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# A TOOL FOR COST AND REVENUE ANALYSIS

RESUME OF THE RESEARCH AND DEVELOPMENT PROGRAM

# CORE

A Tool for Cost and Revenue Analysis

# Corrections to the CORE User's Guide and Spreadsheets – Version 1.0

## 1. Facility Spreadsheet template (FAC-V1)

In the electronic Facility Spreadsheet template file on the CORE diskette, a formula is missing from one of the cells in Section F. To make the correction on your copy of the Facility Spreadsheet, complete the following steps:

- a. In the Facility Spreadsheet template file (FAC-V1), click on the tab for Section F (Staff Salary Costs).
- b. From the Tools menu, choose Protection, then choose Unprotect Sheet.
- c. Under "c: Hours Worked per Year," select the cell in the first row of line F4. (This is Excel cell reference H19.)
- d. Enter the following formula: **=I\$11\*G19**
- e. Press Enter.
- f. From the Tools menu, choose Protection, then choose Protect Sheet.

## 2. User's Guide

Some of the example data shown in the spreadsheet illustrations included in this guide are incorrect due to a formula error in the example Facility Spreadsheet which caused the data from the Tubal Ligation service column to be omitted from the calculations in the Total column. **These formulas have been corrected in the electronic files on the CORE diskette.**

Because the files on the diskette were corrected after publication of the Guide, some data in the sample illustrations in the User's Guide will not match the sample data on the diskette. The following illustrations in the User's Guide are affected.

SPREADSHEET NAME AND SECTION (IF APPLICABLE)	ILLUSTRATIONS AFFECTED: (Data in the "Total" column doesn't include "Tubal Ligation" data)
Facility Spreadsheet example (exp-FAC)	
Section A	pages 49 and 144
Section B	pages 52 and 116
Section C	pages 53 and 118
Section D	pages 58 and 120
Section E	pages 61 and 122
Sections F and G	<i>not affected</i>
Facility Spreadsheet template (FAC-V1)	<i>not affected</i>
Organization Spreadsheet example (exp-ORG)	pages 72, 73, 129
Organization Spreadsheet template (ORG-V1)	<i>not affected</i>
Service Practices Worksheet example (exp-WKSH)	<i>not affected</i>
Service Practices Worksheet template (WKSH-V1)	<i>not affected</i>

# **CORE**

**A Tool for Cost and Revenue Analysis**

**User's Guide: Version 1.0**

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Comments and questions on CORE should be e-mailed to [CORE@msh.org](mailto:CORE@msh.org)

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CORE was first developed by David Collins and Joan Littlefield during technical assistance activities with the Zimbabwe National Family Planning Council (ZNFPC), the Fundación Mexicana para la Planeación Familiar (MEXFAM), and the Asociación Pro-Bienestar de la Familia (APROFAM) in Guatemala. The tool was modified and further developed by Stephen Sacca following field tests with APROFAM; Marie Stopes Tanzania; the Family Planning Association of Nepal; the Jordanian Association for Family Planning and Protection; Kalamati Clinic, Nepal; the Nepal Fertility Care Center; Marie Stopes Clinic Society, Bangladesh; and Planned Parenthood New York City. The work on developing and field testing this tool was funded by USAID/Washington through FPMD, by USAID/Guatemala, and by MSH's Health Reform and Financing Program.

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We hope that health and family planning organizations find CORE useful as they make management decisions that will make their organizations more effective and sustainable.



# ABOUT MANAGEMENT SCIENCES FOR HEALTH

**M**anagement Sciences for Health (MSH) is a private, non-profit organization dedicated to closing the gap between what is known about public health problems and what is done to solve them. Through technical assistance, training, systems development, and applied research, MSH helps decision makers throughout the world use techniques of modern management to improve the delivery of health and family planning services.

MSH collaborates with public- and private-sector counterparts in population, maternal and child health, information for management, drug management, health reform and financing, and management training. Since its founding in 1971, MSH has provided assistance in these areas to managers in over 100 countries. MSH's staff of 300 is based at its headquarters in Boston, two offices in Washington, D.C., and many field offices throughout the world.

The **Family Planning Management Development (FPMD)** project, is a five-year worldwide project funded by the US Agency for International Development (USAID). The project provides management assistance to national family planning programs and organizations to improve the effectiveness of service delivery and program sustainability. Working in over 30 countries, FPMD provides technical assistance to public- and private-sector programs in strategic planning; business planning; operational work planning; financial management; marketing, pricing, and costing; human resource management; management information systems; program evaluation; and coordination and collaboration between public and private sectors.

The **Health Reform and Financing Program (HRFP)** provides technical assistance and training to countries and organizations in the areas of health financing, health sector reform, public policy, resource allocation, and sustainability. Support for HRFP activities has been provided by the US Agency for International Development, international development banks (World Bank, Asian Development Bank, Interamerican Development Bank), UN agencies, international nongovernmental organizations (NGOs), and national governments.

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"Getting Started" introduces CORE, outlines the contents of this User's Guide and the accompanying diskette, and provides an overview of the requirements for using CORE in your program/organization, including finding the data, making management decisions, updating the analysis, forming a CORE team, and setting a schedule for carrying out a cost and revenue analysis using CORE.

### **User's Guide Contents**

**Part I—Building the CORE Database:** This section includes step-by-step instructions for building the database and for filling out the electronic Service Practices Worksheets (file name: WKSH-V1).

**Part II—Using the CORE Spreadsheets:** This section takes you line by line through the two CORE spreadsheets—the Facility Spreadsheet and the Organization Spreadsheet. Part II is designed to be used in tandem with the electronic CORE spreadsheets (file names: FAC-V1 and ORG-V1) so that you can enter data in the spreadsheets as you follow the instructions.

**Part III—Using CORE to Make Management Decisions:** This section explains ways in which managers can use CORE to make management decisions, and provides examples of decisions made by previous CORE users. It also discusses using CORE to make "what if" projections and provides examples.

**Appendices:** The three appendices include instructions for modifying the spreadsheets, a glossary of terms, and sample spreadsheets for reference.

### **Diskette Contents**

The enclosed diskette contains six spreadsheet files—three templates to be used to carry out a CORE analysis, and three completed, sample spreadsheets pertaining to a fictitious organization to be used for reference purposes as needed. You should copy the template files to another diskette or a hard drive and use the copies for your analysis.

#### **Diskette file names:**

WKSH-V1	Service Practices Worksheets (where baseline data on service practices are recorded)
FAC-V1	Facility Spreadsheet (where data on an individual facility or service site are recorded)
ORG-V1	Organization Spreadsheet (where data from multiple Facility Spreadsheets are summarized)
Exp-WKSH	Sample Service Practices Worksheets
Exp-FAC	Sample Facility Spreadsheet
Exp-ORG	Sample Organization Spreadsheet

### **System Requirements**

- ◆ An IBM-compatible computer powerful enough to run Microsoft® Excel Version 5.0 software;
- ◆ Microsoft® Excel spreadsheet software program, Version 5.0 or higher, or a program that can read Microsoft® Excel 5.0 files;
- ◆ A compatible printer that can print on A4, letter (U.S.), or larger-sized paper.

### **Skill Requirements**

- ◆ Basic computer skills;
- ◆ Moderate spreadsheet skills;
- ◆ A basic understanding of financial concepts.

### **Organizational Requirements**

- ◆ Strong organizational support;
- ◆ Access to data on facility services, personnel, costs, and revenues, or the willingness to collect these data.

## **Introduction**

The Cost and Revenue Analysis Tool (CORE) is a planning tool that managers of health and family planning organizations can use to improve the efficiency and financial viability of their services. CORE is particularly relevant for organizations trying to meet major management challenges, such as expanding their existing services, integrating new services, or working toward financial sustainability.

CORE is a tool for analyzing and comparing a facility's costs and revenues service by service, and for comparing costs and revenues among facilities within the same organization. The tool is in the form of three electronic spreadsheets: the Service Practices Worksheets, used to build the database; the Facility Spreadsheet, for individual facilities; and the Organization Spreadsheet, for the entire organization.

Users can update the spreadsheets to track program performance over time. The user can also adjust the data entered to explore the potential impact of possible changes in service mix, volume, or fees. The ease with which managers can adjust the data entered allows managers to use the tool frequently to make realistic plans for maintaining or improving the quality of their services while controlling their costs, using their resources wisely, and broadening their resource base. While CORE does not provide definitive answers to all cost and revenue questions, it is designed to be practical and easy to use in order to encourage managers to use it regularly in their work.

Organizations that do not charge fees for services will also find CORE to be a useful management tool. These organizations can use CORE to see how a fixed budget can be used most efficiently and to determine the volume of services that can be provided within a given budget.

Management Sciences for Health is available to assist organizations to gain experience and skills in using CORE. To request these services and discuss any necessary funding for these services, please contact Management Sciences for Health.

## **Using This Guide**

This Guide is designed to be used by managers of health facilities or organizations, the people who will comprise the CORE management and data collection teams, and external consultants who provide technical assistance in using CORE.

The Guide leads CORE users from a broad understanding of the purpose and application of CORE, to comprehensive suggestions for building the CORE database, line-by-line instructions for completing the CORE spreadsheets, and suggestions and examples of how to use CORE to make sound management decisions.

The Guide is divided into three main sections:

**Part I: Building the CORE Database.** This section gives detailed instructions for completing the nine steps involved in building the CORE database and instructions for filling out the Unit Cost worksheet and the Service Practices Worksheets.

**Part II: Using the CORE Spreadsheets.** This section takes the CORE user line by line through the two CORE spreadsheets—the Facility Spreadsheet and the Organization Spreadsheet.

The Facility Spreadsheet gives a comprehensive view of the volume of service provided by a facility, the cost per service, the revenue and cost recovery per service, and staff utilization. The Facility Spreadsheet is divided into seven parts:

- Section A: Summary of Key Information
- Section B: Determining Service Volume
- Section C: Determining Cost Elements
- Section D: Determining Revenue
- Section E: Determining Direct & Indirect Staff Costs
- Section F: Determining Salary Costs
- Section G: Determining Other Fixed Operating Costs

The Organization Spreadsheet is designed for organizations and programs that are analyzing several facilities and uses summary data from several Facility Spreadsheets. The Organization Spreadsheet is divided into three parts:

- Section A: Cost Recovery Summary by Service Category
- Section B: Key Information Summary
- Section C: Staff Utilization Summary

**Part III: Using CORE to Make Management Decisions.** Part III highlights the ways in which managers can use CORE to make management decisions and provides examples of decisions that managers have made about service delivery, organizational structure, finance, marketing, human resources, and procurement, based on information they gained from using CORE.

The Guide concludes with instructions for modifying and printing the CORE spreadsheets, a glossary of terms used in CORE, and printouts of the spreadsheets to be used for reference as you work through the Guide.



**Contents of the Diskette.** A 3.5" diskette with six spreadsheet files is enclosed with the Guide. Three of the files are templates to be used in implementing CORE. These templates are:

Service Practices Worksheets	WKSH-V1
Facility Spreadsheet	FAC-V1
Organization Spreadsheet	ORG-V1

The CORE user will need to modify these templates in order to conduct a CORE analysis. The Guide leads the user through this process (see "Modifying the Spreadsheets," page 91). **Prior to modifying these spreadsheets, the CORE user must make a working copy of each of the template files. The user should never work directly on the original files on the CORE diskette.**

The other three files on the diskette are samples of completed spreadsheets that use data from a fictitious organization. These sample spreadsheets help to demonstrate how the CORE spreadsheets work. These sample files are:

Sample Service Practices Worksheets	Exp-WKSH
Sample Facility Spreadsheet	Exp-FAC
Sample Organization Spreadsheet	Exp-ORG

Relevant sections of all six spreadsheets are reproduced throughout the User's Guide for easy reference. Printouts of the full spreadsheets can be found at the back of the Guide.

**The Service Practices Worksheets.** In Part I, the unit cost of medicines, contraceptives, and clinical supplies, and data on service delivery practices, such as the type of personnel and the amount of clinical supplies used to deliver a service, are entered in the Service Practices Worksheets (one worksheet per service).

**The Facility Spreadsheet.** Using data from the Service Practices Worksheets and data on fixed and variable costs and on revenues, the Facility Spreadsheet presents a comprehensive view of:

- ◆ the volume of services provided by an individual facility;
- ◆ the costs per service;
- ◆ the revenue and cost recovery per service;
- ◆ personnel utilization.

**The Organization Spreadsheet.** The Organization Spreadsheet links Facility Spreadsheets to allow managers who oversee several facilities to:

- ◆ compare summary data from each facility;
- ◆ assess the overall performance of the organization;
- ◆ develop a comprehensive picture of the efficiency, coverage, and financial viability of each facility;
- ◆ identify cross-subsidies among different service categories and different facilities.

### **Requirements for Using CORE**

The hardware and software requirements for using CORE are:

- ◆ an IBM-compatible computer powerful enough to run Microsoft® Excel Version 5.0;
- ◆ the Windows-based spreadsheet program Microsoft® Excel Version 5.0 or higher or a program that can read Microsoft® Excel files;
- ◆ a compatible printer that can print on A4, letter (U.S.), or larger-sized paper.

The minimum skill requirements for using CORE are:

- ◆ basic computer skills;
- ◆ moderate spreadsheet skills;
- ◆ a basic understanding of financial concepts.

The organizational requirements for using CORE are:

- ◆ strong organizational commitment;
- ◆ access to data on each facility's services, personnel, costs, and revenue.

An organization or a facility that meets these requirements should be able to undertake a CORE analysis without external assistance. Organizations or facilities that do not meet one or more of these requirements will benefit from working through the initial analysis with experienced consultants in preparation for continuing the process on their own.



## **Finding the Data**

The ability of a facility or an organization to use CORE depends in part on the data and records it already has available. The data collection team will need to have access to:

- ◆ the prices of supplies and equipment;
- ◆ established practices for delivering services;
- ◆ the organization's fixed operating-cost budget;
- ◆ fees charged for each service;
- ◆ data on waivers and discounts;
- ◆ rates of personnel compensation.

Although gathering the data required for CORE can be challenging for an organization that has not kept complete records, this task in itself may help an organization improve its record keeping. Once the initial data collection is complete, updates are relatively easy to undertake.

## **Using CORE to Make Management Decisions**

CORE helps managers answer key management questions, such as:

- ◆ What portion of our costs is covered from service revenues?
- ◆ How can we provide high quality services at the lowest cost?
- ◆ What are the financial implications of changing the mix of services we provide?

CORE provides data that help managers compare their current or projected costs and revenues with:

- ◆ costs and revenues at similar facilities;
- ◆ costs and revenues for other modes of service delivery;
- ◆ standard costs, based on reasonable efficiency and quality of services.

CORE allows managers to perform "what if" projections to look at the potential impact of changes on areas such as:

- ◆ service mix and volume;
- ◆ personnel utilization and remuneration;
- ◆ fixed costs;
- ◆ procurement practices;
- ◆ pricing for services.



### **Updating the Analysis**

The frequency with which a facility or an organization updates its CORE analysis depends primarily on its planning cycles and its need for current data on services, staffing patterns, costs, and revenues. Periodic updates of CORE (quarterly, semi-annual, or annual) will help managers compare actual performance against their projections or plans.

### **Forming the CORE Team**

The first task in using CORE is to form a “CORE management team” comprised of representatives from the organization’s key management areas. These key areas are:

- ◆ executive management;
- ◆ service delivery;
- ◆ finance;
- ◆ marketing;
- ◆ human resources;
- ◆ procurement.

This multi-disciplinary team should also include representatives of the governing board and the community, if appropriate. By being part of the CORE management team, managers from key management areas and representatives from the board and community can clearly see the relationships among the various parts of the organization and the interdependence of the different service and support activities.

The next task is to select a smaller group of people who will develop the CORE database. This smaller group is referred to in the Guide as the “data collection team.” At least one member of the data collection team should have clinical experience and another should be acquainted with the financial aspects of the organization. The members of the data collection team should work closely with the members of the CORE management team to develop the CORE database.



### Setting a Schedule

The time an organization needs to conduct a CORE analysis will depend on the size and complexity of the organization, the number of service sites, the number of personnel available to work on the analysis, and the availability of the organization's service records and financial data. If the information needed for CORE is already available, the time required to complete the analysis will be reduced.

The following chart is an illustrative schedule for using CORE in an organization that has three facilities. The schedule assumes that team members are working nearly full-time on the analysis.

### Illustrative Example: Gantt Chart for a CORE Analysis

Activities	Week 1	Week 2	Week 3	Week 4
Initial one-day meeting of CORE management team to introduce CORE, identify the data collection team, and develop a work plan and task assignments	■			
Data collection team assembles records at central level	■			
Data collection team collects data at Facility 1*		■		
Data collection team collects data at Facility 2*			■	
Data collection team collects data at Facility 3*			■	
Data are entered in the spreadsheets, and spreadsheets are printed and distributed among the members of the CORE management team			■	
CORE management team meets to discuss any obvious issues or problems with the data				■
Data are checked and reconciled				■
Facility Spreadsheets are consolidated into Organization Spreadsheet				■
General meeting of CORE management team and other managers to discuss results, policy implications, and next steps				■

\* If the organization conducting the CORE analysis has adequate personnel, then these three steps could be done simultaneously, with a separate data collection team going to each facility. Using separate teams would collapse the time frame.





## **Conclusion**

In using CORE, managers will learn a lot about how their facility or organization functions and about its operating efficiency. Once the analysis is complete, managers and their staff may begin using CORE to examine the efficiency of their existing programs and identify needed changes in areas such as personnel utilization and compensation, mix of services, pricing, and procurement practices. Managers will also find CORE updates useful for periodically assessing their current situation and the impact of management decisions over time.

Using CORE to look at revenue and cost recovery levels allows managers to consider the important issue of cross-subsidies between services, between service categories, and between facilities. CORE can also help managers observe the impact of cross-subsidy policies on the cost recovery levels of a service, a category of services, a facility, or an organization.

This part explains how to collect baseline data to build the CORE database, and complete the Service Practices Worksheets.

### **Baseline Data**

Baseline data for a CORE analysis are divided into four pillars:

- ◆ Services
- ◆ Personnel
- ◆ Cost Elements
- ◆ Revenue

This section guides you through the nine steps involved in collecting baseline data and building the four pillars of the CORE database. Each step concludes with a checklist. A summary of all the checklists is provided at the end of Part I.

#### **The First Pillar: Services**

- Step 1: Develop a list of services provided
- Step 2: Establish the categories of services
- Step 3: Determine the volume of each service

#### **The Second Pillar: Personnel**

- Step 4: Identify all facility personnel and collect compensation data
- Step 5: Determine how personnel spend their time

#### **The Third Pillar: Cost Elements**

- Step 6: Determine the personnel time and materials used in each service and complete the Service Practices Worksheets
- Step 7: Determine other fixed operating costs and regional/central support costs

#### **The Fourth Pillar: Revenue**

- Step 8: Determine fees charged for each service
- Step 9: Determine factors that reduce gross revenue

# BUILDING THE CORE DATABASE

The first stage of CORE is to develop a baseline of programmatic and financial data for each facility being analyzed. The data required for CORE are:

- ◆ operating costs;
- ◆ service volume by type of service;
- ◆ a comprehensive list of personnel at the facility and their service delivery and administrative roles;
- ◆ average personnel time spent delivering each type of service;
- ◆ costs for each service;
- ◆ fees charged for each service;
- ◆ waivers, discounts, and regional/central support costs.

The data collection team needs at least two people—one familiar with clinical services and the other with finance. In an organization with several facilities, the same team can collect data at each facility, or there can be more than one team, depending on the human resources, budget, and time available. The data collection team members may be part of the CORE management team. Although Part I of this Guide pertains mainly to the work of the data collection team, it is helpful if key members of the CORE management team acquaint themselves with the steps in Part I, so that they can help the data collection team as needed.

Collecting the baseline data involves nine steps organized around four pillars as follows:

## **The First Pillar: Services**

- Step 1: Develop a list of services provided.
- Step 2: Establish the categories of services.
- Step 3: Determine the volume of each service.

## **The Second Pillar: Personnel**

- Step 4: Identify all facility personnel and collect compensation data.
- Step 5: Determine how personnel spend their time.

## **The Third Pillar: Cost Elements**

- Step 6: Determine the personnel time and materials used in each service and complete the Service Practices Worksheets.
- Step 7: Determine other fixed operating costs and regional/central support costs.



### **The Fourth Pillar: Revenue**

Step 8: Determine fees charged for each service.

Step 9: Determine factors that reduce gross revenue.

#### **Using the CORE Data Guide**

Part I takes you through the nine steps that help you develop the baseline data needed to conduct a CORE analysis. Each step begins with a brief summary of the step's goal, provides suggestions for how to gather and record the required data, and concludes with a checklist of what you should have accomplished in that step. In building the baseline data, you will be filling out the Service Practices Worksheets (one worksheet for each service your facility provides). At the end of Part I is a summary of the checklists for the nine steps.

#### **Note**

*This Guide is an instructional manual of how to use CORE. All examples presented in this Guide are illustrative only. We recognize that there will be variations in local practice in the activities involved in providing services and in the kinds of medicines, contraceptives, and clinical supplies used and what they are called. Local practice, relevant government regulations, and/or established service delivery guidelines and protocols will determine the service delivery practices used in each CORE analysis.*

## **THE FIRST PILLAR: SERVICES**

To construct the first data pillar, the data collection team must make a list of all the services that the facility currently offers or plans to offer in the future. The costs and revenues developed in a CORE analysis are based on the volume of the services listed. The first pillar has three steps:

Step 1: Develop a list of services provided.

Step 2: Establish the categories of services.

Step 3: Determine the volume of each service.



### Develop a list of services provided

For Step 1, the data collection team must develop a list of the services that the facility provides.

## **Developing the List of Services**

### **Note**

*When a large number of your services are for repeat visits (rather than initial visits), you should list the repeat visits separately from the initial visits. This will help you avoid overestimating the consultation time and other first-visit costs that are not incurred for repeat visits.*

### **Note**

*You should include in your list both the services that generate revenue and those that do not. For example, you may not charge for preventive interventions such as vaccination campaigns, well-baby visits, and antenatal and postpartum visits. But you should include them in your list of services, even if they don't bring in revenue, because these services still represent a cost to your organization. If you plan to add any new services, you should list these as well.*

Create a list of all the services currently provided by the facility you are analyzing, including any anticipated services to be offered in the future. There is no "right way" to list your services, and the list may be different for every facility or organization. One way you could think about listing your services is to list them according to how you charge your clients.

Begin to develop your list by investigating your billing and accounting procedures, or look at a price list of services. If clients pay separately for laboratory fees, prescriptions, and clinical consultations, you might want to consider listing these kinds of services separately, so that you can better understand the costs and revenues associated with them. Another way to develop this list is to group activities such as counseling, a physical examination, and a supply of pills for a first visit for oral contraceptives together into one service.

These two approaches are similar to the way restaurants price meals. Some restaurants have a "fixed price" menu and charge one price for a meal that includes several courses. Other restaurants have an "à la carte" menu and charge separately for every item ordered.

Once you have created a comprehensive list of the services you provide, you should eliminate from this list any services that are offered infrequently or that may not be significant to include in the analysis. Eliminating insignificant services is important. If you list every possible service separately, your list may become too long and you could end up with a large spreadsheet that would be difficult to work with. On the other hand, a very short list is not useful for analyzing your service costs and revenues because there would not be enough detail for useful analysis, so you should try to reach a balance.

The following box provides illustrative examples of how to establish a list of services. The left column uses a "fixed price" approach, in which all needed service activities are included in one service listing. The right column uses an "à la carte" approach in which the client is charged separately for the various service activities provided during a visit.

## Illustrative Lists of Health Services

### List by type of service ("Fixed price" approach)

IUD first visit  
 Norplant® first visit  
 Tubal ligation/IUD/Norplant® revisit  
 Oral contraceptive pills (OCP) first visit  
 OCP resupply visit  
 Injectable contraceptive first visit  
 Injectable resupply visit  
 Tubal ligation  
 Delivery (normal)  
 Cesarean section  
 Gynecology visit (with specialist)  
 Medical visit—malaria  
 Medical visit—diarrhea  
 Laboratory services—blood slide†

### List by each separate service activity ("A la carte" approach)\*

Family planning consultation  
 IUD insertion  
 Norplant® insertion  
 Sale of method—IUD  
 Sale of method—Norplant®  
 Sale of method—OCPs  
 Sale of method—injectables  
 Tubal ligation  
 Gynecological consultation  
 Basic antenatal or postpartum visit (nurse)  
 Medical antenatal or postpartum visit (doctor)  
 Medical consultation  
 Lab visit—blood chemistry  
 Lab visit—stool for ova and parasites  
 Lab visit—complete blood count (CBC)  
 Lab visit—malaria smear  
 Sale of medicines

\* The facility in the example on the right does not provide birth and delivery services.

† This listing refers to walk-in or referral clients who receive no other services at the facility. Laboratory services for other clients are included as part of their visit.

**Discussion.** The “fixed price” and the “à la carte” approaches clearly show the difference in how services can be listed for CORE. In the fixed price approach, there is only one listing for “OCP–first visit.” This listing includes the cost of counseling, a physical examination, and an initial supply of pills. In the à la carte approach, the same type of service has two listings—“Family planning consultation” and “Sale of methods–OCPs.” There are two listings because the facility bills its clients separately for consultations and methods. In this case, “Family planning consultation” includes counseling, history, and a physical examination.

The two examples also list curative services differently, as seen in the case of treatment for malaria. In the fixed price approach, “Medical visit–malaria” includes the cost of providing the exam, counseling, laboratory testing of a blood slide, and the dispensing of medication for treatment of a client with malaria. In this case, the client is charged one fee for all these activities. In the à la carte approach, services for a client with malaria include “Medical consultation” (an exam and counseling), “Lab visit–malaria smear,” and “Sale of medicines” because the facility charges the client a separate fee for each activity.

### Checklist for Step 1

When you have completed Step 1, you should have:

- A list of the services to be analyzed. Note that in creating this list you may have consolidated several activities or services under one listing.



### **Establish the categories of services (optional)**

For this step, the data collection team should use the list of services from Step 1 to establish the categories of services provided. Establishing categories makes it easier to compare the costs and revenues associated with different categories of services.

### **Establishing the Categories of Services (this step is optional)**

If your facility offers a variety of services, you may find it useful to group them into categories. If your facility has already established service categories, you should use the same categories for your CORE analysis. Having categories allows you to identify the costs and revenues associated with a given category and compare the costs and revenues associated with each category. Three examples of categories are:

- ◆ **Type of service**, such as family planning, other reproductive health services, maternal and child health, and curative services.
- ◆ **Mode of service delivery**, such as depot holders, community-based distributors, static facilities, or mobile units.
- ◆ **Size, mix of services, or the level of services provided**, such as outpatient facilities within a hospital, small facilities that provide only a limited number of services with limited personnel, and larger facilities that provide integrated health and family planning services.

#### **Note**

*If your facility offers a limited number or volume of services you may choose not to establish categories.*

Grouping services by categories will allow you to assess the level of cost recovery of each category, compare them, and identify the degree of cross-subsidization taking place among them. As with listing your services in Step 1, the categories you establish will depend in part on your ultimate goal in analyzing costs and revenues. In defining your categories you should ask the following questions:

- ◆ Do you want to determine which categories of services, facilities, or modes of delivery bring in more revenue than they cost and which bring in less than they cost?
- ◆ Are you looking for ways to subsidize a certain type of service, a certain type of facility, or a mode of delivery, such as family planning consultation, a facility in a poor, urban area, or a community-based distribution program?

Illustrative examples of two approaches to creating categories using the service lists from page 12 follow.



## Illustrative Lists of Services Grouped by Category

### ("Fixed Price" List)

#### Family Planning Services

IUD insertion  
Norplant® insertion  
Tubal ligation/IUD/Norplant® revisit  
Oral contraceptive pills (OCP) first visit  
OCP resupply visit  
Injectables contraceptive first visit  
Injectables resupply visit  
Tubal ligation

#### MCH/Obstetric Services

Delivery (normal)  
Cesarean section  
Gynecology visit (with specialist)

#### Curative Services

Medical visit–malaria  
Medical visit–diarrhea  
Laboratory services–blood slide†

### ("A la Carte" List\*)

#### Family Planning Services

Family planning consultation  
IUD insertion  
Norplant® insertion  
Sale of method–IUD  
Sale of method–Norplant®  
Sale of methods–OCPs  
Sale of methods–injectables  
Tubal ligation

#### Family Health Services

Gynecological consultation  
Basic antenatal or postpartum visit (nurse)  
Medical antenatal or postpartum visit (doctor)  
Medical consultation  
Sale of medicines

#### Laboratory Services

Lab visit–blood chemistry  
Lab visit–stool for ova and parasites  
Lab visit–complete blood count (CBC)  
Lab visit–malaria smear

\* This facility does not provide delivery services.

† This listing refers to services provided to walk-in or referral clients who receive no other services at the facility. Laboratory services for other clients are included as part of their visit.

### Checklist for Step 2

When you have completed Step 2, you should have:

- A list of your services or facilities (from Step 1) grouped by category.

### **Determine the volume of each service**

For this step, the data collection team must specify the time period being analyzed and determine the volume of each service to be provided by the facility during that time period.

## **Determining the Volume of Each Service**

For Step 3, you should estimate the projected volume of each service listed in Step 1. You can base your estimates on past or current volume and/or on an estimate of maximum demand. The volume of services should be for a specific time period, usually one year. (The spreadsheets are set up for the specified time period of one year.)

### **Volume of Services**

Ideally, you should use the facility's health information system to obtain information on the past or current volume of services, which you can use to estimate a volume of services for the period you are analyzing. Possible data sources include:

- ◆ computerized service data;
- ◆ periodic service updates;
- ◆ revenue records (if service volume and revenue have been recorded at the same time);
- ◆ client registers or logbooks;
- ◆ periodic reports to government, funding sources, or organizational headquarters.

The time needed to complete this step will vary, depending on the data available.

### **Maximum Demand**

Maximum demand means the total need for each service among the population in your facility's catchment area. Estimating the maximum demand is optional, but it might help you make more realistic estimates of the level of services you can expect to provide. You can refer to demographic and census information on your catchment area and to what you know about other service providers (current and prospective) to assist you in identifying the largest potential number of clients who might want to use each service. Other possible sources of information on demand include focus groups, outreach activities, and rapid assessment surveys. Regardless of how you derive them, your estimates of maximum demand should seem reasonable given your experience with this population.

### Projecting Service Volume

After examining service records from past periods and estimating the maximum demand for each service, the CORE management and data collection teams should work together to determine a volume for each service during the specified time period.

### Illustrative Example: Determining the Volume of Services

Category/Type of Service	Volume Previous Period*	Maximum Demand Projections†	Projected Volume This Period
<b>Family Planning</b>			
Pills—first visit	3,200	6,000	3,600
IUD insertion	185	550	240
Norplant® insertion	225	600	300
Tubal ligation	280	550	300
<b>MCH/Obstetric</b>			
Delivery (normal)	325	3,000	360
Cesarean section	40	1,200	60
Gyn visit (with specialist)	1,400	4,000	2,000
<b>Curative Services</b>			
Medical visit—malaria	7,800	25,000	8,000
Medical visit—diarrhea	850	17,000	1,000
Laboratory—blood slide	7,600	25,000	8,000

\* Previous volume of services should be taken from a facility's information system, if available.

† Maximum demand should be taken from demographic and/or census data, what you know about other service providers, and/or information from demand studies, focus groups, rapid assessment surveys, or out-reach activities.

#### Checklist for Step 3

When you have completed Step 3, you should have:

- The volume of each service provided by the facility for the time period you have specified.

## THE SECOND PILLAR: PERSONNEL

To construct the second data pillar, the data collection team must list all the personnel who work at the facility, collect compensation data, and determine how personnel spend their time. Personnel costs are the greatest costs associated with delivering services. The CORE management team should give special attention to personnel utilization when they consider ways to increase efficiency and reduce the costs associated with delivering services. The two steps to complete in building this pillar are:

Step 4: Identify all facility personnel and collect compensation data.

Step 5: Determine how personnel spend their time.

### Identify all facility personnel and collect compensation data

For this step, the data collection team needs to create a list of the names of all personnel who work at the facility, determine their salaries, benefits, and the percent of time they work, and group them by type of personnel.

#### Identifying All Facility Personnel and Collecting Compensation Data

##### Note

*If you hire personnel on a temporary (casual) basis to fill vacant positions or to substitute for employees who are on leave, you must calculate the substitutes' salaries as if they were regular employees, but without the benefits or allowances of regular employees.*

To develop the list of all personnel working at the facility, you should work with a human resources staff person to get lists of all individuals who are:

- ◆ employed by the facility;
- ◆ hired on a temporary (casual) basis;
- ◆ contracted to provide specific services (such as specialists who provide obstetric and/or gynecological care, or outside services such as laboratory services).

