

Involving Staff in Quality Improvement

The most important objective of supervision is quality improvement. In the past, the potential of supervision to influence quality was largely ignored. However, there is a growing trend to position the supervisor not only as an evaluator of performance, but also as a catalyst for quality improvement. Fulfilling the role of agent of change takes time and attention. Therefore, instead of focusing on the number of sites to be visited, the facilitative supervisor needs the institutional commitment to supervise fewer sites and spend more time at each site. During site visits, the supervisor's aim is to provide the staff with quality improvement tools and train them in their use.

Objectives:

This chapter will show you how to:

- Help staff implement the quality improvement process
- Link quality improvement to other aspects of management and supervision

Remember!

Site Supervisors:

Who are your customers?

What is your role?

Staff at the sites I supervise.

To enable staff to implement the quality improvement process.

Supervisors of supervisors:

Who are your customers?

What is your role?

Other supervisors under my authority.

To train them to help the site staff implement the quality improvement

process.

Understanding the Customer Mindset

Organizations that make quality a priority are successful because they focus on meeting and exceeding their customers' (clients') expectations. To do that, they need to understand the customer mindset (see Chapter 1).

"Service is not an event; it is the process of creating a customer environment of information, assurance, and comfort."

-Regis McKenna

There are two different types of customers: external and internal. An external customer is outside the work process; an internal customer is within the work process (Berwick, Godfrey, and Roessner 1990). Generally, clients and the community are considered external customers,

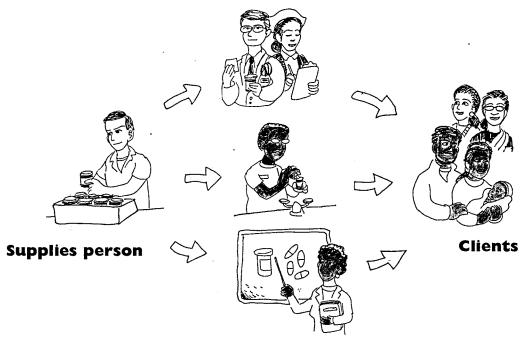
while other health care workers are considered internal customers.

Question:

Let us consider the person in charge of the facility's supplies. Among this person's responsibilities is maintaining a constant and up-to-date supply of medicines. This person's customers include:

- Doctors
- Nurses
- Educators
- Pharmacists
- Clients

Which of the above are internal and which are external?



Health care staff

In the illustration above:

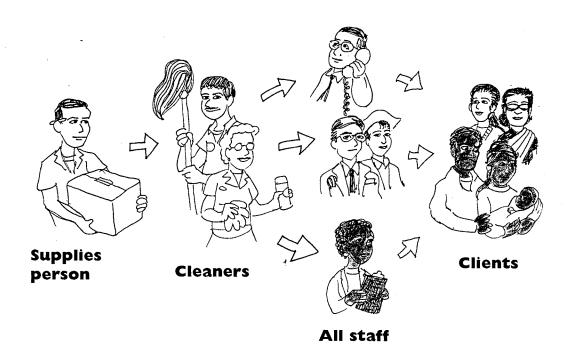
- The supplies person must provide medicines to doctors and nurses so that they may provide them to clients.
- The supplies person must provide medicines to the pharmacist so that he may fill prescriptions for clients.
- The supplies person must provide medicines to educators and counselors so that they can use them as samples in educating and counseling clients.
- The ultimate and external customer is the client. The internal customers are the healthcare staff.

Question:

If the person's responsibility is to maintain a constant supply of cleaning supplies, the customers are:

- Cleaners
- Administrative staff
- **■** Clinical staff
- Educators and social workers
- **■** Clients

Which of the above are internal and which are external?



The supplies person provides soap, disinfectant, mops, brooms, etc., to the cleaning staff so that they may maintain a clean environment. The cleaners maintain cleanliness for all staff to make the environment attractive and safe; for clinical staff as a first step to prevent infections. These are the internal customers. The cleaners also maintain cleanliness for the external customer, the client.

In these examples, all the customers are internal except for the clients. The medical director's internal customers would include all of the clinical staff, the educational staff if the director is responsible for refresher training, and other doctors to whom he or she refers. When a nurse prepares a lab smear, the lab technician is the customer; when the lab technician reads the smear, the customer is the doctor. The external customer of the doctor, nurse, and lab technician is the client whose smear is being read.

Exercise

Who Are the Customers?

Think of two staff members at a site you supervise. Decide who each person's customers are. Consider which are internal and which are external. Then draw a graphic to indicate how the service provided flows from one customer to the other.

Staff member	Customers	Internal or external?
1.		
2.		

riow charts:	Flow	charts:	
--------------	------	---------	--

1.

2.

What Are the Needs and Expectations of Clients?

