program when entering " type "data, or if you want to make sure that all the values in your " type "dataset are in range." type "If you want the cleaned dataset to be placed in another location," type "you will need to edit this program using notepad, as indicated in" type "the Data Management and Analysis instruction document." type " " type "Enter the name and location of your community informant dataset below" read ?Enter the name and location of your dataset:? route screen *Cleaning program: Recoding out of range values to MISSING values if A5=1 or =2 then A5=A5 else A5=. if A6>=1 and <=98 then A6=A6 else A6=. if A8=1 or =2 or =3 then A8=A8 else A8=. *Creating a cleaned community informant rec file to use for analysis erase c:\epi6\ci c.rec route c:\epi6\ci c.rec write recfile type " " type "A new clean dataset named ci c.rec has been created in the C:\EPI6\ drive." type "This dataset should be used for future analyses." Venue Verification Questionnaire (Form C) Cleaning Program **File Location and Name:** E:\EPIINFO\VENU C.PRG * Name of Program: venu c.prg *Creating cleaning and new variable program for venue verification data type " " type "This program will create a new clean dataset called" type "venu c.rec from your venue verification"

type "data and place it in the C:\EPI6\ drive."

type "Use this program if you didn't use a check program when entering " type "data, or if you want to make sure that all the values in your " type "dataset are in range." type "If you want the cleaned dataset to be placed in another location,"

type "you will need to edit this program using notepad, as indicated in" type "the Data Management and Analysis instruction document." type " " type "Enter the name and location of your venue verification dataset below" read ?Enter the name and location of your dataset:? route screen *Cleaning program: Recoding out of range values to MISSING values if C6=1 or =2 then C6=C6 else C6=. if C9A>=1 and <=23 then C9A=C9A else C9A=. if C9B>=1 and <=60 then C9B=C9B else C9B=. if C10>=1 and <=5 then C10=C10 else C10=. if C13>=1 and <=57 then C13=C13 else C13=. if C14=1 or =2 then C14=C14 else C14=. if C15=1 or =2 or =3 then C15=C15 else C15=. if C16B=1 or =2 then C16B=C16B else C16B=. if C17=1 or =2 or =3 then C17=C17 else C17=. if C18=1 or =2 or =3 or =9 then C18=C18 else C18=. if C20A=1 or =2 then C20A=C20A else C20A=. if C20B=1 or =2 then C20B=C20B else C20B=. if C20C=1 or =2 then C20C=C20C else C20C=. if C20D=1 or =2 then C20D=C20D else C20D=. if C20E=1 or =2 then C20E=C20E else C20E=. if C20F=1 or =2 then C20F=C20F else C20F=. if C20G=1 or =2 then C20G=C20G else C20G=. if C20H=1 or =2 then C20H=C20H else C20H=. if C20I=1 or =2 then C20I=C20I else C20I=. if C20J=1 or =2 then C20J=C20J else C20J=. if C20K=1 or =2 then C20K=C20K else C20K=. if C20L=1 or =2 then C20L=C20L else C20L=. if C21=1 or =2 then C21=C21 else C21=. if C22A=1 or =2 then C22A=C22A else C22A=. if C22B=1 or =2 then C22B=C22B else C22B=. if C22C=1 or =2 then C22C=C22C else C22C=. if C22D=1 or =2 then C22D=C22D else C22D=. if C22E=1 or =2 then C22E=C22E else C22E=. if C22F=1 or =2 then C22F=C22F else C22F=. if C22G=1 or =2 then C22G=C22G else C22G=. if C22H=1 or =2 then C22H=C22H else C22H=. if C23=1 or =2 or =3 or =4 then C23=C23 else C23=. if C24A=1 or =2 then C24A=C24A else C24A=. if C24B=1 or =2 then C24B=C24B else C24B=. if C24C=1 or =2 then C24C=C24C else C24C=. if C24D=1 or =2 then C24D=C24D else C24D=. if C24E=1 or =2 then C24E=C24E else C24E=. if C25A>=1 and <=7 then C25A=C25A else C25A=. if C25B>=1 and <=4 then C25B=C25B else C25B=. if C26A=11 or =22 or =33 or =44 or =55 or =66 or =77 then C26A=C26A else C26A=. if C26B=11 or =22 or =33 or =44 then C26B=C26B else C26B=. if C27>=1 and <=14 then C27=C27 else C27=. if C28A=1 or =2 or =4 or =6 or =9 or =15 or =19 or =20 then C28A=C28A else C28A=. if C29A=1 or =2 or =3 then C29A=C29A else C29A=. if C29B=1 or =2 or =3 then C29B=C29B else C29B=. if C29C=1 or =2 or =3 then C29C=C29C else C29C=. if C29D=1 or =2 or =3 then C29D=C29D else C29D=. if C29E=1 or =2 or =3 then C29E=C29E else C29E=. if C29F=1 or =2 or =3 then C29F=C29F else C29F=. if C30A>=0 and <=3 then C30A=C30A else C30A=.
if C30B>=0 and <=3 then C30B=C30B else C30B=. if C30C>=0 and <=3 then C30C=C30C else C30C=. if C30D>=0 and <=3 then C30D=C30D else C30D=. if C30E>=0 and <=3 then C30E=C30E else C30E=. if C30F>=0 and <=3 then C30F=C30F else C30F=. if C30G>=0 and <=3 then C30G=C30G else C30G=. if C30H>=0 and <=3 then C30H=C30H else C30H=. if C30I>=0 and <=3 then C30I=C30I else C30I=. if C30J>=0 and <=3 then C30J=C30J else C30J=. if C30K>=0 and <=3 then C30K=C30K else C30K=. if C30L>=0 and <=3 then C30L=C30L else C30L=. if C31A>=0 and <=3 then C31A=C31A else C31A=. if C31B>=0 and <=3 then C31B=C31B else C31B=. if C31C>=0 and <=3 then C31C=C31C else C31C=. if C31D>=0 and <=3 then C31D=C31D else C31D=. if C31E>=0 and <=3 then C31E=C31E else C31E=. if C31F>=0 and <=3 then C31F=C31F else C31F=. if C31G>=0 and <=3 then C31G=C31G else C31G=. if C31H>=0 and <=3 then C31H=C31H else C31H=. if C31I>=0 and <=3 then C31I=C31I else C31I=. if C31J>=0 and <=3 then C31J=C31J else C31J=. if C31K>=0 and <=3 then C31K=C31K else C31K=. if C31L>=0 and <=3 then C31L=C31L else C31L=. if C31M>=0 and <=3 then C31M=C31M else C31M=. if C32A=1 or =2 or =9 then C32A=C32A else C32A=. if C32B=1 or =2 or =9 then C32B=C32B else C32B=. if C33B=1 or =2 or =3 or =97 or =99 then C33B=C33B else C33B=. if (C33D>=1 and <=10) or (C33D=99) then C33D=C33D else C33D=. if C34B=1 or =2 or =3 or =97 or =99 then C34B=C34B else C34B=. if (C34D>=1 and <=10) or (C34D=99) then C34D=C34D else C34D=. if C35A=1 or =2 then C35A=C35A else C35A=. if C35B=1 or =2 then C35B=C35B else C35B=. if C35C=1 or =2 then C35C=C35C else C35C=. if C35D=1 or =2 then C35D=C35D else C35D=. if C35E=1 or =2 then C35E=C35E else C35E=. if C35F=1 or =2 then C35F=C35F else C35F=. if C35G=1 or =2 then C35G=C35G else C35G=. if C35H=1 or =2 then C35H=C35H else C35H=. if C36=1 or =2 or =3 then C36=C36 else C36=. if C37=1 or =2 or =3 then C37=C37 else C37=. if C38=1 or =2 or =3 or =4 then C38=C38 else C38=. if C39=1 or =2 or =8 then C39=C39 else C39=. if C40=1 or =2 or =8 then C40=C40 else C40=. if C41=1 or =2 or =3 or =9 then C41=C41 else C41=. *Creating a cleaned venue rec file to use for analysis erase c:\epi6\venu c.rec route c:\epi6\venu c.rec write recfile type " type "A new clean dataset, venu_c.rec, has been created in the C:\EPI6\ drive." type "This dataset should be used for future analyses."

