# Community Food Project Evaluation Handbook

# COMMUNITY FOOD SECURITY COALITION

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## **Chapter 8. Analyzing Your Data**

Data analysis may very well be the most intimidating part of program evaluation. A large part of data analysis is statistical in nature. While many of us may have academic experience in statistical analysis, translating this into a useful analysis for direct services may be daunting. Analysis of program data, however, has become essential to program management, improvement and continued funding. In this chapter we hope to simplify the world of data analysis by describing each step in its practical relevance and application in order for programs to find ways of adapting such strategies to their setting.

It may be helpful for your program to identify the individual on staff with the most knowledge and interest in analyzing your program data. This person should be comfortable using a computer, and not be afraid of numbers. Often an administrative assistant or someone who manages the bookkeeping or finances will make a good choice (make sure they agree). Review this chapter with whoever is chosen to assist with data analysis. If your program has limited staffing resources or analytic abilities, you may consider as an alternative, seeking an outside evaluator or graduate student to help with these next steps of your evaluation.

## **Creating an Evaluation Notebook**

Creating an evaluation notebook can be an excellent tool for tracking all of your evaluation information. Once the analysis starts, there is plenty of important information to keep track of and having it collected in one place will make it easier. The notebook should include items you may already have created, such as copies of the final evaluation tools (hard copy and electronic on disk) and data collection protocols. You will also want to add any items you may create as a result of going through this chapter, such as your analysis plan, codebooks, coding sheets and data printouts. You may also find it helpful to have pages of reflections on your evaluation process – what went well, what did not and improvements you might want to make for the next goround. This notebook will ensure that all current information is in the same place as well as provide a quick look-up when questions arise during the next evaluation or as new staff are assigned evaluation tasks.

## **Developing an Analysis Plan**

A simple analysis plan can be created by elaborating on your evaluation plan worksheet (see Chapter 4, Worksheet #5). The analysis plan will list all of the specifically analysis to be performed on the evaluation data. An example of such an analysis plan is presented along with a worksheet on the following pages.

The plan is quantitative in nature; that is, it focuses on counts and proportions. More complex analysis plans will need to be created for more complex evaluation designs or those using qualitative data collection methods. (For more on evaluation designs, see Chapter 5. Selecting Evaluation Strategies and Study Designs). Even with more complex analyses, however, it is important to "start with the end in mind," and to let your evaluation questions guide the analysis. The worksheet provided often can be used for simple or even complex evaluations.

Program Goal	Indicators	ation Plan: Neighborhoo Data Sources	Performance Standard	Data Analysis
r rogiam doar	(Outputs and Outcomes)	Data Courocc	r orrormanoo otanaara	Data Analysis
To increase gardening skills for participants	Increased knowledge of gardening practices  Number of volunteers trained  Total volunteer time  Description of volunteer activities	<ul> <li>Administrative records</li> <li>Volunteer activity logs</li> <li>Volunteer survey</li> </ul>	<ul> <li>10 volunteers         total, including two         core volunteers</li> <li>Total volunteer         time meets need</li> </ul>	<ul> <li>Counts of volunteers trained</li> <li>Counts of volunteers hours worked</li> <li>Counts of volunteer hours by activity type</li> </ul>
To increase satisfaction among Latino residents with produce offered at neighborhood farmer's market	<ul> <li>Satisfaction with food selection</li> <li>Number of youth participating in garden</li> <li>Number of hours youth participated in garden</li> <li>Increase in youth leadership skills</li> <li>Increase in youth connection to culture/background</li> <li>Increased consumption of vegetables by youth</li> </ul>	<ul> <li>Youth sign-in sheets</li> <li>Surveys of youth (post-program)</li> </ul>	<ul> <li>25% of participating youth will report an increase in leadership skills</li> <li>60% of participating youth will report an increase in their connection to their culture/backgroun d</li> <li>40% of participating youth will report an increase in the amount of vegetables they eat</li> </ul>	<ul> <li>Counts of youth participating in garden</li> <li>Counts of youth hours</li> <li>Counts and percentages of youth answering "strongly agree" or "agree" to statements:</li> <li>Since I came to the garden,         <ul> <li>I am more of a leader</li> <li>I feel more connected to my culture</li> <li>I eat more vegetables</li> </ul> </li> </ul>

