"Your Management Information System"

9.1 INTRODUCTION

A Management Information System or MIS is a systematic, uniform method for collecting and reporting information about a particular program, event, or activity. MIS structures vary greatly in terms of the way information flows into the system, the types of reports generated, and the level of detail. The amount of reliance on computers is a variable that affects the way an MIS is structured. Some require highly trained staff for data entry, quality control, and other MIS functions; other systems are less sophisticated. Ultimately, an organization's MIS is based on its unique needs, capabilities and resources.

9.2 PURPOSES OF AN MIS

Whether elaborate or simple, an MIS is worthwhile only if it achieves its designated purposes. At a minimum, you need an MIS that produces the required federal reports. In addition, your MIS should yield reports that guide management decisions. Finally, you may also want reports that offer staff feedback on how well clients are doing or that inform partners and the community about frontline operational issues. Therefore, the system you develop may be used:

- ❖ **To meet federal and programmatic requirements for use in monitoring and evaluating.** At a minimum, grantees must submit two types of reports to DOL:

  1. Programmatic or Program Reports
  2. Fiscal or Financial Reports

- ❖ **To implement, manage and evaluate your program in an effective way.** An effective MIS provides you with clear, concise information about how your project is operating and whether you are making progress towards project goals and objectives. This information facilitates awareness that expenditure of funds is keeping pace with your timetable and project work and notes inefficiencies in service delivery in time for corrective action. Information also is available to support adjustments in staffing, grant expenditures, accountability provisions, and service delivery methods. Thus, managers can make adjustments in their project operating plans to

ensure project success. Without the MIS, managers are operating in the dark.

❖ **To guide staff in more effective service delivery.** These data can also be configured to address information needs at all staff levels. Your staff can determine if they are adequately serving their target population and, if not, change their approach or allocate more resources to service delivery.

❖ **To inform outsiders.** Your MIS can provide information on program successes to inform partners and community members on project accomplishments, and support program promotion and public awareness activities.

9.3 BASIC STEPS TO DEVELOP AN MIS

Developing an effective and efficient MIS is no simple matter. The schematic on the last page of this handout provides an overview of one example of an MIS and its development process. As portrayed in the chart, designing an MIS involves several sequential, concrete steps. These include:

- Identifying system type (manual or computer-automated system);

- Identifying the types of information to be collected;

- Developing data collection methods;

- Instituting a reporting system; and

- Establishing and implementing quality control procedures.

We will summarize the components of each step and the advantages/disadvantages of certain approaches. We also will provide suggestions for improving your system and examples where relevant.

Identify the Type of System Needed

The first step in developing your MIS is to decide whether you want a manual (hand-processed) or an automated (computer-processed) system. A manual system

requires your staff to complete forms that contain all the information on your project. Forms completed manually by your staff may include attendance records, participant profiles, and the results of any assessments of entrance criteria that you may use to screen applicants. Your staff then establish a filing system that systematically organizes the information so it is easily accessed and can be compiled into reports. Staff are responsible for aggregating all numerical data and presenting the information in a clear, concise way.

An automated system relies on a computer to aggregate data and produce the desired reports. Line staff may enter data directly into the computer or complete basic forms that a data entry clerk enters into the computer. A primary consideration in designing an MIS is the extent to which computers are available and at what point in the data collection process they are introduced. Although your staff may still need to complete information collection forms manually, the information is transferred to a computer, which combines the data and ultimately generates reports.

A manual system may be more appropriate if your offices do not have computers, your budget is limited, or your project is relatively simple. An automated system may be preferred under opposite conditions, especially if you want to free your staff from aggregating tabulated data. Computers are more accurate in tabulating data, and a variety of software programs (e.g., Microsoft Excel and Access) are available when staff members can use them effectively. For example, a required data element in your total calculation for DOL is the total number of participants who enroll in your program during the current quarter. The system you design should allow your staff to enter individual information on clients during the quarter and produce a report that displays the number of participants who have enrolled in the program for that particular quarter.

Define Data Requirements

One of the first steps to developing an effective MIS is to have a clear statement of the information needs of your organization. In order to do that, you will need to define the data you need to collect and how it will be used. It is useless to collect data that has no designated purpose. As discussed earlier, two overarching purposes exist for the data collection effort: to meet the federal reporting requirements for your grant and to better manage and implement your program.