You will probably need help from some of the management team members at the headquarters level to gather data on personnel and compensation. The person responsible for human resources can assist you by providing the list of personnel, their official designations, and the percent of time they work. The person responsible for finance and accounting should provide you with the current rates for employee



salaries, benefits, and allowances, and the payment mechanisms for providers working on a commission or fee-for-service basis. You should collect this information prior to making facility visits so that you can check it on site.

### **Notes**

- ▶ *Because compensation data may be confidential or sensitive, in collecting and using such data the team should establish procedures to ensure that employees' privacy is respected. These procedures should be in accordance with the established procedures of the facility or organization.*
- ▶ *The salaries for full-time employees in the example that follows include all benefits paid by the employer, such as housing allowances, medical insurance, annual bonuses, and/or pension contributions, if applicable. This is an important point, since benefits often represent a substantial amount of an employee's compensation. However, salary figures should be gross, before any deductions for benefits, such as health insurance. When you add figures for benefits, add only the employer's contributions, not the employee's, if any.*

After you have created a comprehensive list of your personnel, group them by type of personnel, such as Medical Specialist, Nurse, or Receptionist. You will notice that in the illustrative list of personnel and compensation data, some types of personnel, such as Medical Officer/Assistant Medical Officer and Nurse/Counselor are combined. This way of listing personnel recognizes that service delivery personnel often take on interchangeable roles. Please note that the salary for employees is listed in monthly terms, reflecting the typical manner in which salaries are expressed or calculated at this illustrative facility.



## Illustrative List of Personnel and Compensation Data

Type of Personnel/ Name of Personnel	Percent Time Worked*	Payment Basis	How Paid	Compensation (Per Month)
<b>Medical Specialist</b> Dr. A	N/A	Commission	Specialist receives 20% of the gross revenue of each service provided	Gyn exam: 4,000 C-section: 200,000
<b>Medical Officer/Assistant Medical Officer</b> Dr. B	55%†	Fee per session	Contract for 250 sessions per year at 5,000/session	104,167
Dr. C	44%	Fee per session	Contract for 200 sessions per year at 5,000/session	83,333
<b>Medical Assistant</b> Ms. D	100%	Employee	Payroll	85,000
Ms. E	80%	Employee	Payroll	79,167
<b>Nurse/Counselor</b> Mr. F	100%	Employee	Payroll	90,000
Ms. G	100%	Employee	Payroll	108,334
Ms. H	70%	Employee	Payroll	79,000
Ms. J	70%	Employee	Payroll	79,000
<b>Laboratory Technician</b> Mr. K	100%	Employee	Payroll	100,000
<b>Outside Laboratory Services</b> Laboratory Services, Inc.	N/A	Fee per service‡	Private laboratory paid for each test it provides to the facility	Pap smear: 4,000 Ultrasound: 15,000
<b>Receptionist</b> Ms. L	100%	Employee	Payroll	46,667
Ms. M	12.5%§	Employee (temporary half-time, for 3 months)	Payroll	30,000
<b>Driver</b> Mr. N	100%	Employee	Payroll	37,500
<b>Security</b> Mr. O	100%	Employee	Payroll	25,000

\* Percent Time Worked in this illustrative facility is based on the number of days that a full-time employee works in a year. The facility is open 250 days per year (5 days per week, 52 weeks per year, less 10 public holidays). Full-time personnel get 15 days of annual leave and 10 days of sick leave. Subtracting these 25 days from the previous total of 250 leaves 225 days that full-time personnel are available to work.

† In this example, there are two sessions per day (each session is four hours). To calculate the Percent Time Worked for personnel who work on a per-session (or contract) basis, multiply the number of sessions per year by the number of hours per session. Then divide the number of hours he or she works per year by the number of hours that a full-time employee would work in a year. *For example, Dr. B works 250 sessions per year, which is equivalent to 1,000 hours per year. To calculate her Percent Time Worked, you must divide 1,000 by 1,800, which equals .55, or 55%.*

‡ This illustrative facility pays for certain specialized laboratory services on a per-service basis. In this case, you need to create a list of the services and their fees. "Percent Time Worked" does not apply, and you do not need to calculate "Compensation (Per Month)."

§ Ms. M is a temporary employee who works half-time, for three months of the year. To calculate her Percent Time Worked, divide the number of months she works (3) by the number of months in a year (12), which equals .25, or 25%. Then, multiply .25 by the percentage of time she works during those three months (50 percent, or .5), which equals .125, or 12.5%. Thus, her Percent Time Worked is 12.5%.

**Checklist for Step 4**

When you have completed this step, you should have:

- A list of all personnel who work at each facility, grouped by type of personnel. This list includes the percent of time worked, payment basis, and the salary (including benefits and bonuses, when applicable) for each person you have listed.

**Determine how personnel spend their time**

Using the personnel/compensation list developed in Step 4, the data collection team needs to apportion each person's time between direct service delivery and administration and calculate the annual compensation for each person listed. The data collection team should work closely with the facility's management personnel and should observe services as they are provided in order to determine the most appropriate time allocations for each individual.

**Determining How Personnel Spend Their Time**

To determine personnel time spent in providing services, you need to make a judgment as to how much time (on average) each person spends in direct contact with clients or contributing to providing a service. You will use this information, later, to determine the personnel costs of providing direct services to clients as well as the amount of time each person spends on administrative duties.

For this step, use the personnel/compensation list you developed in Step 4. The following box provides suggestions for ways to identify which workers come in direct contact with clients and/or directly contribute to services.

## How to . . .

You can use the following methods to identify the personnel who provide services to clients:

- ◆ Observe services.
- ◆ Review job descriptions and facility records.
- ◆ Interview the facility personnel who actually carry out each service. If you rely on interviews, ask how many personnel were present during each client care activity in order to account for everyone involved.

It is unlikely that anyone would spend all of his/her time on direct service delivery, unless he/she is hired on a commission or a per-session basis. Personnel must allocate time to prepare reports, maintain equipment, order supplies, etc. Time spent on these kinds of management or administrative tasks should not be allocated to direct service delivery.

### Examples

- ▶ *Doctors, nurses, receptionists, facility managers (if also service providers), and laboratory technicians usually allocate their time between direct services to clients and administrative responsibilities.*
- ▶ *Full-time administrators, drivers, cleaners, and security personnel usually don't spend any of their time providing direct client services.*
- ▶ *Individuals who provide specialized direct client care services for the facility on a commission or per-session basis typically spend all of their time on service delivery.*



**Note**

*It is not essential for you to use precise measurements to determine time allocations, since you can easily modify these allocations once you have completed the CORE Facility Spreadsheet (Part II of this Guide).*

Once you have identified the direct service and administrative time for all personnel, convert the monthly compensation (including benefits, bonuses, and allowances) from the list you developed in Step 4 to an annual compensation by multiplying the monthly compensation by twelve.

An illustrative list of personnel showing annual compensation rates and allocations for their direct service and administrative time follows.



### Illustrative List of Personnel with Annual Compensation and Allocations for Direct Service and Administrative Time\*

Type of Personnel/ Name of Personnel	Percent Time Worked†	Annual Compensation	Direct Client Service Time (%)	Administrative Time (%)
<b>Medical Specialist</b>				
Dr. A	N/A	N/A‡	N/A	N/A
<b>Medical Officer/ Assistant Medical Officer</b>				
Dr. B	0.55	1,250,000	0.90	0.10
Dr. C	0.44	1,000,000	1.00	0.00
<b>Medical Assistant</b>				
Ms. D	1.00	1,020,000	0.80	0.20
Ms. E	0.80	50,000	0.80	0.20
<b>Nurse/Counselor</b>				
Mr. F	1.00	1,090,000	0.80	0.20
Ms. G	1.00	1,300,000	0.80	0.20
Ms. H	0.70	950,000	0.80	0.20
Ms. J	0.70	950,000	0.80	0.20
<b>Laboratory Technician</b>				
Mr. K	1.00	1,200,000	1.00	0.00
<b>Outside Laboratory Services</b>				
Laboratory Services, Inc.	N/A	Fee per service	Private laboratory paid for each test it provides to the facility	0.00
<b>Receptionist</b>				
Ms. L	1.00	560,000	0.70	0.30
Ms. M	.125	45,000§	0.70	0.30
<b>Driver</b>				
Mr. N	1.00	450,000	0.00	1.00
<b>Security</b>				
Mr. O	1.00	300,000	0.00	1.00

\* It is important that you follow the format used in this table, since you will enter this information later into the CORE Facility Spreadsheet in the same format.

† Percent Time Worked in this illustrative facility is based on a 40-hour work week.

‡ Dr. A does not receive annual compensation. He is paid a 20% commission based on the gross revenue for the services he provides.

§ Ms. M is a temporary employee who works half-time for three months of the year. Her annual salary is calculated by multiplying her monthly compensation (15,000) by the number of months she works (3), which equals 45,000.

**Checklist for Step 5**

When you have completed this step, you should have:

- A list of all the personnel who work in the facility. The list should show percent time worked, annual compensation, and the percentage of time each person spends on direct service delivery and/or on administrative activities.

## THE THIRD PILLAR: COST ELEMENTS

To build this third data pillar, the data collection team must establish the cost elements of the services. This pillar consists of two steps:

Step 6: Determine the personnel time and materials used in each service and complete the Service Practices Worksheets.

Step 7: Determine other fixed operating costs and regional/central support costs.

**Note**

*In filling in the Service Practices Worksheets, the data collection team records personnel time spent delivering services, but Section E of the Facility Spreadsheet in Part II is used to calculate personnel costs (see pages 60–63).*

To build this pillar, the team uses the “Service Practices Worksheets” file to record personnel time spent delivering services, and to calculate the cost of medicines, contraceptives, and clinical supplies used for all the services provided by the organization. The Service Practices Worksheets file contains one worksheet for calculating the unit costs of all medicines, contraceptives, and clinical supplies used by the facilities and one worksheet for each service provided. The worksheets are housed in one electronic file so that one set of unit cost data can be used across all the worksheets and the worksheets can be edited as a group as needed. The CORE diskette includes a template file for the Service Practices Worksheets (file name WKSH-V1). It also includes a sample file of the Service Practices Worksheets (Exp-WKSH). A beginning CORE user may find it helpful to look at the sample file before beginning to use the worksheets.

An example of the Service Practices Worksheets template as it appears on your computer screen follows.

## Example of Service Practices Worksheets (template)

PERSONNEL TIME												
Activity	Direct Service Time (Minutes)											Total
	Personnel Type 1	Personnel Type 2	Personnel Type 3	Personnel Type 4	Personnel Type 5	Personnel Type 6	Personnel Type 7	Personnel Type 8	Personnel Type 9	Personnel Type 10	Personnel Type 11	
1												0
2												0
3												0
4												0
5												0
6												0
7												0
8												0
9												0
10												0
11												0
12												0
<b>Total staff time</b>	0	0	0	0	0	0	0	0	0	0	0	0

MEDICINES, CONTRACEPTIVES, AND CLINICAL SUPPLIES USED			
Medicines			
Item	Unit Cost	Units Used	Cost this Service
1			0.00
2			0.00
3			0.00
4			0.00
5			0.00
6			0.00
7			0.00
8			0.00
9			0.00
10			0.00
11			0.00
12			0.00
13			0.00
14			0.00
15			0.00
<b>TOTAL COST THIS SERVICE</b>			<b>0.00</b>



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**Determine the personnel time and materials used in each service and complete the Service Practices Worksheets**

For this step, the data collection team must complete the Service Practices Worksheets (one worksheet for each service listed in Step 1) by listing the type of personnel and the time spent providing direct services, and the costs of the medicines, contraceptives, and clinical supplies used in providing each service.

**Determining the Personnel Time and Materials Used in Each Service and Completing the Service Practices Worksheets**

In order to complete the Service Practices Worksheets, you need to determine the amount of personnel time, medicines, contraceptives, and clinical supplies used for each type of service you listed in Step 1. To find this information, you can refer to service records, protocols, guidelines, and interviews with service providers. It will be easier for you to develop an accurate list if one of the data collection team members, preferably the clinical person, observes services as they are actually delivered at the facility, and records the procedures, personnel times, and materials used. This step often takes the longest of all nine steps to complete.

Service practices may vary from facility to facility. *For example, in some facilities, due to cultural norms or language differences, personnel may spend more time with clients than is considered standard elsewhere.* Thus, the list of practices that you develop for one facility may not be the same as the list of practices you would develop for another. However, in order to help make comparisons between facilities in a CORE analysis, you should use the same standard practices for all facilities within a single organization.

**Note**

*At first you may find that you over- or underestimate the time taken or resources used in providing services, but you may fine tune these estimates over time. Furthermore, you may need to revise your list of practices if they change. Revising or fine tuning your list is particularly important if your facility has a high volume of one or more services. With a high-volume service, overestimating the time or quantities of materials required to perform a service understates the level of potential productivity and overestimates the cost of that service.*



### **Filling in the Service Practices Worksheets**

Before you begin filling in the Service Practices Worksheets, you will need to make a new copy of the template file (WKSH-V1) and name the individual template worksheet tabs (which are currently named Service A, Service B, etc.) with the names of the services in the list you created in Step 1. When completed, the file will contain a Service Practices Worksheet for each of your services, along with a completed "Unit Cost" worksheet, used to calculate the unit cost of all medicines, contraceptives, and clinical supplies used in all the services. Note that the template file provides one Unit Cost worksheet and blank Service Practices Worksheets for up to 25 services. If you have more than 25 services listed in Step 1, you will need to make additional copies of these worksheets. (See the appendix entitled "Modifying the Spreadsheets" for instructions on how to customize the Service Practices Worksheets.) Once you have set up and labeled the worksheets for all of your services, you are ready to begin using them.

### **Personnel Time**

Determining the amount of time that personnel spend delivering services is a vital part of establishing the cost of delivering each service. Personnel costs are generally the highest costs involved in service delivery. To determine personnel time spent in delivering each service, first list the separate activities required for each service in the spaces provided on each worksheet. Breaking each service into smaller increments (activities) makes it easier to revise time allocations later if you discover inaccuracies in estimates, or if personnel responsibilities change.

Then, for each activity, list the amount of time each type of personnel spends in direct client contact. The following box explains how to use the Services Practices Worksheets to record the actual amount of time the different types of personnel spend on each service activity.



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## How to . . .

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For personnel directly involved in providing a service, CORE counts only the amount of time each person currently spends in direct client contact. It is important to be accurate when determining the amount of time personnel spend on each activity so that the overall accuracy and relevance of the CORE analysis is sound.

Use the following process to set up the "Personnel Time" section of the Service Practices Worksheets and determine the amount of time personnel spend providing each service.

- 1) Referring to the list of personnel types you developed in Step 4 (page 20), on each Service Practices Worksheet, enter the types of personnel who work directly with clients for that service to replace the current headings marked "Personnel Type 1," "Personnel Type 2," or so on. Then, on each separate Service Practices Worksheet, under the heading "Activity," list each activity required to provide that specific service, even if the activities are performed simultaneously; *for example, taking a client's blood pressure while greeting her/him and inquiring about recent health history would be three activities.*
- 2) Determine the time it takes to complete each activity by visiting a sample of facilities and observing each service. The time spent completing each activity should represent the total time spent by each type of personnel involved in performing that activity. During this observation, you should:
  - ◆ Identify all personnel involved in carrying out each activity;
  - ◆ Time each activity;
  - ◆ Allocate appropriate time for all personnel in those activities performed by more than one person; *for example, a doctor and one or more nurses are usually present during surgery.*



## How to . . .

If you do not have enough time to carry out such a detailed analysis, you can make careful estimates of the time. Doing the CORE analysis will still help you see where there are major problems, and you can develop more accurate estimates later.

**Note:** You should determine average times separately for each service, as there may be significant variations in the times required to perform similar activities for different services. *For example, a nurse/counselor might spend about fifteen minutes with a family planning client who chooses oral contraceptives and about 30 minutes with a client who chooses to have an IUD inserted. The receptionist may spend only two minutes registering a client coming in for a resupply of pills but may take 10 minutes registering a baby being brought to the facility for the first well-baby visit.*

- 3) On each Service Practices Worksheet, enter the amount of time personnel spend on each activity that involves direct client contact for that particular service.

The following is an illustrative example of the "Personnel Time" section of a Service Practices Worksheet completed for a tubal ligation. The worksheet displays the different service activities, the types of personnel involved in each activity, and the time spent performing each activity.



## Illustrative Example: Personnel Time Section of a Service Practices Worksheet for Tubal Ligation

PERSONNEL TIME												
Activity	M.O./A.M.O.	Direct Service Time (Minutes)										Total
		Nurse/Counselor	Receptionist	Personnel Type 4	Personnel Type 5	Personnel Type 6	Personnel Type 7	Personnel Type 8	Personnel Type 9	Personnel Type 10	Personnel Type 11	
1 Register, pay, and counsel		18	3									21
2 Procedure *	23	45										68
3 Post-operative care †		10										10
4 Post-counseling		5										5
5												0
6												0
7												0
8												0
9												0
10												0
11												0
12												0
<b>Total staff time</b>	23	78	3	0	0	0	0	0	0	0	0	104

\* Includes the time for the medical officers/assistant medical officers and the nurse/counselors involved in providing the service. Note that nurse/counselors have more time allotted for the service than medical officers, because nurse/counselors will prepare the client for surgery before the surgery actually begins and because more than one nurse is present during the surgery itself.

† Refers to the amount of time personnel are directly involved in providing post-operative care. In this example, the 10 minutes of the nurses' time represents the 2.5 minutes needed to take vital signs every 15 minutes for one hour of post-operative time. The rest of the nurses' time may be spent doing other tasks or monitoring other clients.



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The COPE methodology developed by AVSC International can be very helpful in both determining which activities are performed and estimating how much personnel time is spent performing each activity. Managers who have used COPE can use the COPE Client Flow Form (which shows how clients' time is spent in the clinic) to obtain preliminary information about the steps or activities that make up each service and the amount of time each activity takes.

The COPE Client Flow Form identifies client contacts and time the client spends in each step of the process. However, it does not necessarily identify all the staff involved during that contact. To adapt the COPE methodology for CORE, a data collection team member should add the times for each person who is present during an activity and specify the purpose of their involvement.

The distinction between COPE and CORE is that COPE is client-focused and collects the total elapsed *time that a client spends* in the facility. CORE is service-focused and estimates the *time spent by each employee* on the specific activities involved in providing a service.

### **Medicines, Contraceptives, and Clinical Supplies**

Next, you need to identify the medicines, contraceptives, and clinical supplies used in completing each service and the quantities used of each of those items. You may need to observe each service separately to collect this information. Then, on each Service Practices Worksheet, in the spaces provided, list both the items and the quantities used to perform that service.

Once you have identified the medicines, contraceptives, and clinical supplies used for each service, you need to consolidate that list to form a master list and enter the names of the items under the appropriate headings in the Unit Cost worksheet. This process results in having a comprehensive list of the medicines, contraceptives, and clinical supplies used at the facility. Then, use the Unit Cost worksheet to calculate the unit cost of each of these items. The following box provides guidelines on how to calculate unit costs.





## How to . . .

- ◆ Once you have consolidated the list of medicines, contraceptives, and clinical supplies used in each service provided at the facility, enter the names of the items in the left column of the Unit Cost worksheet under the appropriate headings. (This list should include both purchased and donated items.)
- ◆ Determine the base unit used for each item listed and enter it in the column named "Base Unit." *For example, although disposable gloves come in boxes and cartons often only one glove will be used during a service activity and thus a single glove is the base unit, not a pair of gloves.*
- ◆ Determine the standard quantity in which a medication, contraceptive, or clinical supply is purchased or donated. *For example, one carton of disposable gloves contains 4 boxes, with 25 single gloves in each box.*
- ◆ For each item listed, determine the number of individual (base) units contained in the large purchasing unit and enter this number in the column named "Number of Units as Purchased." *For example, the carton of disposable gloves contains 4 boxes, with 25 gloves in each box, so the carton contains 4 x 25, or 100 individual gloves, or units.*
- ◆ Obtain the cost of the larger unit of purchase for each medicine, contraceptive, or supply and enter that cost in the column marked "Purchase Price."
- ◆ The Unit Cost worksheet will automatically divide the purchase price by the number of individual units to obtain the cost of a single unit or unit cost. The unit cost of each item will be displayed in the column named "Unit Cost." *In this example the cost of the carton is divided by 100 (gloves) to get the cost of a single glove.*

The following example shows a partial list of medicines, contraceptives, and clinical supplies from a Unit Cost worksheet. It includes their base unit, the volume in which they are purchased, the purchase price, and the unit cost.

### Illustrative Unit Cost Worksheet of Medicines, Contraceptives, and Clinical Supplies

UNIT COSTS OF MEDICINES, CONTRACEPTIVES, AND CLINICAL SUPPLIES															
MEDICINES				CONTRACEPTIVES				CLINICAL SUPPLIES							
Item	Base Unit	Number of Units as Purchased	Purchase Price	Unit Cost	Item	Base Unit	Number of Units as Purchased	Purchase Price	Unit Cost	Item	Base Unit	Number of Units as Purchased	Purchase Price	Unit Cost	
258	Analgesic	1000.00	25000.00	0.00	25.00	Condoms	piece	144.00	51640.00	260.00	Sutures (calcut)	pieces	12.00	86000.00	8166.67
259				0.00	0.00	Oral Contraceptive Pills	Cycle	100.00	210000.00	2100.00	Sutures (sil)	pieces	12.00	86000.00	8166.67
260				0.00	0.00	Norplant	set	10.00	150000.00	15000.00	Gauze (for swabs)	cm	9144.00	110000.00	12.03
261				0.00	0.00				0.00	0.00	Bleach	liter	5.00	30000.00	6000.00
262				0.00	0.00				0.00	0.00	Iodine	cc	100.00	3500.00	35.00
263				0.00	0.00				0.00	0.00	Atropine	cc	10.00	11000.00	1100.00
264				0.00	0.00				0.00	0.00	Lidocaine	cc	30.00	4000.00	133.33
265				0.00	0.00				0.00	0.00	Syringe (5cc)	pieces	100.00	45000.00	450.00
266				0.00	0.00				0.00	0.00	Gloves (disposable)	single glove	100.00	87000.00	870.00
267				0.00	0.00				0.00	0.00	Gloves (surgical)	pairs	100.00	31500.00	315.00
268				0.00	0.00				0.00	0.00	Surgical blade	pieces	50.00	10000.00	200.00
269				0.00	0.00				0.00	0.00	Bandage (5 cm)	pieces	12.00	8500.00	708.33
270				0.00	0.00				0.00	0.00	TL kit	one use	100.00	1033200.00	10332.00
271				0.00	0.00				0.00	0.00				0.00	0.00
272				0.00	0.00				0.00	0.00				0.00	0.00
273				0.00	0.00				0.00	0.00				0.00	0.00
274				0.00	0.00				0.00	0.00				0.00	0.00
275				0.00	0.00				0.00	0.00				0.00	0.00
276				0.00	0.00				0.00	0.00				0.00	0.00
277				0.00	0.00				0.00	0.00				0.00	0.00
278				0.00	0.00				0.00	0.00				0.00	0.00
279				0.00	0.00				0.00	0.00				0.00	0.00
280				0.00	0.00				0.00	0.00				0.00	0.00
281				0.00	0.00				0.00	0.00				0.00	0.00
282				0.00	0.00				0.00	0.00				0.00	0.00
283				0.00	0.00				0.00	0.00				0.00	0.00
284				0.00	0.00				0.00	0.00				0.00	0.00
285				0.00	0.00				0.00	0.00				0.00	0.00
286				0.00	0.00				0.00	0.00				0.00	0.00
287				0.00	0.00				0.00	0.00				0.00	0.00
288				0.00	0.00				0.00	0.00				0.00	0.00
289				0.00	0.00				0.00	0.00				0.00	0.00
290				0.00	0.00				0.00	0.00				0.00	0.00
291				0.00	0.00				0.00	0.00				0.00	0.00
292				0.00	0.00				0.00	0.00				0.00	0.00
293				0.00	0.00				0.00	0.00				0.00	0.00
294				0.00	0.00				0.00	0.00				0.00	0.00
295				0.00	0.00				0.00	0.00				0.00	0.00
296				0.00	0.00				0.00	0.00				0.00	0.00
297				0.00	0.00				0.00	0.00				0.00	0.00
298				0.00	0.00				0.00	0.00				0.00	0.00
299				0.00	0.00				0.00	0.00				0.00	0.00
300				0.00	0.00				0.00	0.00				0.00	0.00
301				0.00	0.00				0.00	0.00				0.00	0.00
302				0.00	0.00				0.00	0.00				0.00	0.00
303				0.00	0.00				0.00	0.00				0.00	0.00
304				0.00	0.00				0.00	0.00				0.00	0.00
305				0.00	0.00				0.00	0.00				0.00	0.00
306				0.00	0.00				0.00	0.00				0.00	0.00
307				0.00	0.00				0.00	0.00				0.00	0.00
308				0.00	0.00				0.00	0.00				0.00	0.00
309				0.00	0.00				0.00	0.00				0.00	0.00
310				0.00	0.00				0.00	0.00				0.00	0.00
311				0.00	0.00				0.00	0.00				0.00	0.00
312				0.00	0.00				0.00	0.00				0.00	0.00
313				0.00	0.00				0.00	0.00				0.00	0.00
314				0.00	0.00				0.00	0.00				0.00	0.00
315				0.00	0.00				0.00	0.00				0.00	0.00
316				0.00	0.00				0.00	0.00				0.00	0.00
317				0.00	0.00				0.00	0.00				0.00	0.00
318				0.00	0.00				0.00	0.00				0.00	0.00
319				0.00	0.00				0.00	0.00				0.00	0.00
320				0.00	0.00				0.00	0.00				0.00	0.00
321				0.00	0.00				0.00	0.00				0.00	0.00
322				0.00	0.00				0.00	0.00				0.00	0.00
323				0.00	0.00				0.00	0.00				0.00	0.00
324				0.00	0.00				0.00	0.00				0.00	0.00
325				0.00	0.00				0.00	0.00				0.00	0.00
326				0.00	0.00				0.00	0.00				0.00	0.00
327				0.00	0.00				0.00	0.00				0.00	0.00
328				0.00	0.00				0.00	0.00				0.00	0.00
329				0.00	0.00				0.00	0.00				0.00	0.00
330				0.00	0.00				0.00	0.00				0.00	0.00
331				0.00	0.00				0.00	0.00				0.00	0.00
332				0.00	0.00				0.00	0.00				0.00	0.00
333				0.00	0.00				0.00	0.00				0.00	0.00
334				0.00	0.00				0.00	0.00				0.00	0.00
335				0.00	0.00				0.00	0.00				0.00	0.00
336				0.00	0.00				0.00	0.00				0.00	0.00
337				0.00	0.00				0.00	0.00				0.00	0.00
338				0.00	0.00				0.00	0.00				0.00	0.00
339				0.00	0.00				0.00	0.00				0.00	0.00
340				0.00	0.00				0.00	0.00				0.00	0.00
341				0.00	0.00				0.00	0.00				0.00	0.00
342				0.00	0.00				0.00	0.00				0.00	0.00
343				0.00	0.00				0.00	0.00				0.00	0.00
344				0.00	0.00				0.00	0.00				0.00	0.00
345				0.00	0.00				0.00	0.00				0.00	0.00
346				0.00	0.00				0.00	0.00				0.00	0.00
347				0.00	0.00				0.00	0.00				0.00	0.00
348				0.00	0.00				0.00	0.00				0.00	0.00
349				0.00	0.00				0.00	0.00				0.00	0.00
350				0.00	0.00				0.00	0.00				0.00	0.00
351				0.00	0.00				0.00	0.00				0.00	0.00
352				0.00	0.00				0.00	0.00				0.00	0.00
353				0.00	0.00				0.00	0.00				0.00	0.00
354															

Once you have completed the Unit Cost worksheet for all medicines, contraceptives, and clinical supplies used at the facility, you will need to insert the unit cost of the items you listed on each separate Service Practices Worksheet by electronically linking it to the Unit Cost Worksheet. Providing you have already entered the quantity used for each of these items, the Service Practices Worksheet will then automatically calculate the total cost of each item used on the Service Practices Worksheets and display this figure in the column named "Cost this Service."

Continuing with the illustrative example, the following Service Practices Worksheet for a tubal ligation shows a list of supplies, quantities used, and their unit costs. The number of units of each supply used for this service has been entered in the "Units Used" column. The worksheet has automatically calculated the total cost of each item used in providing the service, which is displayed in the column named "Cost this Service."

### Illustrative Example: Service Practices Worksheet for Tubal Ligation

exp-WKSH													
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SERVICE PRACTICES WORKSHEET		Date	8/10/88										
Cost and Revenue Analysis Tool (CORE), MSH													
File and Service Name:		C:\CORE\exp-WKSH.xls\TUBAL LIGATION											
PERSONNEL TIME													
Direct Service Time (Minutes)													
Activity	M.O./A.M.O.	Nurse/Counselor	Receptionist	Personnel Type 4	Personnel Type 5	Personnel Type 6	Personnel Type 7	Personnel Type 8	Personnel Type 9	Personnel Type 10	Personnel Type 11	Total	
1 Register, pay, and counsel		18	3									21	
2 Procedure	23	45										68	
3 Post-operative care		10										10	
4 Post-counseling		5										5	
5												0	
6												0	
7												0	
8												0	
9												0	
10												0	
11												0	
12												0	
Total staff time	23	78	3	0	0	0	0	0	0	0	0	104	
MEDICINES, CONTRACEPTIVES, AND CLINICAL SUPPLIES USED													
Medicines													
Item	Unit Cost	Units Used	Cost this Service										
1 Analgesic	25.00	2.00	50.00										
TOTAL COST THIS SERVICE			50.00										
Clinical Supplies													
Item	Unit Cost	Units Used	Cost this Service										
1 Sutures (catgut)	8166.67	1.00	8166.67										
2 Sutures (silk)	8166.67	1.00	8166.67										
3 Gauze	12.03	7.00	84.21										
4 Bleach	6000.00	0.50	3000.00										
5 Iodine	35.00	35.00	1225.00										
6 Atropine	1100.00	1.00	1100.00										
7 Lignocaine	133.33	20.00	2666.67										
8 Syringes-disposable	450.00	2.00	900.00										
9 Gloves-disposable	830.00	2.00	1660.00										
10 Gloves-surgical	3150.00	2.00	6300.00										
11 Surgical blade	2000.00	1.00	2000.00										
12 Bandage	708.33	1.00	708.33										
13 TL kit	10332.00	1.00	10332.00										
TOTAL COST THIS SERVICE			46309.54										



## How to . . .

Completed Service Practices Worksheets show the personnel time spent providing each service, and the costs of medicines, contraceptives, and clinical supplies used or dispensed for each service you are analyzing. The steps below summarize how to complete the Service Practices Worksheets as described above.

To complete the Service Practices Worksheets you need to:

- 1) Rename the blank worksheets (currently named Service A, Service B, etc.) with the name of each service you are analyzing. Create new worksheets if necessary. (See the appendix entitled "Modifying the Spreadsheets" for more information on how to name these worksheets.)
- 2) In the "Personnel Time" section of each Service Practices Worksheet, in the spaces marked "Personnel Type 1," "Personnel Type 2," etc., list the different types of personnel involved in delivering that service. These must be the same personnel types you developed in Step 4, page 20.
- 3) Also in the "Personnel Time" section of each Service Practices Worksheet, list the activities required to complete the service in the spaces provided under the heading "Activities."
- 4) List the amount of time (in minutes) each type of personnel spends on each activity, counting only direct service time. (Several personnel may fall under one type of personnel. The amount of time you enter should be the total number of minutes all personnel under that personnel type spend in direct client contact for that activity.)
- 5) For each service, develop a list of medicines, contraceptives, and clinical supplies and the quantities used of each item and enter this information on the appropriate Service Practices Worksheet.
- 6) Develop a consolidated list of all medicines, contraceptives, and clinical supplies used to deliver all services at the facility and enter the items in the Unit Cost worksheet. Using the Unit Cost worksheet, fill in the information on base unit, number of units as purchased, and purchase price. (The worksheet will automatically calculate the unit cost of each item.)
- 7) On each Service Practices Worksheet, enter the unit cost of each medicine, contraceptive, and clinical supply item listed. The worksheet will then automatically calculate the total cost of that item for the service being analyzed and display this total under the heading "Total Cost this Service."



### Checklist for Step 6

When you have completed this step, you should have:

- A completed set of Service Practices Worksheets (one for each service being analyzed), and a master list of unit costs for medicines, contraceptives, and clinical supplies. Each Services Practices Worksheet should show personnel time used for each activity required to complete the service, and the costs of medicines, contraceptives, and clinical supplies used for the service.

### **Determine other fixed operating costs and regional/central support costs**

For this step, the data collection team must collect data on fixed operating costs. These include salary information drawn from Step 5, as well as the cost of special equipment that should be depreciated, estimates for other fixed operating costs, and the facility's share of central/regional support costs.