Sample Evaluation Plan: Neighborhood Garden Project							
Program Goal	Indicators (Outputs and Outcomes)	Data Sources	Performance Standard	Data Analysis			
To increase civic responsibility	Description of original barriers to obtaining food prior to project     Description of barriers to obtaining food after participation in the project     Quantity of produce grown and sold	<ul> <li>Garden logs of produce grown</li> <li>Market logs of produce sold</li> <li>Garden logs of produce taken home by youth and volunteers</li> </ul>	<ul> <li>500 pounds of produce will be grown in the garden in 2003</li> <li>300 pounds of produce will be sold at the market in 2003</li> <li>150 pounds of produce will be taken home for personal use by youth and volunteer growers in 2003</li> </ul>	<ul> <li>Counts of pounds of food produced</li> <li>Counts of pounds of food sold</li> <li>Counts of pounds of food taken home for personal use</li> </ul>			
To increase collaboration of food- related community organizations	Increased collaboration  Number of organizations participating in food network  Number of meetings held	<ul> <li>Meeting participation tracking forms</li> </ul>	<ul> <li>8 community- based organizations will attend monthly network meetings</li> </ul>	<ul> <li>Counts of organizations</li> <li>Counts of meetings</li> <li>Average attendance per meeting</li> </ul>			

# **Worksheet 1: Analysis Plan**

Evaluation Questions	Indicators	Data Sources	Performance Indicators	Data Analysis

#### **Quantitative Data Analysis**

This section describes techniques for performing quantitative data analysis, methods that produce numerical summaries of your findings. Instructions for performing simple qualitative analysis techniques begin on page 136. Those who already know how to use a statistical program such as SPSS or SAS, and are familiar with the process of creating electronic datasets from surveys or other sources may wish to skip this section. Much of this section focuses on using information from a survey. If you have quantitative data from another source, you may continue to follow most of these same steps. For example, forms used to count and classify customers at a Farmer's Market may also be entered into an electronic dataset and analyzed in a similar fashion as that of recording food distribution.

#### **Preparing Your Data for Analysis**

Say you have just completed your first survey administration. Now you have a stack of completed surveys in front of you and you are not quite sure how to go about producing some useful information from your pile. You probably are considering a "hand tally" of the surveys at this point, but know in the back of your mind that there must be a much more efficient way of analyzing data from these surveys that may involve using your computer.

You are right. The question is how to go from the large stack of data to a concise computer print out. Basically, you will be taking your stack of surveys and creating a "numeric" electronic dataset that can be analyzed. You may be wondering what will make the dataset "numeric." Almost all analysis programs run more efficiently when they tally numbers rather than words. Once you have some experience with this, you will also find that you can complete the data entry much more quickly using numbers rather than letters or words. Consider the numbers just codes for the words. For example, you may use the number 1 as a code for the answer "yes," 2 for "kind of" and 3 for "not really." This will make more sense as we go further in this chapter.

Before creating your electronic numeric dataset, you will need to prepare the surveys for data entry using the following steps.

#### **Coding and Identification Numbers**

If your surveys were administered anonymously, asking respondents not to include their names, then each survey must be assigned an identification number before entering it electronically. This number will allow you to go back to an actual survey at any time for clarification if needed. The unique number is placed in the same spot on each survey (e.g., the upper right corner of the page)

and can range from 1 to the number of surveys administered. The survey excerpt on the following page gives an example of how to ID surveys. Specifically note the area highlighted.

<sup>1</sup> Making a Difference: Moving to Outcome-Based Accountability for Comprehensive Service Reform. Resource Brief 7, by Young, Nancy et al. National Center for Service Integration, Falls Church, VA, 1994 2 Augmentation of Bill Phillips in Report on Lessons Learned in the Pilot Phase of the United Way Outcomes Project. (June 1995). United Way of Greater Milwaukee, Inc., 5.

<sup>3</sup> N. K. Young, S. L. Gardner, and S. M. Coley. Getting to Outcomes in Integrated Service Delivery Models. In Making a Difference: Moving to Outcome-Based Accountability for Comprehensive Service Reforms. Falls Church, VA: National Center for Service Integration Information Clearinghouse, 1994.

<sup>4</sup> Report on Lessons Learned in the Pilot Phase of the United Way Outcomes Project, United Way of Greater Milwaukee, Inc., June 1995.p 6-13.

<sup>5</sup> A. Donabedian. The Role of Outcomes in Quality Assessment and Assurance. QRB, November 1992, 356-360.