Although each staff member has one or more customers, the ultimate customer for everyone is the client. Consequently, it is important to use the following philosophy (from the framework for clients' rights and providers' needs presented in Chapter 1) as a basis for all supervision and quality improvement.

Clients have the right to:

- Information
- Access to services
- Informed choice
- **■** Safe services
- Privacy and confidentiality
- Dignity, comfort and expression of opinion
- Continuity of care

So that they may meet the needs and expectations of clients, health care staff have a need for:

- Facilitative supervision and management
- Information, training, and development
- Supplies, equipment, and infrastructure

Exercise	
What Do Clients Expect?	
Pretend that you are a client seeking reproductive health services at a high quality clinic. Prepare a list of what you would expect to see and experie	0
What I expect to see:	
ii	
What I expect to experience:	

Following are some of the features clients might say they expect to find at a high-quality reproductive health service:

- Information about all services
- Availability of a range of services
- Signs that show services, hours, costs, etc.
- Educational sessions
- Brochures, pamphlets, posters, flipcharts, models, method samples
- Counseling services
- Sufficient time and space for counseling

- Answers to specific questions
- Affordable services
- Convenient hours and location
- Clean facility in good condition
- Availability of essential lab tests
- Availability of medicines and contraceptive methods
- Staff that speak my language
- Information about risks and benefits of treatments or contraceptive methods
- Efficient referral systems
- Respect for infection prevention protocols
- Respectful treatment
- Private areas for services and counseling
- Confidentiality
- Short waiting times for service
- Equipment in good working condition

Almost every site can improve something in order to better meet these client expectations.

Example: High-Quality Services

Researchers interviewed 60 women clients who receive reproductive health and infant care at a clinic in Santiago, Chile. Their perception of quality was:

- Being treated with respect, "like a human being"
- Cleanliness of the facility, especially the bathrooms
- Promptness of the service
- Sufficient time for consultations with service providers
- Opportunity to learn about how to care for their own health (Vera 1993)

The Importance of Technical Competency

Although the customer perspective is essential to the quality-improvement process, clients do not necessarily have the knowledge or experience to judge an important area of quality: technical competency. Without sufficient knowledge and training, health care providers cannot deliver safe and effective services; either the services will fail to have the desired effect, or they may even be dangerous to the client. Consequently, it is essential that the supervisor assume the responsibility of evaluating the technical competency of staff and improving such competency as necessary.

In order to ensure the technical competency of others, supervisors:

Must be technically competent themselves.

Anyone supervising reproductive health services must be experienced and competent in delivering those services. The reasons are clear:

- You cannot evaluate others in an area in which you are not competent.
- You cannot train others unless you are trained.
- You cannot gain the respect of others from a position of ignorance.

When the site provides a wide array of services, it may be difficult to find a supervisor who is technically competent in all of them. In such a case, a team that represents all of the technical competencies should carry out the supervision. All of the team members should be trained in how to supervise in a facilitative manner.

Must include medical monitoring and evaluation in regular supervisory visits.

This is necessary not only because the client cannot identify deficiencies in technical competency, but also because staff will not always realize that competency is lacking. Staff may not be familiar with advances in medical science, new therapies, or even the service delivery protocols in force. Thus, it is the supervisor's responsibility to evaluate medical service carefully and monitor progress toward improvement.

Staff Involvement in Problem Identification and Solution

In traditional supervision, clinic managers may identify a need, sometimes without consulting staff, and send the request to the central level for fulfillment.

Central level



In facilitative supervision, staff are integral to the identification of such needs and are encouraged to find a local solution. However, staff tend to identify needs based on their own experience or their own problems.

Central level or Local solution



Health care staff's needs

Providers must take into account the customer perspective: What do the clients need? The customer mindset is one of the basic principles of quality management. For example, providers may not feel that there is a need for additional blankets, but if patients feel cold at night, blankets are indeed needed. Therefore, providers must base their requests for supplies and infrastructure on the needs of the client, as well as on their own requirements.

Central level or Local solution



Health care staff's needs



Keeping the customer perspective in mind, you can work with staff to implement the quality-improvement process. It is important that staff be involved in both the identification of the causes of problems and in their solutions.

EngenderHealth has developed a process and a number of tools to aid in problem identification and solution for continuing quality improvement. After identifying the causes of problems and their solutions, staff design a workplan (called an *action plan*), which is then implemented and evaluated. The process should be continuous: it is important to schedule regular follow-ups and problem-solving sessions.