Questionnaire for Individuals Socializing at Venues (Form D) Cleaning Program File Location and Name: E:\EPIINFO\SOCIAL_C.PRG

* Name of Program: social_c.prg *Creating cleaning and new variable program for socializing individuals data type " " type "This program will create a new clean dataset called social c" type "from your socializing individuals data and place it in the C:\EPI6\ drive." type "Use this program if you did not use a check program when entering " type "data, or if you want to make sure that all the values in your " type "dataset are in range." type "If you want the cleaned dataset to be placed in another location," type "you will need to edit this program using notepad, as indicated in" type "the Data Management and Analysis instruction document." type " " type "Enter the name of your socializing individuals dataset below" read ?Enter the name of your dataset:? route screen *Cleaning program: Recoding out of range values to MISSING values if D2B=1 or =2 then D2B=D2B else D2B=. if D7 >= 1 and <= 7 then D7 = D7 else D7 =. if D8A>=1 and <=23 then D8A=D8A else D8A=. if D8B>=1 and <=60 then D8B=D8B else D8B=. if D11=1 or =2 then D11=D11 else D11=. if D13>=1 and <=5 then D13=D13 else D13=. if D14=1 or =2 then D14=D14 else D14=. if D15A=1 or =2 then D15A=D15A else D15A=. if D16>=1 and <=5 then D16=D16 else D16=. if D17>=1 and <=5 then D17=D17 else D17=. if D18>=1 and <=97 then D18=D18 else D18=. if D19>=1 and <=5 then D19=D19 else D19=. if D20A=1 or =2 or =3 or =4 or =6 or =7 or =9 then D20A=D20A else D20A=. if D21A=1 or =2 or =3 or =4 or =6 or =7 or =9 then D21A=D21A else D21A=. if D22A=1 or =2 or =3 or =4 or =6 or =7 or =9 then D22A=D22A else D22A=. if D23A=1 or =2 or =3 or =4 or =5 or =6 or =7 or =9 then D23A=D23A else D23A=. if D24A>=2 and <=8 then D24A=D24A else D24A=. if $D25 \ge 2$ and ≤ 8 then D25 = D25 else D25 =. if D26>=1 and <=8 then D26=D26 else D26=. if D27=1 or =2 then D27=D27 else D27=. if D28A=1 or =2 then D28A=D28A else D28A=. if D28B=1 or =2 then D28B=D28B else D28B=. if D28C=1 or =2 then D28C=D28C else D28C=. if D28D=1 or =2 then D28D=D28D else D28D=. if D30=1 or =2 then D30=D30 else D30=. if D31=2 or =3 or =4 or =5 or =6 or =7 or =9 then D31=D31 else D31=. if D32=1 or =2 or =9 then D32=D32 else D32=. if D37=1 or =2 or =9 then D37=D37 else D37=. if D39>=0 and <=97 then D39=D39 else D39=. if D40A=1 or =2 then D40A=D40A else D40A=. if D40B=1 or =2 or =9 then D40B=D40B else D40B=. if D41A=1 or =2 then D41A=D41A else D41A=. if D41B=1 or =2 or =9 then D41B=D41B else D41B=. if D42A=1 or =2 then D42A=D42A else D42A=. if D42B>=0 and <=97 then D42B=D42B else D42B=. if D43A=1 or =2 or =9 then D43A=D43A else D43A=. if D43B=1 or =2 or =9 then D43B=D43B else D43B=. if D43C=1 or =2 or =9 then D43C=D43C else D43C=. if D44A=1 or =2 or =9 then D44A=D44A else D44A=.

```
if D44B=1 or =2 or =9 then D44B=D44B else D44B=.
if D44C=1 or =2 or =9 then D44C=D44C else D44C=.
if D44D=1 or =2 or =9 then D44D=D44D else D44D=.
if D44E=1 or =2 or =9 then D44E=D44E else D44E=.
if (D45>=0 and <=97) or (D45=99) then D45=D45 else D45=.