### **Determining Other Fixed Operating Costs and Regional/Central Support Costs**

Fixed operating costs are costs that do not vary with the quantity of people served or services delivered. These include salaries, the cost of special equipment (which should be depreciated), other fixed operating costs, and an allocation of regional/central support costs. To determine fixed operating costs, you can use the cost data you collected in Step 5 (page 24), and you should refer to organizational and/or facility budgets and historical accounting data available at the facility or at headquarters. You will use these data when you begin to work on the Facility Spreadsheet (in Part II of this Guide).



### **Depreciation on Special Equipment**

You should develop a list of all the facility's special equipment (for instance, high-cost equipment used only for one or a few services), and a depreciation schedule. You will be entering the amount calculated for depreciation of special equipment into the Facility Spreadsheet under the individual service for which the equipment is used. The organization's financial staff can advise you on local practices for calculating depreciation.

### **Other Fixed Operating Costs**

In many cases, the largest cost in this category is compensation for personnel time spent on administrative tasks. This cost includes compensation for the percent of time that direct service personnel spend on administrative duties and 100 percent of the compensation for administrative and other non-direct service personnel. You have already listed administrative time for all personnel in the table entitled "Illustrative List of Personnel with Annual Compensation and Allocations for Direct Service and Administrative Time" (Step 5, page 24). You do not need to gather any further information on compensation for administrative time in this step.

Additional examples of other fixed operating costs are rent, insurance, and maintenance. An illustrative list of some standard budget line items for other fixed operating costs follows.

### **Illustrative List of Other Fixed Operating Costs**

Administrative Salaries	Uniforms
Personnel Welfare	Government Levy
Personnel Training	Home Leave Transportation
Rental of Premises	Fuel/Vehicle Maintenance
Accountancy/Legal Services	Renovations
Advertising/Promotion	Office/Equipment Maintenance
Health Education	Bank Charges
Insurance	Depreciation
Leaflets	Total Cost of Medicines
Office Supplies	(purchased and/or donated)
Transport	Total Cost of Contraceptives
Post/Telephone	(purchased and/or donated)
Cleaning/Laundry	Total Cost of Clinical Supplies
Utilities	(purchased and/or donated)



## **Notes**

- ▶ *The last three line items in the illustrative list of other fixed operating costs refer to total costs for medicines, contraceptives, and clinical supplies anticipated to be purchased and/or donated during the specified time period. You should base these costs on historical data.*
- ▶ *Even if the medicines, contraceptives, and other clinical supplies currently used in your program are donated, you should include the actual cost of these products in the CORE analysis in order to determine the cost of delivering these services. CORE allows you to examine costs both with and without the cost of donated contraceptives for comparison purposes.*

## **Regional/Central Support Costs**

If your organization has more than one facility and maintains a separate office (or part of a facility) for regional/central operations, you can allocate the costs of operating regional or central administrative offices among facilities in a number of ways, for example, by dividing them:

- ◆ equally among the facilities;
- ◆ according to the proportion of total operating costs of each facility;
- ◆ based on policy decisions.

The organization must decide which allocation method is best, given the type and context of the organization. Once you have decided which allocation method to use and calculated the amount to allocate, the spreadsheet automatically distributes the allocation for regional/central support costs across services.

## **Checklist for Step 7**

When you have completed Step 7, you should have gathered data about depreciation of special equipment, other fixed operating costs, and regional/central support costs for each facility undergoing a CORE analysis. You should have:

- A list of the special equipment to be depreciated and a depreciation schedule;
- Estimates for other fixed operating costs;
- The facility's estimated share of regional/central office support costs.



## THE FOURTH PILLAR: REVENUE

To build the fourth pillar, the data collection team must gather the data that will be utilized in the Facility Spreadsheet to establish the net revenue a facility collects for each service. In completing this pillar, the team will complete the final two data collection steps:

Step 8: Determine fees charged for each service.

Step 9: Determine factors that reduce gross revenue.

### Determine fees charged for each service

For this step, the data collection team will create a list of fees charged for each service to be analyzed in the Facility Spreadsheet.

#### **Determining Fees Charged for Each Service**

To complete this step, you must determine the fee charged for each service that is currently provided by the facility, or anticipated to be offered in the future using the list of services developed in Step 1.

You should refer to each facility's current price list. For anticipated new services listed in Step 1, you will have to estimate the most appropriate fee to charge.

When completing this step, keep in mind that your facility may not actually charge for some services, such as immunization or well-child visit, but you still need to include these services in your list.

#### **Checklist for Step 8**

When you have completed this step, you should have:

- A list of fees charged for each service provided by each facility. The list of services should be the same as those listed in Step 1.



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### Determine factors that reduce gross revenue

For this step, the data collection team will collect data on three factors that reduce gross revenue—waivers, discounts, and cash differences.

## Determining Factors That Reduce Gross Revenue

Although a facility may have an established fee for each service it provides, there may be instances when the facility does not charge the full fee for a service or when the facility does not collect the full amount from the client. This reduces the gross revenue for the service. To estimate the net revenue per service, you must consider three factors—waivers, discounts, and cash differences. In most situations, the headquarters or central office of an organization collects and analyzes data for these three factors. You should involve finance personnel in collecting and analyzing past data in order to project future expenses.

### Waivers

Waivers reduce or eliminate fees for clients who cannot afford the standard fees. Some clinics have a policy of granting waivers to the unemployed, students, or other special groups. To calculate waivers, you should examine accounting and clinical records to determine the number of clients who may receive services without charge or who are charged a reduced fee. You should multiply the number of waivers granted for each service by the amount (fee or partial fee) charged for that service.

### Discounts

Discounts are similar to waivers. There are three main types of discounts:

- ◆ special discounts (such as an introductory discount for a new service or for a new group of clients);
- ◆ contractual arrangements for services provided to groups of clients (such as employees of companies for which the facility has agreed to provide services);
- ◆ services provided without any fee (such as those provided to the personnel of the facility or organization).

For each service, you should calculate the amount to be discounted based on written contracts and service statistics from past periods. This will give you an amount that you will enter into the Facility Spreadsheet and which will be automatically subtracted from gross revenue.



### **Cash Differences**

Cash differences refer to revenue that was expected to be received but was not received, and is not likely to be received in the future. Cash differences include reductions in revenue due to non-payment of a bill, theft, and other losses such as medicine or contraceptive loss (due to expiration, fire, water damage, etc.). An example of cash differences is when a commercial organization that contracted the facility to deliver health services to their employees fails to pay for the services after they were provided. The team should estimate cash differences based on the historical experience of the facility or organization. The figure for cash differences is typically used when historical revenue is being included, since it accounts for part of any discrepancy between expected revenue and actual revenue. Similar to waivers and discounts, the total amount of cash differences should be estimated for each of your services.

#### **Checklist for Step 9**

When you have completed this step, you should have:

- The total amount of waivers provided for each service during the time period you have specified. You have expressed this amount in currency.
- The total amount of group discounts for each service provided by the facility during the time period you have specified. You have expressed this amount in currency.
- The total amount of cash differences at the facility during a previous period. You have expressed this amount in currency.



## Checklist Summary

### **Step 1: Develop a list of services provided**

- A list of the services to be analyzed. Note that in creating this list you may have consolidated several activities or services under one listing.

### **Step 2: Establish the categories of services (optional)**

- A list of your services or facilities (from Step 1) grouped by category.

### **Step 3: Determine the volume of each service**

- The volume for each service provided by the facility for the time period you have specified.

### **Step 4: Identify all facility personnel and collect compensation data**

- A list of all personnel who work at each facility, grouped by type of personnel. This list includes the percent of time worked, payment basis, and the salary (including benefits and bonuses, when applicable) for each person you have listed.

### **Step 5: Determine how personnel spend their time**

- A list of all the personnel who work in the facility. The list should show percent time worked, annual compensation, and the percentage of time each person spends on direct service delivery and/or on administrative activities.

### **Step 6: Determine the personnel time and materials used in each service and complete the Service Practices Worksheets**

- A completed set of Service Practices Worksheets (one for each service being analyzed) and a master list of unit costs for medicines, contraceptives, and clinical supplies. Each Service Practices Worksheet should show personnel time used for each activity required to complete the service, and the costs of medicines, contraceptives, and clinical supplies used for the service.



**Step 7: Determine other fixed operating costs and regional/central support costs**

- A list of the special equipment to be depreciated and a depreciation schedule;
- Estimates for other fixed operating costs;
- The facility's estimated share of regional/central office support costs.

**Step 8: Determine fees charged for each service**

- A list of fees charged for each service provided by each facility. The list of services should be the same as those listed in Step 1.

**Step 9: Determine factors that reduce gross revenue**

- The total amount of waivers provided for each service during the time period you have specified. You have expressed this amount in currency.
- The total amount of group discounts for each service provided by the facility during the time period you have specified. You have expressed this amount in currency.
- The total amount of cash differences at the facility during a previous period. You have expressed this amount in currency.

This part of the User's Guide introduces CORE's two basic spreadsheets, the Facility Spreadsheet (file name: FAC-V1) and the Organization Spreadsheet (file name: ORG-V1). Line-by-line instructions explain how to enter data you developed in Part 1 (Steps 1-9) into the Facility Spreadsheet and are followed by an explanation of how to use the Organization Spreadsheet.

**Facility Spreadsheet**

The Facility Spreadsheet contains seven main sections:

**Section A: Summary of Key Information**

Section A provides an overview of the most important aspects of the analysis. No data entry is required for Section A.

**Section B: Determining Service Volume**

Data on the volume of services from the previous period, the current volume of services, and the estimated demand for services are entered in this section.

**Section C: Determining Costs**

Data on all variable, fixed, and regional/central support costs are entered in this section. The spreadsheet shows how these costs are distributed among the various services.

**Section D: Determining Revenue**

This section complements Section C. It calculates the anticipated gross revenue for each service, considers factors that may reduce gross revenue, and presents the net revenue for each service.

**Section E: Determining Direct & Indirect Staff Costs**

Data on direct service time from the Service Practices Worksheets are entered here. Section E calculates direct and indirect service staff costs, which are summarized in Section C under Fixed Costs.

**Section F: Determining Staff Salary Costs**

Data on personnel and compensation for employees and temporary staff are entered in this section. The data from Section F are used in Section E.

**Section G: Determining Other Fixed Operating Costs**

This section specifies all the current and anticipated costs that are necessary to sustain operations. The data from Section G are summarized in Section C.

**Organization Spreadsheet**

The Organization Spreadsheet electronically links key information from Section A (the summary section) of multiple Facility Spreadsheets. The Organization Spreadsheet allows the CORE management team to compare information from a number of facilities on costs, revenues, and staff utilization, and examine the overall performance of a program/organization. The Organization Spreadsheet contains three sections:

**Section A: Cost Recovery Summary by Service Category**

**Section B: Key Information Summary**

**Section C: Staff Utilization Summary**

4.1.1 A

# USING THE CORE SPREADSHEETS

*P*art II takes you line by line through two CORE spreadsheets—the Facility Spreadsheet (page 49) and the Organization Spreadsheet (page 72). It explains what data you need to put in the spreadsheets and where to obtain the data.

Templates of the Facility Spreadsheet and the Organization Spreadsheet can be found on the CORE diskette. These templates are:

Facility Spreadsheet	FAC-V1
Organization Spreadsheet	ORG-V1

You will need to modify these templates to suit your organization in order to conduct a CORE analysis. The appendix section entitled “Modifying the Spreadsheets” leads you through the process of modifying them. **Modify these two files only after they have been copied. Do not modify the files on the CORE diskette.**

The CORE diskette also contains three sample spreadsheet files with data from a fictitious organization. These examples are included to demonstrate how the CORE spreadsheets work when completed. A beginning CORE user may find it useful to look at these examples before beginning to use CORE with his or her organization. The file names for these examples are:

Sample Service Practices Worksheet	Exp-WKSH
Sample Facility Spreadsheet	Exp-FAC
Sample Organization Spreadsheet	Exp-ORG

This section provides graphic representations of relevant sections of the spreadsheet template and the sample spreadsheets for easy reference as you read the text. To view the spreadsheets in their entirety, please refer to the back of the Guide. You may want to make photocopies of these appendix spreadsheet pages for easy reference while working through Part II.

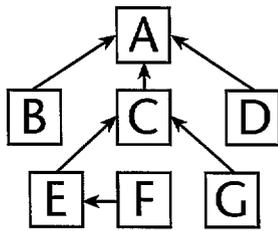


## The Facility Spreadsheet

The Facility Spreadsheet is the basic CORE tool and is used to determine costs and revenues at an individual facility. The Facility Spreadsheet is divided into seven sections:

- Section A: Summary of Key Information
- Section B: Determining Service Volume
- Section C: Determining Costs
- Section D: Determining Revenue
- Section E: Determining Direct & Indirect Staff Costs
- Section F: Determining Staff Salary Costs
- Section G: Determining Other Fixed Operating Costs

**Components of the Facility Spreadsheet**



Section A summarizes the detailed data from Sections B–E and provides an overview of the most important aspects of the analysis. Sections B, C, and D construct and calculate the data that are summarized in Section A. Sections E, F, and G are worksheets used to calculate direct and indirect staff costs, staff salary costs, and other fixed costs, which are summarized in Section C. The diagram to the left provides a graphic overview of the primary ways in which the Facility Spreadsheet sections are related.

## The Organization Spreadsheet

The Organization Spreadsheet lets you compare summary data from several Facility Spreadsheets when you are analyzing two or more facilities. The Organization Spreadsheet is divided into three sections:

- Section A: Cost Recovery Summary by Service Category
- Section B: Key Information Summary
- Section C: Staff Utilization Summary

## ORIENTATION TO THE FACILITY SPREADSHEET

As you view the spreadsheets on your computer screen or printed out, you will note that some of the spreadsheet cells have shading and some do not. The shaded cells are called *input* cells and require data developed in Part I. (See Lines B1–B3 for an example of input cells.) You can change the data in these input cells at any time.

Most of the spreadsheet cells are not shaded. They display the results of calculations based on the data entered in the input cells. Because they contain formulas and text labels that are integral to CORE, these cells are “protected” to prevent you from unintentionally changing them. If you wish to change the formulas or text labels, you must disable “cell protection” for the whole spreadsheet. See the appendix, “Modifying the Spreadsheets,” for more information on cell protection.

### Note

*You should not adjust the figures in the cells that are not shaded unless you are an experienced spreadsheet user, understand why you need to change the formulas, and have carefully thought through the implications that the change will have on all sections of CORE.*



## CORE Line Reference

Each line of the Facility Spreadsheet is labeled with a letter and a number. Together, these are called the "CORE line reference." The CORE line reference is designed to make it easier for you to find a specific CORE line when you are using the spreadsheet. The CORE line reference does *not* refer to the electronic spreadsheet cell address that appears on the left and top margins of the computer screen.

### Note

*The CORE line reference refers to the CORE spreadsheet line. Whenever the word "line" is used in this Guide, it refers to a CORE line reference.*

The CORE line reference columns help you identify where the data in each line come from. For example, in "Line A3: Service Mix," the first of the "CORE Line Reference and Formula" columns says "Total of Service Columns." This tells you that the figure in the Total column is the total of all the Service Columns. The second column says "(A2/ Total of A2)," which tells you the formula that the spreadsheet has used for each of the Service Columns in Line A3. (In this case, the spreadsheet has divided the number in each A2 Service Column by the number in the A2 Total column.)

## Setting Up the Facility Spreadsheet

Before you can begin to enter data in the Facility Spreadsheet, you must tailor it to meet the specific needs of your facility. You must modify the following parts of the spreadsheet:

Service Columns	Sections A–E
Service Categories	Section A
Personnel Types	Section E
Personnel and Salary Information	Section F
Other Fixed Operating Costs	Section G

These modifications should be made by someone with at least a moderate amount of experience using spreadsheets. If you do not possess these skills, then you should designate someone in your organization with spreadsheet skills to make the necessary modifications with you. For detailed instructions on making modifications, please refer to the appendix entitled "Modifying the Spreadsheets."

## ENTERING DATA IN THE FACILITY SPREADSHEET: LINE-BY-LINE INSTRUCTIONS

Part II of the CORE User's Guide explains the purpose of each section and subsection of the Facility and Organization spreadsheets. At the start of the discussion of each section and subsection, you will see the relevant section in its entirety as it appears on your computer screen. Part II also explains the spreadsheets line by line and indicates where to find and how to enter all the needed pieces of data. You have already collected these data by following the nine steps described in Part I.

### **Notes**

- ▶ *Part II describes how to enter data in all of the shaded input cells. You will not enter any data in the unshaded cells. These cells contain formulas and are protected to prevent any inadvertent changes in the formulas.*
- ▶ *The Guide uses the CORE line references specified on the Facility Spreadsheet template. If you have modified the number of rows in the spreadsheet, then the CORE line references on your new spreadsheet will differ from the references in the Guide.*

### **Section A: Summary of Key Information**

Section A allows managers at the facility or at headquarters to quickly review a facility's cost and revenue data. No data entry is required for Section A. All information contained in Section A is automatically transferred by the spreadsheet software directly from Sections B–E of the Facility Spreadsheet. If desired, you can trace the source of information contained in the Section A by referring to the CORE line references.

## Illustrative Example: Facility Spreadsheet Section A: Summary of Key Information

FACILITY SPREADSHEET Date: 8/10/98				Period:				
Cost and Revenue Analysis Tool (CORE). MSH				Currency:				
File: C:\CORE\exp-FAC.xls\A Key Information Summary				Facility:				
<b>A SUMMARY OF KEY INFORMATION</b>				TOTAL	FAMILY PLANNING SERVICES			
					TUBAL LIGATION	PILLS FIRST VISIT	IUD INSERTION	NORPLANT INSERTION
CORE LINE REFERENCE AND FORMULA								
Total Column Formula								
Service Column Formula								
A 1	<b>SERVICE VOLUME</b>							
A 2	Volume of services this period	Total of service columns	(B3)	23,560	300	3,600	240	300
A 3	Service mix:	Total of service columns	(A2/TOTAL OF A2)	100%	1.27%	15.28%	1.02%	1.27%
A 4	<b>COSTS PER SERVICE</b>							
A 5	<b>VARIABLE COSTS</b>							
A 6	Commission	No formula	(C3)		0	0	0	0
A 7	Professional fees per service	No formula	(C4)		0	0	0	0
A 8	Medicine used	No formula	(C5)		50	0	0	0
A 9	Contraceptives used	No formula	(C6)		0	6,300	3,600	150,000
A 10	Clinical supplies used	No formula	(C7)		48,310	0	10,520	16,220
A 11	<b>TOTAL VARIABLE COSTS</b>	No formula	SUM(A6 A10)		48,360	6,300	14,220	168,220
A 12	<b>FIXED COSTS</b>							
A 13	Direct service staff costs	No formula	(C17/B3)		1,418	118	236	183
A 14	Indirect service staff costs	No formula	(C18/B3)		1,487	178	357	21
A 15	Depreciation on special equipment	No formula	(C20/B3)		11	0	0	0
A 16	Other fixed operating costs	No formula	(C21/B3)		82,237	11,047	24,883	286,418
A 17	<b>TOTAL FIXED COSTS</b>	No formula	SUM(A13 A16)		85,154	11,344	25,476	286,622
A 18	<b>REGIONAL/CENTRAL SUPPORT COSTS</b>	No formula	(C26/B3)		63.39	8.44	18.96	213.36
A 19	<b>TOTAL COSTS PER SERVICE</b>	Average of service columns	SUM(A11-A17-A18)	203,772	131,577	17,652	39,715	453,055
A 20	<b>REVENUE PER SERVICE</b>							
A 21	Net revenue per service	Average of service columns	(D10)	136,630	14,000	5,000	15,000	25,000
A 22	Surplus/loss per service	Average of service columns	(A21-A19)	-67,142	-117,577	-12,652	-24,715	-428,055
A 23	<b>REVENUE AND COST RECOVERY FOR SERVICE CATEGORIES</b>							
<b>FAMILY PLANNING SERVICES</b>								
A 24	Total net revenue	Subtotal of services by category	(D9)	29,100,000	4,200,000	18,000,000	3,600,000	7,500,000
A 25	Total variable, fixed, and support costs	Subtotal of services by category	(C27)	208,995,657	39,472,980	63,547,562	9,531,521	135,916,574
A 26	Total surplus/loss	(A24-A25)	(A24-A25)	-179,895,657	-35,272,980	-45,547,562	-5,931,521	-128,416,574
A 27	Percentage of costs recovered	(A24/A25)	(A24/A25)	14%	11%	28%	38%	6%
<b>MICHOBSTETRIC SERVICES</b>								
A 28	Total net revenue	Subtotal of services by category	(D9)	166,360,000				
A 29	Total variable, fixed, and support costs	Subtotal of services by category	(C27)	139,490,009				
A 30	Total surplus/loss	(A28-A29)	(A28-A29)	26,869,991				
A 31	Percentage of costs recovered	(A28/A29)	(A28/A29)	119%				
<b>CURATIVE SERVICES</b>								
A 32	Total net revenue	Subtotal of services by category	(D9)	170,760,000				
A 33	Total variable, fixed, and support costs	Subtotal of services by category	(C27)	83,049,511				
A 34	Total surplus/loss	(A32-A33)	(A32-A33)	82,710,389				
A 35	Percentage of costs recovered	(A32/A33)	(A32/A33)	194%				
A 36	<b>TOTAL REVENUE AND COST RECOVERY FOR THE FACILITY</b>							
A 37	Total net revenue	Total of service columns	(D9)	366,220,000	4,200,000	18,000,000	3,600,000	7,500,000
A 38	Total variable, fixed, and support costs	Total of service columns	(C27)	436,535,278	39,472,980	63,547,562	9,531,521	135,916,574
A 39	Total surplus/loss	(A37-A38)	(A37-A38)	-70,315,278	-35,272,980	-45,547,562	-5,931,521	-128,416,574
A 40	Percentage of costs recovered	(A37/A38)	(A37/A38)	84%	11%	28%	38%	6%
A 41	<b>STAFF UTILIZATION FOR DIRECT SERVICE DELIVERY</b>							
A 42	Medical Specialist	E14/F4	No formula	0%				
A 43	Medical Officer/Assistant Medical Officer	E15/F5	No formula	83%				
A 44	Medical Assistant	E16/F6	No formula	0%				
A 45	Nurse/Counselor	E17/F7	No formula	39%				
A 46	Laboratory Technician	E18/F8	No formula	172%				
A 47	Outside Laboratory Services	E19/F9	No formula	0%				
A 48	Receptionist	E20/F10	No formula	0%				
A 49	Driver	E21/F11	No formula	0%				
A 50	Security	E22/F12	No formula	0%				
A 51	Personnel Type Ten	E23/F13	No formula	0%				
A 52	Personnel Type Eleven	E24/F14	No formula	0%				

A. Key Information Summary

B. Service Volume

C. Costs

D. Revenue

E. Direct and Indirect Staff Costs

F. Staff Salary



Section A: Summary of Key Information contains six subsections:

- ◆ Service Volume (Lines A1–A3)
- ◆ Costs per Service (Lines A4–A19)
- ◆ Revenue per Service (Lines A20–A22)
- ◆ Revenue and Cost Recovery for Service Categories (Lines A23–A35)
- ◆ Total Revenue and Cost Recovery for the Facility (Lines A36–A40)
- ◆ Staff Utilization for Direct Service Delivery (Lines A41–A52)

### **Service Volume (Lines A1–A3)**

This subsection displays the volume of each type of service during the period being analyzed. It also shows the percentage of total volume represented by each service.

### **Costs per Service (Lines A4–A19)**

This subsection shows all costs associated with delivering each service (for example, one IUD insertion or one well-baby visit). The spreadsheet breaks costs down into variable costs, fixed costs, and regional/central support costs. These costs are summarized on Line A19, “Total costs per service.” The Total column on Line A19 specifies the average per-service costs for all services provided by the facility. For a brief discussion of variable costs and fixed costs, please see Part III, page 78.

### **Revenue per Service (Lines A20–A22)**

This subsection complements the “Costs per Service” subsection (Lines A4–A19) by showing the anticipated revenue and surplus or loss for each service delivered. The Total column on Line A22 indicates the average net revenue per service for all services and the average surplus or loss per service for all services.

### **Revenue and Cost Recovery for Service Categories (Lines A23–A35)**

This subsection summarizes the total revenue and cost projected for each service category, the resulting surplus or loss, and the percentage of costs recovered for all services under that service category.

The Facility Spreadsheet template specifies three service categories in Lines A23–A35. If you identify more than three service categories (see Part I, Step 2, page 14), then you can add more service categories here. Conversely, if you identify fewer than three service categories, you can delete the appropriate number of service categories. You may also leave in the extra service categories to assist you in developing “what if” service scenarios later. For instructions on how to delete or add service categories in the Facility Spreadsheet, please refer to the appendix entitled “Modifying the Spreadsheets.”



**Total Revenue and Cost Recovery for the Facility  
(Lines A36–A40)**

This subsection summarizes the total revenue and cost projected for the facility, the resulting surplus or loss, and the percentage of overall costs the facility can expect to recover.

**Staff Utilization for Direct Service Delivery  
(Lines A41–A52)**

This subsection shows the percentage of time that service staff actually spend delivering services, based on the amount of time they are available to spend delivering services.

**Section B: Determining  
Service Volume**

Section B has only one section, with three lines (no subsections). In Section B, you need to enter data on the:

- ◆ volume of services from a previous period (usually one year);
- ◆ estimated maximum demand for services;
- ◆ estimated volume of services for the period you have specified (usually one year).

These data were developed in Part I, Steps 1, 2, and 3 (pages 11-17).



## Illustrative Example: Facility Spreadsheet Section B: Determining Service Volume

exp-FAC															
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
<b>FACILITY SPREADSHEET</b> Date: 8/10/98    Period:															
<b>Cost and Revenue Analysis Tool (CORE), MSH</b> Currency:															
File: C:\CORE\exp-FAC.xls    B Service Volume    Facility:															
<b>B DETERMINING SERVICE VOLUME</b>										TOTAL		FAMILY PLANNING SERVICES			
												TUBAL LIGATION	PILLS FIRST VISIT	IUD INSERTION	NORPLANT INSERTION
CORE LINE REFERENCE AND FORMULA															
Total Column Formula										Service Column Formula					
NOTE: Lines B1 and B2 are included for reference only, and are not used in any calculations.															
B	1	Actual volume of services from previous period							Total of service columns	INPUT (SERVICE COL)	21,625	280	3,200	185	225
B	2	Maximum demand for services for this period							Total of service columns	INPUT (SERVICE COL)	82,350	550	6,000	550	600
B	3	Volume of services for this period							Total of service columns	INPUT (SERVICE COL)	23,560	300	3,600	240	300

### Note

Lines B1–B2 are for reference only. They are not used in calculations in any part of the spreadsheet but are included to assist in the development of the volume of services input, Line B3.

#### **Line B1: Volume of services from previous period**

In this line, enter the historical data on actual volume of services. You developed these data in Part I, Step 3 (page 16).

#### **Line B2: Maximum demand for services for this period**

For this line, enter the data on maximum demand for services developed in Part I, Step 3 (page 16).

### Note

When you are using CORE, the "Volume of services for this period" (Line B3) should not be greater than the "Maximum demand for services for this period" (Line B2).



**Line B3: Volume of services for this period**

For this line, insert data from the list of service volume established in Part I, Step 3 (page 16). These volume figures form the basis of the CORE analysis; all of the cost and revenue calculations for the facility will be based on these volumes.

**Section C: Determining Costs**

Section C summarizes all variable, fixed, and regional/central office support costs and shows how they are distributed across the various services. In Section C, use the data on costs developed in Part I, Steps 4, 5, 6, and 7 (pages 18-39).

**Illustrative Example: Facility Spreadsheet  
Section C: Determining Costs**

exp-FAC															
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
2	<b>FACILITY SPREADSHEET</b>										Date:	8/10/98	Period:		
3	<b>Cost and Revenue Analysis Tool (CORE), MSH</b>										Currency:				
4	File: C:\CORE\exp-FAC.xls\C_Costs										Facility:				
5											FAMILY PLANNING SERVICES				
6											TUBAL LIGATION	PILLS FIRST VISIT	IUD INSERTION	NORPLANT INSERTION	
7	<b>C DETERMINING COSTS</b>										TOTAL				
8											CORE LINE REFERENCE AND FORMULA				
9											Total Column Formula		Service Column Formula		
10	<b>C 1 VARIABLE COSTS TO DELIVER ONE SERVICE</b>														
11	C 2	Commission % (based on gross revenue)	No formula	INPUT (SERVICE COL)							0%	0%	0%	0%	
12	C 3	Commission	No formula	(C2*D4)*B3							0	0	0	0	
13	C 4	Professional fees per service	No formula	INPUT (SERVICE COL)							0	0	0	0	
14	C 5	Medicine used	No formula	INPUT (SERVICE COL)							50	0	0	0	
15	C 6	Contraceptives used	No formula	INPUT (SERVICE COL)							0	6,300	3,600	150,000	
16	C 7	Clinical supplies used	No formula	INPUT (SERVICE COL)							46,310	0	10,620	16,220	
17	C 8	<b>VARIABLE COSTS TO DELIVER ONE SERVICE</b>	No formula	Sum(C3 - C7)							46,360	6,300	14,220	166,220	
20	<b>C 9 TOTAL VARIABLE COSTS</b>														
21	C 10	Commission	Total of service columns	(B3*C3)							20,000,000	0	0	0	
22	C 11	Professional fees per service	Total of service columns	(B3*C4)							0	0	0	0	
23	C 12	Medicine used	Total of service columns	(B3*C5)							27,576,000	15,000	0	0	
24	C 13	Contraceptives used	Total of service columns	(B3*C6)							68,544,000	0	22,680,000	864,000	
25	C 14	Clinical supplies used	Total of service columns	(B3*C7)							38,100,600	13,992,862	0	2,548,800	
26	C 15	<b>TOTAL VARIABLE COSTS</b>	Total of service columns	SUM(C10 - C14)							154,223,600	13,997,862	22,680,000	3,412,800	
29	<b>C 16 TOTAL FIXED COSTS</b>														
30	C 17	Direct service staff costs	(E38)	(E38)							5,209,291	425,517	425,357	56,714	
31	C 18	Indirect service staff costs	(E51)	(E51)							3,894,387	446,121	642,139	85,619	
32	C 19	Sub-total service staff costs	(C17+C18)	(C17+C18)							8,904,278	871,638	1,067,496	142,333	
33	C 20	Depreciation on special equipment	Total of service columns	INPUT (SERVICE COL)							56,000	3,400	0	0	
34	C 21	Other fixed operating costs	G33	(C21Tot*(C15+C17)/(C15Tot+C17Tot))							274,420,900	24,671,083	39,769,667	5,971,837	
35	C 22	<b>TOTAL FIXED COSTS</b>	Total of service columns	Sum(C19 - C21)							282,101,678	25,546,101	40,837,163	6,114,170	
38	<b>C 23 TOTAL VARIABLE, FIXED, AND SUPPORT COSTS</b>														
39	C 24	Total variable costs	Total of service columns	(C15)							154,223,600	13,997,862	22,680,000	3,412,800	
40	C 25	Total fixed costs	Total of service columns	(C22)							282,101,678	25,546,101	40,837,163	6,114,170	
41	C 26	Regional/central support costs	INPUT (TOTAL)	(C26Tot*(C25/C25Tot))							210,000	19,017	30,400	4,551	
42	C 27	<b>TOTAL VARIABLE, FIXED AND SUPPORT COSTS</b>	Sum(C24 - C26)	Sum(C24 - C26)							436,535,278	39,472,980	63,547,562	9,531,521	



Section C has four subsections:

- ◆ Variable Costs to Deliver One Service (Lines C1–C8)
- ◆ Total Variable Costs (Lines C9–C15)
- ◆ Total Fixed Costs (Lines C16–C22)
- ◆ Total Variable, Fixed, and Support Costs (Lines C23–C27)

### **Variable Costs to Deliver One Service (Lines C1–C8)**

This subsection shows the costs that the facility will incur every time it delivers a specific service. In this subsection, enter the data on costs developed in Part I, Steps 4, 5, and 6 (pages 18–37).

**Line C2: Commission % (based on gross revenue)**

Some facilities pay a commission to specialists hired to perform specific service delivery activities. (In some places, these specialists are referred to as “locums.”) You base the commission percentage for this line on the pre-negotiated amount the facility agrees to pay the specialist for each service activity performed, based on the gross revenue of that service. For this line, use data developed in Part I, Step 4 (page 20).

### **Example**

*In the illustrative example on page 20, the facility has agreed to pay a medical specialist 20 percent of the total revenue for the service he or she will provide. For this example, you would insert .2 in the input cell for Line C2 under the column for each service the specialist will provide.*

**Line C3: Commission**

This line determines commission by multiplying the commission percentage for a given service by the total gross revenue for that service and then dividing by the total volume of services  $[(C2 * D4) / B3]$ .



