

chapter 7 Conducting the Client-Flow Analysis

This chapter is aimed at external facilitators and site facilitators.

Client-Flow Analysis (CFA)* is a method for analyzing how clients move through a health care facility while receiving various outpatient services. CFA measures clients' contact time with different service providers, while at the same time measuring staff utilization. This chapter describes how to conduct the CFA, how to analyze and interpret the CFA's results, and how to relate those results to the facility's Action Plan.

Objectives

After reading this chapter, you should be able to:

- Conduct the CFA
- Help staff analyze the findings, interpret the results, and record them on the Action Plan

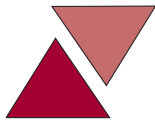
Preparing for the CFA

CFA is used to analyze client flow in various outpatient services at the facility. For example, a CFA of reproductive health services may include family planning, antenatal care, child welfare, and outpatient obstetric and gynecological services, as well as counseling, testing, and treatment services related to sexually transmitted infections (STIs), HIV, and AIDS.

Sites may choose to simplify or limit the CFA by tracking all clients who enter the facility at a single entry point, rather than at multiple entry points. For example, facilities may track only those clients who enter the maternal and child health (MCH) clinic rather than those entering the outpatient department and the MCH and STI clinics. Still, because these same clients may pass through multiple service areas before leaving the facility, all staff having direct contact with clients in all relevant areas need to be informed in advance and involved in the CFA.

Before conducting the CFA, facilitators should tour the facility to become familiar with the different entry points.

* COPE's Client-Flow Analysis tool was adapted from a computerized patient-flow analysis developed by the Family Planning Evaluation Division, U.S. Centers for Disease Control and Prevention (Graves et al., 1981). EngenderHealth simplified and redesigned this tool to encourage self-assessment and staff involvement.



Troubleshooting Tip

IF: *A CFA will be done...*

Strongly advise the facility manager to skip the Self-Assessment Guides—while retaining the client interviews—in the exercise. It would be overwhelming for staff to review the prior Action Plan and use all of the tools to identify new problems in one exercise. However, it is important to include client interviews in every COPE exercise, to reinforce the staff’s focus on their clients. If the facility manager wishes to use the Self-Assessment Guides, recommend that they be done on a different day from the CFA, to avoid getting atypical data due to staff time being spent working on those tools.

Figure 7-1. Sample Schedule for Follow-Up COPE Exercise with CFA

Day 1

Morning—Initiating the Exercise

- ◆ Meet with staff (approximately 2 to 3 hours)
 - ◆ Review the Action Plan
 - ◆ Explain CFA and make plans to conduct it the next day
 - ◆ Review the Client-Interview Guide

Afternoon—Conducting the Client Interviews

- ◆ Conduct the client interviews
- ◆ Prepare the Client-Interview Action Plan

} Carried out during routine work hours, at the staff’s convenience

Day 2

Morning—Collecting CFA Data*

- ◆ Collect data for CFA during clinic session

} Carried out during routine work hours, at the staff’s convenience

Afternoon—Analyzing CFA Data and Preparing the Action Plan

- ◆ Graph and chart the CFA data collected
- ◆ Perform preliminary analysis of CFA findings
- ◆ Prepare the CFA Action Plan

} Carried out during routine work hours, at the staff’s convenience

Day 3

Morning—Finalizing the Action Plans

- ◆ Finalize the Client-Interview and CFA Action Plans

} Carried out during routine work hours, at the staff’s convenience

Morning or Afternoon—Presenting the Action Plan

- ◆ Hold the Action Plan Meeting with all participants (approximately 2 to 3 hours)

*CFA data collection can be done at other times, to assess client flow at different times of day, during different shifts or clinic sessions, or on different days of the week. However, for results to be typical, CFA should take place on a “normal” day of service delivery.

Selecting Participants for the CFA

Staff from all departments being covered should be involved in the CFA. Before the initial CFA meeting, facilitators should meet with the facility manager to identify the staff members who will be responsible for collecting and analyzing information during the CFA, including:

- The first staff member who has contact with clients at the facility—often a doorman, guard, receptionist, or clerk in any of the services to be covered (Sometimes, a staff member is assigned to perform this function specifically for CFA. If so, he or she should not be someone who would otherwise be serving clients in the service being analyzed.)
- The first staff member who discusses a client’s reason for the visit
- Any staff member who conducts group education sessions for clients
- Any staff member who has service contact with clients during their visit
- The last staff member who has direct contact with clients before they leave the facility
- Any other staff member who will be responsible for graphing or conducting a preliminary analysis of the information collected

Adapting CFA Tools

The CFA tools may need to be adapted to suit a facility’s needs. The examples used here are from the Reproductive Health Toolbook, but they can be adapted to any type of service. CFA tools that were developed for outpatient services may be adapted for inpatient services (such as a ward analysis, to measure the time staff spend with each inpatient on a ward in a given time period). However, multiple shifts of staff will need to know how to use the CFA forms.