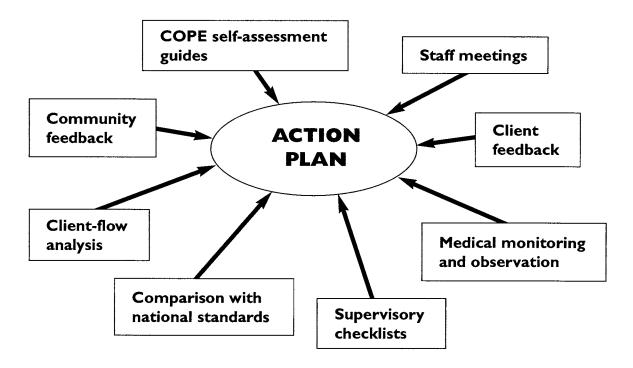
The sequence is:

- 1. Identify problems and possible causes
- 2. Recommend solutions
- 3. Prepare an action plan to solve problems
- 4. Implement the action plan
- 5. Follow up to evaluate the effectiveness of the action plan
- 6. Make the process continuous



Problem Identification

There are several ways to identify problems: through the staff (self-assessment), through clients and the community (interviews and satisfaction surveys), and through supervisors (observation, etc.).



COPE Self-Assessment Guides

COPE, which stands for *client-oriented*, *provider-efficient services*, is an EngenderHealth process and a set of quality-improvement tools that includes self-assessment, client-flow analysis, client interviews, and client-record reviews. These diagnostic tools culminate in the action plan.

The self-assessment consists of 10 guides, each devoted to one of the client's rights or provider's needs listed in Chapter 1 of this manual. The COPE facilitator organizes the staff into groups and assigns to each group two to four of the guides. The group then uses the guides to assess the quality of services at the site.

The guides are especially useful because they are detailed and call the staff's attention to quality problems that they may not initially notice. Following are examples of questions in the COPE self-assessment guides.

- Do the staff involved with maintaining supplies always observe the first-expired, first-out (FEFO) rule?
 - If the answer is no, then supplies aren't being kept in a cost-conscious manner (expired supplies will have to be thrown away) and clients are at risk of receiving expired medicines or supplies.
- Have staff had an update on family planning and on sexually transmitted diseases?
 - If the answer is no, then staff may not be well informed enough to provide quality services and may actually cause health problems for clients.
- Are brochures, posters, and pamphlets about health services available to clients in all parts of your facility?
 - If the answer is no, then not all clients are being educated sufficiently, which could lead to improper use or discontinuation.

Another way of doing self-assessment is to review the list of clients' rights and providers' needs (see Chapter 1) and brainstorm the deficiencies at staff meetings.

Client Feedback

Because the client is the ultimate and most important customer, staff must find out what clients need and want, and what they think of the service being provided. Here are some ways of getting this information.

■ Client interviews

A short list of simple questions will suffice to find out what clients think. First, explain to the client why you want to do the interview; ask permission; then conduct the interview using open-ended questions that will not bias the response. For example: What did you like about the clinic? What didn't you like about the clinic? What did you expect that you didn't receive? What have you heard about this clinic? What changes would you suggest? When using client interviews:

- Beware of courtesy bias. Clients will not want to hurt the provider's feelings. Therefore, remember to explain that the purpose is to improve the quality of services at the clinic, that the client can be honest and that his or her identity will not be revealed. It also may help if the interviewer is not the same person who provided services to the client.
- Don't take up too much of the client's time. It might be good to do the interviews while the client is waiting for services.

■ Client focus groups

You can get feedback from a number of clients at once by facilitating focus groups using a questionnaire.

■ Customer-satisfaction surveys

Some sites have all clients fill out a questionnaire at the end of the visit. These data can be computerized: One site, Thomason Hospital in El Paso, Texas, USA, provides a monthly report to the administration on the ratings that clients give the service, highlighting what was most appreciated and least appreciated.

■ Client-flow analysis

Client-flow analysis (CFA) is a tool for plotting the passage of each client through the clinic as the client uses the clinic services. CFA allows clinic staff to obtain the following results: average amount of time clients are being attended to, average time clients spend waiting, percentages of time spent being served and waiting, how much time staff spend seeing clients as opposed to administrative work, and a graph of the client flow. These calculations can also be done for specific services within the facility. CFA can be useful in identifying bottlenecks in client flow and in providing an overall view of how time is spent in the facility. Since client's view of quality services generally includes how much time they have to spend waiting, CFA provides helpful data to assess quality in this area.

Suggestion boxes

Some clinics have suggestion boxes that clients can use to comment anonymously on the quality of services. However, these must be user-friendly: paper and pencils must be available and the box should be in an accessible place where the staff will not know which clients are making suggestions. Also, staff must conscientiously review the contents of the box with a view to including information in the clinic's quality-improvement action plan. A drawback of the suggestion-box method is that it is not possible to discuss the suggestions with clients if you need clarification.

™ Community feedback

It is useful to obtain certain information from the community at large (for example, what their health problems are, why they do or do not use services, what they need from the facility, or what suggestions they might have for improving services). Jayakaran (1996) has developed a methodology that includes a large number of exercises used to diagnose and learn about community situations and needs. Meetings at which facility representatives simply ask community members for their needs and suggestions can also be useful. However, a shift in emphasis will be necessary: health officials should take the position that they are there to learn from the community and not to teach.