if D46A=1 or =2 or =9 then D46A=D46A else D46A=.
if D46B=1 or =2 or =9 then D46B=D46B else D46B=.
if D46C=1 or =2 or =9 then D46C=D46C else D46C=.
if D47A=1 or =2 or =9 then D47A=D47A else D47A=.
if D47B=1 or =2 or =9 then D47B=D47B else D47B=.
if D47C=1 or =2 or =9 then D47C=D47C else D47C=.
if D47D=1 or =2 or =9 then D47D=D47D else D47D=.
if D47E=1 or =2 or =9 then D47E=D47E else D47E=.
if D48=1 or =2 or =3 or =9 then D48=D48 else D48=.
if D49A=1 or =2 or =3 or =9 then D49A=D49A else D49A=.
if D49B=1 or =2 or =3 or =9 then D49B=D49B else D49B=.
if D50=1 or =2 or =3 or =9 then D50=D50 else D50=.
if D51A=1 or =2 then D51A=D51A else D51A=.
if D51B=1 or =2 then D51B=D51B else D51B=.
if D51C=1 or =2 then D51C=D51C else D51C=.
if D51D=1 or =2 then D51D=D51D else D51D=.
if D51E=1 or =2 then D51E=D51E else D51E=.
if D51F=1 or =2 then D51F=D51F else D51F=.
if D51G=1 or =2 then D51G=D51G else D51G=.
if D52A=1 or =2 or =3 then D52A=D52A else D52A=.
if D52B=1 or =2 or =9 then D52B=D52B else D52B=.
if D53=1 or =2 then D53=D53 else D53=.
if D54>=1 and <=4 then D54=D54 else D54=.
if D55>=1 and <=4 then D55=D55 else D55=.
if D56>=1 and <=4 then D56=D56 else D56=.
if D57=1 or =2 then D57=D57 else D57=.
if D58A=1 or =2 then D58A=D58A else D58A=.
if D58B=1 or =2 or =3 or =9 then D58B=D58B else D58B=.
if D59=1 or =2 then D59=D59 else D59=.
if D60=1 or =2 then D60=D60 else D60=.
if D61=1 or =2 or =3 or =4 or =5 or =9 then D61=D61 else D61=.
if D100A=1 or =2 or =3 then D100A=D100A else D100A=.
if D100B=1 or =2 or =3 then D100B=D100B else D100B=.
if D100C=1 or =2 or =3 then D100C=D100C else D100C=.
if D100D=1 or =2 or =3 then D100D=D100D else D100D=.
if D100E=1 or =2 or =3 then D100E=D100E else D100E=.
if D100F=1 or =2 or =3 then D100F=D100F else D100F=.
if D100G=1 or =2 or =3 then D100G=D100G else D100G=.
if D100H=1 or =2 or =3 then D100H=D100H else D100H=.
*Injection Drug Use Module:
if D62=1 or =2 or =3 or =4 or =9 then D62=D62 else D62=.
if D63=1 or =2 or =9 then D63=D63 else D63=.
if D64A=1 or =2 or =9 then D64A=D64A else D64A=.
if D64B=1 or =2 or =9 then D64B=D64B else D64B=.
if D64C=1 or =2 or =9 then D64C=D64C else D64C=.
if D64D=1 or =2 or =9 then D64D=D64D else D64D=.
if D66=1 or =2 or =3 or =9 then D66=D66 else D66=.
*TB Module:
if D67A=1 or =2 then D67A=D67A else D67A=.
if D67B=1 or =2 then D67B=D67B else D67B=.
if D67C=1 or =2 then D67C=D67C else D67C=.
if D67D=1 or =2 then D67D=D67D else D67D=.
if D67E=1 or =2 then D67E=D67E else D67E=.
```

if D67F=1 or =2 then D67F=D67F else D67F=. if D67G=1 or =2 then D67G=D67G else D67G=. if D68A=1 or =2 then D68A=D68A else D68A=. if D68B=1 or =2 or =8 then D68B=D68B else D68B=. if D69A=1 or =2 or =9 then D69A=D69A else D69A=. if D69C=1 or =2 or =8 or =9 then D69C=D69C else D69C=.

*Creating a cleaned socializing individuals rec file to use for analysis

erase c:\epi6\social_c.rec
route c:\epi6\social_c.rec
write recfile

type " "
type "A new clean dataset, social_c.rec, has been created in the C:\EPI6\ drive."
type "This dataset should be used for future analyses."