Scheduling the CFA

Follow-up COPE exercises will take three days if CFA is done. CFA requires data collection during one clinic session, shift, or day. The length of the session will depend on the circumstances at individual facilities.

Work with the facility manager to review the schedule in Figure 7-1 and set a time for the follow-up exercise, including the CFA.

Preparing the Materials for the CFA

Figure 3-1 in Chapter 3 provides a list of the materials needed for self-assessment, client interviews, and the Action Plan Meeting. Figure 7-2 provides a list of the additional materials needed to conduct the CFA.

Figure 7-2. Supplies Needed for the CFA

- | | |
|---|--|
| <ul style="list-style-type: none">▪ Ruler▪ Calculator▪ Wristwatches or clocks that are synchronized▪ 50 copies of the Client Register Form*▪ 3 copies of the Client-Flow Chart* | <ul style="list-style-type: none">▪ 1 copy of the Client-Flow Chart Summary*▪ Up to 5 large sheets of graph paper▪ Colored pens or pencils for graphing client flow <p><small>*Provided in the COPE toolbooks.</small></p> |
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Conducting the CFA: Detailed Steps

❖ ————— Conducting the CFA: Summary of Meeting Topics —————

Topic	Minimum Time Required
Topic 1: Describing CFA _____	20 minutes
Topic 2: Using the Client Register Form _____	20 minutes
Topic 3: Summarizing and graphing the results _____	40 minutes
Topic 4: Analyzing and recording findings on the Action Plan _____	10 minutes
Total minimum time required _____	1 hour, 30 minutes

Topic 1: Describing CFA

Offering an Overview of CFA (*Flipchart 21*)

1. After reviewing topics 1 to 6 of the second COPE exercise (see Chapter 6), provide an overview of how CFA works (*Flipchart 21*, Appendix E).
2. Explain that CFA is a method of tracking client flow through a facility and measuring the contact time that clients have with all of the different staff whom they see during their visit.
3. Note that for the CFA:
 - Sites collect data during one day or clinic session to identify potential areas for improvement
 - Staff members graph and analyze the data and incorporate their findings into the Action Plan
 - Sites use CFA only if they have identified waiting time or staff utilization as a problem during a previous COPE exercise
4. Explain the benefits of CFA:
 - By visually demonstrating how client and staff time are used, the graphs and charts allow rapid evaluation of client flow.
 - Like other COPE tools, CFA reveals some of the strengths and weaknesses in a facility's operations.
 - CFA is relatively simple to conduct, interpret, and use, and it can be performed as often as needed.
 - If a client-flow problem has been identified at the facility, using CFA can lead to:
 - ▲ Reduced staff and client waiting times
 - ▲ A more evenly distributed workload for each staff member
 - ▲ Reduced personnel costs
 - ▲ Increased efficiency, allowing staff to serve more clients
5. Discuss what CFA can and cannot do. To help the participants understand the breadth and limitations of CFA, you may either:
 - Show Figure 7-3
 - Review the points made in Figure 7-3 for your own understanding and explain them to the staff as needed (particularly when the staff are analyzing the data they have gathered)

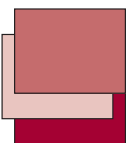


Figure 7-3. What CFA Can and Cannot Do

CFA Can...	CFA Cannot...
<ul style="list-style-type: none"> ■ Identify bottlenecks ■ Identify lapses in client contact time ■ Identify missed contacts ■ Identify unscheduled client contacts ■ Provide personnel cost estimates* ■ Measure client waiting time ■ Measure client time spent at each contact ■ Demonstrate the effect of changes in facility operations on client flow ■ Demonstrate the existence of linkages between services within a facility 	<ul style="list-style-type: none"> ■ Provide the best solution for the bottleneck ■ Explain what staff were doing during that time ■ Explain why contacts were missed ■ Tell why extra contacts were made ■ Tell whether personnel costs are reasonable* ■ Tell whether these waits are reasonable ■ Judge the quality of care at each contact ■ Judge whether the effect is a desired one ■ Judge whether those linkages are sufficient to ensure that clients receive all of the care they may need

* If used together with the Cost-Analysis Tool.

6. Emphasize that while CFA is useful for gathering data, interpreting these data requires the staff’s judgment and expertise.

Presenting an Overview of the Steps of CFA

1. Describe the four main steps of CFA:
 - Collecting data, including completing the Client Register Form
 - Summarizing and graphing the results, including completing:
 - ▲ The Client-Flow Chart and Summary (adding up client contact time and waiting time)
 - ▲ The Client-Flow Graph (clients’ time)
 - ▲ The Staff-Utilization Graph
 - Interpreting the results
 - Analyzing and recording findings on the Action Plan
2. Explain that you will be observing staff carry out each step of the CFA process, and that you will offer assistance, as needed.