Medical Monitoring and Observation

Medical supervisors are responsible for observing clinical practices and procedures in order to evaluate them with regard to staff's technical competency, their respect for infection prevention and service delivery protocols, and the adequacy of equipment and space. They also review the infrastructure with regard to medical and safety standards. Any deficiencies surfaced during these observations should be included in the action plan. Thus, when implementing a quality improvement process, the facilitative supervisor does not abdicate the responsibility for pointing out deficiencies that the staff do not notice or do not identify.

When conducting medical monitoring, it is wise to rely on tools that will contribute to a complete evaluation of all the medical aspects of service delivery. EngenderHealth recommends using:

■ National medical standards

The supervisor ensures that the site is in compliance. A checklist based on the standards facilitates the review process.

Site-visit guidelines

Suggestions on what to review/observe and how to do so.

■ Medical safety checklist

The COPE self-assessment guide on safety is an example of this.

Minimal equipment lists

These are helpful in identifying a lack of essential equipment.

■ Site-visit report guidelines

Suggestions on what to include in the report to the next level of authority. (AVSC International 1996.)

Informed Choice

Informed choice, one of the client's rights, is especially important in family planning services. In addition to guiding staff in the use of the self-assessment instrument entitled "Informed Choice," the facilitative supervisors should also observe counseling from time to time in order to ensure that this right is respected, that clients receive all necessary information, that their understanding of it is ensured and that their choice is made without coercion. Always ask the client for permission to observe the counseling session, as very personal information is usually shared.

Any deficiencies in the respect for clients' informed choice should be brought to the attention of the staff so that the problem may be identified and its solution included in the site's action plan.

Identifying the Cause of the Problem

For the action plan to succeed, it is important to enable staff to get at the root of the problem so that the solution will be valid. Staff should learn to differentiate between a problem's symptoms and root causes. A solution based on symptoms will be only a short-term solution at best and will probably not solve the problem at all. Asking "why?" several times is a means to ensure the identification of the root cause of the problem. This process is sometimes known as "peeling the onion of cause." Avoid asking questions in a challenging or aggressive tone of voice—use an inquiring tone instead.

Examples: Problem Identification

The following problem was identified through client interviews.

Problem: Clients complain that immunizations are not available.

Why? Because we've run out of vaccines.

Why? Because our stock expired and we had to throw it out.

Why? Because the stores employee doesn't know about FEFO.

In this case, the root of the problem is a staff person who hasn't been adequately trained. If staff hadn't gotten to the root of the problem, they might have suggested ordering more supplies from the Ministry of Health, which would have solved the problem only in the short term and would not have addressed the waste involved.

A medical director who reviewed a sample of medical records identified the following problem.

Problem: The wound infection rate is too high.

Why? Because the instruments are not being sterilized properly.

Why? Because the sterilizer can't maintain the correct pressure.

Here the problem is not lack of training or staff lack of knowledge or failure to follow infection prevention practices, but with a machine that needs to be repaired.

The following problem was identified through staff self-assessment.

Problem: Clients aren't checking for the strings of their IUDs.

Why? Because they forget that we told them to do that.

Why? Because we don't have written instructions or pamphlets on the IUD.

Why? Because we ran out of pamphlets.

Why? Because we don't have a system for keeping track of our stock of client education materials.

Here the problem isn't lack of counseling, but lack of patient education materials and a materials monitoring system.



Choose a problem that you have noticed at one of your sites and write it in the space provided. Then answer the question "why?" several times to get at the root cause of the problem.

Problem:	 		
Why?	 ,		
Why?	 		
Why?	 		_
			

Recommending Solutions

After the staff identify each problem and its cause, they recommend a solution. Solutions should be expressed in the most basic and practical terms. To the extent possible, solutions should be in the hands of the staff. Ask: "What can you do to solve this problem?" Discourage staff from going to outside authorities or other sources of assistance.



Review the list of client needs and expectations. Choose one that is not available or is deficient at a site you supervise. Ask yourself: "What can staff do to improve this shortcoming?"

Lack or deficiency:	 	
What staff can do:		

There may be more than one solution to a problem because there may be more than one cause. Staff may have to find interim solutions to the immediate problem or the symptom of the problem, then look for long-term solutions.

There is a tendency among staff to conclude that the solution to most problems is either to hire additional staff or to seek additional training. However, these are not always the answers; instead, the facilitative supervisor should encourage staff to look for the causes in systems and processes.

Consider the third example of clients' failure to check for the strings of their IUDs. The lack of patient education materials indicates a system failure in that the quantities are not being monitored so that timely orders may be placed. Thus, the immediate solution would be to prepare written post-insertion instructions for clients and order a supply of IUD pamphlets. The long-term solution would be to institute a system to keep track of the supply of pamphlets, which would involve establishing minimum levels that trigger an order for resupply.