**Line C4: Professional fees per service**

For this line, use data developed in Part I, Step 4 (page 20).

**Line C5: Medicine used**

This line shows the cost of any medicine provided to a client as part of delivering a service (that is, at no additional charge to the client). Use data from the Service Practices Worksheets developed in Part I, Step 6 (page 32), which lists the standard procedures, personnel times, and the quantities required and costs of the medicine, contraceptives, and clinical supplies for each service.

**Line C6: Contraceptives used**

In this line, enter the cost of any contraceptives provided to a client as part of delivering a service (that is, at no additional charge to the client). Use data from the Service Practices Worksheets developed in Part I, Step 6 (page 32).

**Line C7: Clinical supplies used**

This line shows the cost of all clinical supplies used in delivering a service (that is, at no additional charge to the client). Use data from the Service Practices Worksheets developed in Part I, Step 6 (page 32).

**Line C8: Variable costs to deliver one service**

This line sums up all the costs in Lines C3–C7 and displays the total variable cost for providing one service.

**Total Variable Costs (Lines C9–C15)**

This subsection shows the total variable costs a facility will incur for each service if the facility attains its volume of services.

**Lines C10–C14: Total variable costs (per cost item)**

These lines multiply the costs per service for each specified cost item from the previous subsection by the volume of services from Line B3.

**Line C15: Total variable costs**

This line obtains the total variable costs for each service by adding Lines C10–C14.



### **Total Fixed Costs (Lines C16–C22)**

This subsection shows the costs that a facility incurs regardless of the number of services provided. For more information on fixed costs, refer to Part I, Step 7 (page 37). The spreadsheet automatically pulls data from Sections E and G1 and enters them in this section. You will only have to input data in Line C20 (see below).

#### **Line C17: Direct service staff costs**

This line shows the cost of the personnel time spent directly on providing services to clients. The spreadsheet calculates this amount in Sections E and F and transfers the total automatically from Line E38 to this line.

#### **Line C18 Indirect service staff costs**

This line represents the cost of the balance of available direct service delivery time for the same staff included in Line C17 that is *not* actually spent providing services, given the volume of services in Line B3. The spreadsheet calculates these costs in Section E and transfers the total from Line E51 to this line.

#### **Line C19: Subtotal: service staff costs**

This is the total of direct and indirect service staff costs (Lines C17 and C18).

#### **Line C20: Depreciation on special equipment**

This figure reflects the amount allowed for depreciation of expensive, specialized equipment. For this line, use data developed in Part I, Step 7 (page 38).

#### **Note**

*Because only particular service activities require expensive, specialized equipment, you must allocate depreciation for this equipment to the services for which it is needed rather than apportioning it across all services.*

#### **Line C21: Other fixed operating costs**

First, the spreadsheet transfers the total other fixed operating costs from Line G33 to the Total column in this line. These data were developed in Part I, Step 7 (page 38). Then the spreadsheet allocates this total cost among the services in proportion to each service's total variable costs (C15) and direct service staff costs (C17).



**Line C22: Total fixed costs**

This line is the total of direct and indirect staff costs, depreciation on special equipment, and other fixed operating costs (Lines C17–C21).

**Total Variable, Fixed, and Support Costs (Lines C23–C27)**

This subsection totals variable costs and fixed costs, then allocates the regional/central support costs proportionally among all the services.

**Lines C24 and C25: Total variable costs and total fixed costs**

The spreadsheet transfers these totals from Lines C15 and C22, respectively.

**Line C26: Regional/central support costs**

This line is the amount of regional/central support costs allocated to the facility and allocated to each service on a proportional basis. For this line, use data developed in Part I, Step 7 (page 39).

**Note**

*The spreadsheet automatically allocates a portion of the total input regional/central support costs for the facility to each service in proportion to each service's percentage of the total fixed costs for the facility.*

**Line C27: Total variable, fixed, and support costs**

This line is the total of the variable costs, fixed costs, and regional/central support costs (Lines C24–C26).



**Section D: Determining Revenue**

This section complements Section C: Determining Cost Elements. It calculates the anticipated gross revenue for each service, takes into account factors that may reduce gross revenue, and then presents the net revenue for each service. Refer to Part I, Step 9 (page 41) for more information on factors that may reduce gross revenue.

**Illustrative Example: Facility Spreadsheet  
Section D: Determining Revenue**

exp-FAC															
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
2	<b>FACILITY SPREADSHEET</b> Date: 8/10/98										Period:				
3	<b>Cost and Revenue Analysis Tool (CORE), MSH</b>										Currency:				
4	File: C:\CORE\exp-FAC.xls\D Revenue										Facility:				
5											FAMILY PLANNING SERVICES				
6											TUBAL LIGATION	PILLS FIRST VISIT	IUD INSERTION	NORPLANT INSERTION	
7	<b>D DETERMINING REVENUE</b>										TOTAL				
8											CORE LINE REFERENCE AND FORMULA				
9											Total Column Formula	Service Column Formula			
10	D	1	<b>GROSS REVENUE</b>		Total of service columns		(B3)		23,560	300	3,600	240	300		
11	D	2	Volume of services		No formula		INPUT (SERVICE COL)			14,000	5,000	15,000	25,000		
12	D	3	Unit fee/price		Total of service columns		(D2*D3)		373,100,000	4,200,000	18,000,000	3,600,000	7,500,000		
13	D	4	<b>TOTAL GROSS REVENUE</b>												
14											CORE LINE REFERENCE AND FORMULA				
15	D	5	<b>WAIVERS, DISCOUNTS, AND CASH DIFFERENCES</b>		Total of service columns		INPUT (SERVICE COL)		3,880,000	0	0	0	0		
16	D	6	Waivers amount		Total of service columns		INPUT (SERVICE COL)		0	0	0	0	0		
17	D	7	Discounts amount		Total of service columns		INPUT (SERVICE COL)		3,000,000	0	0	0	0		
18	D	8	Cash differences		Total of service columns		(D4-(D6+D7+D8))		366,220,000	4,200,000	18,000,000	3,600,000	7,500,000		
19	D	9	<b>TOTAL NET REVENUE</b>												
20											CORE LINE REFERENCE AND FORMULA				
21	D	10	<b>NET REVENUE PER SERVICE</b>		No formula		(D9/D2)			14,000	5,000	15,000	25,000		
22											CORE LINE REFERENCE AND FORMULA				
23											CORE LINE REFERENCE AND FORMULA				
24											CORE LINE REFERENCE AND FORMULA				
25											CORE LINE REFERENCE AND FORMULA				
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98											CORE LINE REFERENCE AND FORMULA				
99											CORE LINE REFERENCE AND FORMULA				
100											CORE LINE REFERENCE AND FORMULA				

1 A. New Procedure Summary / B. Service Volume / C. CORE D. Revenue / E. Overhead Staff Costs / F. Staff Salary Costs / G. Other Fixed Operating Costs



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Section D has three subsections:

- ◆ Gross Revenue (Lines D1–D4)
- ◆ Waivers, Discounts, and Cash Differences (Lines D5–D9)
- ◆ Net Revenue per Service (Line D10)

### **Gross Revenue (Lines D1–D4)**

This subsection establishes the total gross revenue for each service.

**Line D2: Volume of services**

This line represents the volume of services. The spreadsheet transfers data for this line from Line B3.

**Line D3: Unit fee/price**

This line is the total fee for each service. Some facilities collect payments from clients incrementally as they move through various steps in the service delivery process (for example, they may charge and collect separately for physical exams, laboratory work, medications, and clinical supplies). When a facility collects payments incrementally, the amount you enter for each service should include all charges that the average client incurs for one service listing. For this line, use data developed in Part I, Step 8 (page 40).

**Line D4: Total gross revenue**

The spreadsheet calculates this line by multiplying the volume for each service (Line D2) by the unit fee or price (Line D3).

### **Waivers, Discounts, and Cash Differences (Lines D5–D9)**

This subsection deducts waivers, discounts, and cash differences from the total gross revenue for each service (Line D4), to arrive at a total net revenue for each service.

**Line D6: Waivers amount**

This figure represents for each service the total value in currency of service fees that are waived in full or in part for people who can not afford to pay. For this line, use data developed in Part I, Step 9 (page 41).

**Line D7: Discounts amount**

This figure represents for each service the total value in currency of service fees that were discounted as part of promotion of new services, through contractual arrangements, or for service provided free to the personnel of the organization. Use data developed in Part I, Step 9 (page 41).



**Line D8: Cash differences**

This figure represents the difference between the amount of money that a facility should have received for all services delivered and the amount that it actually received. For this line, use data developed in Part I, Step 9 (page 42).

**Note**

*The figure in Line D8 should not include any of the reductions that are covered in Lines D6 and D7.*

**Line D9: Total net revenue**

This line shows the total revenue that can be expected from each type of service. To calculate this figure, the spreadsheet subtracts Lines D6, D7, and D8 from the total gross revenue in Line D4.

**Line D10: Net revenue per service**

The revenue section ends with a statement of the net revenue for each service. The spreadsheet calculates net revenue by dividing the total net revenue in Line D9 by the volume of each service (Line D2).

**Section E: Determining  
Direct & Indirect Staff Costs**

This section summarizes all labor data for employees and temporary (casual) staff. For this section, use data on time allocations for service delivery practices developed in Part I, Step 6 (page 28). The amount of time spent delivering services is the basis for the distribution of direct and indirect service staff costs.

## Illustrative Example: Facility Spreadsheet Section E: Determining Direct & Indirect Service Staff Costs

FACILITY SPREADSHEET		Date:	9/10/98	Period:		FAMILY PLANNING SERVICES			
Cost and Revenue Analysis Tool (CORE), MSH		Currency:							
File: C:\CORE\exp-FAC.xls\E Direct&Indirect Staff Costs		Facility:							
E DETERMINING DIRECT & INDIRECT STAFF COSTS		TOTAL	TUBAL LIGATION	PILLS FIRST VISIT	IUD INSERTION	NORPLANT INSERTION			
CORE LINE REFERENCE AND FORMULA									
Total Column Formula		Service Column Formula							
<b>E 1 DIRECT MINUTES PER SERVICE</b>									
E 2	Medical Specialist	No formula	INPUT	0	0	0	0		
E 3	Medical Officer/Assistant Medical Officer	No formula	INPUT	23	0	0	5		
E 4	Medical Assistant	No formula	INPUT	0	0	0	0		
E 5	Nurse/Counselor	No formula	INPUT	78	10	20	0		
E 6	Laboratory Technician	No formula	INPUT	0	0	0	0		
E 7	Outside Laboratory Services	No formula	INPUT	0	0	0	0		
E 8	Receptionist	No formula	INPUT	3	0	0	0		
E 9	Driver	No formula	INPUT	0	0	0	0		
E 10	Security	No formula	INPUT	0	0	0	0		
E 11	Personnel Type Ten	No formula	INPUT	0	0	0	0		
E 12	Personnel Type Eleven	No formula	INPUT	0	0	0	0		
Minutes available									
<b>E 13 TOTAL DIRECT MINUTES</b>									
E 14	Medical Specialist	F4 through F 14		33,780	0	0	0		
E 15	Medical Officer/Assistant Medical Officer	Total of service columns (B3'E2)		84,300	6,300	0	1,500		
E 16	Medical Assistant	Total of service columns (B3'E4)		0	0	0	0		
E 17	Nurse/Counselor	Total of service columns (B3'E5)		115,740	23,400	36,000	4,800		
E 18	Laboratory Technician	Total of service columns (B3'E6)		188,100	0	0	2,100		
E 19	Outside Laboratory Services	Total of service columns (B3'E7)		87,060	0	0	0		
E 20	Receptionist	Total of service columns (B3'E8)		0	900	0	0		
E 21	Driver	Total of service columns (B3'E9)		0	0	0	0		
E 22	Security	Total of service columns (B3'E10)		0	0	0	0		
E 23	Personnel Type Ten	Total of service columns (B3'E11)		0	0	0	0		
E 24	Personnel Type Eleven	Total of service columns (B3'E12)		0	0	0	0		
E 25	<b>TOTAL DIRECT MINUTES</b>	SUM(E14 E24)	SUM(E14 E24)	507,000	31,200	36,000	4,800		
NOTE: In the formulas below right, F4f through F14f refer to the AVERAGE SALARY PER HOUR column in Lines F4 through F14									
<b>E 26 DIRECT COSTS</b>									
E 27	Medical Specialist	Total of service columns (F4H/E27)		0	0	0	0		
E 28	Medical Officer/Assistant Medical Officer	Total of service columns (F4H/E28)		1,773,890	145,202	0	31,866		
E 29	Medical Assistant	Total of service columns (F4H/E29)		0	0	0	0		
E 30	Nurse/Counselor	Total of service columns (F4H/E30)		1,367,523	276,482	425,357	56,714		
E 31	Laboratory Technician	Total of service columns (F4H/E31)		2,067,778	0	0	23,333		
E 32	Outside Laboratory Services	Total of service columns (F4H/E32)		0	0	0	0		
E 33	Receptionist	Total of service columns (F4H/E33)		0	3,833	0	0		
E 34	Driver	Total of service columns (F4H/E34)		0	0	0	0		
E 35	Security	Total of service columns (F4H/E35)		0	0	0	0		
E 36	Personnel Type Ten	Total of service columns (F4H/E36)		0	0	0	0		
E 37	Personnel Type Eleven	Total of service columns (F4H/E37)		0	0	0	0		
E 38	<b>TOTAL DIRECT COSTS</b>	SUM(E27 E37)	SUM(E27 E37)	5,209,291	425,517	425,357	56,714		
NOTE: In the formulas below left, F4h through F14h refer to the ANNUAL DIRECT SERVICE SALARY column in Lines F4 through F14									
<b>E 39 INDIRECT COSTS</b>									
E 40	Medical Specialist	(F4h-E27)	(E40 Tot/E27E27 Tot)	0	0	0	0		
E 41	Medical Officer/Assistant Medical Officer	(F4h-E28)	(E41 Tot/E28E28 Tot)	351,010	28,730	0	6,246		
E 42	Medical Assistant	(F4h-E29)	(E42 Tot/E29E29 Tot)	858,000	0	0	0		
E 43	Nurse/Counselor	(F4h-E30)	(E43 Tot/E30E30 Tot)	2,064,472	417,390	642,139	85,619		
E 44	Laboratory Technician	(F4h-E31)	(E44 Tot/E31E31 Tot)	0	0	0	0		
E 45	Outside Laboratory Services	(F4h-E32)	(E45 Tot/E32E32 Tot)	0	0	0	0		
E 46	Receptionist	(F4h-E33)	(E46 Tot/E33E33 Tot)	423,500	0	0	0		
E 47	Driver	(F4h-E34)	(E47 Tot/E34E34 Tot)	0	0	0	0		
E 48	Security	(F4h-E35)	(E48 Tot/E35E35 Tot)	0	0	0	0		
E 49	Personnel Type Ten	(F4h-E36)	(E49 Tot/E36E36 Tot)	0	0	0	0		
E 50	Personnel Type Eleven	(F4h-E37)	(E50 Tot/E37E37 Tot)	0	0	0	0		
E 51	<b>TOTAL INDIRECT COSTS</b>	SUM(E40 E50)	SUM(E40 E50)	3,694,987	446,121	642,139	85,619		



Section E has four subsections:

- ◆ Direct Minutes per Service (Lines E1–E12)
- ◆ Total Direct Minutes (Lines E13–E25)
- ◆ Direct Costs (Lines E26–E38)
- ◆ Indirect Costs (Lines E39–E51)

### **Direct Minutes per Service (Lines E1–E12)**

This subsection specifies the amount of time spent by each type of personnel in providing each of the services.

For these lines, first enter the types of personnel at the facility. These personnel types should be consistent with the list developed in Part I, Step 4 (page 20). Using the Service Practices Worksheets, transfer to Lines E1–E12 the total direct service time (in minutes) for each type of personnel. These data were developed in Part I, Step 6 (page 28).

#### **Note**

*If more than one person is involved in any given activity (for example, if two nurses are involved in a surgical procedure), then the number of minutes entered should represent their total combined times.*

### **Total Direct Minutes (Lines E13–E25)**

In this subsection the spreadsheet calculates the total minutes each type of personnel actually spends providing services by multiplying the direct minutes entered for each service (in the previous subsection) by the volume of services (Line B3). The “Minutes available” column shows the number of minutes each type of personnel is available to spend providing services (over the specified period).

#### **Note**

*The spreadsheet calculates the total minutes available for each type of personnel on Lines F4–F14. If there is more than one person in a type of personnel (for example, two nurse counselors), the total number of minutes available includes all persons in that type of personnel combined.*



**Line E25: Total direct minutes**

This line totals the number of minutes all types of personnel spend providing all services. The total direct minutes available for all personnel types is also shown on this line under the “Minutes available” column.

**Direct Costs (Lines E26–E38)**

This subsection calculates the total cost of all personnel time used in providing services.

In Lines E27–E37, the spreadsheet calculates the direct costs for each type of personnel providing service by dividing the average salary per hour for each type of personnel (found in Lines F4–F14) by 60 (minutes) to arrive at a per-minute cost. The spreadsheet then multiplies this value by the minutes spent delivering each service, as calculated in Lines E14–E24.

**Note**

*Because CORE uses an average hourly salary to calculate the direct costs for each personnel type, these costs will not include the full cost of overtime pay that is paid at a higher rate.*

**Line E38: Total direct costs**

This line represents the total personnel costs of providing each service. This line also totals all of the total direct service staff costs for the facility.

**Indirect Costs (Lines E39–E51)**

The “Total” column in this subsection represents the difference between the cost of the time that a type of personnel is expected to spend delivering services (from Lines F4–F14, column “g”) and the cost of the time that type of personnel actually spends delivering services (Lines E27–E37). The spreadsheet distributes the cost of this unused service time for each personnel type among services in proportion to the amount of direct costs.

**Line E51: Total indirect costs**

This line totals all indirect personnel costs for each service and for all services combined.



## **Section F: Determining Staff Salary Costs**

In this section of the spreadsheet, enter the names, percent time worked, direct service time, and salary data for all personnel who receive a salary or are paid on a per-session basis. These data come directly from the list developed in Part I, Step 5 (page 24). You may need to insert extra rows in the spreadsheet, according to the number of people employed at the facility. For instructions on entering extra rows, please see the appendix, "Modifying the Spreadsheets."

### **Note**

*If any personnel are paid on a commission or a fee-per-service basis, their payment data should be entered on Lines C3 and C4, and not in Section F.*

Based on the data entered, the spreadsheet calculates salary costs per hour, allocates salary costs according to direct service and administrative time, and calculates the available minutes of direct service time for each type of personnel. The spreadsheet then uses these data to calculate direct and indirect staff costs in Section E and staff utilization for direct service delivery in Section A.

This section also calculates costs of administrative time for all personnel in the facility. Administrative salary costs are not associated exclusively with any particular service but are considered to benefit all activities in the facility or organization. Administrative salary data include all work hours for any full-time administrative personnel and the portion of hours that direct service personnel allocate to administrative activities. The spreadsheet uses these data in Section G, "Determining Other Fixed Operating Costs."

## Illustrative Example: Facility Spreadsheet Section F: Determining Staff Salary Costs

F DETERMINING STAFF SALARY COSTS											
F 1 AVAILABLE WORK DAYS PER YEAR AT FACILITY		225									
F 2 HOURS PER SHIFT AT FACILITY		8									
F 3 HOURS PER YEAR AT FACILITY (STANDARD FULL-TIME SCHEDULE)		1800									
SALARY COSTS WORKSHEET				SALARY PER HOUR			DIRECT SERVICE SALARY COSTS			ADMINISTRATIVE SALARY COSTS	
				To Section E, Direct and Indirect Staff Costs			To Section E, Direct and Indirect Staff Costs			To Section G, Other Fixed Operating Costs	
a	b	c	d	e	f	g	h	i	j	k	
NAME	PERCENT TIME WORKED (%)	HOURS WORKED PER YEAR	TOTAL ANNUAL SALARY	SALARY PER HOUR	AVERAGE SALARY PER HOUR	DIRECT SERVICE TIME (%)	ANNUAL DIRECT SERVICE SALARY	TOTAL DIRECT MINUTES AVAILABLE	ADMIN TIME (%)	ANNUAL ADMIN SALARY	
INPUT	INPUT	(F3*F4b)	INPUT	(F4d/F4c)	SUBTOTAL OF F4c DIVIDED BY NUMBER OF STAFF LISTED UNDER F4	INPUT	(F4d*F4g)	(F4c*F4g*60)	(1-F4g)	(F4d*F4j)	
<b>F 4 Medical Specialist</b>											
Dr. A (Oncologist)		0	0.00	0.00		0	0	0	0.00	0	
<b>Personnel Type Total/Average</b>		0	0.00	0.00	<b>0.00</b>	0.00	0	0	0.00	0	
<b>F 5 Medical Officer/Assistant Medical Officer</b>											
Dr. B	0.55	440	1,250,000	1262.53		0.90	1,125,000	53,460	0.10	125,000	
Dr. C	0.44	742	1,000,000	1262.53		1.00	1,000,000	47,520	0.00	0	
<b>Personnel Type Total/Average</b>		1782	2,250,000	2525.25	<b>1262.53</b>	1.90	2,125,000	100,980	0.10	125,000	
<b>F 6 Medical Assistant</b>											
Mr. D	1.00	1800	1,020,000	566.67		0.00	816,000	86,400	0.20	204,000	
Mr. E	0.80	1440	50,000	34.72		0.80	40,000	69,120	0.20	10,000	
<b>Personnel Type Total/Average</b>		3240	1,070,000	601.29	<b>300.59</b>	1.60	356,000	155,520	0.40	214,000	
<b>F 7 Nurse/Occupational</b>											
Mr. F	1.00	1800	1,090,000	605.56		0.80	872,000	96,400	0.20	218,000	
Mr. G	1.00	1800	1,300,000	722.22		0.80	1,040,000	76,400	0.20	260,000	
Mr. H	0.70	1260	950,000	753.97		0.80	760,000	60,480	0.20	190,000	
Mr. J	0.70	1260	950,000	753.97		0.80	760,000	60,480	0.20	190,000	
<b>Personnel Type Total/Average</b>		6120	4,290,000	2335.71	<b>708.93</b>	3.20	3,432,000	293,760	0.50	858,000	
<b>F 8 Laboratory Technician</b>											
Mr. K	1.00	1800	1,200,000	666.67		1.00	1,200,000	108,000	0.00	0	
<b>Personnel Type Total/Average</b>		1800	1,200,000	666.67	<b>666.67</b>	1.00	1,200,000	108,000	0.00	0	
<b>F 9 Outside Laboratory Services</b>											
Lab Services Inc. (Fees per Service)		0	0.00	0.00			0	0	0.00	0	
<b>Personnel Type Total/Average</b>		0	0	0.00	<b>0.00</b>	0.00	0	0	0.00	0	
<b>F 10 Receptionist</b>											
Mr. L	1.00	1800	560,000	311.11		0.70	392,000	75,600	0.20	162,000	
Mr. M	0.13	225	45,000	200.00		0.70	31,500	9,450	0.20	12,500	
<b>Personnel Type Total/Average</b>		2025	605,000	511.11	<b>255.54</b>	1.40	423,500	85,050	0.60	174,500	
<b>F 11 Driver</b>											
Mr. N	1.00	1800	450,000	250.00		0.00	0	0	1.00	450,000	
<b>Personnel Type Total/Average</b>		1800	450,000	250.00	<b>250.00</b>	0.00	0	0	1.00	450,000	
<b>F 12 Security</b>											
Mr. O	1.00	1800	300,000	166.67		0.00	0	0	1.00	300,000	
<b>Personnel Type Total/Average</b>		1800	300,000	166.67	<b>166.67</b>	0.00	0	0	1.00	300,000	
<b>F 15 TOTAL DIRECT MINUTES AVAILABLE</b>								<b>743,310</b>			
<b>F 16 TOTAL DIRECT SERVICE SALARIES</b>							<b>\$,936,500</b>				
<b>F 17 TOTAL ADMINISTRATIVE SALARIES</b>									<b>2,128,500</b>		



**Line F1: Available work days per year at facility**

This line represents the available work days per year at the facility for full-time employees. Calculate this number by multiplying the number of days each week that the facility is open by 52 weeks. You will need to consider public holidays and other times that the facility may not be open to the public. You will also need to consider annual leave and sick leave. For an example of how to calculate available work days per year, see the "Illustrative List of Personnel and Compensation Data" on page 20.

**Line F2: Hours per shift at facility**

This line is the hours per shift at the facility. The length of a shift may vary from facility to facility. In the illustrative example, there are eight hours per shift.

**Line F3: Hours per year at facility (Standard full-time schedule)**

The value of Line F3 must be equivalent to the number of hours per year that a full-time employee would be expected to work. The spreadsheet uses this value as the basis for calculating hours worked per year for staff listed in Section F.

The value in Line F3 is the product of Lines F1 and F2. To check this value, multiply the number of days per week in Line F1 times the number of hours per shift in Line F2. The result should be equivalent to the number of hours per week that a full-time employee is expected to work. If not, adjust the values you entered in Lines F1 and F2. *For example, in the illustrative facility in Part I (page 20), there are five work days per week and each shift is eight hours. Thus, the standard full-time workweek is equivalent to 40 hours (5\*8).*

**Salary Costs Worksheet (Lines F4-F14)**

For this subsection, you will enter some of the personnel listed in Part I, Steps 4 and 5 (pages 20 and 24). The individuals you enter in this subsection should be employees (full-time or part-time), temporary workers, or personnel who work on a contract or per-session basis. You do *not* enter personnel who work on commission (Line C2) or on a fee-per-service basis (Line C4) in this subsection.

**Note**

*The CORE spreadsheet provides three different ways to enter personnel data: as employees (a fixed cost, Section E), as commission personnel (a variable cost, Section C), or as fee-per-service personnel (a variable cost, Section C).*



## **Note**

*For the purposes of using the Facility Spreadsheet, individuals listed under each type of personnel must be paid on the same basis as the others under the same personnel type. If personnel of the same type have different payment bases, then they will need to be divided into different personnel types. For example, for the illustrative facility in Part I (page 20), the personnel list has two personnel types for laboratory services: Laboratory Technician and Outside Laboratory Services. The laboratory technician is an employee, on payroll, and the outside laboratory is contracted to provide certain specialized services on a per-service basis. One personnel type could, however, include some personnel paid as "employees" and some personnel paid as "fee per session," because they are both "fixed costs." For more information on fixed costs, please refer to Part III, page 78, and the Glossary.*

Each line (F4–F14) in this subsection represents a different personnel type. Individuals of the same personnel type are listed in separate rows within each line, with subtotals for the personnel type listed in the last row of each line. Each line displays eleven columns of data. Four of the columns are input areas; the remaining columns use these inputs to calculate salary per hour, minutes available, and direct and administrative salaries for facility staff. A definition of each column follows.

**a. Name** lists the individual personnel who work at the facility. For this column, use data developed in Part I, Step 5 (page 24). Although you will not enter any data for commission or fee-per-service personnel in Section F, you can enter their names in this column with a note indicating how they are paid. *See Line F4 in the illustrative example of Section F (page 65).*

**b. Percent Time Worked (%)** is the total time each person is expected to work at the facility. For this line, use data developed in Part I, Step 4 (page 20). *For example, you would enter "1" for a full-time worker (100%) or .5 for a half-time worker.*

**c. Hours Worked Per Year** is automatically calculated by the spreadsheet, by multiplying the hours per year at the facility (Line F3) by the percent time worked for each individual.

**d. Total Annual Salary** is the salary of each person for a year. In most instances, a person's annual salary includes the cost of benefits. For this line, use data developed in Part I, Step 5 (page 24).

**e. Salary Per Hour** is automatically calculated by the spreadsheet, by dividing the annual salary for each individual by the number of hours the individual works per year.

**f. Average Salary Per Hour** is automatically calculated by the spreadsheet, for each type of personnel by dividing the sum of the hourly salaries for each personnel type by the number of individuals listed under that personnel type.



**g. Direct Service Time (%)** is the time each person is estimated to work on direct service delivery as a percent of his/her total time working at the facility. For this line, use data developed in Part I, Step 5 (page 24).

**h. Annual Direct Service Salary** is automatically calculated by the spreadsheet, for each person by multiplying the total annual salary by the direct service time percentage.

**i. Total Direct Minutes Available** is automatically calculated by the spreadsheet, by multiplying each person's hours worked per year by the direct service time percentage, and multiplying the resulting value by 60 (minutes) to yield the total direct service minutes available for each person.

**j. Administrative Time (%)** is automatically calculated by the spreadsheet, by subtracting the direct service time percentage from 100%. This value represents the percent of his/her time that each person is expected to work on administrative tasks.

**k. Annual Administrative Salary** is automatically calculated by the spreadsheet, for each person by multiplying the total annual salary by the administrative time percentage.

**Line F15: Total direct minutes available**

This line displays the total direct minutes available for all direct service staff at the facility.

**Line F16: Total direct service salaries**

In this line, the spreadsheet totals all direct service salaries listed in Lines F4-F14.

**Line F17: Total administrative salaries**

In this line, the spreadsheet totals all the administrative salaries listed in Lines F4-F14.

**Section G: Determining  
Other Fixed Operating Costs**

This section specifies all the costs anticipated as being necessary to sustain operations during the time period specified. For further information on other fixed operating costs, please refer to Part I, Step 7 (page 37).

## Illustrative Example: Facility Spreadsheet Section G: Determining Other Fixed Operating Costs

5	A	B	C	D	E	F	G	H	I	J	K	L
6												
7												
8	<b>G</b>	<b>DETERMINING OTHER FIXED OPERATING COSTS</b>										<b>TOTAL</b>
9												
10	G	1	Administrative Salaries									
11												
12	G	2	Personnel Welfare									2,128,500
13	G	3	Personnel Training									6,000,000
14	G	4	Rental of Premises									12,000
15	G	5	Accountancy/Legal Services									44,880,000
16	G	6	Advertising/Promotion									0
17	G	7	Health Education									7,400,000
18	G	8	Insurance									0
19	G	9	Leaflets									1,400,000
20	G	10	Office Supplies									0
21	G	11	Transport									6,960,000
22	G	12	Post/Telephone									12,000,000
23	G	13	Cleaning/Laundry									6,000,000
24	G	14	Utilities									6,960,000
25	G	15	Uniforms									3,600,000
26	G	16	Government Levy									5,000,000
27	G	17	Home Leave Transportation									0
28	G	18	Fuel/Vehicle Maintenance									8,300,000
29	G	19	Renovations									16,800,000
30	G	20	Office/Equipment Maintenance									0
31	G	21	Bank Charges									1,200,000
32	G	22										
33	G	23										0
34	G	24	Total depreciation expense								60,000	
35	G	25	Less depreciation on special equipment						(C20)		56,000	4,000
36	G	26	Total cost of medicines purchased/donated								30,000,000	
37	G	27	Less cost of medicines used						(C12)		27,576,000	2,424,000
38	G	28	Total cost of contraceptives purchased/donated								180,000,000	
39	G	29	Less cost of contraceptives used						(C13)		88,544,000	111,456,000
40	G	30	Total cost of clinical supplies purchased/donated								70,000,000	
41	G	31	Less cost of clinical supplies used						(C14)		38,103,600	31,896,400
42	G	32	Other									
43	G	33	<b>TOTAL OTHER FIXED OPERATING COSTS</b>									274,420,900
44												
45												



**Line G1: Administrative salaries**

The spreadsheet transfers the data for this line from Line F17.

**Lines G2–23: Budget line items**

For these lines, enter all the budget line items that are considered other fixed operating costs. Use data you developed in Part I, Step 7 (page 38), where you will also find an illustrative list of budget line items.

**Note**

*You will not have to create budget line items for the total costs of medicines, contraceptives, and clinical supplies purchased, as these line items are specified in Lines G26, G28, and G30.*

**Line G24: Total depreciation expense**

This is the total depreciation that a facility calculates for all clinical and office equipment in its inventory. For this line, use data developed in Part I, Step 7 (page 38) and all other depreciation data for the facility.

**Line G25: Less depreciation on special equipment**

In this line, the spreadsheet subtracts the depreciation expense that has been specified as a fixed cost for special equipment in Section C (Line C20).

**Lines G26, G28, G30: Total costs of medicines, contraceptives, and clinical supplies purchased donated**

These lines display the costs of all the medicines, contraceptives, and clinical supplies that a facility has purchased or anticipates purchasing during the time period specified. If any one of these lines is less than Lines G27, G29, G31: Less direct cost of medicines, contraceptives, clinical supplies used, then the Total column will automatically show a zero. Use data developed in Part I, Step 6 (page 32).