Analysis Programs for the PLACE Report Template Tables

Community Informant Questionnaire (Form A) Analysis Program File Location and Name: E:\EPIINFO\CI.PRG

type " Name of Program: ci.prg type "Creating program for community informant data tables type " type "This program will provide the information from the community informant" type "dataset that you will need for the PLACE Report template tables." type "This program will route its output into a text file" type "called ci t.txt on the C:\EPI6\ drive." type "If you want the output to be placed in another location," type "you will need to change the route command by editing this program" type "using notepad, as indicated in the Data Management and Analysis" type "instruction document." type " - 11 type "Enter the name and location of your community informant dataset below." type "If you have a new, cleaned version of the dataset, make" type "sure to enter the name and location of the cleaned version of the dataset." read ?Enter the name and location of your dataset:? set statistics=off set ignore=off type "reset select select erase c:\epi6\ci t.txt route c:\epi6\ci t.txt type " " type " ***Table 2.2.1 freq A4 freq A3A type " " type "% eligible who were not willing is A8=3 freq A8 type "number of unique venues reported is SUM of all venues reported sum ven=(A10A+A10B+A10C+A10D) set statistics=on set ignore=on freq sum ven set statistics=off set ignore=off type " " type " ***Table 2.3.1 type "if you only want stats for those old enough who agreed to be interviewed select A8=1 freq A6 freq A5 select type " " type "age for 2.3.1

define ageg _____ recode A7 to ageg 16-19=16_19 20-24=20_24 25-29=25_29 30-34=30_34 35-39=35_39 40-99=40+ .=missing freq ageg type "Reset select select route screen

Venue Verification Questionnaire (Form C) Analysis Program File Location and Name: E:\EPIINFO\VENU. PRG

type " Name of Program: venu.prg type "Creating program for venue verification data tables type " " type "This program will provide the information from venue" type "verification that you will need for the PLACE Report template tables." type "This program will route its output into a text file" type "called venu t.txt on the C:\EPI6\ drive." type "If you want the output to be placed in another location," type "you will need to change the route command by editing this program" type "using notepad, as indicated in the Data Management and Analysis" type "instruction document." type " " type "Enter the name and location of your venue verification dataset below." type "If you have a new, cleaned version of the dataset, make" type "sure to enter the name and location of the cleaned version of the dataset." read ?Enter the name of your dataset:? set statistics=off set ignore=off type "reset select to all select erase c:\epi6\venu t.txt route c:\epi6\venu t.txt type "Table S.1 type "wait to fill out this table last because all of the information from it is type "drawn from subsequent tables. However, the number of key populations type "variable is created below - you can go ahead and fill out that section with type "the following information: type "KEY POPULATIONS are people who meet new sexual partners, sex workers, IDUs, type "students or youth, mobile populations, and men who have sex with men. type "The variable TOTAL, created below, sums up the number of key populations type "present at each venue -for example, if TOTAL=3 then there are 3 key populations" *new variable for venues where people meet new sexual partners: if (C22A=1 or C22B=1) then meet new=1 else meet new=0 *new variable for venues where sex workers solicit: if C22E=1 then sex sol=1 else sex sol=0 *new variable for venues where IDUs socialize: if (C30K>0 or C31K>0) then idu soc=1 else idu soc=0 *new variable for venues where students/youth socialize:

if (C30D>0 or C30E>0 or C31D>0 or C31E>0) then sy_soc=1 else sy_soc=0 *new variable for venues where mobile populations socialize: if (C30H>0 or C31H>0) then mob soc=1 else mob soc=0 $\ensuremath{\mathsf{soc}}$ *new variable for venues where men who have sex with men socialize: if C31M>0 then msm soc=1 else msm soc=0 total=meet new+sex sol+idu soc+sy soc+mob soc+msm soc freq total type " Table 2.2.1 freq C3 freq C2 type " Table 3.2.1 freq C8 freq C7 freq C6 freq C14 freq C15 type "age for 3.2.1 define ageg recode C16A to ageg 18-19=18 19 20-24=20 24 25-29=25 29 30-34=30 34 35-39=35 39 40-99=40+ .=missing freq ageg type "venue eligibility section will be based on type "findings from Form B in MS Excel and local parameters, type "so there is no Epi Info code for this item tables C10 C17 freq C17 type "Table 3.3.1 type "first, need to select only those records for whom interview took place. type "C17=1 will remain selected for the rest of analysis involving Form C select C17=1 freq C13 type "number reporting venue for 3.3.1 define numbr recode C4 to numbr 1=1 2-9=2 9 10-14=10 14 15-19=15 19 20-999=20+ .=missing freq numbr type "Table 3.4.1 freq C20A C20B C20C C20D C20E C20F C20G C20H C20I C20J C20K C20L freq C22A C22B C22C C22D C22E C22F C22G C22H type "for "Any of the above" for 3.4.1, when anyp=1 that means "any of above" if (C22A=1 or C22B=1 or C22C=1 or C22D=1 or C22E=1 or C22F=1 or C22G=1 or C22H=1) then anyp=1 else anyp=0 freq anyp freq C23 freq C18 type "for number of male staff define nmalest recode C19A to nmalest 0=0 1-2=1 2 3-4=3 4 5-9=5 9 10-19=10 19 20-999=20+ .=missing freq nmalest type "for number of female staff define nfemst recode C19B to nfemst 0=0 1-2=1 2 3-4=3 4 5-9=5 9 10-19=10 19 20-999=20+ .=missing freq nfemst type "Table 3.5.1 freq C29A C29B C29E C29F