Obviously, as a supervisor you know that there are problems that are easily solved, others that are more difficult, and others that are very complex. Consequently, the range of solutions goes from simple interventions, such as buying needed supplies, to complex interventions, such as the addition or reorganization of services.

Example: Range of Problems and Solutions

A quality improvement project in Eheliyagoda, Sri Lanka, provides examples of the varying complexity of problems and their solutions.

- Clients were waiting too long for services in the morning because staff were setting up the clinic. So staff decided to prepare the clinic at the end of each day, instead of in the morning.
- There was no privacy, so staff were sensitized on the need for privacy and confidentiality, and curtains were purchased for screens.
- IUD providers were unsure of their technical knowledge, so they were trained in IUD insertion and removal and infection prevention.
 - Family planning services were not easily accessible or available, so additional sites introduced family planning services.
 - Women's needs for services other than family planning were not being met, so well—woman clinics were piloted.

 (Dohlie and Satia 1997.)

Using Local Resources

External resources typically take a long time to become available, if at all. Because of this, a facilitative supervisor never accepts an action plan in which most of the proposed solutions depend on outside sources. If staff consistently look to the national, regional or international level for the solution to their problems, ask them the question: "Whose problem is it?" It is important for the staff to understand that they own their problems and have a responsibility for attempting to solve them with local resources before going outside for the solution.

Remember, when helping staff to solve their own problems:

- Get to the root cause.
- Encourage staff to be creative and think about what they can do to solve the problem.
- Give examples to encourage creative thinking. Share lessons learned from other sites with the same or similar problems.
- Encourage staff to look to local resources.

When a Local Solution Isn't Possible

Of course, even in the best of circumstances and with good will on the part of the staff, there will be problems that the staff cannot solve by themselves. In these cases, it is your role as facilitative supervisor to act as liaison between the site and external sources.

If you supervise other supervisors, you will encounter problems regarding supplies, infrastructure, and transportation that are not solvable locally and that occur at many sites. When analyzing these problems:

- Get to the root of the problem (ask "why?" several times).
- Prepare information on the extent and difficulty of the problem.
- Take the problem to the regional, national, or international level for solution.
- Help the site apply for funding from national or international assistance agencies (see the section on "Linking to External Resources" in Chapter 2).

Preparing the Action Plan

A simple action plan like that used in COPE should be the basis for taking action to improve quality. The minimum elements are: identification of the problem and its cause, the recommended solution, the name of the person responsible for carrying out the solution, and the deadline.

Problem and cause	Recommendation	By whom	By when

During problem identification and solution, write the results in the action plan. Then have staff decide who will undertake the recommended solution. Encourage staff to assign tasks to the lowest-ranking staff member capable of solving the problem; avoid assignment of all problems to higher-ranking staff. When lower-ranking staff are assigned problems, they feel important and respected. When they succeed in solving the problem, they realize that they can contribute to the quality of services provided at the site. Such an experience increases involvement and a feeling of ownership.

Next, ask staff to assign a due date. Make sure the due dates are realistic and that they are staggered so that easier problems are solved first and more difficult or complicated problems are addressed later.

Getting staff to agree on the elements of the action plan can be a challenge. However, agreement is important if the staff are to work as a team to improve quality. Therefore, an essential aspect of the facilitator's role in action-plan development is to enable staff to resolve conflict and differences of opinion. Tips on the facilitation skills necessary to do this are found in Chapter 3.

Based on the problems and identification of causes in the previous example, the staff's action plan might read as follows.

Problem and cause	Recommendation	By whom	By when
Clients cannot be immunized. Vaccines	Order urgent supply of vaccines	Mr. Masawi (stores person)	April 30
are not available because clinic is not following FEFO princi-	Arrange FEFO training for stores person	Mrs. Mustafa (administrator)	May 15
ples	Establish a system to follow FEFO principles	Mr. Masawi and trainer	June 15
High wound infection rate because sterilizer needs repair	Repair sterilizer	Mr. Ashafi (mainte- nance person)	April 30
Clients not checking IUD strings because of	Request supply of IUD pamphlets	Mrs. Asante (head of nursing)	May 1
lack of written post- insertion instructions	Prepare and print post-insertion instructions	Dr. Ali (medical director) and Mrs. Safi (counselor)	May 22
	Develop system for monitoring stock of client education mate- rials	Mrs. Asante and Mr. Masawi (stores person)	June 30

The staff are now ready to implement the action plan.

Evaluation and Follow-Up

It is important to work with staff on follow-up and evaluation of the action plan so that they realize you are taking this process seriously. The evaluation of the action plan consists of finding out how much was accomplished, what is still in process and why, and what was not attempted and why. Such an evaluation should take place every three to four months.