Describing Data Collection

1. Explain that CFA data may be collected at different times of the day, during different shifts or clinic sessions, or on different days of the week. However, data should be collected on a “normal” service-delivery day—not, for example, at a time of year when most staff are on leave.
2. Emphasize that data collection is simple and requires only a few seconds of staff time at the beginning and end of their contact with each client during one or more specified clinic sessions. (Flipchart 21, in Appendix E, summarizes the key instructions for data collection.)
3. Note that the staff should analyze client flow for no more than 50 clients. This is because

the staff will learn a lot from analyzing the flow of 30 to 50 clients, but any more will be too time-consuming to analyze. Once the staff have learned how to do CFA, they can repeat it at a future time to learn more about the facility.

Topic 2: Using the Client Register Form

Presenting the Client Register Form

1. Explain that the Client Register Form is used to collect information about a client's entry and exit times, the amount of time the client spends with each staff member, and the reason for the visit (see Appendix A for a sample completed Client Register Form). Depending on the service being analyzed, additional details, such as contraceptive method, may be tracked for family planning clients.
2. Distribute copies of the sample form for the participants to review while you explain how to complete it.

Preparing the Client Register Form

1. Before data collection begins, explain that the participants should number the Client Register Forms consecutively in the "Client number" space provided on the form and enter the date of the session in the appropriate spaces.
2. Note that if the facility routinely provides any services that are not listed under "Service Type" on the sample form, these should be added to the form.
3. Observe that if there are two or more entry points for clients, the participants should use a different numbering system for the "client number" space on the forms distributed at each entry point (for example, A1, A2, A3, etc., in the outpatient department, and B1, B2, B3, etc., in the family planning clinic).
4. Comment that some facilities may choose to compare client flow for two different sessions (for example, they may choose to follow the first 20 clients during the morning session and then the first 20 clients during the afternoon session). Discuss with the participants what they think is most important to analyze (and what days and times clients have to wait the longest before receiving services).
5. Synchronize all clocks and watches.

Completing the Client Register Form

1. Note that the staff member who sees a client first upon his or her arrival at the facility (for example, a doorman, guard, receptionist, or clerk in any of the services to be covered) should give the form to each client in numerical order as the clients arrive. This staff member should note each client's time of arrival on the form (under "Time client arrived at the facility") and then give the form to the client.
2. Explain that as the staff person hands the form to the client, he or she should say, "Today we are doing an exercise to measure the time that clients spend getting services at our facility. Please carry this form with you during your entire visit today. Present this form to each staff member you have contact with, and leave the form with the last staff member who sees you today."
3. Caution that if the facility will be collecting information about all clients who come to the facility during that session, the staff member distributing the forms should check periodically to see how many numbered forms are left, so that more forms can be prepared, if needed.

4. Explain that each staff member who has contact with clients should:
 - Enter his or her initials (or a previously determined unique identification code, if some staff share the same initials) under “Staff member’s initials” on the appropriate line (For example, the first staff member uses the line for “First contact,” the next uses the line for “Second contact,” and so on.)
 - Log in the exact time when the client contact begins under “Time service started,” and log in the exact time when the client contact ends, under “Time service completed” (If contact is less than one minute, a full minute should be entered.)
 - Calculate the amount of time the client spent in contact with a staff member (in minutes) by subtracting “Time service started” from “Time service completed,” and enter this figure under “Contact time” (If it is not possible to do this during the session, it may be added later.)
 - Give the form back to the client (unless this is the last contact)
5. Explain that the first staff member with whom a client discusses the *primary reason* for his or her visit should enter this information under “Service type,” using the service codes listed. This staff member should also enter whether the client is male or female (under “sex”) and whether the visit is a first visit or a follow-up visit *for the primary service* (under “visit timing”).
6. Comment that there may be additional reasons why the client has come to see a provider. If so, these should be entered on the form under “Secondary reason for visit,” using the same service codes. (This is important information to have when analyzing total time spent during the client visit.)
7. Explain that any other important information about the client’s visit (for example, if the client leaves the clinic without completing the visit) should be noted on the form under “Comments.”
8. Observe that if clients attend a group education session, the staff member responsible for conducting the session should enter the beginning and ending time of the session on each client’s form.
9. Clarify that the last staff member who has contact with clients should collect the form. This staff member should give all completed forms to the staff member responsible for charting client flow. If possible, a staff member should be posted at the exit(s) to ensure that all forms are collected before clients leave the facility.

Reviewing How to Complete the Client Register Form

1. Facilitate a role play to let the participants practice filling out the Client Register Form. Display the form to the participants and say, “I am a client, and I have just come to your hospital. Where do I go first?”
2. When the participants say, “Reception [or wherever],” approach one participant and say, “Now I am coming to see you at the reception desk. What do you do with my paper?” Correct any misunderstandings about how to fill out the form.
3. Then approach another participant and say, “Now I am coming to see you, the nurse. What do you do with my paper?”
4. Summarize the key instructions for data collection with all staff who will have contact with clients during the clinic session. If staff are confused about the CFA or are not aware that it is being done, poor data collection may result.
5. Explain that once the information is entered on the Client Register Form, the participants

will compile this information into the Client-Flow Chart and the Client-Flow Chart Summary form. (These are described in the next section.)