**Lines G27, G29, G31: Less direct cost of medicines, contraceptives, and clinical supplies used**

These lines subtract the total cost of medicines, contraceptives, and clinical supplies (Lines C12, C13, and C14) developed in Part I, Step 6 (page 32) from the total cost incurred for each item entered in Lines G26, G28, and G30 (the medicines, contraceptives, and clinical supplies purchased). When the incurred cost of these purchased items is substantially greater than the cost of the items used, it may indicate that more was purchased than was used.

**Line G33: Total other fixed operating costs**

This line is the sum of all other fixed operating costs, Lines G1–G32.



## REVIEWING AND REFINING THE FACILITY SPREADSHEET

### **Note**

*You must treat calculations that involve averages with a degree of caution when you are making certain kinds of decisions. For example, if your facility has one service with an extraordinarily high cost, net revenue, or percentage of costs recovered, that figure could create a relatively high average for the facility—in other words, the average cost, revenue, or percentage of costs recovered per service would not be representative of most of the services you are analyzing.*

Once you have finished entering data into the Facility Spreadsheet, you should print the spreadsheet and distribute it to facility personnel and key headquarters personnel so that they can carefully review and validate the data you have used. **This is an essential step in the development of the Facility Spreadsheet.** The reviewers should first check the input cells of CORE (the shaded cells) and then spot check each section and subsection. If possible, convene a meeting of the reviewers after they have checked the spreadsheet to discuss which areas should be rechecked or revised.

Since the CORE management team is an interdisciplinary group that brings together the varied perspectives of personnel in an organization's key management areas, a collective review of the spreadsheet will assist managers and personnel to clearly see the relationships among the various parts of the organization and the interdependence of the different service and support activities. What appeared to be reasonable estimates for certain costs such as time allocations and fixed operating costs may seem different once the spreadsheets are complete. Thus, you may need to modify your earlier assumptions.

## ORIENTATION TO THE ORGANIZATION SPREADSHEET

The Organization Spreadsheet electronically links key information from Section A of two or more Facility Spreadsheets, allowing the CORE management team to review and compare information on costs, revenues, and personnel utilization for a number of facilities and to examine the overall performance of an organization. The illustrative example of the Organization Spreadsheet on page 72 uses information from the Facility Spreadsheet shown in Part II to demonstrate how the information from one facility is transferred into and displayed in the Organization Spreadsheet.

The illustrative example of the Organization Spreadsheet on page 72 is also available on the accompanying diskette (file name **Exp-ORG**) and is included in its entirety at the back of this Guide.

The Organization Spreadsheet is divided into three sections:

- ◆ Section A: Cost Recovery Summary by Service Category
- ◆ Section B: Key Information Summary
- ◆ Section C: Staff Utilization Summary

### Illustrative Example: Organization Spreadsheet

exp-ORG									
ORGANIZATION SPREADSHEET						Date: 8/10/98			
Cost and Revenue Analysis Tool (CORE), MSH						Period:			
File: C:\CORE\exp-ORG.xls\Organization Spreadsheet						Currency:			
<b>A. COST RECOVERY SUMMARY BY SERVICE CATEGORY</b>			<b>LINKED DATA FROM FACILITY SPREADSHEETS</b>						
SERVICE CATEGORIES	CORE Line Reference	TOTAL ORGANIZATION	FACILITY 1	FACILITY 2	FACILITY 3	FACILITY 4	FACILITY 5	FACILITY 6	
Family Planning Services	A27	14%	14%	0%	0%	0%	0%	0%	
MCH/Obstetric Services	A31	119%	119%	0%	0%	0%	0%	0%	
Curative Services	A35	194%	194%	0%	0%	0%	0%	0%	
<b>B. KEY INFORMATION SUMMARY</b>			<b>LINKED DATA FROM FACILITY SPREADSHEETS</b>						
KEY INFORMATION	CORE Line Reference	TOTAL ORGANIZATION	FACILITY 1	FACILITY 2	FACILITY 3	FACILITY 4	FACILITY 5	FACILITY 6	
Volume of Services This Period	A2	23,980	23,980	0	0	0	0	0	
Average Costs per Service	A19	203,772	203,772	0	0	0	0	0	
Average Net Revenue per Service	A21	136,630	136,630	0	0	0	0	0	
Average Surplus/Loss per Service	A22	-67,142	-67,142	0	0	0	0	0	
Average Percentage of Costs Recovered	A40	84%	84%	0%	0%	0%	0%	0%	
Total Net Revenue	A37	366,220,000	366,220,000	0	0	0	0	0	
Total Variable, Fixed, and Support Costs	A38	436,535,278	436,535,278	0	0	0	0	0	
Total Surplus/Loss	A39	70,315,278	70,315,278	0	0	0	0	0	
<b>C. STAFF UTILIZATION SUMMARY</b>			<b>LINKED DATA FROM FACILITY SPREADSHEETS</b>						
PERSONNEL TYPE	CORE Line Reference	TOTAL ORGANIZATION	FACILITY 1	FACILITY 2	FACILITY 3	FACILITY 4	FACILITY 5	FACILITY 6	
Medical Specialist	A42	0%	0%	0%	0%	0%	0%	0%	
Medical Officer/Assistant Medical Officer	A43	83%	83%	0%	0%	0%	0%	0%	
Medical Assistant	A44	0%	0%	0%	0%	0%	0%	0%	
Nurse/Counselor	A45	38%	38%	0%	0%	0%	0%	0%	
Laboratory Technician	A46	172%	172%	0%	0%	0%	0%	0%	
Outside Laboratory Services	A47	0%	0%	0%	0%	0%	0%	0%	
Receptionist	A48	0%	0%	0%	0%	0%	0%	0%	
Driver	A49	0%	0%	0%	0%	0%	0%	0%	
Security	A50	0%	0%	0%	0%	0%	0%	0%	
Personnel Type Ten	A51	0%	0%	0%	0%	0%	0%	0%	
Personnel Type Eleven	A52	0%	0%	0%	0%	0%	0%	0%	

There are two colors of shaded cells in the Organization Spreadsheet: green and yellow. As in the Facility Spreadsheet, green cells in the Organization Spreadsheet require data to be input by you. The cells that you will link with the Facility Spreadsheets are yellow (with red type). You will only enter data in cells that are shaded; the other, unshaded cells are formula-driven.



**Section A: Cost Recovery  
Summary by Service  
Category**

This section retrieves the percentage of costs recovered for each service category of each facility from the Facility Spreadsheet, then calculates an average for the organization. This information is very useful to the CORE management team, as it displays the cross-subsidies taking place among the different service categories.

**Example**

*The illustrative Organization Spreadsheet (Exp-ORG) has three categories of services: Family Planning, MCH/Obstetrics, and Curative. The "Total Organization" column yields the following average percentage of costs recovered from all of this organization's facilities by service category:*

<i>Family Planning Services</i>	<i>14%</i>
<i>MCH/Obstetric Services</i>	<i>119%</i>
<i>Curative Services</i>	<i>194%</i>

**Implication.** Since the two categories MCH/Obstetric Services and Curative Services are recovering more than the cost of providing those services, the organization in this illustrative example could potentially use some of the income from these service categories to subsidize the cost of providing family planning services.

**Section B: Key Information  
Summary**

This section of the Organization Spreadsheet presents eight key information points for each facility and for the organization overall:

- ◆ Volume of Services This Period
- ◆ Average Unit Costs
- ◆ Average Net Revenue per Service
- ◆ Average Surplus/Loss per Service
- ◆ Average Percentage of Costs Recovered
- ◆ Total Net Revenue
- ◆ Total Variable, Fixed, and Support Costs
- ◆ Total Surplus/Loss

All of these facility data are transferred directly from Section A of the individual Facility Spreadsheets. The "Total Organization" column in this section presents the averages or totals of the data for the individual facilities, and provides a comprehensive picture of the organization's financial performance.





## **Section C: Staff Utilization Summary**

This section is similar to Lines A41–A52 of the Facility Spreadsheet. The average personnel utilization in the “Total Organization” column is an average of all the utilization percentages for the individual facilities.

## **Setting Up the Organization Spreadsheet**

As with the Facility Spreadsheet, you must tailor the Organization Spreadsheet to your organization before you can begin to enter data or link the Organization Spreadsheet to the Facility Spreadsheets. Three areas of the Organization Spreadsheet template must be modified:

Facility Columns	Section A
Service Categories	Section A
Types of Personnel	Section C

Make a backup copy of the electronic file **ORG-V1** before modifying the spreadsheet or entering data.

### **Service Categories**

You must enter the names of the service categories in the first column in Part A under “Service Categories.” The template contains three lines for service categories. Insert or delete rows according to the number of service categories you developed in Part I, Step 2 (page 14). To obtain directions for inserting and deleting rows, see the appendix entitled “Modifying the Spreadsheets” (pages 98-100). If you have created additional service categories in the Facility Spreadsheet, you will need to modify the CORE line references to conform with the new CORE line references in Section A of your Facility Spreadsheets.

### **Type of Personnel**

The types of personnel listed here should be identical to those on Lines E2–E12 of the Facility Spreadsheet. You must enter the types of personnel in the first column under Section C: Staff Utilization Summary.

### **Facility Columns**

You must also enter in the Facility columns the names of the facilities for which you have spreadsheets.



**Linking Data from the Facility Spreadsheet to the Organization Spreadsheet**

You must link the Organization Spreadsheet with each of your Facility Spreadsheets. For instructions on linking the Facility columns to the Facility Spreadsheets, please see the appendix entitled “Modifying the Spreadsheets” (page 102). Once you have established links, the Organization Spreadsheet will automatically pull data from the Facility Spreadsheets.

**You should carefully review the Organization Spreadsheet to confirm the integrity of the linkages with each of the Facility Spreadsheets.**

This part of the User's Guide explains how to use the information generated from the CORE analysis to make sound management decisions and provides several examples of the types of decisions made by managers who have used CORE.

**Current Situation**

Part III explains how to analyze the current situation in facility sites, including determining what portion of total costs is covered by service revenues, whether service delivery personnel are being utilized efficiently, what the costs and revenues are among similar facilities, and others.

**Future Scenarios**

Part III also explains how to develop future scenarios, by performing "what if" projections in areas such as service mix and volume, staff utilization and compensation, service pricing, and equipment costs. By performing "what if" analyses, you can accurately calculate the financial impact of possible changes and thereby make sound management decisions on resource use, service mix, fees, etc.

# USING CORE TO MAKE MANAGEMENT DECISIONS

A completed Facility or Organization Spreadsheet represents an important milestone. In reaching this point, you have learned a lot about how your facility or organization functions and about its operating efficiency. Now, you and your staff may begin using CORE to examine the efficiency of your existing programs more closely and identify needed changes in areas such as staff utilization and compensation, mix of services, pricing, and procurement practices. You may also use CORE to examine the possible impact of making changes, such as adding new services, creating new facilities, or changing staff utilization.

Part III is designed to assist you and your team to use CORE to make sound management decisions. Some of the key questions you should now be able to answer include:

- ◆ What proportion of our service costs is covered by service revenues?
- ◆ How much time does our staff spend in providing services, and what is the cost of that time?
- ◆ What proportion of our total costs is due to specific inputs (for example, personnel, facility, utilities, marketing, equipment)?
- ◆ How much of our total revenue is due to specific outputs (or services)?
- ◆ Which services or categories of services are generating income surpluses and which are producing losses?
- ◆ How can our program provide services at the lowest cost?
- ◆ What volume of which services can we provide on a fixed budget?
- ◆ What are the cost and revenue consequences of changing our mix of services?

Completed CORE spreadsheets provide you with financial and operational indicators that help you answer these questions. Two major CORE indicators are the percentage of cost recovery per service or per category of services, and the percentage of staff utilization. Other indicators include variable costs as a portion of total costs, fixed costs as a portion of total costs, and direct salary costs as a portion of total costs.



**Variable costs.** Variable costs are costs that vary according to the volume of service provided or the number of people served. Examples of variable costs include commissions paid to non-staff service personnel and the medicine, contraceptives, and/or clinical supplies used in providing a service.

In evaluating CORE data on the amount of medicine, contraceptives, and/or clinical supplies used in each service, you may find that different facilities in your organization use different amounts of these items when providing the same service. Standardizing practices among facilities may help reduce your costs and allow you to maintain a consistent level of quality for the services your organization offers. CORE also allows you to explore the cost and cost recovery implications of using a smaller amount of these items or changing your procurement practices to obtain these items at a lower cost.

**Fixed costs.** Fixed costs do not vary with the volume of service provided. Examples of fixed costs include rent, salaries, maintenance, regional/central support costs, and depreciation on special equipment. The amount of fixed costs attributed to a service decreases as the volume of services increases, and increases as the volume of services decreases.

In some cases, organizations using CORE have discovered that central support costs amounted to as much as 50 percent of their overall cost of providing services. This has led management to explore different options for reducing fixed costs per service, such as reducing central office staff, increasing the number of facilities (and thus the portion of central support costs per facility), and increasing the volume of services provided.

**Direct salary costs.** Using CORE helps you identify the cost of the time your service personnel spend providing direct services to clients (direct salary costs). Conducting "what if" projections then allows you to explore the impact of different staff utilization strategies to reduce direct salary costs. One cost-saving strategy could be to use nurses instead of doctors to provide some services. Some organizations have reduced direct salary costs by changing the employment basis of their more expensive personnel from salary to commission, thus eliminating the fixed cost of their salaries and making the cost of their commission a variable cost, applicable only to the cost of the services they provide. Other organizations have found that sharing staff among facilities can be a cost-saving measure.



CORE also provides information that allows you to compare current and projected costs and revenues with:

- ◆ costs and revenues at similar facilities;
- ◆ costs and revenues for other modes of service delivery;
- ◆ standard costs, based on reasonable efficiency and quality of services.

It is important to keep in mind that using CORE offers critical information that managers should consider along with other programmatic information to help them make sound strategic decisions. Cost and revenue data are only two elements of strategic or operational planning—factors such as quality, equity, the presence of alternative service providers, technical innovation, and leadership must also be taken into account.

### **CORE Decision Makers**

A diverse group of managers and staff can use the data from a CORE analysis and periodic updates.

- ◆ **Executive and program managers** can use CORE's Organization Spreadsheet to compare performance among facilities, explore the impact of such policy changes as adding new services or increasing fees, and make decisions about expanding services or expanding the number of facilities.
- ◆ **Facility managers** will find CORE's Facility Spreadsheet useful for measuring, monitoring, and improving performance at a facility and for examining each facility's service mix in light of programmatic and financial targets.
- ◆ **Financial management staff** can use CORE's Facility Spreadsheet to assess and reduce waste and inefficiency on a facility-by-facility basis; they can use the Organization Spreadsheet to compare financial performance and efficiency between facilities.
- ◆ **Human resources managers** can use CORE to make the most efficient use of current personnel and to plan personnel changes.
- ◆ **Procurement managers** can use CORE to make accurate forecasts for procurement of medicines, contraceptives, and clinical supplies.
- ◆ **External consultants** can use CORE data to quickly grasp the main elements of an organization's financial position in order to help its managers plan for the future.

## Analyzing Your Current Situation

CORE results can lead you to take a closer look at the efficiency of your existing programs and help you to identify needed changes in certain aspects of your current situation, such as staff utilization and compensation, mix of services, pricing, and procurement practices. CORE updates are useful both for periodically assessing your current situation and for assessing the impact of management decisions over time.

One of the first steps in the analysis process is a collective review of the completed spreadsheets by managers and staff from your organization's key management areas. The reviewers should check the CORE input cells (the shaded cells) and spot check each section and subsection. If possible, convene a meeting of the reviewers after they have checked the spreadsheet to discuss which areas should be rechecked or revised.

What may have appeared to be reasonable estimates of certain costs, such as time allocations and fixed operating costs, may take on a different perspective once the spreadsheets are complete. Thus, you may need to modify your earlier assumptions. Once again, discussing the implications for changes in a group meeting is advantageous.

**Cross-subsidization.** The aim of cost and revenue analysis is not simply to have each service charge a fee that recovers its costs. Rather, one aim is for your organization to generate as much revenue as possible from those services for which people are willing and able to pay. In turn, you do not want to discourage clients from purchasing preventive or other essential services for which they might be unwilling or unable to pay the full cost of delivering that service (for instance, family planning or well-child visits).

Many programs use the revenues from some services to help cover the costs of other services that do not generate as much (or any) revenue. This approach to covering costs is called "cross-subsidization." One example of cross-subsidization is to provide services such as prenatal care and immunizations at a low fee or without charge, and increase the fee for those services for which demand is strong.

Even organizations that offset some or all of their operating costs with external sources of revenue have resource limitations that constrain their ability to meet all the needs of all their clients. Cross-subsidization can help an organization maximize certain revenue sources in order to better support a mix of clients and services that meets the organization's service objectives.



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Using CORE to look at revenue and cost recovery levels allows you to consider the important issue of cross-subsidies between services, between service categories, and between facilities. CORE can also help you observe the impact of cross-subsidy policies on the cost recovery levels of a service, a category of services, a facility, or an organization. Cross-subsidy issues to explore include:

- ◆ taking a loss on certain services, such as providing free vaccinations as a community service or providing first consultations at a lower price in order to attract new clients;
- ◆ comparing data on costs and revenues among facilities and observing critical factors such as volume of services, fixed costs, and pricing structure;
- ◆ analyzing the impact of waiver or discount policies, where cash differences are occurring, and the impact of cash differences on cost recovery.

**Other strategies to improve your current situation.** Besides cross-subsidies, one strategy for improving your current cost and revenue situation is to reduce the costs that CORE has helped to identify. Another is to increase your revenues. Some of the strategies to consider for increasing revenues include:

- ◆ offering new services that are proven to be low-cost, high-revenue services;
- ◆ increasing the prices of services for which clients are willing and able to pay more;
- ◆ decreasing the prices of some services in order to increase client demand;
- ◆ increasing the volume of those existing services that produce the most revenue relative to their cost.

Some examples of how you can use CORE to analyze your organization's current situation follow. These examples are drawn from actual field test experiences with CORE.





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**Cross-subsidies.** Using CORE helped the staff in one organization to easily see that family planning services were being provided at a loss, while curative services were recovering more revenue than their cost. Being aware of this led management to promote curative services in order to help cross-subsidize family planning services.

Another organization that had recently begun offering a new package of services in order to subsidize family planning services learned from CORE that in reality just the opposite was true: their family planning services were in fact subsidizing their new services. This led the organization to implement a marketing campaign for its new services.

**Staff utilization.** Using CORE led the management of one organization to accelerate the planned employment of a full-time human resources manager and to encourage more complete compilation and regular updating of personnel records from the organization's various facilities. The staff utilization results of the analysis led the organization to employ new staff where direct service staff were overextended and introduce multi-tasking for direct service staff who were underutilized.

One organization found in using CORE that the salary costs of their medical staff were a significant portion of the organization's fixed costs, that medical staff were underutilized, and that some of their responsibilities could be performed by non-medical staff. The organization decided to transfer the employment basis of its medical staff from employee to commission status, which increased the organization's variable costs and lowered its fixed costs. This new structure now responds differently to changes in service volume.

**Quality.** Through the exercise of developing costs (examining in detail the supplies used and staff time spent for service delivery activities), one organization now expects to offer more consistent services, particularly as it embarks on an ambitious expansion program. In addition, through the process of developing costs, the organization established new service practice norms. These are intended to help all employees understand what is expected of them in their jobs.



**Organizational structure.** After collecting and refining data for CORE, senior management in one organization revised roles and responsibilities within and between departments. The Finance Department was expanded to include administration, and the newly configured department is responsible for developing a coherent and coordinated organizational procurement strategy. A new Monitoring and Evaluation Department was created to handle the organization's information requirements, and the job description for the new department's director was strongly influenced by CORE data collection and reporting requirements.

**Financial information system.** CORE demonstrated to the managers of a family planning NGO that its accounting system was inefficient and time-consuming because data were entered separately for provinces, programs, and funding sources. The analysis clearly pointed out the need to select an accounting software program that would allow managers to produce financial reports that would be consistent and would allow them to compare data across the organization.

**Cash differences.** Through a CORE analysis, an organization that has arrangements with several companies to provide services to their employees found that these companies were not paying their bills in a timely fashion for services already rendered. This discovery prompted the organization to take a hard look at these contract arrangements. It has since negotiated with the companies to pay a fixed amount each month. This amount is reconciled monthly with service records, and the organization either collects the balance or credits overpayment for the following month.



## Projecting "What if" Scenarios

One powerful application of CORE is to use it to explore "what if" scenarios, or to analyze the possible impact of changes in services, staffing patterns, staff compensation, supplies procurement, pricing, marketing, and the number of facilities. CORE can also help you analyze the possible impact that decisions in one area could have on other areas.

You can use CORE to develop "what if" scenarios for facilities and programs that do not charge fees for services as well as those that do. Before undertaking a "what if" analysis, however, it is important for your organization to have a clear definition of its objectives regarding such goals as the types of services to be provided and the types of clients to be served. CORE is designed to help you calculate the financial impact of possible decisions. Keep in mind that you will need to take into account such factors as quality of care and staff morale before making changes.

Some of the data inputs or outputs that you might choose to modify in developing "what if" scenarios are:

- ◆ service mix and volume;
- ◆ staff utilization and compensation;
- ◆ fixed costs;
- ◆ cost of medicine, contraceptives, and clinical supplies;
- ◆ pricing for services.

To explore "what if" scenarios you can enter new data in the input sections of the spreadsheets. *For example, if you want to see the impact on your revenues and cost recovery of charging a higher fee for curative services, enter the new fee in the column for curative services in CORE Line D3.* The spreadsheet program will show you the impact this change will have on your gross revenue (Line D4) by taking the new fee and multiplying it by your volume of services (Line B3). The spreadsheet program also automatically calculates your new total net revenue (Line D9), net revenue per service (Line D10), surplus/loss per service (A22), percentage of costs recovered for the service category (Line A23), and total revenue and cost recovery for the facility (Line A36).

Since the impact of your decisions on the changes to make in your input data cut across different management functions, it is important that a "what if" analysis be conducted by a group of senior managers, such as those in charge of service delivery, marketing, staffing, procurement, and finance. While you can test changes in each of the above areas separately in both the Facility and Organization spreadsheets, a strength of CORE is that you can and should test these changes simultaneously.



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**Facilities and organizations that do not charge for services.** You can use CORE to analyze costs for facilities and programs that do not charge fees for services by using the tool to project what type and volume of services you can provide with a fixed subsidy such as a block grant or to determine how much subsidy you require to provide a set package and volume of services.

**Service mix and volume.** You can add new services to CORE and make adjustments to the volume of new and existing services in order to determine the organizational impact of offering different types of service packages. When considering the impact of adding a new service, you should look at a number of cost factors:

- ◆ Who will provide the service?
- ◆ On what remuneration basis will the service be provided?
- ◆ What space is required?
- ◆ What equipment is required?
- ◆ What marketing is required?

You must keep in mind that increasing your use of a resource for one type of service will reduce the availability of that resource for another type of service. For example, if you increase the use of a certain type of staff for a particular service, then you will lower the amount of time that type of staff has available for other activities.

**New facilities.** When considering an increase in the number of existing facilities with similar profiles, you should develop a Facility Spreadsheet for each potential facility, then “build” a cost and revenue projection using the cost and revenue information you have for existing facilities. This exercise will help you make coordinated, informed decisions about service estimates, fees to charge, human resource requirements, and equipment needs.

**Staff utilization and compensation.** You can test the cost impact of different staffing patterns and compensation schemes by adding new types of providers and/or changing tasks among providers.

**Fixed costs.** One way you can test the impact of changing the fixed costs for a facility is to change data for your direct service staff in one or more of the columns entitled “Percent Time Worked,” “Annual Salary,” or “Direct Service Time,” in Section F, Lines F4-F14. The spreadsheet program will show you the impact of changes in direct staff costs by automatically calculating new information for, among other things, your service staff costs (Line C19), other fixed operating costs (Line C21), total fixed costs (Line C22), total variable, fixed, and





support costs (Line C27), total surplus/loss (Line A39), and percentage of costs recovered (Line A35). Using “what if” scenarios to test the impact of changing your fixed costs will be helpful in adjusting your organizational budget on an annual basis or more frequently.

**Procurement.** Establishing more efficient procurement practices for medicines, contraceptives, or clinical supplies, or using these resources more efficiently will lower service costs. You will find CORE to be helpful in projecting your supply needs. You can use these projections to negotiate more advantageous procurement terms, to better plan your supply and distribution mechanisms, and to reduce wastage.

**Pricing services.** You can easily change prices, waivers, and discount levels in the spreadsheet in order to explore the potential impact of these kinds of changes on cost recovery levels. It is essential, however, that you set price adjustments in the spreadsheet at realistic levels. In addition, before making pricing decisions, you must also assess the market for services provided at new price levels. Some of the questions you should ask in considering changes in your pricing for services are:

- ◆ Will your clients be willing and able to pay for services?
- ◆ What are the prices charged by competitors for similar services?
- ◆ Will demand fall? If so, by how much?
- ◆ Will demand recover later?
- ◆ Will changing the price structure attract new clients?

Using CORE, you can easily model cross-subsidy levels, where prices for some services may be set higher than their cost and others set lower than their cost. You can also use CORE to help determine the level of subsidies for services to the poor and what quantity of subsidized services can be provided, given your costs.

Keep in mind, however, that cost recovery is not the only important factor when making decisions about whether a facility or organization is doing poorly or well. It is also important to consider the organization’s overall mission and whether the organization is meeting its non-revenue objectives.

**Marketing.** Conducting a “what if” analysis with service volume and pricing helps you to determine where and how you should focus your marketing activities. Marketing is critical when you are adding new services, expanding service volume, or increasing prices. At the same time, you can factor the cost of the marketing activities into the tool in the category of fixed operating costs (Section G of the Facility Spreadsheet).



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Some organizations have found it useful to use CORE as part of their annual planning process. CORE provides a consistent and quantitative mechanism for each facility to formulate plans on a range of cost- and revenue-related aspects such as which contraceptive methods to provide, the volume of services to project, the resources and inputs that will be required, and what prices to charge. Having all the facilities in the organization use CORE also allows the managers to more easily compare and evaluate their plans.

"What if" projections are useful for evaluating the impact of changes in service mix, service volume, and price structure, among others, but they are not necessarily helpful in determining whether the changes are beneficial or feasible. *For example, the managers of one organization found that their central support costs were 50 percent of the costs at the facility level. They immediately recommended reducing central support costs by 20 percent.* This would have required reducing staff paid by the central office by 20 percent, in which case one out of every five managers present at the meeting would have had to leave the organization. This solution would not have been beneficial to the organization or feasible to implement.

Discussions of the kinds of "what if" analyses that organizations have found useful follow.

**Adding a new service that requires new equipment.** An organization was trying to decide whether to provide ultrasound examinations for women coming to its facilities for prenatal care. CORE helped the organization weigh the implications of adding this new service (the cost of the ultrasound, including the cost of the equipment and its depreciation, staff requirements, and maintenance, and the possible revenue for this service). CORE also helped the organization to consider the effect of different pricing options on cost recovery.

**Staff utilization.** A facility that had both a nurse and a doctor on staff used CORE to examine the impact of having the nurse instead of the doctor provide family planning consultations. The analysis demonstrated that switching the number of minutes it takes to provide each family planning service from the doctor to the nurse reduced costs for family planning services.

*continued on next page*





In one organization, a group of facility managers, on their first exposure to completed spreadsheets from each of their facilities, commented that doctors were spending, on average, less than 25 percent of their total available time on direct client care. They felt that this was a gross underutilization of expensive staff and engaged in a lively discussion of different possible scenarios, including the merits of hiring doctors on a contract or per-session basis, or sharing a doctor between two nearby facilities.

**Staff compensation.** One organization tested the financial impact of changing provider compensation methods by changing the employment basis of a doctor from salary to a sessional basis. This scenario demonstrated that changing the compensation method for doctors would significantly reduce the indirect costs associated with the services doctors were providing.

**Fixed costs.** CORE helped one organization look at the cost implications of two facility options—moving to more expensive, rented premises or buying a building instead of renting. CORE also helped the organization compare the cost of purchasing and maintaining vehicles for outreach activities with the cost of periodically renting vehicles as a possible cost-saving measure.

**Procurement.** A group of managers working to achieve consensus on the costs of commodities discovered that there was considerable variation in the prices each facility was paying for many purchased products. This led the procurement officer to explore the possibility of the centralized-bulk procurement of certain products.

**Pricing.** Due to donor pressure, an organization reduced the prices of condoms and other contraceptive methods supplied to certain high-risk clients (commercial sex workers and single female factory laborers) and began to provide other services at no cost. Managers used CORE to demonstrate how much potential income they were already losing through the lower prices and how much more they would lose by eliminating all charges for certain popular services. Their findings spurred them to try to determine how these clients would react to the re-introduction or increase of fees when donor support declined and to consider, with their donors, the possibility of returning to the previous fee structure.



## Summary

to consider, with their donors, the possibility of returning to the previous fee structure.

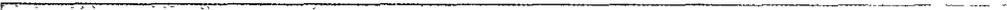
Once you have used CORE for the first time, periodic updates will allow you to evaluate the impact of management decisions on your mix of services, staff utilization, staff compensation, pricing, and other costs and revenue. Updated information will also allow you to make new "what if" projections and further refine your assessment of the efficiency of your programs. CORE can also help you improve the services you provide, and increase client satisfaction with your services. CORE can also be a useful tool for increasing staff awareness of the interdependence of various service delivery and support activities and for improving staff morale and efficiency.

## CORE Update Checklist

The following checklist will help you undertake these periodic updates of CORE.

For periodic (quarterly, half-yearly, or annual) CORE updates, inquire if there are any changes in the following indicators for each service and enter them in the appropriate section of the Facility Spreadsheet or the Service Practices Worksheet.

- ◆ Update any services added or discontinued [Both Facility Spreadsheet and Service Practices Worksheet]
- ◆ Volume of services [Facility Spreadsheet, Line B3]
- ◆ Fee (for services)/price [Facility Spreadsheet, Line D3]
- ◆ Staff time/service [Facility Spreadsheet, Lines E2–E12]
- ◆ Medicines/contraceptives used [Service Practices Worksheet]
- ◆ Clinical supplies used [Service Practices Worksheet]
- ◆ Personnel list and percent of time they are available for direct service and administrative activities [Facility Spreadsheet, Lines F4–F14]
- ◆ Fixed costs [Facility Spreadsheet, Lines G2–G32]



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**B**efore you can begin to enter cost and revenue data in the CORE spreadsheets, you need to customize them with the names of services, service categories, personnel types, and other information specific to your facility or organization. This appendix explains how to prepare each of the CORE spreadsheets for use. The Service Practices Worksheets, the Facility Spreadsheet, and the Organization Spreadsheet are each described separately.

This section of the Guide assumes that you have a basic working knowledge of Microsoft® Excel. The instructions are written for users of Excel 97 for Windows; if you use another version of Excel, or another spreadsheet program, you may find that the instructions differ slightly. Terminology that is specific to Microsoft Excel is printed in bold type. You should be able to find additional information on these terms in your Excel documentation or on-line help.

## GETTING READY TO MODIFY THE SPREADSHEETS

### **Note**

*You should make a copy of the CORE diskette and store the original disk in a safe place.*

Before you make changes of any kind to the CORE spreadsheets, copy the six files on the CORE diskette to a new location. Do not make any changes on the original CORE diskette. The three templates you will be using are:

WKSH-V1.xls	Service Practices Worksheets
FAC-V1.xls	Facility Spreadsheet
ORG-V1.xls	Organization Spreadsheet

### **Protecting and Unprotecting Worksheets and Workbooks**

By default, the CORE spreadsheets are **protected** so that only the areas where data entry is required can be changed. These data entry or “input” areas are indicated by shading: green indicates an area where data should be entered manually, and yellow indicates an area where data should be entered using links to another worksheet or file. The other cells in the spreadsheets are **locked** to prevent the user from changing them accidentally.

To make more substantial changes to the spreadsheets, such as those described in this appendix, you will need to change the file protection settings.



To **unprotect** (disable protection) a **worksheet** or **workbook**:

- a. From the **Tools menu**, choose **Protection**, then choose **Unprotect Sheet** or **Unprotect Workbook**.

To **protect** a **worksheet** or **workbook**:

- a. From the **Tools menu**, choose **Protection**, then **Protect Sheet** or **Protect Workbook**.
- b. Click OK in the dialog box.

## Locking and Unlocking Cells

When a worksheet is protected, you will be unable to make changes to any of the cells unless they are “unlocked.” In the template files, only the green and yellow cells should be “unlocked.” If necessary, you can change the protection settings of individual cells as described below.

To **lock** or **unlock** a cell:

- a. If the spreadsheet is currently protected: from the **Tools menu**, choose **Protection**, then choose **Unprotect Sheet** from the submenu.
- b. **Select** a cell or a range of cells.
- c. From the **Format menu**, choose **Cells**.
- d. Select the **Protection** tab.
- e. If there is a checkmark next to the word **Locked**, the cell is currently locked. If the checkbox is empty, the cell is unlocked. Click in the checkbox to lock or unlock the cell. The change will take effect when you enable spreadsheet protection again.