If problems remain unsolved, you may not have found the true root of the problem. Ask "why?" three times again to make sure that the exact cause of the problem has been identified and that the solution is the right one.

"Implementing a good plan now is better than implementing a perfect plan next week."

-General George Patton

The Need for Continuity

Once you have shown the staff how to identify and solve problems, you should encourage them to do self-assessment exercises on a regular basis (e.g., every three or six months). In this way, they will be constantly evaluating and improving, they will maintain past gains, and they will progress to solving problems that are more difficult.

One way to ensure continuity is through the establishment of a quality improvement committee. Consisting of a representative from each service in the facility, this committee schedules regular quality improvement exercises and makes sure that they are undertaken. Members could also ensure that individuals responsible for various solutions have been able to carry them out.

"Quality is a race without a finish line . . . we know we'll never be as good as we can be because we'll always try to be better."

-David T. Kearns

Helping Staff Use Data and Evaluation to Improve Service Quality

In traditional supervision, the supervisor is responsible for identifying problems with the quality of services and is sometimes overwhelmed by the responsibility for solving them alone. In facilitative supervision, the site staff assume responsibility for solving as many problems as they can. In this scenario, the supervisor is a facilitator rather than an implementer.



Staff also assume responsibility for assessing their own efforts at quality improvement. By evaluating their progress in problem-solving, staff can improve their problem-solving techniques and be encouraged by their successes. Thus, your role is to assist your customers (other supervisors and site staff) by providing a simple, straightforward way of evaluating their progress in quality improvement.

Proper Record Maintenance

In your supervisory visits, you may have noted that client records are not always filled out completely, accurately, and legibly. Staff may not be well informed regarding why they have to complete and organize certain forms. Consider the following example.

Example: Importance of Good Record Maintenance

A patient suffered cardiac depression during surgery and died. In reviewing the case, medical investigators looked at the surgical record. It was noted that the vital signs were duly recorded. However, the entries showed that the patient experienced a precipitous drop in her pulse from over 70 to 50 in 15 minutes after the injection of anesthetic and her respiration rate decreased from 18 to 12 in the same time period. Nevertheless, the nurse who was recording the vital signs never alerted the surgeon to the drop in pulse and respiration rate so that corrective measures were not taken in time. The medical investigator recommended that surgical nurses receive refresher training in the reasons for monitoring vital signs and their interpretation.

Because the surgical record was completely filled out, the medical investigator was able to pinpoint the deficiency in quality of services: the need for refresher training for staff who monitor vital signs. If the information had not been entered, the investigator would perhaps not have been able to identify the difficulty and similar incidents might have occurred in the future.

Properly completed client records are important for quality. When complications occur, one of the best ways to identify the source of the problem is the client record or clinical procedure record. When information is missing, the case cannot be properly analyzed, and an opportunity to avoid similar complications is lost.

As a supervisor, your role is to remind staff that proper maintenance of clinic records is important to ensuring quality services.

Traditionally, the emphasis of many family planning programs has been on quantity, such as demographic targets. In maternal-child health programs, service coverage indicators are often used to measure performance. However, as supervisors focus on quality, they should reconsider the indicators that their programs are using and by which they are driven and use measurement methodologies which they may not have used before. They need to:

Reduce emphasis on	Increase emphasis on
Outputs such as acceptors	Ensuring that quality services for different contraceptive methods are provided
Monitoring of staff	Enabling and motivating staff
Corrective action when things go wrong	Planning for quality services
Services provided by staff	Client coverage

Source: ICOMP, Quality Improvement in FP/RH Programs: A Management Training Module. Trainer's Manual. Kuala Lumpur, 1997.

In order to carry out qualitative evaluation, supervisors need to look at structure and process, in addition to qualitative outcomes. Below is an illustrative list of structure, process, and quantitative outcomes indicators.

Environment: Organizational environment

Structure: Organization and infrastructure; basic equipment and supplies; management and staffing; standards and protocols; funds and resources available; training programs; evaluation and monitoring system; other programs and systems

Process: client/provider interaction at SDP; management processes

<u>Service delivery attributes:</u> range and availability of RH services; referral linkages; follow-up and continuity of care; range of contraceptive methods

Informational aspects: comprehensive sexuality and RH education: in-depth information on the service provided

Interpersonal aspects: caring; dignity, privacy and confidentiality; individual acceptability, appropriate counseling

<u>Technical competence:</u> technical skills, universal precautions, appropriate medical practices

<u>Social aspects:</u> social acceptability; gender sensitivity: empowerment of women, male participation and responsible sexual behavior

Management processes: human resources (recruitment, staffing, incentives, training, supervision and so on); monitoring; MIS; planning

Output/outcome

Client

Satisfaction with services; knowledge about RH and contraception; reaching reproductive goals, using method of choice; effectiveness of treatment; improved RH; access to care

Service provider

Enabling working conditions: job satisfaction and motivation; skills and knowledge; some control over work situation; performance of work processes according to standards; client satisfaction; efficacy of treatment

Manager/ program

Efficiency/cost; 'bottom line'; optimally effective care, client satisfaction; number of clients attended

Society

Acceptability of care to individuals and society; equitable access to care; optimal care within resources available; improvement in health indicators: lowering of RH disease burden/mortality/disease incidence/domestic violence; CPR

Source: ICOMP, Quality Improvement in FP/RH Programs: A Management Training Module. Trainer's Manual. Kuala Lumpur, 1997.