Topic 3: Summarizing and Graphing the Results

Introducing the Client-Flow Chart and Client-Flow Chart Summary

1. Explain the purpose of the Client-Flow Chart and the Client-Flow Chart Summary. These forms are used to collate and chart the information on the Client Register Forms (see Appendix A for a sample completed Client-Flow Chart and Client-Flow Chart Summary). The information can be charted either during or after the session is over and all Client Register Forms have been collected.
2. Distribute copies of the sample forms for the staff to review while you explain how to complete them.

Completing the Client-Flow Chart

Explain that staff should do the following:

1. Enter the date and time of the session being followed and the page number in the appropriate spaces on the form.
2. Enter the client number from each Client Register Form in sequential order, beginning with client number 01, under “Client number.” (If you are following more than 20 clients during the session, use additional pages of the Client-Flow Chart and continue to use consecutive register forms.)
3. Enter the “Time client arrived at the facility” from the Client Register Form under “Time in” and the “Time service completed” under “Time out.”
4. Calculate the total number of minutes the client spent at the facility by subtracting “Time in” from “Time out,” and enter this figure under “Total time at the facility.”

Example:		
Time in	Time out	Total time at the facility
8:00	8:50	50 min.

5. Enter the “Contact time” from the Client Register Form under “Contact time.”
6. On the Client-Flow Chart, subtract “Contact time” from “Total time at the facility,” and enter this figure under “Waiting time.”

Example:				
Total time at the facility	-	Contact time	=	Waiting time
50 min.	-	40 min.	=	10 min.

7. Write the “Service type” codes for primary and secondary services (if applicable) from the Client Register Form in the corresponding spaces on the Client-Flow Chart. Find the code for the “Visit timing” and enter it in the appropriate space.
8. Enter any pertinent information noted on the Client Register Form (such as “Client left clinic before completing visit” or “Client left clinic for two hours and then came back”) under “Comments.”
9. On the Client-Flow Chart, total the entries in the “Total time at the facility,” “Contact time,” and “Waiting time” columns, and enter those figures in the spaces provided for “Total.”
10. Repeat this process until the information from each Client Register Form has been entered on the Client-Flow Chart.

Using the Client-Flow Chart Summary

Explain that when they have completed the Client-Flow Chart, they should calculate averages for the session by using the Client-Flow Chart Summary. If more than one Client-Flow Chart was used to record information for the session, instruct them to enter the information for each page in the space provided on the Client-Flow Chart Summary (see Appendix A for a sample completed Client-Flow Chart Summary).

Completing the Client-Flow Chart Summary

Explain that to complete the Client-Flow Chart Summary, staff should do the following:

1. Enter the date and time of the session being followed in the appropriate spaces on the form.
2. For each page of the completed Client-Flow Chart, enter in the space provided on the Client-Flow Chart Summary the total number of clients charted. (Each Client-Flow Chart has room for 20 clients.)
3. For each page of the completed Client-Flow Chart, enter the totals for “Total time at the facility” and “Contact time” under “Total time” and “Total contact time” on the summary.
4. For each page of the completed Client-Flow Chart, find the percentage of time that an average client spent in contact with a staff member, by dividing “Total contact time” by “Total time” and multiplying the result by 100. Round this figure to a whole number, and enter it under “Percentage of client time spent in contact with staff.”

Example (Page 1):				
Total contact time	÷	Total time	× 100 =	% of time in contact
679 min.	÷	2,545 min.	× 100 =	27%

5. Add the numbers in each column together, and enter the totals at the bottom. However, to calculate the overall percentage of time spent in contact with clients, do not add together the percentages in the last column. Instead, use the same approach as in the example above: Divide the overall “Total contact time” (1,004 minutes in the sample in Appendix A)

by the overall “Total time” (3,845 minutes), multiply by 100, and round the result to a whole number (in this case, 26%).

- Using the overall totals, divide “Total time” by “Total number of clients,” round the result to a whole number, and enter this figure under “Average number of minutes per client.”

Example:			
Total time	÷	Total number of clients	= Average number of minutes per client
3,845	÷	30	= 128

- Divide “Total contact time” by “Total number of clients,” round the result to be a whole number, and enter this figure under “Average contact minutes.”

Example:			
Total contact time	÷	Total number of clients	= Average contact minutes
1,004	÷	30	= 33

Explaining the Purpose of the Client-Flow Graph

- Describe how staff can use the information on the Client Register Forms to create a graph of client flow (see Appendix A for a sample Client-Flow Graph). Using this graph, staff can address a number of issues (for example, whether excessive waiting time is associated with a particular type of visit, sex of client, or family planning method). The participants may analyze the flow of all clients during the session, or they may focus on a particular set of clients (such as those who came for antenatal care).

Note: A blank version of this graph is not provided in the COPE toolbooks. The following items are needed to create the graph:

- Graph paper
- The completed Client Register Forms
- Colored pencils or pens
- Ruler

- Distribute copies of the sample graph (see Appendix A) for the staff to review while you explain how to create one.