freq C32A freq C32B freq C30A C30B C30C C30D C30E C30F C30G C30H C30I C30J C30K C30L freq C31A C31B C31C C31D C31E C31F C31G C31H C31I C31J C31K C31L C31M type "Table 3.6.1 tables C25A C25B tables C26A C26B freq C27 type "for total men socializing category define totalm recode C28C to totalm 1-25=1 25 26-75=26 75 76-125=76 125 126-175=126 175 176-275=176 275 276-475=276 475 476-675=476 675 676-9999=676+ .=missing freq totalm type "for total women socializing category define totalw recode C28D to totalw 1-25=1 25 26-75=26 75 76-125=76 125 126-175=126 175 176-275=176 275 276-475=276 475 476-675=476 675 676-9999=676+ .=missing freq totalw type "for total socializing categories freq C28A type "for Means and Medians: need to ignore missing and set statistics ON! set ignore=on set statistics=on type "for total MEN total, mean, and median freq C28C type "for total WOMEN total, mean, and median freq C28D type "for TOTAL total, mean, and median freq C28B type "for male to female ratio, divide total men by total women:C28C/C28D freq C24A C24B C24C type "Turn statics 'off' and STOP ignoring missing values: set statistics=off set ignore=off type "Table 3.7.1 freq C35A C35B C35C C35D C35E C35F C35G C35H freq C40 freq C42A C42B type "Table 3.7.2 freq C36 freq C37 freq C38 freq C39 freq C41 freq C42C type "Table 3.8.1 freq C21 freq C30K C31K freq C42D type "Table 4.2.1 type "for types of venues and condom availability for 4.2.1, type "look up on Form C all venues where individuals socializing are interviewed type "using unique venue number (D4) type "For this table, you will need to limit the dataset to include only those type "venues where interviews with individuals socializing took place,

type "using the select command: "SELECT C2=A or C2=B or C2=C" etc., type "where A, B, C, etc. are the unique venue numbers of venues where type "individuals socializing are interviewed. THEN run these commands: freq C13 freq C42C type "reset select select type "Table 5.1.1 type "For this table, you will need to limit the dataset to include only those type "venues that have been selected as priority venues, using the select command: type ""SELECT C2=A or C2=B or C2=C" etc., where A, B, C, etc. type "are unique venue numbers of priority venues. THEN run these commands: type "variable for venues where people meet new sexual partners: freq meet new type "variable for venues where sex workers solicit: freq sex sol type "variable for venues where IDUs socialize: freq idu soc type "variable for venues where students/youth socialize: freq sy soc type "variable for venues where mobile populations socialize: freq mob soc type "variable for venues where men who have sex with men socialize: type "New variables for criteria formation; 1=criteria met, 0=criteria not met if total>=3 then crit 1=1 else crit 1=0 freq crit 1 if C4>=15 then crit 2=1 else crit 2=0 freq crit 2 if C28B>25 then crit 3=1 else crit 3=0 freq crit 3 type "criteria 4: locally relevant venues chosen, not part of database type "Priority level: number of criteria 1-3 met (not including criteria 4) level=crit 1+crit 2+crit 3 define lev num recode level to lev num 0=level 4 1=level 3 2=level 2 3=level 1 type "reset select select route screen

Questionnaire for Individuals Socializing at Venues (Form D) Analysis Program File Location and Name: E:\EPIINFO\SOCIAL. PRG

type " Name of Program: social.prg
type "Creating program for socializing individuals data tables
type " "
type "This program will provide the information from the socializing"
type "individuals dataset that you will need for the PLACE Report template
tables."
type "This program will route its output into a text file"
type "called social_t.txt on the C:\EPI6\ drive."
type "If you want the output to be placed in another location,"
type "you will need to change the route command by editing this program"
type "using notepad, as indicated in the Data Management and Analysis"

type "instruction document." type " " type "Enter the name and location of your socializing individuals dataset below." type "If you have a new, cleaned version of the dataset, make" type "sure to enter the name and location of the cleaned version of the dataset." read ?Enter the name and location of your dataset:? set statistics=off set iqnore=off erase c:\epi6\social t.txt route c:\epi6\social t.txt type "***Table S.3 type "clear select select type "selecting only those males who were interviewed select D14=1 and D11=1 type "categories of rate of sexual partnerships define rate recode D35 to rate 0-1=low recode D35 to rate 2-9999=moderate recode D36 to rate 1-9999=moderate recode D33 to rate 2-9999=high recode D34 to rate 1-9999=high freq rate type "Mean Age: Need to calculate separately, by rate level type "and turn statistics on and ignore missing on: set statistics=on set ignore=on type "clear select select type "select low rate level and interviewed: select D11=1 and D14=1 and rate="low" freq D12 type "clear select select type "select moderate rate level and interviewed: select D11=1 and D14=1 and rate="moderate" freq D12 type "clear select select type "select high rate level and interviewed: select D11=1 and D14=1 and rate="high" freq D12 type "clear select select type "Percentage of Men, by Sexual Partnership Level: type "selecting only those MEN who were interviewed and aged 15-24 type "RETURN statistics to off and Don't ignore missing values: set statistics=off set ignore=off select D14=1 and D11=1 and D12>=15 and D12<=24 freq rate type "clear select select type "Percentage of Men, by Sexual Partnership Level: type "selecting only those MEN who were interviewed select D14=1 and D11=1