Some of the methodologies for measuring quality rather than statistics have already been dealt with in this manual. Client interviews, client-flow analysis and a review of client records are part of EngenderHealth's COPE process. An observation guide for interaction between client and service provider is part of AVSC's informed choice methodology. Some other methodologies include:

- Facility inventory (also included in EngenderHealth's Medical Monitoring Handbook)
- Exit questionnaires for clients
- Interviews of staff and program managers
- Community-based distributor interview schedule
- Interviews with non-users of the service

Using Data

Traditionally, the supervisor would visit a site mainly to collect statistics for submission to the regional or national level. Beyond a discussion with site managers about whether they have met their objectives, there is little review of the data at the site. As a result, site staff at lower levels never see the results of those data and don't fully understand what they are for, and site managers seldom analyze the data themselves. But these data can be used not only to serve the needs of the larger system, but also to serve the needs of the individual sites.

As a facilitative supervisor, your role is to help your customers, the site staff, understand the purpose for collecting the data and how to use them to monitor and improve quality at their own sites.

"I wonder if they even look at it."

 Supervisor, referring to MOH use of site data

Exercise

The Purpose of Data

Consider the types of data that are normally collected at a service site. Some are noted in the left-hand column of the chart below. Add any missing data that you normally collect. Write what the data are used for in the right-hand column.

Type of data	Purpose of data
1. Number of clients served	
2. Contraceptive method mix	
3. Medical complication rate	
4. Infection rate	
5. Mortality rate	
6. Cost per client	
7. Immunization rate	

Possible answers appear on the following page.

Possible Answers: The Purpose of Data

- 1. Number of clients served: To compare with local demand for service and with staffing pattern.
- 2. **Method mix:** To compare with national guidelines on desired method mix and to determine which methods are more popular, etc.
- 3. **Medical complication rate:** To observe trends, types, causes, and sites of medical complications.
- 4. **Infection rate:** To determine how many infections occur per case, and where and what kinds of infections are occurring.
- 5. Mortality rate: To compare with national standards and incidence.
- 6. **Cost per client:** To use in preparing budgets and requests for financial assistance, identify opportunities for savings.
- 7. **Immunization rate:** To compare with national guidelines or local objectives and decide if additional efforts are necessary.

There are several ways to use data for quality improvement:

- As a sign of a quality-related problem (for example, an infection rate that is higher than the norm or an increase in infections in a particular service)
- To determine the nature or cause of a problem (for example, when clients complain that they are waiting too long, staff may claim that more staff are needed; however, data analysis may show that staff can spend less time in administrative duties and more time seeing clients)
- To compare trends over time (for example, the mortality rate may increase, which may indicate a quality problem)
- To encourage staff (for example, the complication rate may decrease after a workshop in infection prevention and the data may be communicated to staff to show how their efforts have borne fruit)

Note that data alone do not always indicate a problem. Rather, data must be analyzed to know their significance, and changes over time should be considered. Also, the facilitative supervisor can compare the data with those of other regions in order to look for discrepancies that might indicate problems. In addition, the supervisor can compare these data with site, middle-level, or regional objectives to evaluate progress and look for signs of problems.

Analyzing Data

The formulas given below are only some of the ways in which data can be used more proactively by staff. There are many others (e.g., positive and negative trends in infection rates, complication rates, and mortality rates) that also paint a picture of the quality of services. The important point is that staff need to be guided toward using and analyzing the data that they are already collecting in order to improve service quality.

1. Client load per nurse

When the staff complain that they are understaffed, it is useful to try to corroborate this assertion with data. After calculating the results, encourage staff to ask themselves these questions: Is the workload feasible? Are more staff really needed? Could perceived staff shortages actually be a result of poor scheduling? Could some duties be assigned to other staff? If the staff shortage is real, what can be done? Can additional staff be hired? Can excess staff from another site be deployed here?

Client Load/Nurse =
$$\frac{\text{(Number of Client Visits)}}{\text{(Number of Nurses)}}$$
or
$$\text{Client Load/Nurse/Day} = \frac{\text{(Number of Client Visits)}}{\text{(Number of Nurses)} \times \text{(Working Days in Year)}}$$

2. Cost analyses

Cost consciousness is key to continuous quality improvement and making services more efficient. It is important for sites to know the "cost of doing business." With reliable information on what supplies, staff time, and infrastructure cost, site staff can make valid decisions on where savings can be made. With adequate cost information, the site can also demonstrate that quality improvements have saved money. If the site staff do not already collect or analyze cost information, your role as a supervisor will be to help them start doing so.