Creating a Client-Flow Graph

Explain that to create a Client-Flow Graph, staff should do the following:

- Write the client numbers down the left side of a sheet of graph paper, along the horizontal grid lines. Begin with client number “01,” and use as many sheets as needed to graph client flow for all clients followed.

2. Enter “Time” along the top of the graph. Starting at the time the clinic session began, write the time in 5- or 10-minute increments along the vertical grid lines until they reach the time the clinic session ended. Feel free to use as many sheets as needed to graph the entire clinic session.
3. Assign a color to each “Service type,” and use a pen or pencil of that color to graph the flow of clients for each type of visit.
4. Using the color that corresponds to the type of services being considered, for each client:
 - Make a symbol (for example, an asterisk or a vertical bar) at the point on the graph that corresponds with the “Time client arrived at the facility” on the Client Register Form.
 - Using the same color, draw a horizontal line beginning at the point on the graph that corresponds with “Time service started” and ending at the point that corresponds with “Time service completed” for each staff member with whom the client had contact. Use a ruler to draw the lines, if desired. The space between the asterisk and the line, or between each line, shows waiting time.
 - For each client, enter the “Service type” code on the right side of the graph.

Example:

On the line for client number 01 on the sample graph, a yellow asterisk is marked at 8:00, indicating that the client arrived at the facility at 8:00. A green horizontal line begins at 8:10, indicating that service for this client started at 8:10, and the green line ends at 8:50, indicating that service for this client was completed at 8:50. Client number 13 had contact with several staff members with breaks in between contact, as shown in the sample graph.

5. Repeat the preceding step for each client followed.

Why Examine Staff Utilization?

1. Explain the importance of examining staff utilization:
 - One way to improve service quality is to increase the amount of time that staff members spend in contact with clients.
 - By understanding *staff utilization*, or how staff spend their time there, facilities can gauge how much time staff spend with clients and on other tasks, as well as how much time elapses between the two. For example, at some facilities, staff may prepare rooms, equipment, and supplies for services first thing in the morning, while clients are waiting to be seen. Yet these same staff may have relatively few clients and much free time in the afternoon, which could be used to prepare for the next morning’s session and thereby decrease the time that clients spend waiting.
 - In addition, by understanding staff utilization, facilities can look at balances between the workloads of different staff members. For example, at some facilities, one counselor may see many clients, while others may see few. By recording staff members’ activities, facilities can determine ways to use the staff’s time more efficiently.
2. Explain that two ways to measure staff utilization are by:
 - Calculating the percentage of time that staff spend in contact with clients
 - Graphing staff utilization to show any gaps between the time each staff member spends in contact with clients

3. Explain that to calculate staff time spent in contact with clients, staff should first take a blank sheet of paper and record the total for the “Total contact time” column from the Client-Flow Chart Summary. (In the sample chart, shown in Appendix A, this number is 1,004.)
4. Next, ask staff to go through the Client Register Forms and make a list of the different sets of staff initials. Calculate the total staff minutes available by counting the number of staff who worked during the session and then multiplying that number by the total number of minutes in the session.

Example:				
8:00 a.m. to 2:30 p.m. session				
Staff members	×	Minutes in the session	=	Staff minutes available
7	×	390	=	2,730

5. Explain that to find the percentage of available staff time that is spent in contact with clients, the “Total contact time” is divided by “Staff minutes available” and multiplied by 100. This figure is then rounded to a whole number.

Example:					
8:00 a.m. to 2:30 p.m. session					
Total contact time	÷	Staff minutes available	× 100	=	Percentage of staff time in contact
1,004	÷	2,730	× 100	=	38%

Developing the Staff-Utilization Graph

1. Explain that the Staff-Utilization Graph has several uses: In addition to understanding what percentage of time all staff spend in contact with clients, it is useful for facilities to understand at which points during the clinic session specific staff members are working with clients and at which points they are performing other tasks or taking breaks or meals. The Staff-Utilization Graph gives a clear, visual presentation of the actual time that each staff member spent in contact with clients during the session.
2. Explain that to create a Staff-Utilization Graph, staff will need the same items used to create the Client-Flow Graph—graph paper, the completed Client Register Forms, colored pencils or pens, and a ruler (see Appendix A for a sample Staff-Utilization Graph).
3. Distribute copies of the sample graph for the staff to review while you explain how to create one.
4. Explain that to create the Staff-Utilization Graph, staff should do the following:
 - Write the initials of all staff members who had contact with clients during the clinic

session (as indicated on the Client Register Forms) down the left side of a sheet of graph paper, along the horizontal grid lines. Assign a different color to each staff member.

- Enter “Time” along the top of the graph, using the same 5- or 10-minute time increments as were used in the Client-Flow Graph. Use as many sheets as needed to graph the entire clinic session.
- On each Client Register Form, note the “Time service started” and “Time service completed” for each staff member. Using the appropriately colored pen or pencil for the staff member, draw a horizontal line beginning at the point on the graph that corresponds with “Time service started” and ending at the point that corresponds with “Time service completed.” Gaps between contact times represent all other activities, such as paperwork and breaks.