### **Note**

*For more information on the Excel terms in bold type, consult your software documentation or on-line help.*

## THE SERVICE PRACTICES WORKSHEETS

The Service Practices Worksheets file (WKSH-V1) contains 25 blank service worksheets labeled “Service A” through “Service Y.” Using your list of services from Part I, Step 1 (page 11), replace the worksheet labels with the names of your services. If you have more than 25 services, you will need to make additional copies of the blank worksheets.

## Renaming Worksheet Tabs

To change the name of a worksheet:

- a. Double-click on the **sheet tab** at the bottom of the worksheet (labeled “Service A,” “Service B,” and so on). The name on the tab will become selected.
- b. Type in the new service name. The label can be up to 31 characters long.

## Adding a New Service Practices Worksheet (if needed)

To add a new worksheet, make a copy of one of the existing worksheets:

- a. Select the worksheet that you want to copy by clicking on the **sheet tab** at the bottom of the worksheet.
- b. From the **Edit** menu, choose **Move or Copy Sheet**.
- c. In the **Move or Copy** dialog box, click on the checkbox labeled **Create a copy**.
- d. Under **To book**, make sure the name of the file you are working on is selected.
- e. Under **Before sheet**, choose the worksheet in front of which you want to insert the new worksheet, or choose **(move to end)** to insert the new worksheet after the last worksheet.

## THE FACILITY SPREADSHEET

### Setting Up Service Columns

#### **Note**

*If several facilities in an organization will be using CORE, the services listed across the columns and the categories into which they are grouped should be identical for all facilities, even if some do not deliver a particular service at the moment.*

*Standardizing these services and their categories has several advantages:*

- 1. You can more easily compare CORE data among several facilities.*
- 2. Instead of adapting the CORE Facility Spreadsheet to each facility individually, you can develop a standard template file for the whole organization.*
- 3. If the Facility Spreadsheets are uniform, you can link them to the Organization Spreadsheet more easily and with less chance of error.*

The Facility Spreadsheet file (FAC-V1) contains 25 Service columns labeled "Service A" through "Service Y." You will need to change the names of the columns to reflect your list of services. If you have more than 25 services, you will need to add one or more service columns to the file.

To complete these modifications, you need to edit Sections A–E as a group. This allows you to make changes to all the worksheets (Sections A–E ) at the same time.

### Editing Worksheets as a Group

To edit several worksheets as a group:

- a. Select the group of spreadsheets you want to edit by holding down the control key as you click on the sheet tabs. (You can also **shift-select** the sheets.) *For example, to select Sections A–E, click on the tab for Section A, then hold down the Shift key while you click on the tab for Section E.*
- b. As you select each tab it will turn from gray to white. The name of the worksheet in front will be bold. Any changes you make to this worksheet will be made to *all the selected worksheets*.
- c. IMPORTANT: When you have finished editing the worksheets as a group, **ungroup** the worksheets by right-clicking on one of the selected **sheet tabs** and choosing **Ungroup Sheets** from the **shortcut menu**.



## Notes

▶ *Inserting the new columns between existing columns will ensure that the new columns are included in the calculation of the Total column. Do not insert the new columns to the right of the last column.*

▶ *It is not necessary to delete unused Service columns. You may leave them in to use in "what if" projections later.*

## Adding Service Columns (if needed)

To add new Service columns:

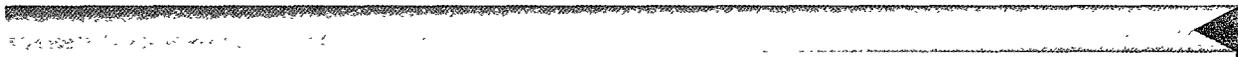
- a. **Select** Sections A–E as a group by clicking on the tab for Section A, then holding down the Shift key while you click on the tab for Section E.
- b. Determine how many additional Service columns are needed.
- c. Starting with any worksheet column between M and AK, select the same number of columns as you wish to insert (for example, to insert three new columns, select three columns). Click and drag in the gray column heading at the top of the columns to select the entire column or columns.
- d. From the **Insert menu**, choose **Columns**.
- e. Select the entire Service column to the left of the new columns.
- f. In the corner of the selected area, you will see a small black square. This is the **fill handle**. When you point to the **fill handle**, the cursor becomes a black cross. **Drag** the **fill handle** across the new columns and release the mouse button.
- g. **IMPORTANT:** When you are finished making changes to the group of worksheets, **ungroup** the worksheets.

## Check Your Changes

- ◆ Are the formulas in the new columns correct?
- ◆ Spot check the Total column: Do the formulas in the Total column reference the correct range of Service columns? For example, if your last Service column is in spreadsheet **column AL**, the Total formula in CORE Line A2 (cell L12) should be:  
`=SUM(M11:AL11)`
- ◆ Do the changes you have made appear on all the appropriate worksheets (Sections A–E)?

## Changing Service Names

Using your list of services from Part I, Step 1 (page 11), enter the Service column names. If you developed a list of services grouped by category in Part I, Step 2, use your list grouped by category instead. Services belonging to the same category should be entered in adjacent columns. For an example, see the sample Facility Spreadsheet (Exp-FAC).



To enter the service names:

- a. **Select** Sections A–E as a group by clicking on the tab for Section A, then holding down the Shift key while you click on the tab for Section E.
- b. In the green area at the top of Section A, replace the labels “Service A,” “Service B,” and so on with the names of your services.
- c. **IMPORTANT:** When you are finished making changes to the group of worksheets, **ungroup** the worksheets.

### **Check Your Changes**

- ◆ Are all Service columns labeled?
- ◆ If you have developed categories of services, are all the services in each category listed in adjacent columns?
- ◆ Do the changes you have made appear on all the appropriate worksheets (Sections A–E)?

## **Setting Up Service Categories**

This section is applicable only if you have grouped the list of services into categories in Part I, Step 2 (page 14). If you are not using categories, go on to the “Entering Personnel Types” section.

### **Entering Service Category Names**

Enter the names of the service categories above the Service column titles.

To enter category names:

- a. **Select** Sections A–E as a group by clicking on the tab for Section A, then holding down the Shift key while you click on the tab for Section E.
- b. Enter the names of the categories in row 6 above the Service column names.

To center category names:

- a. In row 6, **select the range** of cells across which you want to center the category name (including the cell in which you entered the name).
- b. From the **Format menu**, choose **Cells**.



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- 
- c. In the dialog box, select the **Alignment** tab.
  - d. Under **Text Alignment, Horizontal**, choose **Center Across Selection**.
  - e. **IMPORTANT:** When you are finished making changes to the group of worksheets, **ungroup** the worksheets.

### **Formatting the Service Columns**

To add borders to a range of cells (see the sample Facility Spreadsheet, Exp-FAC, for an example):

- a. **Select** Sections A–E as a group by clicking on the tab for Section A, then holding down the Shift key while you click on the tab for Section E.
- b. Select the cell or range of cells to which you want to add **borders**.
- c. From the **Format menu**, choose **Cells**.
- d. In the **Format Cells** dialog box, select the **Border** tab.
- e. **Select** the desired line style and border location.
- f. **IMPORTANT:** When you are finished making changes to the group of worksheets, **ungroup** the worksheets.

### **Setting Up Service Category Calculations**

Lines A24–A35 include three “Revenue and cost recovery for service categories” subsections. These sections are included to allow you to examine revenue and cost recovery data for different sets of services.

In the Facility Spreadsheet template, each of these subsections is set up exactly the same way as Lines A36–A40, “Total revenue and cost recovery for the facility,” and includes all the facility’s services in the calculation of the “Total” column data. To analyze revenue and cost recovery totals for a single category of services, you need to exclude the other service columns from your analysis.

For each service category subsection, identify the columns that belong to the service category being analyzed, and clear the contents of any Service columns that you do not want to include in the analysis. The instructions below are illustrated using the “Family Planning” category of the sample Facility Spreadsheet (Exp-FAC).



To set up calculations for a service category:

- Identify the columns that belong to the category. For example, the Family Planning category includes four Service columns: Pills first visit, IUD insertion, Norplant insertion, and Tubal ligation.
- In the service category subsection, select the cells in all the Service columns that do not belong to the category. For example, on the Exp-FAC spreadsheet, you would select the columns from "Delivery" through "Lab Services: Blood Slide."

exp-FAC				T	L	N	O	P	R	S	T	U	V	W	X	Y	Z	
A SUMMARY OF KEY INFORMATION				TOTAL	TUBAL LIGATION	PILLS FIRST VISIT	IUD INSERTION	NORPLANT INSERTION	DELIVERY	C-SECTION	GYN/ECOL VISIT (SPECIALIST)	MEDICAL VISIT MALARIA	MEDICAL VISIT DIARRHEA	LABORATORY SERVICES BLOOD SLIDE				
A 1	SERVICE VOLUME	Total of service columns	(D3)	23,540	385	2,600	240	300	360	60	2,040	0	0	1,060	0	0	0	
A 2	Volume of services this period	Total of service columns	(A2)/TOTAL OF A2)	100	1.27%	15.28%	1.02%	1.27%	1.53%	0.26%	8.44%	0.00%	0.00%	4.24%	0.00%	0.00%	0.00%	
A 4	COSTS PER SERVICE	Average of service columns	SUM(A11-A17-A18)	202,772	131,577	17,692	33,715	452,059	112,953	1,172,813	14,301	7,261	14,683	1,309				
A 20	REVENUE PER SERVICE	Average of service columns	(D10)	136,620	14,000	5,000	15,000	29,000	196,000	930,000	30,000	12,870	19,400	6,000				
A 21	Net revenue per service	Average of service columns	(D10)	67,142	117,577	1,652	24,715	-28,059	-3,447	242,813	5,689	5,609	5,107	4,891				
A 23	REVENUE AND COST RECOVERY FOR SERVICE CATEGORIES																	
A 24	Total net revenue	Subtotal of services by category	(D9)	385,220,000	4,200,000	19,000,000	3,600,000	7,500,000	70,500,000	35,300,000	30,000,000	1,020,000	19,000,000	35,000,000				
A 25	Total variable, fixed, and support costs	Subtotal of services by category	(C7)	430,515,278	39,472,380	6,347,992	9,921,511	139,918,974	40,919,829	70,389,771	28,602,310	58,085,928	14,623,151	15,270,935				
A 26	Total surplus/loss	Subtotal of services by category	(A24-A25)	70,315,278	35,272,380	45,647,962	5,931,521	128,418,974	30,041,072	14,989,771	11,397,690	44,874,472	5,106,849	32,729,067				
A 27	Percentage of costs recovered	Subtotal of services by category	(A24/A25)	84%	11%	28%	36%	8%	17%	7%	14%	17%	13%	31%				
A 28	Total net revenue	Subtotal of services by category	(D9)	385,220,000	4,200,000	19,000,000	3,600,000	7,500,000	70,500,000	35,300,000	30,000,000	1,020,000	19,000,000	35,000,000				
A 29	Total variable, fixed, and support costs	Subtotal of services by category	(C7)	430,515,278	39,472,380	6,347,992	9,921,511	139,918,974	40,919,829	70,389,771	28,602,310	58,085,928	14,623,151	15,270,935				
A 30	Total surplus/loss	Subtotal of services by category	(A28-A29)	70,315,278	35,272,380	45,647,962	5,931,521	128,418,974	30,041,072	14,989,771	11,397,690	44,874,472	5,106,849	32,729,067				
A 31	Percentage of costs recovered	Subtotal of services by category	(A28/A29)	84%	11%	28%	36%	8%	17%	7%	14%	17%	13%	31%				

**Note**

If you have modified this section carefully, the spreadsheet will correctly calculate the revenue and cost recovery data for only the columns in each category.

As a precaution against mistakes, however, you may also edit the formulas in the Total column to reference only the service columns included in that category. In this case, the Total formulas for the first two rows (Total net revenue and Total variable, fixed, and support costs) of each service category section would need to be edited. For an example, see the formulas in the Exp-FAC spreadsheet.

- From the Edit menu, choose Clear, then choose Contents from the submenu.
- Repeat the procedure for all other service categories you have established.

**Check Your Changes**

- For each service category, are there formulas in only the columns belonging to that service category, with no columns overlapping between categories? One way to check this is to add up the total net revenue for all of the separate service categories and compare it to the total net revenue for the facility.

### Adding Service Categories (if needed)

The Facility Spreadsheet template includes three service category subsections (CORE Lines A23–A35). If the management team identifies more than three service categories, then you must add one or more service category sections to the template. If there are fewer than three service categories, the user may delete the extra service categories if desired. You may also leave them in to assist you in developing future service scenarios, later.

To add a service category:

- a. Select the third service category section, including CORE Lines A32 through A35, as shown below.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
44	<b>SERVICE CATEGORY TWO</b>																
45	A	28	Total net revenue							Subtotal of services by category	(D9)		0	0	0	0	0
46	A	29	Total variable, fixed, and support costs							Subtotal of services by category	(C27)		0	0	0	0	0
47	A	30	Total surplus/loss							(A28-A29)	(A28-A29)		0	0	0	0	0
48	A	31	Percentage of costs recovered							(A28/A29)	(A28/A29)		0%	0%	0%	0%	0%
49	<b>SERVICE CATEGORY THREE</b>																
51	A	32	Total net revenue							Subtotal of services by category	(D9)		0	0	0	0	0
52	A	33	Total variable, fixed, and support costs							Subtotal of services by category	(C27)		0	0	0	0	0
53	A	34	Total surplus/loss							(A32-A33)	(A32-A33)		0	0	0	0	0
54	A	35	Percentage of costs recovered							(A32/A33)	(A32/A33)		0%	0%	0%	0%	0%
55	<b>SERVICE CATEGORY FOUR</b>																
57	A	36	<b>TOTAL REVENUE AND COST RECOVERY FOR THE FACILITY</b>														
58	A	37	Total net revenue							Total of service columns	(D9)		0	0	0	0	0
59	A	38	Total variable, fixed, and support costs							Total of service columns	(C27)		0	0	0	0	0
60	A	39	Total surplus/loss							(A37-A38)	(A37-A38)		0	0	0	0	0
61	A	40	Percentage of costs recovered							(A37/A38)	(A37/A38)		0%	0%	0%	0%	0%

- b. From the Edit menu, choose Copy.
- c. Select CORE Line A36 (Total Revenue and Cost Recovery for the Facility).
- d. From the Insert menu, choose Copied Cells. If the Insert Paste dialog box appears, click OK (shift cells down). Your spreadsheet should now look like the following illustration.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
51	<b>SERVICE CATEGORY THREE</b>																
52	A	32	Total net revenue							Subtotal of services by category	(D9)		0	0	0	0	0
53	A	33	Total variable, fixed, and support costs							Subtotal of services by category	(C27)		0	0	0	0	0
54	A	34	Total surplus/loss							(A32-A33)	(A32-A33)		0	0	0	0	0
55	A	35	Percentage of costs recovered							(A32/A33)	(A32/A33)		0%	0%	0%	0%	0%
56	<b>SERVICE CATEGORY THREE</b>																
57	A	35	Total net revenue							Subtotal of services by category	(D9)		0	0	0	0	0
58	A	37	Total variable, fixed, and support costs							Subtotal of services by category	(C27)		0	0	0	0	0
59	A	38	Total surplus/loss							(A32-A33)	(A32-A33)		0	0	0	0	0
60	A	39	Percentage of costs recovered							(A32/A33)	(A32/A33)		0%	0%	0%	0%	0%
61	<b>SERVICE CATEGORY FOUR</b>																
63	A	36	<b>TOTAL REVENUE AND COST RECOVERY FOR THE FACILITY</b>														
64	A	37	Total net revenue							Total of service columns	(D9)		0	0	0	0	0
65	A	38	Total variable, fixed, and support costs							Total of service columns	(C27)		0	0	0	0	0
66	A	39	Total surplus/loss							(A37-A38)	(A37-A38)		0	0	0	0	0
67	A	40	Percentage of costs recovered							(A37/A38)	(A37/A38)		0%	0%	0%	0%	0%



- d. Edit CORE line reference column in the sections that have been renumbered. In the example below, Lines A38, A39, A43, and A44 have been changed. For example, see how the formula on line A38 has been changed from (A32-A33) to (A36-A37).

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
<b>SERVICE CATEGORY THREE</b>																
A	32	Total net revenue								Subtotal of services by category	(D9)	0	0	0	0	0
A	33	Total variable, fixed, and support costs								Subtotal of services by category	(C27)	0	0	0	0	0
A	34	Total surplus/loss								(A32-A33)	(A32-A33)	0	0	0	0	0
A	35	Percentage of costs recovered								(A32/A33)	(A32/A33)	0%	0%	0%	0%	0%
<b>SERVICE CATEGORY FOUR</b>																
A	36	Total net revenue								Subtotal of services by category	(D9)	0	0	0	0	0
A	37	Total variable, fixed, and support costs								Subtotal of services by category	(C27)	0	0	0	0	0
A	38	Total surplus/loss								(A36-A37)	(A36-A37)	0	0	0	0	0
A	39	Percentage of costs recovered								(A36/A37)	(A36/A37)	0%	0%	0%	0%	0%
<b>A 40 TOTAL REVENUE AND COST RECOVERY FOR THE FACILITY</b>																
A	41	Total net revenue								Total of service columns	(D9)	0	0	0	0	0
A	42	Total variable, fixed, and support costs								Total of service columns	(C27)	0	0	0	0	0
A	43	Total surplus/loss								(A41-A42)	(A41-A42)	0	0	0	0	0
A	44	Percentage of costs recovered								(A41/A42)	(A41/A42)	0%	0%	0%	0%	0%

Finally, change the headings of each service category to the names of the actual service categories being analyzed. Repeat the steps above for any additional service categories.

### Check Your Changes

- ◆ Are the lines numbered correctly, without duplication of numbers or gaps in the sequence?
- ◆ Does the CORE line reference column refer to the correct line numbers?

### Entering Personnel Types

Enter your personnel type designations into the green input area on Lines E2–E12. You will only need to enter the personnel types once for the whole spreadsheet. All other references to personnel types in the spreadsheet will be updated when you change them on Lines E2–E12.

### Entering Personnel and Salary Information

Using your list from Part I, Step 5, enter the names of direct service personnel on Lines F4–F14. You will need to insert additional rows for some types of personnel if they contain more than two individuals.

To add a row:

- a. Select the last row in the section that you want to extend.
- b. From the **Edit menu**, choose **Copy**.



- c. From the **Insert menu**, choose **Copied Cells**. If the **Insert Paste** dialog box appears, click **OK (shift cells down)**.
- d. If you need to add or delete cell **borders**, choose **Cells** from the **Format menu**. Click the **Borders** tab to choose a line style and border placement.

### **Check Your Changes**

- ◆ Spot check the subtotal rows of Lines F4–F14 to confirm that they are correct.

## **Entering Other Fixed Operating Costs**

Using your list of other fixed operating costs, enter the names of budget line items for your organization. Insert additional lines if needed.

To add a new budget line:

- a. Select one of the "Budget Line Item" rows.
- b. From the **Insert menu**, choose **Rows**.
- c. Select the row above the new row. **Drag** the **fill handle** down to fill in the new row.
- d. Correct the line numbers of the new line. See the instructions on correcting CORE Line numbering under "Adding Service Categories" (page 99).

### **Check Your Changes**

- ◆ Are all budget line items entered correctly?
- ◆ Are the CORE lines in Section G numbered correctly?





## THE ORGANIZATION SPREADSHEET

### Linking the Spreadsheets

The Organization Spreadsheet brings together summary data from multiple Facility Spreadsheets, allowing you to compare data from several facilities at a glance. To set up the Organization Spreadsheet, you will need to create links between the Organization Spreadsheet and Section A of the Facility Spreadsheets you have developed.

The following table lists the links that you will need to establish between the Organization Spreadsheet and Section A of the separate Facility Spreadsheet files. The first column lists the lines of the Organization Spreadsheet. The second column indicates which line in the Facility Spreadsheet contains the data you need to link to the Organization Spreadsheet. The third column indicates the specific cell reference of the data on the Facility Spreadsheet, using the Excel row and column reference.

### Creating Links

To create a link to the Facility Spreadsheet:

#### Method One

- a. In the Organization Spreadsheet, **select** the cell in which you want to place the link to the Facility Spreadsheet.
- b. Type = (an equal sign).
- c. Switch to the Facility Spreadsheet.
- d. Select the cell containing the data you want to link to the Organization Spreadsheet.
- e. Press the Enter key. You will be returned to the Organization Spreadsheet.

#### Method Two

You can also use **Paste Link** to create links. This method is useful for linking groups of adjacent cells, such as the cells under "C: Staff Utilization Summary."

- a. In the Facility Spreadsheet, **select** the cell or cells you want to link to the Organization Spreadsheet.
- b. From the **Edit menu**, choose **Copy**.
- c. Switch to the Organization Spreadsheet.
- d. Select the cell or cells to which you want to link the data from the Facility Spreadsheet.
- e. From the **Edit menu**, choose **Paste Special**.
- f. At the bottom of the **Paste Special dialog box**, click **Paste Link**.



## Table of Links for the Organization Spreadsheet

<b>Organization Spreadsheet Section and Line Reference</b>	<b>CORE Facility Spreadsheet Line Reference* (Total Column)</b>	<b>Excel Cell Reference*</b>
<b>A: Cost Recovery Summary By Service Category</b>		
Service Category One	A27	L43
Service Category Two	A31	L49
Service Category Three	A35	L55
<b>B: Key Information Summary</b>		
Volume of Services This Period	A2	L11
Average Costs per Service	A19	L32
Average Net Revenue per Service	A21	L35
Average Surplus/Loss per Service	A22	L36
Average Percentage of Costs Recovered	A40	L61
Total Net Revenue	A37	L58
Total Variable, Fixed, and Support Costs	A38	L59
Total Surplus/Loss	A39	L60
<b>C: Staff Utilization Summary</b>		
Personnel Type One	A42	L65
Personnel Type Two	A43	L66
Personnel Type Three	A44	L67
Personnel Type Four	A45	L68
Personnel Type Five	A46	L69
Personnel Type Six	A47	L70
Personnel Type Seven	A48	L71
Personnel Type Eight	A49	L72
Personnel Type Nine	A50	L73
Personnel Type Ten	A51	L74
Personnel Type Eleven	A52	L75

\* Note that the two columns on the right are accurate for the original Facility Spreadsheet template, but may be different from your spreadsheet if you have added or deleted rows while modifying the template.



### **Setting Up Links to Additional Facility Spreadsheets**

If all the Facility Spreadsheets for your organization are identical in structure (for example, if you developed a standard template for all facilities in the organization), you can **copy** or **fill** the formulas from the first Facility column of the Organization Spreadsheet to the remaining Facility columns. If you are not certain that all your Facility Spreadsheets are set up identically, you will need to repeat the linking process manually for each additional Facility Spreadsheet.

If you **copy** or **fill** the data, the appropriate cell references will be copied to the other Facility columns, but you will still need to change the file references in each column to reference a different Facility Spreadsheet file.

To **fill** the links from the first Facility column into the remaining columns:

- a. In "Section A: Cost Recovery Summary by Service Category" in the Organization Spreadsheet, **select** the cells containing **external references** in the first Facility column.
- b. **Drag** the **fill handle** across the remaining columns and release the mouse button.
- c. Repeat steps a and b for Section B and Section C.

You will now have to change the name of the source file for each Facility column. You can use the **Replace** command to do this:

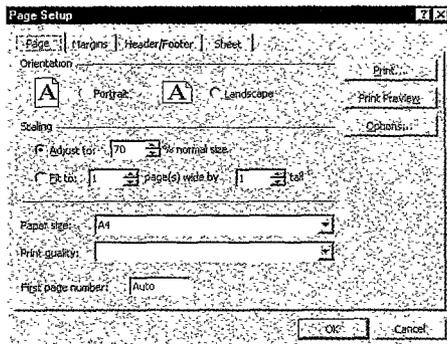
- a. **Select** the Facility column you want to change.
- b. From the **Edit menu**, choose **Replace**.
- c. Under **Find What**, type the name of the Facility Spreadsheet file in the first column (the file name you want to change). Under **Replace With**, type the name of the new Facility Spreadsheet file for the column you are working on. For example, to change the source file from FAC1 to FAC2, type "FAC1" under **Find What**, and type "FAC2" under **Replace With**.
- d. Click **Replace All**.
- e. Repeat for any additional columns.



# PRINTING THE SPREADSHEETS

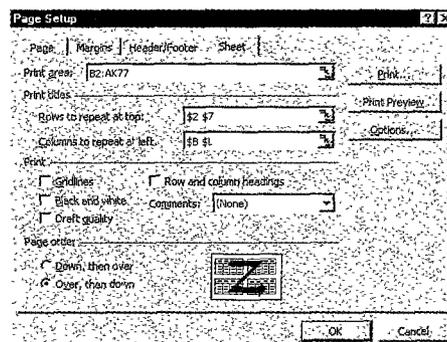
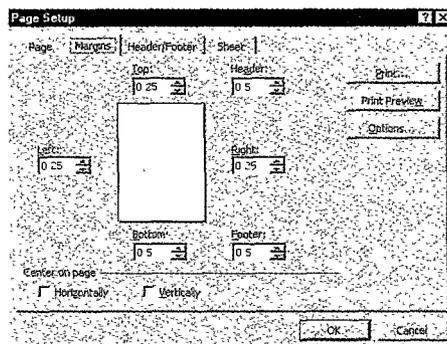
## Page Setup

This section reviews **Page Setup** commands and illustrates the default settings for the Facility Spreadsheet template. You may need to tailor these settings to your own version of the spreadsheets.



To change **Page Setup** settings:

- a. From the **File** menu, select **Page Setup**.
- b. Select the **Page** tab to:
  - ◆ choose paper orientation;
  - ◆ reduce or enlarge the printout relative to the normal spreadsheet size;
  - ◆ specify the paper size.
- c. Select the **Margins** tab to:
  - ◆ adjust the size allotted to margins, headers, and footers.
- d. Select the **Header/Footer** tab (not shown) to:
  - ◆ choose or create headers and footers to print on each page of your printout.
- e. Select the **Sheet** tab to:
  - ◆ specify the **print area** (the parts of the spreadsheet you want to print);
  - ◆ specify **print titles** (rows and/or columns that will repeat on each page of the printout);
  - ◆ choose which **page order** is followed when you print multiple pages;
  - ◆ choose other print settings for the entire sheet.





## Printing Options

The Organization Spreadsheet, and each of the Service Practices Worksheets, can be printed on one page. The Facility Spreadsheet requires additional pages.

To print the entire Facility Spreadsheet:

- a. From the **File menu**, choose **Print**.
- b. Under **Print range**, choose **All**.
- c. Under **Print what**, choose **Entire Workbook**.

To print a section of the Facility Spreadsheet:

- a. Click the tab of the worksheet you want to print (for example, Section A, Section B, etc.).
- b. From the **File menu**, choose **Print**.
- c. Under **Print range**, choose **All** (or enter a range of pages to print).
- d. Under **Print what**, choose **Active Sheet(s)**.



**Administrative Time:** The amount of time personnel spend on administrative duties. The time of full-time administrators, drivers, cleaners, and security personnel is generally allocated to administrative time because these categories of personnel usually do not spend any time with clients nor do they contribute directly to the provision of services. The time of doctors, nurses, receptionists, facility managers (if also service providers), and laboratory technicians is often divided between direct service and administrative time. Administrative tasks of service personnel would include activities such as record keeping and stock replenishment.

**Annual Salary:** The total amount of money paid to a staff member for one year including all forms of compensation (such as, salary, commission, fee, benefits, and/or in-kind payments).

**Type of Personnel:** The different categories or functions of personnel. In a family planning program, types of personnel include doctor, nurse, counselor, receptionist, etc.

**Cash Differences:** Cash differences refer to revenue that was expected to be received but was not received, and is not likely to be received in the future. Cash differences include reductions in revenue due to non-payment of a bill, theft, and other losses such as medicine or contraceptive loss (due to expiration, fire, or water damage, etc.). An example of a cash difference is when a commercial organization that contracted a service facility or organization to deliver health services to their employees fails to pay for the services after they were delivered.

**Category of Services:** A grouping of services under a category heading. The most common way to group services is by type of service, such as family planning, other reproductive health services, maternal and child health, or curative services. A category could also be defined as mode of service delivery, such as depot holders, community-based distributors, static clinics, or mobile units.

**CORE Database:** Detailed programmatic and financial data on the facility being analyzed. The database includes service volume by type of service, the type and quantity of personnel and materials used to deliver each service, average time spent delivering each type of service, fees charged for each type of service, and fixed operating costs.

**Cost Revenue Analysis Tool (CORE):** A spreadsheet-based tool for analyzing and comparing a facility's costs and revenues and cost recovery service by service, for comparing costs and revenues and cost recovery among facilities within the same organization, and for exploring the impact of changes in service mix, volume, and prices and changes in personnel utilization and compensation, among others.

**CORE Line Reference:** The letter and number at the beginning of each line of the Facility Spreadsheet. The CORE line reference is designed to make it easier for you to find a specific CORE line when you are using the spreadsheet. The CORE line reference also helps you identify where the data in the line have come from. The CORE line reference does *not* refer to the electronic spreadsheet cell address that appears on the left and top margin of the computer screen.

**Costs:** The costs associated with delivering a service. There are many kinds of costs, including fixed costs, direct costs, indirect costs, and variable costs.



**Cost Recovery:** Recovering all or part of costs through revenues. Strategies to improve cost recovery include charging fees for services, reducing fees on some services (in order to increase demand and thus volume of service), using the revenues from one category of services to subsidize another category of services, and increasing the volume of services that have high fixed costs (costs that do not change with an increase or decrease in volume of service).

**Cross-subsidies:** Using revenues generated from one service (or category of services) to subsidize another service (or category of services). For example, monies generated from sales of contraceptives in one facility can be used to subsidize the cost of providing services to clients who are unable to pay for services or contraceptives in that same facility or at other program sites.

**Data Collection Team:** A team of at least two people who collect the baseline data for CORE. One team member should be familiar with clinical services, and another with the organization's finances.

**Depreciation on Special Equipment:** The accounting practice that spreads the cost of a fixed asset over its anticipated useful life. For special equipment, depreciation would require a list of all the facility's special equipment (such as, equipment used only for one or a few services), along with a depreciation schedule for each piece of equipment.

**Direct Costs:** Those costs that are directly associated with, or attributable to, a specific service or category of services, such as the personnel costs of providing a service.

**Direct Service Time:** The amount of time each person spends providing services directly to clients. Most service personnel spend some of their time providing services and some of their time on administrative tasks. Only time spent providing services or in direct contact with clients is calculated as direct service time.

**Discounts:** Services provided at reduced fees or without any fee. Examples include an introductory discount for a new service or for a new group of clients, contractual arrangements for services provided to groups of clients, and services provided without any fee (for example, to the personnel of the facility or organization).

**Facility Spreadsheet:** A CORE spreadsheet that presents a comprehensive view of the volume of services provided by an individual facility, the costs per service, the revenues per service, personnel utilization, and cost recovery per service and per category of services.

**Fee-for-Service:** The fee paid by a facility or organization to an individual or company to provide specific services. An example might be the fee a facility pays to a laboratory for testing, or the fee it pays to a doctor who provides a specific service on a per-service basis.

**Fixed Costs:** Costs that do not vary with the quantity of people served or services delivered, such as main office expenses, insurance, rent, salaries, and depreciation on special equipment.

**Formula-Driven Cells:** Cells in the spreadsheet that make calculations based on data entered in the input cells. These cells have no shading and are "protected," making it impossible for a user to modify them manually without first disabling the protection feature of the spreadsheet program.

**Indirect Costs:** The difference between the cost of the time that personnel actually spend delivering services and the time they are expected to deliver services.



**Input Cells:** On the electronic spreadsheets, these are the cells that are shaded. Input cells require that the spreadsheet user enter data.

**Maximum Demand for Services:** An estimate of the greatest possible demand for a service in a given catchment area. This estimate might take into account the total need for each service among the population in the catchment area of the facility, and the facility's expected market share based on its competition and on the actual or projected fee levels.

**Net Revenue:** The total revenue received after deducting any waivers, discounts, or cash differences.

**Organization Spreadsheet:** A CORE spreadsheet containing summary data from each of the CORE Facility Spreadsheets. The Organization Spreadsheet allows managers who oversee several facilities to compare these data and to assess the overall performance of the organization; develop a comprehensive picture of the efficiency, coverage, and financial viability of each facility; and identify cross subsidies between different service categories and different facilities.

**Regional/Central Support Costs:** The costs of operating regional or central administrative offices is allocated among facilities if there is more than one facility in an organization. These costs can be allocated in a number of ways, including equally among the facilities, according to the proportion of total operating costs of each facility, and based on policy decisions.