You need to ask yourself three basic questions:

1. What information do I need to collect?
2. What is the purpose of data collection?
3. Where is the information located?

To answer the first two questions, examine your first overarching goal: meeting federal reporting requirements for your grant. In general, you will need quarterly updates on the services you have provided to your participants as well as information on:

- The total number of participants carried over from previous quarters;
- The total number of new participants in the current quarter;
- The total number who completed training;
- The total number of participants who exited from the program; and
- The total number of participants remaining in the program at the end of the current quarter.

You have now answered the first two basic questions: "What information do I need to collect?" (listed above) and "For what purpose?" (identified as the quarterly report).

The final question requires you to look at the information you are collecting and identify potential sources for this information. Using the same example, you need to identify where information you obtain on enrollment, exits/terminations, and service completion will be obtained. This information likely is available from your project's internal records (e.g., intake forms, exit/completion forms, and attendance rosters for training programs) or from your project partners' records (e.g., weekly or monthly reports from training providers or subcontractors).

Define Data Collection Methods

Now that you have defined the data that needs to be collected and where the data are located, you must determine the best way to collect the information. Each organization has different staff structures and responsibilities. For grants with limited staff, the project director may perform all of the data collection and reporting. Larger grants may designate a specific MIS person or researcher/evaluator responsible for this work. Still other projects may delegate information collection to line staff with an assistant project director, project coordinator, or administrative aid entering and aggregating the data for final

submission. No single, correct way exists to tackle these reports. The means you choose depends on the unique needs, capabilities, and resources of your grant. Regardless of the method, take extra steps to ensure the data you collect and report are accurate.

These steps may include:

- Preparation of a procedures manual that describes the overall process (including a description of the types of reports required, flow of information, and definitions of terms). A procedures manual is essential to assure all staff are using the same definitions and following the same procedures. The clear articulation of the needed reports assures data are aggregated in the right combinations. A description of information flow informs staff as to when to collect data and where to direct it.

- Establishment of a schedule for data collection and submission. This ensures you collect data in a timely manner for the production of required reports.

- Training of staff on data collection methods.

- Development of necessary forms.

- Assignment of staff to complete the necessary forms.

- Assignment of staff to enter data in your system.

- Implementation of quality control procedures.

- Assignment of staff to generate required reports.

Your staff must understand and adhere to the stated procedures delineated in your procedures manual, responding to each item on forms your project uses to collect data. If staff who collect information are different from the staff who enter or aggregate data for reports, you must make sure they communicate clearly with one another. You may want a supervisor to conduct spot checks of the data entry to ensure information is accurate, complete and consistent. Also, you may identify and correct errors in the data collection/reporting process as you review and discuss information with your management or line staff.

Establish a Reporting System

You need to ensure your staff understand the types of reports they need to generate. How data are aggregated depends on the purpose of the report. For example, is it important to know how many women under the age of 18 are being served? If so, the report must aggregate data on all women under 18, not data on all women or data on all people under the age of 18. The data requirements are the same, but how the data are combined into a report is much different.

You can generate several types of reports using MIS data. For example, you can produce summary reports for management staff on a monthly basis for planning and monitoring purposes; these reports measure progress toward project goals and timetables or compare "actual" to the plan. You can also produce detailed reports on a weekly basis for line staff to use for monitoring individual participant progress. Line staff reports may take the same data (e.g., attendance data) but report by individual to identify potential drop0outs. By contrast, you may aggregate attendance data for management to show average daily attendance by each project component to allow managers to know which service components are not holding the attention of participants.

It is important to remember that effective reports are those that highlight important information and communicate that information quickly and concisely.

Implement Quality Control System

After you have undertaken the various steps required to set up your MIS, you need to implement a quality control system to monitor your MIS and allow for timely modification of your system. Quality control procedures may include:

- Weekly or monthly meetings with management and line staff to discuss strengths and weaknesses of your data collection and reporting system and to determine if you need to make changes to ensure the process is functioning effectively. Do staff receive information they need when they need it?

- Spot checks of data collection and data entry by management or MIS specialists.

  - Ongoing staff training on how to use and access the system.