Interpreting the Client Flow and Staff-Utilization Graphs

When the graphs are completed, meet with the staff involved in the exercise to discuss the findings. Ask the following questions to help staff analyze what the graphs represent:

For client service and waiting times:

- Could waiting times for clients be reduced? If so, at what stage of the client’s flow through the facility could this happen?
- What are some ways in which services could be reorganized to do this?

For staff utilization:

- Are staff fully utilized at your facility?
- Are a few staff members doing the major part of service delivery? Why?
- Could staff time be better used?
- Could staff time be reorganized so that clients have shorter waiting times?
- What do the gaps in contact time represent? When staff are not serving clients, what are they doing?

Note: If the graph reveals some large gaps or many smaller gaps between the time spent in contact with clients, staff members may feel that they are being perceived as not working during those times. In such cases, you might point to a gap on the graph and say to the participants: “This gap in client contact does not mean that staff member X was not working, just that [he or she] was not working directly with a client at that time. Our goal is to serve clients as quickly and efficiently as possible, which means limiting the amount of time that clients spend waiting for services. By seeing when the gaps in client contact occur and how long they last, we may be able to determine ways in which you can work more efficiently.” This discussion may produce several useful time-management strategies. For example, supervisors can designate certain periods during the session for each staff member to perform activities not related to client contact, rather than having staff members perform such activities all through a session and break up client contact.

Topic 4: Analyzing and Recording Findings on the Action Plan

1. Explain that although using CFA is a good way to measure efficiency, it does not substitute for the judgment and expertise of those who work at the facility. CFA should always be used and interpreted by those who understand the facility operations best: *the staff*.

2. Caution that because CFA only *identifies* potential problems, staff themselves must seek explanations of any unusual occurrences identified in the analysis (see Figure 7-3, page 75). The important part of CFA—addressing problems and improving service delivery based on the findings—is done when staff carefully analyze the root causes of problems (see Figure 7-4) and incorporate findings into the discussions at the Action Plan Meeting.

Figure 7-4. Using the Multiple Whys Technique for Client Flow

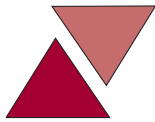
Problem: Clients who come to the clinic for a minilaparotomy (female sterilization) procedure must wait several hours before having the procedure.

Why? They must receive counseling about family planning methods before they can have the procedure, and only one counselor is available to see them.

Why? The facility has several counselors, but only one is trained in counseling about long-term or permanent family planning methods.

Why? There has been much staff turnover in the past few months, and none of the new counselors have received training in these methods.

Are there any other causes? There is no system in place to ensure that the new counselors receive this training.



Troubleshooting Tips

IF: *Some clients are not receiving Client Register Forms...*

Find out where they entered the facility, and make sure the staff at that entry point are giving all clients the form (up to a recommended maximum of 50 clients).

IF: *Some Client Register Forms are not being collected before clients leave...*

Remind the staff that the last person to have contact with a client needs to collect the form before the client leaves the facility.

Because staff may not always know whether they are the last to see each client, assign a person to stand near the exit(s) to collect any additional forms before clients leave the facility.

IF: *Some Client Register Forms are not completely or correctly filled out...*

Monitor the forms as they are collected, and show relevant staff members how to complete the forms properly.

IF: *Some codes or initials are not used correctly...*

Monitor the forms as they are collected, and show relevant staff members how to complete the forms properly. Staff should use the list of codes provided on the Client Register Form. If this list has been adapted for the facility, ensure that all staff know the appropriate codes and that staff have a written copy of them.

IF: *The calculations on the Client-Flow Chart Summary are incorrect...*

Check the calculations on the form, and show relevant staff members how to complete them properly.

IF: *The Action Plan is unclear...*

Review the troubleshooting tips provided in Chapter 4 for instructions on how to help staff clarify the Action Plan.

8

chapter 8

Measuring Progress Over Time

This chapter is aimed at site facilitators.

This chapter describes how facility staff can measure progress toward solving the problems identified in the Action Plan. It also discusses the importance of sharing your facility's experiences—in terms of success stories, continuing needs, and lessons learned—with clients, staff, managers, other organizations and facilities, government officials, and donors.

Objectives

After reading this chapter, you should be able to:

- Measure progress over time
- Communicate about service improvements with clients, staff, and others

Measuring Progress

During the first meeting of the COPE Committee, the members should determine how they wish to measure the progress of COPE. At a minimum, to track their progress, facilities should keep good records of their COPE Action Plans.

Using Charts and Graphs

In addition to using the COPE Follow-Up Sheet (see Appendix A), facilities may use the table and graph discussed in this chapter (or others that they create) to track their progress after the first COPE exercise and to compare average waiting time between their first and second CFAs.

Table of problems solved through COPE

Staff may use a table to determine what percentage of the problems identified had been solved and the degree to which these problems had been solved. This can help them track their progress and determine bottlenecks to solving problems.

Sites may use a table such as that shown in Figure 8-1 (page 86) during any COPE exercise after the first one. It is recommended that they use it at six-month intervals, to keep up to date on their progress.