type "currently a student is 1-3 on D54 tables D54 rate type "unemployed is 3 or 4 on D56 tables D56 rate type "don't live in PPA is 2-5 on D16 tables D26 rate type "visits venue daily is 1 on D26 tables D26 rate type "idu past 12 months 1-4 on D61 tables D61 rate type "exchange money for sex past 4 weeks is 1 on D49A tables D49A rate type "new partner past 4 weeks is >0 on D34 tables D34 rate type "new partner past year is >0 on D36 select select D14=1 and D11=1 and D36>0 freq rate type "of those with new partner past year, percent used condom is 1 on D37 tables D37 rate type "reset to previous select select D14=1 and D11=1 type "met partner at site tables D30 rate type "of these, % using condom with last new partner is 1 on D32 tables D32 rate type "have a spouse or live-in partner is 1 on D58A tables D58A rate type "of these, % using condom at last sex with spouse/live-in partner is 1 on D41B tables D41B rate type "condom use tables D48 rate type "more than one partner past year is >1 on D35 select select D11=1 and D14=1 and D35>1 tables D35 rate type "of those with more than one partner in past year, percent used condom at last sex is D48=2 tables D48 rate type "reset to previous select select D11=1 and D14=1 type "men who had sex with man in past year is 1-96 on D45 tables D45 rate type "sex partner >10 years older/younger past year type "creating age difference variable for youngest if D38A<97 then youngest=D12-D38A define y cat recode youngest to y_cat 16-99=>15ygr recode youngest to y_cat 11-15=11_15ygr recode youngest to y_cat 5-10=5_10ygr recode youngest to $y_cat 0-4=0_4ygr$ recode youngest to y_cat -99--1=no_ygr recode D38A to y_cat 97=no_ygr .=missing recode D35 to y cat 0=no sx yr type "creating age difference variable for oldest if D38B<97 then oldest=D38B-D12 define o cat

recode oldest to o_cat 16-99=>15older recode oldest to o_cat 11-15=11_15odr recode oldest to o_cat 5-10=5_10oldr recode oldest to o_cat 0-4=0_4older recode oldest to o_cat -99--1=no_older recode D38A to o cat 97=no older .=missing recode D35 to o cat 0=no sx yr tables o cat rate tables y_cat rate type "STI categorical variable formation for men; sti men=1 means had any STI if (D43A=1 or D43B=1 or D43C=1) then sti men=1 else sti men=0 if (D43A=. and D43B=. and D43C=.) then sti men=. If D11=2 then sti men=. freq sti men rate type "ever tested for HIV tables D52A rate type "interested in test tables D53 rate type "***Table S.4 type "clear select select type "selecting only those WOMEN who were interviewed select D14=1 and D11=2 type "categories of rate of sexual partnerships freq rate type "Mean Age: Need to calculate separately, by rate level type "and turn statistics on and ignore missing on: set statistics=on set ignore=on type "clear select select type "select low rate level and interviewed: select D11=2 and D14=1 and rate="low" freq D12 type "clear select select type "select moderate rate level and interviewed: select D11=2 and D14=1 and rate="moderate" freq D12 type "clear select select type "select high rate level and interviewed: select D11=2 and D14=1 and rate="high" freq D12 type "clear select select type "Percentage of Women, by Sexual Partnership Level: type "selecting only those WOMEN who were interviewed and aged 15-24 type "RETURN statistics to off and Don't ignore missing values: set statistics=off set iqnore=off select D14=1 and D11=2 and D12>=15 and D12<=24 freq rate type "clear select select type "Percentage of Women, by Sexual Partnership Level: type "selecting only those WOMEN who were interviewed select D14=1 and D11=2 type "currently a student is 1-3 on D54

tables D54 rate type "unemployed is 3 or 4 on D56 tables D56 rate type "don't live in PPA is 2-5 on D16 tables D26 rate type "visits venue daily is 1 on D26 tables D26 rate type "idu past 12 months 1-4 on D61 tables D61 rate type "exchange money for sex past 4 weeks is 1 on D49A tables D49A rate type "new partner past 4 weeks is >0 on D34 tables D34 rate type "new partner past year is >0 on D36 select select D14=1 and D11=2 and D36>0 freq rate type "of those with new partner past year, percent used condom is 1 on D37 tables D37 rate type "Had more than one partner in past year is >1 on D35 select select D14=1 and D11=2 and D35>1 freq rate type "of these, % using condom at last sex is 2 on D48 tables D48 rate type "reset select select select D14=1 and D11=2 type "sex partner >10 years older/younger past year tables o_cat rate tables y cat rate type "ever tested for HIV tables D52A rate type "interested in test tables D53 rate type "reset select select select D14=1 type "***Table 1.4.2 tables D100A D11 tables D100B D11 tables D100C D11 tables D100D D11 tables D100E D11 tables D100F D11 tables D100G D11 tables D100H D11 type "creating variable for 'any of above'; problem=1 means 'any of above' if (D100A=1 or D100B=1 or D100C=1 or D100D=1 or D100E=1 or D100F=1 or D100G=1 or D100H=1) then problem=1 else problem=0 tables problem D11 type "***Table 4.2.1 type "clear select select freq D6 freq D4 freq D10 type "for types of venues and condom availability for 4.2.1,

```
type "look up on Form C for all venues where
type "individuals socializing are interviewed
type "using unique venue number (D4) (see above under Form C ***Table 4.2.1)
type "tables C2 C13
type "tables C2 C42C
type "number of men socializing at start of interview
define totalm
recode D9A to totalm 0-4=0 4 5-9=5 9 10-14=10 14 15-19=15 19 20-29=20 29 30-
39=30 39 40-49=40 49 50-99=50 99 100-999=100+ .=missing
freq totalm
type "number of women socializing at start of interview
define totalw
recode D9B to totalw 0-4=0 4 5-9=5 9 10-14=10 14 15-19=15 19 20-29=20 29 30-
39=30 39 40-49=40 49 50-99=50 99 100-999=100+ .=missing
freq totalw
freq D7
freq D2A
freq D11
freq D13
freq D14
freq D15A
type "***Table 4.3.1
type "first, select only those interviews with eligible and willing persons
type "D14=1 will remain selected for the rest of analysis involving Form D
select
select D14=1
type "age group by gender for 4.3.1
define ageg
recode D12 to ageg 15-19=15 19 20-24=20 24 25-29=25 29 30-34=30 34 35-39=35 39 40-
99=40+ .=missing
tables ageg D11
type "total, mean, and median ages by gender for 4.3.1:
type "first, need to turn statistics on and ignore missing values:
set statistics=on
set iqnore=on
type "next, need to select men and women separately, but still select only
interviews
type "that took place with willing and eligible persons:
type "total, mean, and median for MEN:
select
select D14=1 and D11=1
freq D12
type "total, mean, and median for WOMEN:
select
select D14=1 and D11=2
freq D12
type "RETURN selection to all eligible and willing to to be interviewed:
select
select D14=1
type "RETURN statistics to off and Don't ignore missing values:
set statistics=off
set ignore=off
tables D56 D11
tables D54 D11
tables D55 D11
tables D57 D11
tables D58A D11
tables D21A D11
tables D22A D11
```