**Revenue:** Monies received from sales (of medicines, contraceptives, etc.), services, and fees.

**Service Practices Worksheets:** A CORE worksheet used to record personnel time and calculate the costs of the medicines, contraceptives, and clinical supplies used in providing each service. These data are then transferred to the Facility Spreadsheet.

**Service Volume:** The quantity of services actually delivered or projected to be delivered during a specified time period.

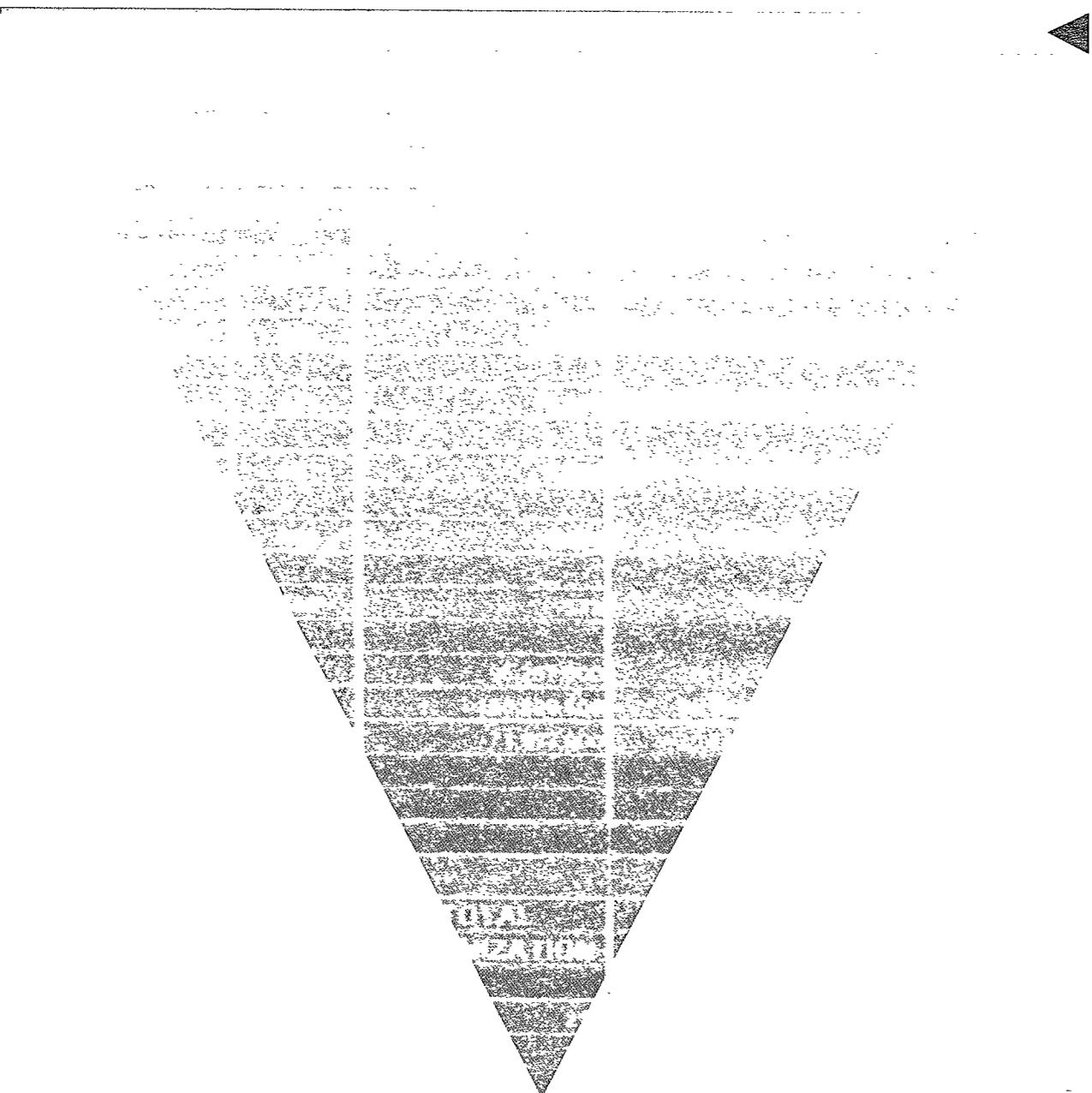
**Total Surplus/Loss:** The difference between the total revenue collected and total cost of a given service, service category, or facility.

**Unit Cost:** Unit costs refer to the cost of an individual unit of a contraceptive, medicine, or clinical supply used in delivering services.

**Variable Costs:** Costs that vary according to the level of service provided or number of people served. Examples of variable costs include the commissions per service paid to the personnel involved in directly providing services but who are not salaried employees of the facility; and the amount of medicine, contraceptives, and clinical supplies used in providing services.

**Waivers:** Fees that are reduced or eliminated for some clients. A waiver system uses a standard set of criteria to determine which clients are eligible for such price reductions.

SECRET



## Sample Service Practices Worksheets (file name: Exp-WKSH) Tubal Ligation Worksheet

<b>SERVICE PRACTICES WORKSHEET</b>	Date 8/11/98
Cost and Revenue Analysis Tool (CORE), MSH	
File and Service Name C:\CORE\exp-WKSH.xls TUBAL LIGATION	

**PERSONNEL TIME**

Activity	M.O./A.M.O	Direct Service Time (Minutes)										Total	
		Nurse/Counselor	Receptionist	Personnel Type 4	Personnel Type 5	Personnel Type 6	Personnel Type 7	Personnel Type 8	Personnel Type 9	Personnel Type 10	Personnel Type 11		
Register, pay, and counsel		18	3										21
Procedure	23	45											68
Post-operative care		10											10
Post-counseling		5											5
													0
													0
													0
													0
													0
													0
													0
<b>Total staff time</b>	23	78	3	0	0	0	0	0	0	0	0	0	104

**MEDICINES, CONTRACEPTIVES, AND CLINICAL SUPPLIES USED**

**Medicines**

Item	Unit Cost	Units Used	Cost this Service
Analgescic	25 00	2 00	50 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
<b>TOTAL COST THIS SERVICE</b>			50 00

**Contraceptives**

Item	Unit Cost	Units Used	Cost this service
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
			0 00
<b>TOTAL COST THIS SERVICE</b>			0 00

**Clinical Supplies**

Item	Unit Cost	Units Used	Cost this service
Sutures (catgut)	8166 67	1 00	8166 67
Sutures (silk)	8166 67	1 00	8166 67
Gauze	12 03	7 00	84 21
Bleach	6000 00	0 50	3000 00
Iodine	35 00	35 00	1225 00
Atropine	1100 00	1 00	1100 00
Lignocaine	133 33	20 00	2666 67
Syringe-disposable	450 00	2 00	900 00
Gloves-disposable	830 00	2 00	1660 00
Gloves-surgical	3150 00	2 00	6300 00
Surgical blade	2000 00	1 00	2000 00
Bandage	708 33	1 00	708 33
TL Kit	10332 00	1 00	10332 00
			0 00
			0 00
<b>TOTAL COST THIS SERVICE</b>			46309 54





## Sample Facility Spreadsheet (file name: Exp-FAC) Section A: Summary of Key Information

<b>FACILITY SPREADSHEET</b> Date: 8/11/98	Period:
<b>Cost and Revenue Analysis Tool (CORE), MSH</b>	Currency:
File: C:\CORE\exp-FAC.xls\A. Key Information Summary	Facility:

A SUMMARY OF KEY INFORMATION				TOTAL	FAMILY PLANNING SERVICES				
					TUBAL LIGATION	PILLS FIRST VISIT	IUD INSERTION	NORPLANT INSERTION	
		CORE LINE REFERENCE AND FORMULA							
		Total Column Formula	Service Column Formula						
<b>A 1 SERVICE VOLUME</b>									
A 2	Volume of services this period	Total of service columns	(B3)	23,560	300	3,600	240	300	
A 3	Service mix	Total of service columns	(A2/TOTAL OF A2)	100%	1.27%	15.28%	1.02%	1.27%	
<b>A 4 COSTS PER SERVICE</b>									
<b>A 5 VARIABLE COSTS</b>									
A 6	Commission	No formula	(C3)		0	0	0	0	
A 7	Professional fees per service	No formula	(C4)		0	0	0	0	
A 8	Medicine used	No formula	(C5)		50	0	0	0	
A 9	Contraceptives used	No formula	(C6)		0	6,300	3,600	150,000	
A 10	Clinical supplies used	No formula	(C7)		46,310	0	10,620	16,220	
A 11	<b>TOTAL VARIABLE COSTS</b>	No formula	SUM(A6 A10)		46,360	6,300	14,220	166,220	
<b>A 12 FIXED COSTS</b>									
A 13	Direct service staff costs	No formula	(C17/B3)		1,418	118	236	183	
A 14	Indirect service staff costs	No formula	(C18/B3)		1,487	178	357	21	
A 15	Depreciation on special equipment	No formula	(C20/B3)		11	0	0	0	
A 16	Other fixed operating costs	No formula	(C21/B3)		82,237	11,047	24,863	286,418	
A 17	<b>TOTAL FIXED COSTS</b>	No formula	SUM(A13 A16)		85,154	11,344	25,476	286,622	
<b>A 18 REGIONAL/CENTRAL SUPPORT COSTS</b>									
A 19	<b>TOTAL COSTS PER SERVICE</b>	Average of service columns	SUM(A11+A17+A18)	203,772	131,577	17,652	39,715	453,055	
<b>A 20 REVENUE PER SERVICE</b>									
A 21	Net revenue per service	Average of service columns	(D10)	136,630	14,000	5,000	15,000	25,000	
A 22	Surplus/loss per service	Average of service columns	(A21-A19)	-67,142	-117,577	-12,652	-24,715	-428,055	
<b>A 23 REVENUE AND COST RECOVERY FOR SERVICE CATEGORIES</b>									
<b>FAMILY PLANNING SERVICES</b>									
A 24	Total net revenue	Subtotal of services by category	(D9)	29,100,000	4,200,000	18,000,000	3,600,000	7,500,000	
A 25	Total variable, fixed, and support costs	Subtotal of services by category	(C27)	208,995,657	39,472,980	63,547,562	9,531,521	135,916,574	
A 26	Total surplus/loss	(A24-A25)	(A24-A25)	-179,895,657	-35,272,980	-45,547,562	-5,931,521	-128,416,574	
A 27	Percentage of costs recovered	(A24/A25)	(A24/A25)	14%	11%	28%	38%	6%	
<b>MCH/OBSTETRIC SERVICES</b>									
A 28	Total net revenue	Subtotal of services by category	(D9)	166,360,000					
A 29	Total variable, fixed, and support costs	Subtotal of services by category	(C27)	139,490,009					
A 30	Total surplus/loss	(A28-A29)	(A28-A29)	26,869,991					
A 31	Percentage of costs recovered	(A28/A29)	(A28/A29)	119%					
<b>CURATIVE SERVICES</b>									
A 32	Total net revenue	Subtotal of services by category	(D9)	170,760,000					
A 33	Total variable, fixed, and support costs	Subtotal of services by category	(C27)	88,049,611					
A 34	Total surplus/loss	(A32-A33)	(A32-A33)	82,710,389					
A 35	Percentage of costs recovered	(A32/A33)	(A32/A33)	194%					
<b>A 36 TOTAL REVENUE AND COST RECOVERY FOR THE FACILITY</b>									
A 37	Total net revenue	Total of service columns	(D9)	366,220,000	4,200,000	18,000,000	3,600,000	7,500,000	
A 38	Total variable, fixed, and support costs	Total of service columns	(C27)	436,535,278	39,472,980	63,547,562	9,531,521	135,916,574	
A 39	Total surplus/loss	(A37-A38)	(A37-A38)	-70,315,278	-35,272,980	-45,547,562	-5,931,521	-128,416,574	
A 40	Percentage of costs recovered	(A37/A38)	(A37/A38)	84%	11%	28%	38%	6%	
<b>A 41 STAFF UTILIZATION FOR DIRECT SERVICE DELIVERY</b>									
A 42	Medical Specialist	E14/F4i	No formula	0%					
A 43	Medical Officer/Assistant Medical Officer	E15/F5i	No formula	83%					
A 44	Medical Assistant	E16/F6i	No formula	0%					
A 45	Nurse/Counselor	E17/F7i	No formula	39%					
A 46	Laboratory Technician	E18/F8i	No formula	172%					
A 47	Outside Laboratory Services	E19/F9i	No formula	0%					
A 48	Receptionist	E20/F10i	No formula	0%					
A 49	Driver	E21/F11i	No formula	0%					
A 50	Security	E22/F12i	No formula	0%					
A 51	Personnel Type Ten	E23/F13i	No formula	0%					
A 52	Personnel Type Eleven	E24/F14i	No formula	0%					



## Sample Facility Spreadsheet (file name: Exp-FAC) Section A: Summary of Key Information

MCH/OBSTETRIC SERVICES			CURATIVE SERVICES		
DELIVERY	C-SECTION	GYNECOL VISIT (SPECIALIST)	MEDICAL VISIT MALARIA	MEDICAL VISIT DIARRHEA	LABORATORY SERVICES BLOOD SLIDE
360 1.53%	60 0.25%	2,000 8.49%	8,000 33.96%	1,000 4.24%	8,000 33.96%
0	200,000	4,000	0	0	0
0	0	0	0	0	0
1,500	57,100	0	2,320	5,050	0
0	0	0	0	0	0
37,400	171,080	1,120	0	0	590
38,900	428,180	5,120	2,320	5,050	590
1,766	1,453	113	315	315	111
1,837	2,194	54	87	87	0
0	933	0	0	0	0
69,995	739,498	9,008	4,535	9,234	1,207
73,598	744,079	9,174	4,937	9,636	1,318
54.79	553.90	6.83	3.68	7.17	0.98
112,553	1,172,813	14,301	7,261	14,693	1,909
196,000 83,447	930,000 -242,813	20,000 5,699	12,870 5,609	19,800 5,107	6,000 4,091
70,560,000 40,518,928 30,041,072 174%	55,800,000 70,368,771 -14,568,771 79%	40,000,000 28,602,310 11,397,690 140%	102,960,000 58,085,528 44,874,472 177%	19,800,000 14,693,151 5,106,849 135%	48,000,000 15,270,933 32,729,067 314%
70,560,000 40,518,928 30,041,072 174%	55,800,000 70,368,771 -14,568,771 79%	40,000,000 28,602,310 11,397,690 140%	102,960,000 58,085,528 44,874,472 177%	19,800,000 14,693,151 5,106,849 135%	48,000,000 15,270,933 32,729,067 314%



## Sample Facility Spreadsheet (file name: Exp-FAC) Section B: Determining Service Volume

<b>FACILITY SPREADSHEET</b>	Date: 8/11/98	Period:	
<b>Cost and Revenue Analysis Tool (CORE), MSH</b>		Currency:	
File: C:\CORE\exp-FAC.xls\B_Service Volume		Facility:	

<b>B DETERMINING SERVICE VOLUME</b>			TOTAL	FAMILY PLANNING SERVICES			
				TUBAL LIGATION	PILLS FIRST VISIT	IUD INSERTION	NORPLANT INSERTION
		<b>CORE LINE REFERENCE AND FORMULA</b>					
		Total Column Formula					
		Service Column Formula					
NOTE Lines B1 and B2 are included for reference only, and are not used in any calculations							
B 1	Actual volume of services from previous period	Total of service columns INPUT (SERVICE COL )	21,625	280	3,200	185	225
B 2	Maximum demand for services for this period	Total of service columns INPUT (SERVICE COL )	82,350	550	6,000	550	600
B 3	Volume of services for this period	Total of service columns INPUT (SERVICE COL )	23,560	300	3,600	240	300



**Sample Facility Spreadsheet (file name: Exp-FAC)  
Section B: Determining Service Volume**

MCH/OBSTETRIC SERVICES			CURATIVE SERVICES		
DELIVERY	C-SECTION	GYNECOL. VISIT (SPECIALIST)	MEDICAL VISIT MALARIA	MEDICAL VISIT DIARRHEA	LABORATORY SERVICES BLOOD SLIDE
325	40	1,400	7,800	850	7,600
3,000	1,200	4,000	25,000	17,000	25,000
360	60	2,000	8,000	1,000	8,000

## Sample Facility Spreadsheet (file name: Exp-FAC) Section C: Determining Costs

<b>FACILITY SPREADSHEET</b>	Date: 8/11/98	Period:	
<b>Cost and Revenue Analysis Tool (CORE), MSH</b>		Currency:	
File: C:\CORE\exp-FAC.xls\C Costs	Facility:		

C DETERMINING COSTS			TOTAL	FAMILY PLANNING SERVICES			
				TUBAL LIGATION	PILLS FIRST VISIT	IUD INSERTION	NORPLANT INSERTION
<b>CORE LINE REFERENCE AND FORMULA</b>							
	Total Column Formula	Service Column Formula					
<b>C 1</b>	<b>VARIABLE COSTS TO DELIVER ONE SERVICE</b>						
C 2	Commission % (based on gross revenue)	No formula	INPUT (SERVICE COL.)	0%	0%	0%	0%
C 3	Commission	No formula	(C2*D4)/B3	0	0	0	0
C 4	Professional fees per service	No formula	INPUT (SERVICE COL.)	0	0	0	0
C 5	Medicine used	No formula	INPUT (SERVICE COL.)	50	0	0	0
C 6	Contraceptives used	No formula	INPUT (SERVICE COL.)	0	6,300	3,600	150,000
C 7	Clinical supplies used	No formula	INPUT (SERVICE COL.)	46,310	0	10,620	16,220
C 8	<i>VARIABLE COSTS TO DELIVER ONE SERVICE</i>	No formula	Sum(C3 C7)	46,360	6,300	14,220	166,220
<b>C 9</b>	<b>TOTAL VARIABLE COSTS</b>						
C 10	Commission	Total of service columns	(B3*C3)	20,000,000	0	0	0
C 11	Professional fees per service	Total of service columns	(B3*C4)	0	0	0	0
C 12	Medicine used	Total of service columns	(B3*C5)	27,576,000	15,000	0	0
C 13	Contraceptives used	Total of service columns	(B3*C6)	68,544,000	0	22,680,000	864,000
C 14	Clinical supplies used	Total of service columns	(B3*C7)	38,103,600	13,892,862	0	2,548,800
C 15	<i>TOTAL VARIABLE COSTS</i>	Total of service columns	SUM(C10 C14)	154,223,600	13,907,862	22,680,000	3,412,800
<b>C 16</b>	<b>TOTAL FIXED COSTS</b>						
C 17	Direct service staff costs	(E38)	(E38)	5,209,291	425,517	425,357	56,714
C 18	Indirect service staff costs	(E51)	(E51)	3,694,987	446,121	642,139	85,619
C 19	<i>Sub-total service staff costs</i>	(C17+C18)	(C17+C18)	8,904,278	871,638	1,067,496	142,333
C 20	Depreciation on special equipment	Total of service columns	INPUT (SERVICE COL.)	56,000	3,400	0	0
C 21	Other fixed operating costs	G33	(C21Tot* (C15+C17/ (C15Tot+C17Tot))	274,420,900	24,671,063	39,769,667	5,971,837
C 22	<i>TOTAL FIXED COSTS</i>	Total of service columns	Sum(C19 C21)	282,101,678	25,546,101	40,837,163	6,114,170
<b>C 23</b>	<b>TOTAL VARIABLE, FIXED, AND SUPPORT COSTS</b>						
C 24	Total variable costs	Total of service columns	(C15)	154,223,600	13,907,862	22,680,000	3,412,800
C 25	Total fixed costs	Total of service columns	(C22)	282,101,678	25,546,101	40,837,163	6,114,170
C 26	Regional/central support costs	INPUT (TOTAL)	(C26Tot*(C25/C25Tot))	210,000	19,017	30,400	4,551
C 27	<i>TOTAL VARIABLE, FIXED AND SUPPORT COSTS</i>	Sum(C24 C26)	Sum(C24 C26)	436,535,278	39,472,980	63,547,562	9,531,521

## Sample Facility Spreadsheet (file name: Exp-FAC) Section C: Determining Costs

MCH/OBSTETRIC SERVICES			CURATIVE SERVICES		
DELIVERY	C-SECTION	GYNECOL VISIT (SPECIALIST)	MEDICAL VISIT MALARIA	MEDICAL VISIT DIARRHEA	LABORATORY SERVICES BLOOD SLIDE
0%	20%	20%	0%	0%	0%
0	200,000	4,000	0	0	0
0	0	0	0	0	0
1,500	57,100	0	2,320	5,050	0
0	0	0	0	0	0
37,400	171,080	1,120	0	0	590
38,900	428,180	5,120	2,320	5,050	590
0	12,000,000	8,000,000	0	0	0
0	0	0	0	0	0
540,000	3,426,000	0	18,560,000	5,050,000	0
0	0	0	0	0	0
13,464,000	10,264,800	2,240,000	0	0	4,720,000
14,004,000	25,690,800	10,240,000	18,560,000	5,050,000	4,720,000
635,616	87,198	226,448	2,519,262	314,908	888,889
661,423	131,638	107,023	694,577	86,822	0
1,297,038	218,837	333,472	3,213,839	401,730	888,889
0	56,000	0	0	0	0
25,198,166	44,369,900	18,015,180	36,282,287	9,234,248	9,654,196
26,495,204	44,644,737	18,348,651	39,496,126	9,635,978	10,543,085
14,004,000	25,690,800	10,240,000	18,560,000	5,050,000	4,720,000
26,495,204	44,644,737	18,348,651	39,496,126	9,635,978	10,543,085
19,723	33,234	13,659	29,401	7,173	7,848
40,518,928	70,368,771	28,602,310	58,085,528	14,693,151	15,270,933

## Sample Facility Spreadsheet (file name: Exp-FAC) Section D: Determining Revenue

<b>FACILITY SPREADSHEET</b> Date: 8/11/98 <b>Cost and Revenue Analysis Tool (CORE), MSH</b> File: C:\CORE\exp-FAC.xls\D. Revenue	Period: Currency: Facility:
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<b>D DETERMINING REVENUE</b>			TOTAL	FAMILY PLANNING SERVICES			
				TUBAL LIGATION	PILLS FIRST VISIT	IUD INSERTION	NORPLANT INSERTION
<b>D 1 GROSS REVENUE</b> CORE LINE REFERENCE AND FORMULA Total Column Formula    Service Column Formula							
D 2	Volume of services	Total of service columns (B3)	23,560	300	3,600	240	300
D 3	Unit fee/prce	No formula INPUT (SERVICE COL )		14,000	5,000	15,000	25,000
D 4	<b>TOTAL GROSS REVENUE</b>	Total of service columns (D2*D3)	373,100,000	4,200,000	18,000,000	3,600,000	7,500,000
<b>D 5 WAIVERS, DISCOUNTS, AND CASH DIFFERENCES</b>							
D 6	Waivers amount	Total of service columns INPUT (SERVICE COL )	3,880,000	0	0	0	0
D 7	Discounts amount	Total of service columns INPUT (SERVICE COL )	0	0	0	0	0
D 8	Cash differences	Total of service columns INPUT (SERVICE COL )	3,000,000	0	0	0	0
D 9	<b>TOTAL NET REVENUE</b>	Total of service columns (D4-(D6+D7+D8))	366,220,000	4,200,000	18,000,000	3,600,000	7,500,000
D 10	<b>NET REVENUE PER SERVICE</b>	No formula (D9/D2)		14,000	5,000	15,000	25,000

**Sample Facility Spreadsheet (file name: Exp-FAC)  
Section D: Determining Revenue**

MCH/OBSTETRIC SERVICES			CURATIVE SERVICES		
DELIVERY	C-SECTION	GYNECOL VISIT (SPECIALIST)	MEDICAL VISIT MALARIA	MEDICAL VISIT DIARRHEA	LABORATORY SERVICES BLOOD SLIDE
360	60	2,000	8,000	1,000	8,000
200,000	1,000,000	20,000	13,000	20,000	6,000
72,000,000	60,000,000	40,000,000	104,000,000	20,000,000	48,000,000
1,440,000	1,200,000	0	1,040,000	200,000	0
0	0	0	0	0	0
0	3,000,000	0	0	0	0
70,560,000	55,800,000	40,000,000	102,960,000	19,800,000	48,000,000
196,000	930,000	20,000	12,870	19,800	6,000



## Sample Facility Spreadsheet (file name: Exp-FAC) Section E: Determining Direct & Indirect Staff Costs

<b>FACILITY SPREADSHEET</b>	Date: 8/11/98	Period:	
<b>Cost and Revenue Analysis Tool (CORE), MSH</b>		Currency:	
File: C:\CORE\exp-FAC.xls\E Direct&Indirect Staff Costs		Facility:	

<b>E DETERMINING DIRECT &amp; INDIRECT STAFF COSTS</b>				TOTAL	FAMILY PLANNING SERVICES				
					TUBAL LIGATION	PILLS FIRST VISIT	IUD INSERTION	NORPLANT INSERTION	
<b>CORE LINE REFERENCE AND FORMULA</b>									
		Total Column Formula	Service Column Formula						
<b>1 DIRECT MINUTES PER SERVICE</b>									
E 2	Medical Specialist	No formula	INPUT	0	0	0	0	0	0
E 3	Medical Officer/Assistant Medical Officer	No formula	INPUT	23	0	0	0	0	0
E 4	Medical Assistant	No formula	INPUT	0	0	0	0	0	0
E 5	Nurse/Counselor	No formula	INPUT	78	10	20	0	0	0
E 6	Laboratory Technician	No formula	INPUT	0	0	0	0	0	7
E 7	Outside Laboratory Services	No formula	INPUT	0	0	0	0	0	0
E 8	Receptionist	No formula	INPUT	3	0	0	0	0	0
E 9	Driver	No formula	INPUT	0	0	0	0	0	0
E 10	Security	No formula	INPUT	0	0	0	0	0	0
E 11	Personnel Type Ten	No formula	INPUT	0	0	0	0	0	0
E 12	Personnel Type Eleven	No formula	INPUT	0	0	0	0	0	0
<b>13 TOTAL DIRECT MINUTES</b>									
		Minutes available F4i through F14i							
E 14	Medical Specialist	0	Total of service columns (B3*E2)	33,780	0	0	0	0	0
E 15	Medical Officer/Assistant Medical Officer	100,980	Total of service columns (B3*E3)	84,300	6,900	0	0	1,500	0
E 16	Medical Assistant	155,520	Total of service columns (B3*E4)	0	0	0	0	0	0
E 17	Nurse/Counselor	293,760	Total of service columns (B3*E5)	115,740	23,400	36,000	4,800	0	0
E 18	Laboratory Technician	108,000	Total of service columns (B3*E6)	186,100	0	0	0	2,100	0
E 19	Outside Laboratory Services	0	Total of service columns (B3*E7)	87,080	0	0	0	0	0
E 20	Receptionist	85,050	Total of service columns (B3*E8)	0	900	0	0	0	0
E 21	Driver	0	Total of service columns (B3*E9)	0	0	0	0	0	0
E 22	Security	0	Total of service columns (B3*E10)	0	0	0	0	0	0
E 23	Personnel Type Ten	0	Total of service columns (B3*E11)	0	0	0	0	0	0
E 24	Personnel Type Eleven	0	Total of service columns (B3*E12)	0	0	0	0	0	0
E 25	<b>TOTAL DIRECT MINUTES</b>	743,310	SUM(E14 E24)	507,000	31,200	36,000	4,800	3,600	0
<b>26 DIRECT COSTS</b>									
NOTE In the formulas below right, F4i through F14i refer to the AVERAGE SALARY PER HOUR column in Lines F4 through F14									
E 27	Medical Specialist		Total of service columns ((F4i/60)*E14)	0	0	0	0	0	0
E 28	Medical Officer/Assistant Medical Officer		Total of service columns ((F5i/60)*E15)	1,773,990	145,202	0	0	31,566	0
E 29	Medical Assistant		Total of service columns ((F6i/60)*E16)	0	0	0	0	0	0
E 30	Nurse/Counselor		Total of service columns ((F7i/60)*E17)	1,387,523	276,482	425,357	56,714	0	0
E 31	Laboratory Technician		Total of service columns ((F8i/60)*E18)	2,067,778	0	0	0	23,333	0
E 32	Outside Laboratory Services		Total of service columns ((F9i/60)*E19)	0	0	0	0	0	0
E 33	Receptionist		Total of service columns ((F10i/60)*E20)	0	3,833	0	0	0	0
E 34	Driver		Total of service columns ((F11i/60)*E21)	0	0	0	0	0	0
E 35	Security		Total of service columns ((F12i/60)*E22)	0	0	0	0	0	0
E 36	Personnel Type Ten		Total of service columns ((F13i/60)*E23)	0	0	0	0	0	0
E 37	Personnel Type Eleven		Total of service columns ((F14i/60)*E24)	0	0	0	0	0	0
E 38	<b>TOTAL DIRECT COSTS</b>		SUM(E27 E37)	5,209,291	425,517	425,357	56,714	54,899	0
<b>39 INDIRECT COSTS</b>									
NOTE In the formulas below left, F4h through F14h refer to the ANNUAL DIRECT SERVICE SALARY column in Lines F4 through F14									
E 40	Medical Specialist	(F4h-E27)	(E40 Tot*E27/E27 Tot)	0	0	0	0	0	0
E 41	Medical Officer/Assistant Medical Officer	(F5h-E28)	(E41 Tot*E28/E28 Tot)	351,010	28,730	0	0	6,246	0
E 42	Medical Assistant	(F6h-E29)	(E42 Tot*E29/E29 Tot)	858,000	0	0	0	0	0
E 43	Nurse/Counselor	(F7h-E30)	(E43 Tot*E30/E30 Tot)	2,064,477	417,390	642,139	85,619	0	0
E 44	Laboratory Technician	(F8h-E31)	(E44 Tot*E31/E31 Tot)	0	0	0	0	0	0
E 45	Outside Laboratory Services	(F9h-E32)	(E45 Tot*E32/E32 Tot)	0	0	0	0	0	0
E 46	Receptionist	(F10h-E33)	(E46 Tot*E33/E33 Tot)	423,500	0	0	0	0	0
E 47	Driver	(F11h-E34)	(E47 Tot*E34/E34 Tot)	0	0	0	0	0	0
E 48	Security	(F12h-E35)	(E48 Tot*E35/E35 Tot)	0	0	0	0	0	0
E 49	Personnel Type Ten	(F13h-E36)	(E49 Tot*E36/E36 Tot)	0	0	0	0	0	0
E 50	Personnel Type Eleven	(F14h-E37)	(E50 Tot*E37/E37 Tot)	0	0	0	0	0	0
E 51	<b>TOTAL INDIRECT COSTS</b>	SUM(E40 E50)	SUM(E40 E50)	3,694,987	446,121	642,139	85,619	6,246	0



Sample Facility Spreadsheet (file name: Exp-FAC)
Section E: Determining Direct & Indirect Staff Costs

Table with columns: MCH/OBSTETRIC SERVICES (DELIVERY, C-SECTION, GYNECOL VISIT (SPECIALIST)) and CURATIVE SERVICES (MEDICAL VISIT MALARIA, MEDICAL VISIT DIARRHEA, LABORATORY SERVICES BLOOD SLIDE). Rows contain numerical data for various categories, including a total row at the bottom.