Figure 8-1. Problems Solved through COPE

Situation	Number
Problems identified	20
Problems completely solved	12
Problems remaining unsolved*	8
Could be solved without outside assistance	4
Considered unsolvable without outside assistance	4

* Includes problems for which no solution was attempted and problems for which a solution was attempted but the problem remained unsolved.

Determining whether a problem has been completely solved

Some problems may be considered neither solved nor unsolved, but may fall somewhere in between. For example, training all of the staff may have been recommended, but only some staff were trained. Similarly, obtaining five new pieces of equipment may have been recommended, but the facility might have received only one piece. Likewise, a facility’s goal may have been to build a wall in two wards, but in reality the wall may have been built in only one of the wards.

These problems would be considered partially solved. Efforts should be made to determine if, when, and how they can be completely solved, or whether it is possible to do more. In each case, however, it is also important to recognize the strides that were made toward success.

Some problems may be considered “impossible” to solve—i.e., beyond the power of facility staff to remedy without outside help or funds. These are needs that facility managers can communicate to higher levels within their institutions or to local community members.

How to analyze the results

Staff at a facility may have set a goal, such as solving a certain percentage of the problems on the Action Plan within a certain time frame (e.g., 75% of problems will be solved within a year) or reducing clients’ waiting time to a specific number of minutes. The facility can then use the chart to see if the goal has been met.

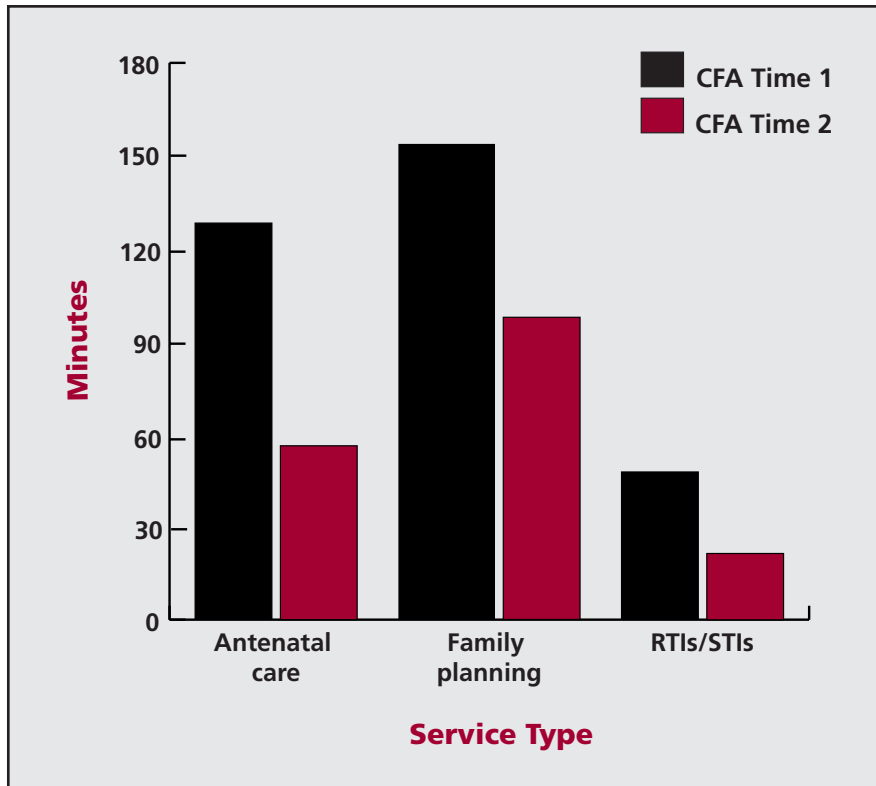
If the goal has not been met, facility staff might explore some questions to decide why this occurred. For example:

- Were the root causes of the problems not properly identified?
- Were the people assigned responsibility for carrying out the recommendations an inappropriate choice?
- Were the time frames that were set unrealistic?
- Did facility staff realistically have control over these problems?

In addition, facility staff could check with staff at other facilities to see if they were having the same problems and, if so, how they resolved them.

Tracking Average Waiting Time

Sites can use a chart like Figure 8-2 to compare the average amount of time that clients wait for services after two successive CFAs.

Figure 8-2. Average Waiting Time for Services

For each service type, staff can compute the average waiting time found in the first CFA and compare it with that found in the second CFA. This visual representation may help staff see whether average waiting time was reduced overall and whether bottlenecks still exist for certain services.

Using the Quality Measuring Tool

The Quality Measuring Tool (QMT) uses the same format as the COPE Self-Assessment Guides to quantitatively assess quality at a facility. Comprising a smaller set of yes-no questions (very similar to those used in the self-assessment) and using the same framework of clients' rights and staff needs, it allows staff to score the level of quality at their facility. This tool strikes a balance between staff self-assessment of quality and external means of assessment and supervision. Ideally, the QMT should be used only when COPE has been established at a facility for a year or more, so that staff do not feel they are being monitored and "tested" early in the process. When performed on an annual basis, this tool can be used to chart progress over time.