type "***Table 4.4.1 tables D26 D11 tables D24A D11 tables D25 D11 tables D28A D11 tables D28B D11 tables D28C D11 tables D28D D11 tables D29A D11 type "for mean number of venues attended, turn statistics on and ignore missing values: set statistics=on set ignore=on type "next, need to select men and women separately, but still select only interviews type "that took place with willing and eligible persons: type "mean for MEN: select select D14=1 and D11=1 freq D29A type "mean for WOMEN: select select D14=1 and D11=2 freq D29A type "RETURN selection to all eligible and willing to to be interviewed: select select D14=1 type "RETURN statistics to off and Don't ignore missing values: set statistics=off set ignore=off type "***Table 4.5.1 tables D16 D11 type "categories for years residing for 4.5.1 define yearsres recode D18 to yearsres 0=<1 year 1=1 2-4=2 4 5-10=5 10 11-96=11+ 97=all life .=missing tables yearsres D11 tables D17 D11 tables D19 D11 tables D20A D11 type "***Table 4.6.1 tables D27 D11 tables D30 D11 tables D31 D11 tables D32 D11 type "***Table 4.7.1 tables D42A D11 type "categories for age at first sex for 4.7.1 define agesex recode D42B to agesex 0-12=<13 13=13 14=14 15=15 16=16 17=17 18-21=18 21 22-24=22 24 25-96=25+ 97=never .=missing tables agesex D11 type "never had sex by gender and age selecting never had sex (and interviewed) select select D42A=2 and D14=1 tables D12 D11

type "returning select to all people willing to be interviewed select select D14=1 type "***Table 4.8.1 type "categories for total partner number past 4 weeks define plast4 recode D33 to plast4 0=0 1=1 2=2 3-9=3 9 10-99=10+ .=missing tables plast4 D11 type "for mean number, turn statistics on and ignore missing values: set statistics=on set ignore=on type "next, need to select men and women separately, but still select only interviews type "that took place with willing and eligible persons: type "mean for MEN: select select D14=1 and D11=1 freq D33 type "mean for WOMEN: select select D14=1 and D11=2 freq D33 type "RETURN selection to all eligible and willing to to be interviewed: select select D14=1 type "RETURN statistics to off and Don't ignore missing values: set statistics=off set ignore=off type "categories for new partner number past 4 weeks define pnlast4 recode D34 to pnlast4 0=0 1=1 2=2 3-9=3 9 10-99=10+ .=missing tables pnlast4 D11 type "for mean number, turn statistics on and ignore missing values: set statistics=on set ignore=on type "next, need to select men and women separately, but still select only interviews type "that took place with willing and eligible persons: type "mean for MEN: select select D14=1 and D11=1 freq D34 type "mean for WOMEN: select select D14=1 and D11=2 freq D34 type "RETURN selection to all eligible and willing to to be interviewed: select select D14=1 type "RETURN statistics to off and Don't ignore missing values: set statistics=off set ignore=off type "categories for total partner number past 12 months define plasty recode D35 to plasty 0=0 1=1 2=2 3-9=3_9 10-99=10+ .=missing tables plasty D11 type "for mean number, turn statistics on and ignore missing values:

set statistics=on set ignore=on type "next, need to select men and women separately, but still select only interviews type "that took place with willing and eligible persons: type "mean for MEN: select select D14=1 and D11=1 freq D35 type "mean for WOMEN: select select D14=1 and D11=2 freq D35 type "RETURN selection to all eligible and willing to to be interviewed: select select D14=1 type "RETURN statistics to off and Don't ignore missing values: set statistics=off set iqnore=off type "categories for total new partner number past 12 months define pnlasty recode D36 to pnlasty 0=0 1=1 2=2 3-9=3 9 10-99=10+ .=missing tables pnlasty D11 type "for mean number, turn statistics on and ignore missing values: set statistics=on set ignore=on type "next, need to select men and women separately, but still select only interviews type "that took place with willing and eligible persons: type "mean for MEN: select select D14=1 and D11=1 freq D36 type "mean for WOMEN: select select D14=1 and D11=2 freq D36 type "RETURN selection to all eligible and willing to to be interviewed: select select D14=1 type "RETURN statistics to off and Don't ignore missing values: set statistics=off set ignore=off type "***Table 4.8.2 type "select those with two or more partners in past 12 months (and interviewed) select select D35>1 and D14=1 type "age categories for 4.8/2 define ageg2 recode D12 to ageg2 15-19=15 19 20-24=20 24 25-29=25 29 30-39=30 39 40-99=40+ .=missing tables ageg2 D11 type "return to all interviewed select select D14=1 type "***Table 4.9.1 tables rate D11