## Sample Facility Spreadsheet (file name: Exp-FAC) Section F: Determining Staff Salary Costs

<b>FACILITY SPREADSHEET</b>	Date: 8/11/98	Period:
Cost and Revenue Analysis Tool (CORE), MSH	Currency:	Facility:
File: C:\CORE\exp-FAC.xls\F Staff Salary Costs		

F DETERMINING STAFF SALARY COSTS											
F	1 AVAILABLE WORK DAYS PER YEAR AT FACILITY		225								
F	2 HOURS PER SHIFT AT FACILITY		8								
F	3 HOURS PER YEAR AT FACILITY (STANDARD FULL-TIME SCHEDULE)		1800								
SALARY COSTS WORKSHEET											
SALARY PER HOUR To Section E, Direct and Indirect Staff Costs						DIRECT SERVICE SALARY COSTS To Section E, Direct and Indirect Staff Costs			ADMINISTRATIVE SALARY COSTS To Section G, Other Fixed Operating Costs		
	a	b	c	d	e	f	g	h	i	j	k
	NAME	PERCENT TIME WORKED (%)	HOURS WORKED PER YEAR	TOTAL ANNUAL SALARY	SALARY PER HOUR	AVERAGE SALARY PER HOUR	DIRECT SERVICE TIME (%)	ANNUAL DIRECT SERVICE SALARY	TOTAL DIRECT MINUTES AVAILABLE	ADMIN TIME (%)	ANNUAL ADMIN SALARY
	INPUT	INPUT	(F3*F4b)	INPUT	(F4d/F4c)	SUBTOTAL OF F4e DIVIDED BY NUMBER OF STAFF LISTED UNDER F4	INPUT	(F4d*F4g)	(F4c*F4g*60)	(1-F4g)	(F4d*F4j)
F	<b>4 Medical Specialist</b>										
	Dr A (Commission)		0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	<b>Personnel Type Total/Average</b>		0	0	0.00	0.00	0.00	0	0	0.00	0
F	<b>5 Medical Officer/Assistant Medical Officer</b>										
	Dr B	0.55	990	1,250,000	1262.63		0.90	1,125,000	53,460	0.10	125,000
	Dr C	0.44	792	1,000,000	1262.63		1.00	1,000,000	47,520	0.00	0
	<b>Personnel Type Total/Average</b>		1782	2,250,000	2525.25	1262.63	1.90	2,125,000	100,980	0.10	125,000
F	<b>6 Medical Assistant</b>										
	Ms D	1.00	1800	1,020,000	566.67		0.80	816,000	86,400	0.20	204,000
	Ms E	0.80	1440	50,000	34.72		0.80	40,000	69,120	0.20	10,000
	<b>Personnel Type Total/Average</b>		3240	1,070,000	601.39	300.69	1.60	856,000	155,520	0.40	214,000
F	<b>7 Nurse/Counselor</b>										
	Mr F	1.00	1800	1,090,000	605.56		0.80	872,000	86,400	0.20	218,000
	Ms G	1.00	1800	1,300,000	722.22		0.80	1,040,000	86,400	0.20	260,000
	Ms H	0.70	1260	950,000	753.97		0.80	760,000	60,480	0.20	190,000
	Ms J	0.70	1260	950,000	753.97		0.80	760,000	60,480	0.20	190,000
	<b>Personnel Type Total/Average</b>		6120	4,290,000	2835.71	708.93	3.20	3,432,000	293,760	0.80	858,000
F	<b>8 Laboratory Technician</b>										
	Mr K	1.00	1800	1,200,000	666.67		1.00	1,200,000	108,000	0.00	0
			0		0.00			0	0	0.00	0
	<b>Personnel Type Total/Average</b>		1800	1,200,000	666.67	666.67	1.00	1,200,000	108,000	0.00	0
F	<b>9 Outside Laboratory Services</b>										
	Lab Services Inc (Fee per Service)		0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	<b>Personnel Type Total/Average</b>		0	0	0.00	0.00	0.00	0	0	0.00	0
F	<b>10 Receptionist</b>										
	Ms L	1.00	1800	560,000	311.11		0.70	392,000	75,600	0.30	168,000
	Ms M	0.13	225	45,000	200.00		0.70	31,500	9,450	0.30	13,500
	<b>Personnel Type Total/Average</b>		2025	605,000	511.11	255.66	1.40	423,500	85,050	0.60	181,500

## Sample Facility Spreadsheet (file name: Exp-FAC) Section F: Determining Staff Salary Costs

SALARY COSTS WORKSHEET		SALARY PER HOUR					DIRECT SERVICE SALARY COSTS			ADMINISTRATIVE SALARY COSTS	
		To Section E, Direct and Indirect Staff Costs					To Section E, Direct and Indirect Staff Costs			To Section G, Other Fixed Operating Costs	
	a	b	c	d	e	f	g	h	i	j	k
	NAME	PERCENT TIME WORKED (%)	HOURS WORKED PER YEAR	TOTAL ANNUAL SALARY	SALARY PER HOUR	AVERAGE SALARY PER HOUR	DIRECT SERVICE TIME (%)	ANNUAL DIRECT SERVICE SALARY	TOTAL DIRECT MINUTES AVAILABLE	ADMIN. TIME (%)	ANNUAL ADMIN. SALARY
	INPUT	INPUT	(F3*F4b)	INPUT	(F4d/F4c)	SUBTOTAL OF F4e DIVIDED BY NUMBER OF STAFF LISTED UNDER F4	INPUT	(F4d*F4g)	(F4c*F4g*60)	(1-F4g)	(F4d*F4j)
F 11	Driver										
	Mr N	1.00	1800	450,000	250.00		0.00	0	0	1.00	450,000
			0		0.00			0	0	0.00	0
	<b>Personnel Type Total/Average</b>		1800	450,000	250.00	250.00	0.00	0	0	1.00	450,000
F 12	Security										
	Mr O	1.00	1800	300,000	166.67		0.00	0	0	1.00	300,000
			0		0.00			0	0	0.00	0
	<b>Personnel Type Total/Average</b>		1800	300,000	166.67	166.67	0.00	0	0	1.00	300,000
F 13	Personnel Type Ten										
			0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	<b>Personnel Type Total/Average</b>		0	0	0.00	0.00	0.00	0	0	0.00	0
F 14	Personnel Type Eleven										
			0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	<b>Personnel Type Total/Average</b>		0	0	0.00	0.00	0.00	0	0	0.00	0
F 15	<b>TOTAL DIRECT MINUTES AVAILABLE</b>								743,310		
F 16	<b>TOTAL DIRECT SERVICE SALARIES</b>							8,036,500			
F 17	<b>TOTAL ADMINISTRATIVE SALARIES</b>									2,128,500	



## Sample Facility Spreadsheet (file name: Exp-FAC) Section G: Determining Other Fixed Operating Costs

<b>FACILITY SPREADSHEET</b>	Date: 8/11/98	Period:
<b>Cost and Revenue Analysis Tool (CORE), MSH</b>	Currency:	Facility:
File: C:\CORE\exp-FAC.xls\G. Other Fixed Operating Costs		

<b>G</b>	<b>DETERMINING OTHER FIXED OPERATING COSTS</b>		<b>TOTAL</b>
	CORE LINE REFERENCE		
G 1	Administrative Salaries	(F17)	2,128,500
G 2	Personnel Welfare		6,000,000
G 3	Personnel Training		12,000
G 4	Rental of Premises		44,880,000
G 5	Accountancy/Legal Services		0
G 6	Advertising/Promotion		7,400,000
G 7	Health Education		0
G 8	Insurance		1,400,000
G 9	Leaflets		0
G 10	Office Supplies		6,960,000
G 11	Transport		12,000,000
G 12	Post/Telephone		6,000,000
G 13	Cleaning/Laundry		6,960,000
G 14	Utilities		3,600,000
G 15	Uniforms		5,000,000
G 16	Government Levy		0
G 17	Home Leave Transportation		8,300,000
G 18	Fuel/Vehicle Maintenance		16,800,000
G 19	Renovations		0
G 20	Office/Equipment Maintenance		0
G 21	Bank Charges		1,200,000
G 22			
G 23			0
G 24	Total depreciation expense	60,000	
G 25	Less depreciation on special equipment	(C20)	56,000
G 26	Total cost of medicines purchased/donated		30,000,000
G 27	Less cost of medicines used	(C12)	27,576,000
G 28	Total cost of contraceptives purchased/donated		180,000,000
G 29	Less cost of contraceptives used	(C13)	68,544,000
G 30	Total cost of clinical supplies purchased/donated		70,000,000
G 31	Less cost of clinical supplies used	(C14)	38,103,600
G 32	Other:		
G 33	<b>TOTAL OTHER FIXED OPERATING COSTS</b>		<b>274,420,900</b>

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## Sample Organization Spreadsheet (file name: Exp-ORG)

<b>ORGANIZATION SPREADSHEET</b>	Date: 8/11/98
Cost and Revenue Analysis Tool (CORE), MSH	Period:
File: C:\CORE\exp-ORG.xls\Organization Spreadsheet	Currency:

A. COST RECOVERY SUMMARY BY SERVICE CATEGORY		LINKED DATA FROM FACILITY SPREADSHEETS						
SERVICE CATEGORIES	CORE Line Reference	TOTAL ORGANIZATION	FACILITY 1	FACILITY 2	FACILITY 3	FACILITY 4	FACILITY 5	FACILITY 6
Family Planning Services	A27	14%	14%	0%	0%	0%	0%	0%
MCH/Obstetric Services	A31	119%	119%	0%	0%	0%	0%	0%
Curative Services	A35	194%	194%	0%	0%	0%	0%	0%

B. KEY INFORMATION SUMMARY		LINKED DATA FROM FACILITY SPREADSHEETS						
KEY INFORMATION	CORE Line Reference	TOTAL ORGANIZATION	FACILITY 1	FACILITY 2	FACILITY 3	FACILITY 4	FACILITY 5	FACILITY 6
Volume of Services This Period	A2	23,560	23,560	0	0	0	0	0
Average Costs per Service	A19	203,772	203,772	0	0	0	0	0
Average Net Revenue per Service	A21	136,630	136,630	0	0	0	0	0
Average Surplus/Loss per Service	A22	-67,142	-67,142	0	0	0	0	0
Average Percentage of Costs Recovered	A40	84%	84%	0%	0%	0%	0%	0%
Total Net Revenue	A37	366,220,000	366,220,000	0	0	0	0	0
Total Variable, Fixed, and Support Costs	A38	436,535,278	436,535,278	0	0	0	0	0
Total Surplus/Loss	A39	-70,315,278	-70,315,278	0	0	0	0	0

C. STAFF UTILIZATION SUMMARY		LINKED DATA FROM FACILITY SPREADSHEETS						
PERSONNEL TYPE	CORE Line Reference	TOTAL ORGANIZATION	FACILITY 1	FACILITY 2	FACILITY 3	FACILITY 4	FACILITY 5	FACILITY 6
Medical Specialist	A42	0%	0%	0%	0%	0%	0%	0%
Medical Officer/Assistant Medical Officer	A43	83%	83%	0%	0%	0%	0%	0%
Medical Assistant	A44	0%	0%	0%	0%	0%	0%	0%
Nurse/Counselor	A45	39%	39%	0%	0%	0%	0%	0%
Laboratory Technician	A46	172%	172%	0%	0%	0%	0%	0%
Outside Laboratory Services	A47	0%	0%	0%	0%	0%	0%	0%
Receptionist	A48	0%	0%	0%	0%	0%	0%	0%
Driver	A49	0%	0%	0%	0%	0%	0%	0%
Security	A50	0%	0%	0%	0%	0%	0%	0%
Personnel Type Ten	A51	0%	0%	0%	0%	0%	0%	0%
Personnel Type Eleven	A52	0%	0%	0%	0%	0%	0%	0%

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## Facility Spreadsheet Template (file name: FAC-V1) Section A: Summary of Key Information

<b>FACILITY SPREADSHEET</b> Date: 8/1/98 <b>Cost and Revenue Analysis Tool (CORE), MSH</b> File: C:\CORE\FAC-V1.xls\A Key Information Summary	Period: Currency: Facility:
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A SUMMARY OF KEY INFORMATION				TOTAL	Service A	Service B	Service C	Service D	Service E
CORE LINE REFERENCE AND FORMULA									
		Total Column Formula	Service Column Formula						
<b>A 1 SERVICE VOLUME</b>									
A 2	Volume of services this period	Total of service columns	(B3)	0	0	0	0	0	0
A 3	Service mix	Total of service columns	(A2/TOTAL OF A2)	0%	0 00%	0 00%	0 00%	0 00%	0 00%
<b>A 4 COSTS PER SERVICE</b>									
<b>A 5 VARIABLE COSTS</b>									
A 6	Commission	No formula	(C3)		0	0	0	0	0
A 7	Professional fees per service	No formula	(C4)		0	0	0	0	0
A 8	Medicine used	No formula	(C5)		0	0	0	0	0
A 9	Contraceptives used	No formula	(C6)		0	0	0	0	0
A 10	Clinical supplies used	No formula	(C7)		0	0	0	0	0
A 11	<b>TOTAL VARIABLE COSTS</b>	No formula	SUM(A6 A10)		0	0	0	0	0
<b>A 12 FIXED COSTS</b>									
A 13	Direct service staff costs	No formula	(C17/B3)		0	0	0	0	0
A 14	Indirect service staff costs	No formula	(C18/B3)		0	0	0	0	0
A 15	Depreciation on special equipment	No formula	(C20/B3)		0	0	0	0	0
A 16	Other fixed operating costs	No formula	(C21/B3)		0	0	0	0	0
A 17	<b>TOTAL FIXED COSTS</b>	No formula	SUM(A13 A16)		0	0	0	0	0
A 18	<b>REGIONAL/CENTRAL SUPPORT COSTS</b>	No formula	(C26/B3)		0 00	0 00	0 00	0 00	0 00
A 19	<b>TOTAL COSTS PER SERVICE</b>	Average of service columns	SUM(A11+A17+A18)	0	0	0	0	0	0
<b>A 20 REVENUE PER SERVICE</b>									
A 21	Net revenue per service	Average of service columns	(D10)	0	0	0	0	0	0
A 22	Surplus/loss per service	Average of service columns	(A21-A19)	0	0	0	0	0	0
<b>A 23 REVENUE AND COST RECOVERY FOR SERVICE CATEGORIES</b>									
<b>SERVICE CATEGORY ONE</b>									
A 24	Total net revenue	Subtotal of services by category	(D9)	0	0	0	0	0	0
A 25	Total variable, fixed, and support costs	Subtotal of services by category	(C27)	0	0	0	0	0	0
A 26	Total surplus/loss	(A24-A25)	(A24-A25)	0	0	0	0	0	0
A 27	Percentage of costs recovered	(A24/A25)	(A24/A25)	0%	0%	0%	0%	0%	0%
<b>SERVICE CATEGORY TWO</b>									
A 28	Total net revenue	Subtotal of services by category	(D9)	0	0	0	0	0	0
A 29	Total variable, fixed, and support costs	Subtotal of services by category	(C27)	0	0	0	0	0	0
A 30	Total surplus/loss	(A28-A29)	(A28-A29)	0	0	0	0	0	0
A 31	Percentage of costs recovered	(A28/A29)	(A28/A29)	0%	0%	0%	0%	0%	0%
<b>SERVICE CATEGORY THREE</b>									
A 32	Total net revenue	Subtotal of services by category	(D9)	0	0	0	0	0	0
A 33	Total variable, fixed, and support costs	Subtotal of services by category	(C27)	0	0	0	0	0	0
A 34	Total surplus/loss	(A32-A33)	(A32-A33)	0	0	0	0	0	0
A 35	Percentage of costs recovered	(A32/A33)	(A32/A33)	0%	0%	0%	0%	0%	0%
<b>A 36 TOTAL REVENUE AND COST RECOVERY FOR THE FACILITY</b>									
A 37	Total net revenue	Total of service columns	(D9)	0	0	0	0	0	0
A 38	Total variable, fixed, and support costs	Total of service columns	(C27)	0	0	0	0	0	0
A 39	Total surplus/loss	(A37-A38)	(A37-A38)	0	0	0	0	0	0
A 40	Percentage of costs recovered	(A37/A38)	(A37/A38)	0%	0%	0%	0%	0%	0%
<b>A 41 STAFF UTILIZATION FOR DIRECT SERVICE DELIVERY</b>									
A 42	Personnel Type One	E14/F4i	No formula	0%					
A 43	Personnel Type Two	E15/F5i	No formula	0%					
A 44	Personnel Type Three	E16/F6i	No formula	0%					
A 45	Personnel Type Four	E17/F7i	No formula	0%					
A 46	Personnel Type Five	E18/F8i	No formula	0%					
A 47	Personnel Type Six	E19/F9i	No formula	0%					
A 48	Personnel Type Seven	E20/F10i	No formula	0%					
A 49	Personnel Type Eight	E21/F11i	No formula	0%					
A 50	Personnel Type Nine	E22/F12i	No formula	0%					
A 51	Personnel Type Ten	E23/F13i	No formula	0%					
A 52	Personnel Type Eleven	E24/F14i	No formula	0%					

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# Facility Spreadsheet Template (file name: FAC-V1) Section B: Determining Service Volume

<b>FACILITY SPREADSHEET</b>	Date 8/11/98	Period:
<b>Cost and Revenue Analysis Tool (CORE), MSH</b>		Currency:
File: C:\CORE\FAC-V1.xls\B Service Volume		Facility:

B DETERMINING SERVICE VOLUME		TOTAL	Service A	Service B	Service C	Service D	Service E
NOTE: Lines B1 and B2 are included for reference only, and are not used in any calculations.							
	CORE LINE REFERENCE AND FORMULA						
	Total Column Formula						
	Service Column Formula						
B 1	Actual volume of services from previous period Total of service columns	0	0	0	0	0	0
B 2	Maximum demand for services for this period Total of service columns	0	0	0	0	0	0
B 3	Volume of services for this period Total of service columns	0	0	0	0	0	0





## Facility Spreadsheet Template (file name: FAC-V1) Section D: Determining Revenue

FACILITY SPREADSHEET	Date: 8/11/98	Period:	
Cost and Revenue Analysis Tool (CORE), MSH		Currency:	
File: C:\CORE\FAC-V1.xls\	D Revenue	Facility:	

D DETERMINING REVENUE			TOTAL	Service A	Service B	Service C	Service D	Service E
		CORE LINE REFERENCE AND FORMULA						
		Total Column Formula   Service Column Formula						
D	<b>1 GROSS REVENUE</b>							
D	2 Volume of services	Total of service columns (B3)	0	0	0	0	0	0
D	3 Unit fee/prce	No formula   INPUT (SERVICE COL )		0	0	0	0	0
D	4 <b>TOTAL GROSS REVENUE</b>	Total of service columns (D2*D3)	0	0	0	0	0	0
D	<b>5 WAIVERS, DISCOUNTS, AND CASH DIFFERENCES</b>							
D	6 Waivers amount	Total of service columns   INPUT (SERVICE COL )	0	0	0	0	0	0
D	7 Discounts amount	Total of service columns   INPUT (SERVICE COL )	0	0	0	0	0	0
D	8 Cash differences	Total of service columns   INPUT (SERVICE COL )	0	0	0	0	0	0
D	9 <b>TOTAL NET REVENUE</b>	Total of service columns (D4-(D6+D7+D8))	0	0	0	0	0	0
D	<b>10 NET REVENUE PER SERVICE</b>	No formula   (D9/D2)		0	0	0	0	0



## Facility Spreadsheet Template (file name: FAC-V1) Section E: Determining Direct & Indirect Staff Costs

FACILITY SPREADSHEET	Date: 8/11/98	Period:
Cost and Revenue Analysis Tool (CORE), MSH		Currency:
File: C:\CORE\FAC-V1.xls\E Direct&Indirect Staff Costs		Facility:

E DETERMINING DIRECT & INDIRECT STAFF COSTS				TOTAL	Service A	Service B	Service C	Service D	Service E
CORE LINE REFERENCE AND FORMULA									
		Total Column Formula	Service Column Formula						
<b>1 DIRECT MINUTES PER SERVICE</b>									
E 2	Personnel Type One	No formula	INPUT		0	0	0	0	0
E 3	Personnel Type Two	No formula	INPUT		0	0	0	0	0
E 4	Personnel Type Three	No formula	INPUT		0	0	0	0	0
E 5	Personnel Type Four	No formula	INPUT		0	0	0	0	0
E 6	Personnel Type Five	No formula	INPUT		0	0	0	0	0
E 7	Personnel Type Six	No formula	INPUT		0	0	0	0	0
E 8	Personnel Type Seven	No formula	INPUT		0	0	0	0	0
E 9	Personnel Type Eight	No formula	INPUT		0	0	0	0	0
E 10	Personnel Type Nine	No formula	INPUT		0	0	0	0	0
E 11	Personnel Type Ten	No formula	INPUT		0	0	0	0	0
E 12	Personnel Type Eleven	No formula	INPUT		0	0	0	0	0
<b>13 TOTAL DIRECT MINUTES</b>									
		Minutes available F4i through F14i							
E 14	Personnel Type One	Total of service columns (B3'E2)		0	0	0	0	0	0
E 15	Personnel Type Two	Total of service columns (B3'E3)		0	0	0	0	0	0
E 16	Personnel Type Three	Total of service columns (B3'E4)		0	0	0	0	0	0
E 17	Personnel Type Four	Total of service columns (B3'E5)		0	0	0	0	0	0
E 18	Personnel Type Five	Total of service columns (B3'E6)		0	0	0	0	0	0
E 19	Personnel Type Six	Total of service columns (B3'E7)		0	0	0	0	0	0
E 20	Personnel Type Seven	Total of service columns (B3'E8)		0	0	0	0	0	0
E 21	Personnel Type Eight	Total of service columns (B3'E9)		0	0	0	0	0	0
E 22	Personnel Type Nine	Total of service columns (B3'E10)		0	0	0	0	0	0
E 23	Personnel Type Ten	Total of service columns (B3'E11)		0	0	0	0	0	0
E 24	Personnel Type Eleven	Total of service columns (B3'E12)		0	0	0	0	0	0
E 25	<b>TOTAL DIRECT MINUTES</b>	SUM(E14 E24)	SUM(E14 E24)	0	0	0	0	0	0
<b>26 DIRECT COSTS</b>									
NOTE: In the formulas below right, F4i through F14i refer to the AVERAGE SALARY PER HOUR column in Lines F4 through F14									
E 27	Personnel Type One	Total of service columns ((F4/60)*E14)		0	0	0	0	0	0
E 28	Personnel Type Two	Total of service columns ((F5/60)*E15)		0	0	0	0	0	0
E 29	Personnel Type Three	Total of service columns ((F6/60)*E16)		0	0	0	0	0	0
E 30	Personnel Type Four	Total of service columns ((F7/60)*E17)		0	0	0	0	0	0
E 31	Personnel Type Five	Total of service columns ((F8/60)*E18)		0	0	0	0	0	0
E 32	Personnel Type Six	Total of service columns ((F9/60)*E19)		0	0	0	0	0	0
E 33	Personnel Type Seven	Total of service columns ((F10/60)*E20)		0	0	0	0	0	0
E 34	Personnel Type Eight	Total of service columns ((F11/60)*E21)		0	0	0	0	0	0
E 35	Personnel Type Nine	Total of service columns ((F12/60)*E22)		0	0	0	0	0	0
E 36	Personnel Type Ten	Total of service columns ((F13/60)*E23)		0	0	0	0	0	0
E 37	Personnel Type Eleven	Total of service columns ((F14/60)*E24)		0	0	0	0	0	0
E 38	<b>TOTAL DIRECT COSTS</b>	SUM(E27 E37)	SUM(E27 E37)	0	0	0	0	0	0
<b>39 INDIRECT COSTS</b>									
NOTE: In the formulas below left, F4h through F14h refer to the ANNUAL DIRECT SERVICE SALARY column in Lines F4 through F14									
E 40	Personnel Type One	(F4h-E27)	(E40 Tot*E27/E27 Tot)	0	0	0	0	0	0
E 41	Personnel Type Two	(F5h-E28)	(E41 Tot*E28/E28 Tot)	0	0	0	0	0	0
E 42	Personnel Type Three	(F6h-E29)	(E42 Tot*E29/E29 Tot)	0	0	0	0	0	0
E 43	Personnel Type Four	(F7h-E30)	(E43 Tot*E30/E30 Tot)	0	0	0	0	0	0
E 44	Personnel Type Five	(F8h-E31)	(E44 Tot*E31/E31 Tot)	0	0	0	0	0	0
E 45	Personnel Type Six	(F9h-E32)	(E45 Tot*E32/E32 Tot)	0	0	0	0	0	0
E 46	Personnel Type Seven	(F10h-E33)	(E46 Tot*E33/E33 Tot)	0	0	0	0	0	0
E 47	Personnel Type Eight	(F11h-E34)	(E47 Tot*E34/E34 Tot)	0	0	0	0	0	0
E 48	Personnel Type Nine	(F12h-E35)	(E48 Tot*E35/E35 Tot)	0	0	0	0	0	0
E 49	Personnel Type Ten	(F13h-E36)	(E49 Tot*E36/E36 Tot)	0	0	0	0	0	0
E 50	Personnel Type Eleven	(F14h-E37)	(E50 Tot*E37/E37 Tot)	0	0	0	0	0	0
E 51	<b>TOTAL INDIRECT COSTS</b>	SUM(E40 E50)	SUM(E40 E50)	0	0	0	0	0	0

## Facility Spreadsheet Template (file name: FAC-V1) Section F: Determining Staff Salary Costs

<b>FACILITY SPREADSHEET</b> Cost and Revenue Analysis Tool (CORE), MSH File: C:\CORE\FAC-V1.xls\F Staff Salary Costs	Date: 8/11/98	Period:	Currency:
		Facility:	

<b>F DETERMINING STAFF SALARY COSTS</b>											
F	1 AVAILABLE WORK DAYS PER YEAR AT FACILITY	0									
F	2 HOURS PER SHIFT AT FACILITY	0									
F	3 HOURS PER YEAR AT FACILITY (STANDARD FULL-TIME SCHEDULE)	0									
<b>SALARY COSTS WORKSHEET</b>											
SALARY PER HOUR To Section E, Direct and Indirect Staff Costs						DIRECT SERVICE SALARY COSTS To Section E, Direct and Indirect Staff Costs			ADMINISTRATIVE SALARY COSTS To Section G, Other Fixed Operating Costs		
	a	b	c	d	e	f	g	h	i	j	k
	NAME	PERCENT TIME WORKED (%)	HOURS WORKED PER YEAR	TOTAL ANNUAL SALARY	SALARY PER HOUR	AVERAGE SALARY PER HOUR	DIRECT SERVICE TIME (%)	ANNUAL DIRECT SERVICE SALARY	TOTAL DIRECT MINUTES AVAILABLE	ADMIN TIME (%)	ANNUAL ADMIN SALARY
	INPUT	INPUT	(F3*F4b)	INPUT	(F4d/F4c)	SUBTOTAL OF F4e DIVIDED BY NUMBER OF STAFF LISTED UNDER F4	INPUT	(F4d*F4g)	(F4c*F4g*60)	(1-F4g)	(F4d*F4)
F	4 Personnel Type One										
			0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	Personnel Type Total/Average		0	0	0.00	0.00	0.00	0	0	0.00	0
F	5 Personnel Type Two										
			0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	Personnel Type Total/Average		0	0	0.00	0.00	0.00	0	0	0.00	0
F	6 Personnel Type Three										
			0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	Personnel Type Total/Average		0	0	0.00	0.00	0.00	0	0	0.00	0
F	7 Personnel Type Four										
			0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	Personnel Type Total/Average		0	0	0.00	0.00	0.00	0	0	0.00	0
F	8 Personnel Type Five										
			0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	Personnel Type Total/Average		0	0	0.00	0.00	0.00	0	0	0.00	0
F	9 Personnel Type Six										
			0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	Personnel Type Total/Average		0	0	0.00	0.00	0.00	0	0	0.00	0
F	10 Personnel Type Seven										
			0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	Personnel Type Total/Average		0	0	0.00	0.00	0.00	0	0	0.00	0
F	11 Personnel Type Eight										
			0		0.00			0	0	0.00	0
			0		0.00			0	0	0.00	0
	Personnel Type Total/Average		0	0	0.00	0.00	0.00	0	0	0.00	0

## Facility Spreadsheet Template (file name: FAC-V1) Section F: Determining Staff Salary Costs

SALARY COSTS WORKSHEET							DIRECT SERVICE SALARY COSTS			ADMINISTRATIVE SALARY COSTS	
To Section E, Direct and Indirect Staff Costs							To Section E, Direct and Indirect Staff Costs			To Section G, Other Fixed Operating Costs	
a	b	c	d	e	f	g	h	i	j	k	
NAME	PERCENT TIME WORKED (%)	HOURS WORKED PER YEAR	TOTAL ANNUAL SALARY	SALARY PER HOUR	AVERAGE SALARY PER HOUR	DIRECT SERVICE TIME (%)	ANNUAL DIRECT SERVICE SALARY	TOTAL DIRECT MINUTES AVAILABLE	ADMIN TIME (%)	ANNUAL ADMIN SALARY	
INPUT	INPUT	(F3*F4b)	INPUT	(F4d/F4c)	SUBTOTAL OF F4e DIVIDED BY NUMBER OF STAFF LISTED UNDER F4	INPUT	(F4d*F4g)	(F4c*F4g*60)	(1-F4g)	(F4d*F4j)	
F 12 Personnel Type Nine		0		0.00			0	0	0.00	0	
		0		0.00			0	0	0.00	0	
Personnel Type Total/Average		0	0	0.00	0.00	0.00	0	0	0.00	0	
F 13 Personnel Type Ten		0		0.00			0	0	0.00	0	
		0		0.00			0	0	0.00	0	
Personnel Type Total/Average		0	0	0.00	0.00	0.00	0	0	0.00	0	
F 14 Personnel Type Eleven		0		0.00			0	0	0.00	0	
		0		0.00			0	0	0.00	0	
Personnel Type Total/Average		0	0	0.00	0.00	0.00	0	0	0.00	0	
F 15 TOTAL DIRECT MINUTES AVAILABLE									0		
F 16 TOTAL DIRECT SERVICE SALARIES								0			
F 17 TOTAL ADMINISTRATIVE SALARIES											

## Facility Spreadsheet Template (file name: FAC-V1) Section G: Determining Other Fixed Operating Costs

<b>FACILITY SPREADSHEET</b>	Date: 8/11/98	Period:
Cost and Revenue Analysis Tool (CORE), MSH		Currency:
File: C:\CORE\FAC-V1.xls\G Other Fixed Operating Costs		Facility:

<b>G</b>	<b>DETERMINING OTHER FIXED OPERATING COSTS</b>	<b>TOTAL</b>
	<u>CORE LINE REFERENCE</u>	
	(F17)	
G 1	Administrative Salaries	0
G 2	Budget Line Item -	0
G 3	Budget Line Item	0
G 4	Budget Line Item	0
G 5		0
G 6		0
G 7		0
G 8		0
G 9		0
G 10		0
G 11		0
G 12		0
G 13		0
G 14		0
G 15		0
G 16		0
G 17		0
G 18		0
G 19		0
G 20		0
G 21		0
G 22		0
G 23		0
G 24	Total depreciation expense	0
G 25	Less depreciation on special equipment (C20)	0
G 26	Total cost of medicines purchased/donated	0
G 27	Less cost of medicines used (C12)	0
G 28	Total cost of contraceptives purchased/donated	0
G 29	Less cost of contraceptives used (C13)	0
G 30	Total cost of clinical supplies purchased/donated	0
G 31	Less cost of clinical supplies used (C14)	0
G 32	Other:	0
G 33	<b>TOTAL OTHER FIXED OPERATING COSTS</b>	<b>0</b>



## Organization Spreadsheet Template (file name: ORG-V1)

<b>ORGANIZATION SPREADSHEET</b>	Date: 8/11/98
Cost and Revenue Analysis Tool (CORE), MSH	Period:
File: C:\CORE\ORG-V1.xls\Organization Spreadsheet	Currency:

SERVICE CATEGORIES	CORE Line Reference	TOTAL ORGANIZATION	FACILITY 1	FACILITY 2	FACILITY 3	FACILITY 4	FACILITY 5	FACILITY 6
Service Category One	A27	0%	0%	0%	0%	0%	0%	0%
Service Category Two	A31	0%	0%	0%	0%	0%	0%	0%
Service Category Three	A35	0%	0%	0%	0%	0%	0%	0%

KEY INFORMATION	CORE Line Reference	TOTAL ORGANIZATION	FACILITY 1	FACILITY 2	FACILITY 3	FACILITY 4	FACILITY 5	FACILITY 6
Volume of Services This Period	A2	0	0	0	0	0	0	0
Average Costs per Service	A19	0	0	0	0	0	0	0
Average Net Revenue per Service	A21	0	0	0	0	0	0	0
Average Surplus/Loss per Service	A22	0	0	0	0	0	0	0
Average Percentage of Costs Recovered	A40	0%	0%	0%	0%	0%	0%	0%
Total Net Revenue	A37	0	0	0	0	0	0	0
Total Variable, Fixed, and Support Costs	A38	0	0	0	0	0	0	0
Total Surplus/Loss	A39	0	0	0	0	0	0	0

PERSONNEL TYPE	CORE Line Reference	TOTAL ORGANIZATION	FACILITY 1	FACILITY 2	FACILITY 3	FACILITY 4	FACILITY 5	FACILITY 6
Personnel Type One	A42	0%	0%	0%	0%	0%	0%	0%
Personnel Type Two	A43	0%	0%	0%	0%	0%	0%	0%
Personnel Type Three	A44	0%	0%	0%	0%	0%	0%	0%
Personnel Type Four	A45	0%	0%	0%	0%	0%	0%	0%
Personnel Type Five	A46	0%	0%	0%	0%	0%	0%	0%
Personnel Type Six	A47	0%	0%	0%	0%	0%	0%	0%
Personnel Type Seven	A48	0%	0%	0%	0%	0%	0%	0%
Personnel Type Eight	A49	0%	0%	0%	0%	0%	0%	0%
Personnel Type Nine	A50	0%	0%	0%	0%	0%	0%	0%
Personnel Type Ten	A51	0%	0%	0%	0%	0%	0%	0%
Personnel Type Eleven	A52	0%	0%	0%	0%	0%	0%	0%