Using Other Tools

While COPE is one way to gather information about the quality of services at a facility, it can be complemented by the use of other tools and processes that assess or measure different aspects of quality. These include:

- *Medical monitoring.* This medical QI intervention involves the objective and ongoing assessment of the readiness of and processes for service delivery. It is conducted to identify gaps between best practices and actual practices, and leads to recommendations for improvement.

- *Case reviews or morbidity and mortality review systems.* Case reviews involve presenting individual case outcomes and using guidelines to analyze where something went well or where there was a problem, with the aim of identifying strengths the facility can build on and problems that need to be resolved. Morbidity and mortality reviews use facility records or statistical reviews to assess where there might be problems and identify root causes. This type of review is critical to conduct if there has been a death or severe morbidity.
- *Facilities/equipment/supplies checklists.* These checklists are used to assess gaps in infrastructure, (functional) equipment, or supplies.
- *Local, national, or international service standards and protocols.* Various standards and protocols are used as learning and assessment tools to compare the standards and protocols of a particular facility with other standards.
- *Methodologies to assess costs.* Such methodologies include EngenderHealth's Cost-Analysis Tool (see page 16).

Sites may use these tools as sources of information to identify problems and root causes, to develop problem-solving plans, or to measure success in improving quality. Facilities may use the COPE approach to solve problems identified through these or other tools.

Communicating about QI Achievements

Sharing your facility's success stories, continuing needs, and lessons learned can serve a number of significant purposes with a variety of different audiences:

- *Clients.* Such information can help build and maintain your clients' trust in your desire and ability to provide quality services. Knowing that your services are improving may encourage community members to seek care at your facility. In addition, clients particularly like to know that their own suggestions have made a difference.
- *Staff.* Such information also serves to motivate and encourage staff to continue with the QI process and to feel pride in their accomplishments. Sharing what clients have said about services can also serve to orient new staff or remind current staff to maintain a customer focus.
- *Upper-level managers.* It is important to keep upper-level managers informed about the facility's progress, so they can remain supportive of the process and be aware of the efforts that staff are making. These managers may even be relieved to see what facility staff can accomplish on their own by taking initiative and by thinking creatively. At the same time, upper-level managers need to know when their intervention is truly needed to resolve particular problems.
- *Other facilities and other organizations.* By sharing information about your achievements with other facilities and other organizations, you can exchange creative solutions to common problems, as well as lessons learned about the QI process. This is also an opportunity to propose combining efforts to solve shared problems.
- *Government, donors, or other funding sources.* It is always important to inform government, donors, and other funders and supporters about how their support is being leveraged at the facility level to improve services. Funders are generally less interested in supporting facilities that do not show initiative or make an effort to address problems, and often are more interested in facilities that can show the results of their efforts. In addition, real-life examples of what clients have said about services and what staff have done can be used in promotional or fundraising materials. Sharing information is also an opportunity to explain any areas where further support could help resolve recurring or ongoing problems.

The table below shows examples of essential messages to share with each of the different audiences, as well as means of communicating those messages.

Figure 8-3. Communicating about QI Achievements

Audience	Messages	Ways to Communicate
Clients and community members	<ul style="list-style-type: none"> ▪ “We listen to your suggestions.” ▪ Changes/improvements that staff have made ▪ Reasons why certain changes were made (especially related to location or organization of services and any changes in costs of services) ▪ Recognition of the community’s input into service improvements 	<ul style="list-style-type: none"> ▪ Interpersonal communication ▪ Posters ▪ Bulletin boards ▪ Community meetings
Site staff	<ul style="list-style-type: none"> ▪ The status of the current Action Plan ▪ What was achieved in the last year or since the process began ▪ What clients are saying about services ▪ The importance of teamwork ▪ “There is always room for improvement.” 	<ul style="list-style-type: none"> ▪ Providing copies of/posting the Action Plan for staff to see ▪ Updates in staff meetings ▪ Interpersonal communication ▪ Newsletter
Upper-level management	<ul style="list-style-type: none"> ▪ What accomplishments have been achieved ▪ What clients say about services ▪ What recurring or systemwide problems may require support from higher levels to be solved 	<ul style="list-style-type: none"> ▪ Meetings ▪ Site visits by upper-level managers ▪ Reports
Other facilities and organizations	<ul style="list-style-type: none"> ▪ Examples of creative solutions to common problems ▪ Opportunities for working together to solve problems (with community members, local organizations, etc.) 	<ul style="list-style-type: none"> ▪ Meetings ▪ Site visits ▪ Reports
Government, donors, and other funding sources	<ul style="list-style-type: none"> ▪ What accomplishments the facility has made ▪ Examples of what clients say about services at the facility ▪ How their support has helped ▪ Any areas in which further support could help resolve recurring or ongoing problems 	<ul style="list-style-type: none"> ▪ Reports ▪ Meetings ▪ Site visits ▪ Newsletter