type "***Table 4.10.1 tables y cat D11 tables o cat D11 type "***Table 4.11.1 type "for ever used condom, combine 2 and 3 from D48 as Yes, by type "adding number and percent together type "for condom used during most recent sex, combine 1 and 3 from D48 as No, by type "adding number and percent together tables D48 D11 tables D37 D11 tables D41B D11 tables D40B D11 tables D50 D11 tables D23A D11 type "***Table 4.12.1 tables D51A D11 tables D51B D11 tables D51C D11 tables D51D D11 tables D51E D11 tables D51F D11 type "***Table 4.13.1 type "for ever been tested, 1 or 2 from D52A count as Yes: type "combine by adding number and percent together tables D52A D11 tables D53 D11 type "***Table 4.14.1 type "for young adults, select interviewed who are 24 or younger, by type "adding number and percent together select select D12<25 and D14=1 freg D11 type "for mean number, turn statistics on and ignore missing values: set statistics=on set iqnore=on type "next, need to select young men and young women separately, type "but still select only interviews that took place with type "willing and eligible persons: type "mean age for YOUNG MEN: select select D14=1 and D11=1 and D12<25 freq D12 type "mean age for YOUNG WOMEN: select select D14=1 and D11=2 and D12<25 freq D12 type "RETURN selection to all eligible/willing YOUNG ADULTS: select select D12<25 and D14=1 type "RETURN statistics to off and Don't ignore missing values: set statistics=off set ignore=off type "unemployed is 3 or 4 on D56: type "combine by adding number and percent together tables D56 D11

type "student 1-3 on D54: type "combine by adding number and percent together tables D54 D11 type "don't live in PPA 2-5 on D26: type "combine by adding number and percent together tables D26 D11 tables D16 D11 type "idu past 12 months 1-4 on D61: type "combine by adding number and percent together tables D61 D11 tables D49A D11 type "new partner past 4 weeks >0 on D34: type "combine by adding number and percent together for all >0 tables D34 D11 type "new partner past year >0 on D36: type "combine by adding number and percent together for all ${\scriptstyle>0}$ type "of those with new partner past year, percent used condom select select D12<25 and D14=1 and D36>0 tables D37 D11 type "reset to previous select select D12<25 and D14=1 type "more than one partner past year >1 on D35: type "combine by adding number and percent together for all >1 tables D35 D11 type "of those with more than one partner in past year, percent used condom at last sex select select D12<25 and D14=1 and D35>1 tables D48 D11 type "reset to previous select select D12<25 and D14=1 type "men who had sex with man in past year >0 on D45 freq D45 tables o_cat D11 tables y_cat D11 type "STI for men; sti_men=1 means had any STI freq sti men tables D52A D11 tables D53 D11 tables rate D11 tables D100A D11 tables D100B D11 tables D100C D11 tables D100D D11 tables D100E D11 tables D100F D11 tables D100G D11 tables D100H D11 tables problem D11 type "reset select to eligible/willing interviewed select select D14=1 type "***Table 4.15.1 type "for sex exchange for money, 1-2 on D49A is Yes: type "combine by adding number and percent together tables D49A D11

tables D45 D11 type "***Table 4.15.2 tables D59 D11 tables D60 D11 tables D61 D11 tables D62 D11 tables D63 D11 tables D64A D11 tables D64B D11 tables D64C D11 tables D64D D11 type "categories for number sharing syringe past 4 weeks define shar syr recode D65A to shar syr 0=0 1=1 2=2 3-9=3 9 10-99=10+ .=missing tables shar syr D11 type "categories for number sharing syringe NEW past 4 weeks define shar new recode D65A to shar_new 0=0 1=1 2=2 3-9=3 9 10-99=10+ .=missing tables shar new D11 tables D66 D11 type "***Table 4.16.1 type "for MEN select select D14=1 and D11=1 freq D43A freq D43B freq D43C freq sti_men type "no symptoms is sti men = 0 freq sti men type "categories for treatment seeking for men; tr men=1 means had any treatment if (D44A=1 or D44B=1 or D44C=1 or D44D=1 or D44E=1) then tr men=1 else tr men=0 if D11=2 then tr men=. if (D44A=. and D44B=. and D44C=. and D44D=. and D44E=.) then tr men=. tables tr men sti men type "type of treatment for men freq D44A freq D44B freq D44C freq D44D freq D44E type "for no treatment, tr men=0 freq tr men type "for no symptoms, sti men=0 freq sti men type "for WOMEN select select D14=1 and D11=2 freq D46A freq D46B freq D46C type "STI women categorical variable formation; sti wom=1 means any STI symptoms if (D46A=1 or D46B=1 or D46C=1) then sti wom=1 else sti wom=0 if (D46A=. and D46B=. and D46C=.) then sti wom=. If D11=1 then sti wom=. freq sti wom type "no symptoms is sti wom = 0 type "categories for treatment seeking for women; tr wom=1 means had any treatment

if (D47A=1 or D47B=1 or D47C=1 or D47D=1 or D47E=1) then tr_wom=1 else tr_wom=0 if (D47A=. and D47B=. and D47C=. and D47D=. and D47E=.) then tr_wom=. If D11=1 then tr wom=. tables tr_wom sti_wom type "type of treatment for women freq D47A freq D47B freq D47C freq D47D freq D47E type "for no treatment, tr_wom=0 freq tr_wom type "for no symptoms, sti wom=0 freq sti wom type "reset select to eligible/willing interviewed select select D14=1 type "***Table 4.17.1 tables D67A D11 tables D67B D11 tables D67C D11 tables D67D D11 tables D67E D11 tables D67F D11 tables D67G D11 type "Yes, TB is D68B=1 type "Yes, but not TB is D68B =2 or =8 tables D68B D11 type "No is D68A=2 tables D68A D11 type "Sputum sample Yes is D69C=1, No is D69C=2,8, or 9 tables D69C D11 type "***Table 4.18.1 select select D14=1 tables D100A D11 tables D100B D11 tables D100C D11 tables D100D D11 tables D100E D11 tables D100F D11 tables D100G D11 tables D100H D11 type "Reset select select

route screen