Cost analyses may be conducted to determine how much a site spends in delivering services (e.g., how much staff time is spent in delivering a certain method or performing a procedure on a client).

Α	В	С	D	E	F	G
Staff Position	Annual Salary & Fringe	No. Working Days/Year	Cost per Day (B/C)	No. Working Hours/Day	No. Working Minutes/Day (E*60)	Cost per Minute (D/F)
			*			

If you add the cost of the method or service, you will have the supplies and staff cost. If you prorate and add costs of electricity, heat, etc., you will have a more comprehensive idea of the cost of providing the method to one client. There are a number of manuals that contain instructions on how to analyze costs, including Management Sciences for Health's Family Planning Manager and EngenderHealth's Cost-Analysis Tool for Clinic-Based Family Planning *Methods*. Results of these analyses can help the site determine user fees, or identify where cost containment is needed.



Keeping costs in mind is key to quality improvement.

Comparison of these analyses over time substantiates rises in costs or the success of cost-containment measures.

For example, what you may find through cost analysis is that by training nurses to provide some services, rather than using doctors, the cost per client is sharply reduced.

3. Contraceptive method mix

Most often method mix is compared with the national program's recommended mix. By taking population statistics and the demand for family planning from the Demographic and Health Survey, sites can calculate the use in their area for each method. Calculating the use of each method provides the contraceptive method mix. Usually the reality is quite different from the ideal. If so, site staff can ask themselves and clients why certain methods are not used more.

Contraceptive method mix =
$$\frac{\text{Number of clients on a certain method x 100}}{\text{Total number of clients using any method}} = \%$$

(*Note:* It is easier to use new clients rather than to include all clients.)

Using these data, analyze the method mix and ask questions about quality—for example, if a method is seldom used, are staff biased against it, is it readily available, etc.? When introducing a new method, staff can compare the method mix over time to analyze whether the method is being accepted. If a method is slow to achieve acceptance, staff can try to understand why and solve the problems that surface.

4. Estimating demand for family planning services

Staff may also use a combination of external and internal data to determine whether the site, district, or region is meeting the demand for family planning services. Data on unmet demand from the Demographic and Health Survey can be applied to local population estimates and then compared to the number of clients being served.

Example: Using Data

The census estimates the population of women aged 15-49 in District X.

The 1996 Country DHS tells us that 67% of women in the country are married.

The 1996 Country DHS also shows that 24% of currently married women have an unmet need for family planning.

Of the currently married women, 15% need FP for spacing and 9% for limiting births.

- What is the population in our district with an unmet need for family planning?
- How many women in our district have an unmet need for temporary FP methods?
- How many women in our district have an unmet need for permanent or long term contraception?
- How many women are we currently serving compared to those we are not yet reaching?

District X

- Estimated population of women aged 15-49 in 1997 = 67,279
- 67% of those women are currently married = 45,077
- 15% of those women have an unmet need for spacing births = 6,762
- 9% of currently married women have an unmet need for limiting birth = 4,057
- Total (24% of currently married women) with an unmet need for FP = 10.181
- Total number of women who were new users of permanent or long-term FP methods (Norplant, IUD, male or female sterilization) in 1997 = 435
- Total number of new users of any FP methods in the district in 1997 = 3.162
- Ratio of the total new acceptors to the total women with an unmet need for FP = 217

This means, for every 2 new FP users in 1997, there were 7 more women who needed family planning.

- What about the demand for FP among unmarried women?
- What about men's need for FP?
- Are there other people whose needs are not being met?
- What would it take for us to be able to meet these needs?

continued

Example continued

Here is the method mix (for new users) in District X in 1997.

(Data from the district hospital plus Community Based Distributing Agents)

10	<u>`</u>		8 J	2	P	100	. %		7 8	Y. XX.			₹	×	40		3		94	¥00	i	9 &	14.	Ĵ.
	ு⊨	ills	8.	₩.a	338	0.0	~ji.	a (¥•)		2	Ş.,	ŝ.	11:	7,	33	Ø:	288	36	39	ា	. 2	9	3 :
÷	N		`&	200	300	Ta.	٠.	83	98	~ @:	39	8 8		- P		33	Ç.	: 3				•		Ĩ 1
3	44	em	3	:38	74	P.,.	0.0	X.	133			زوا		170	٠.	30) }};	u G	28	i i		₹ :	Z.,	
Ŷ.	- 11	JD	3,	~?.	20	11.	ğ.,,	XX.	- 6°		750	183		8,38	δ.	. T	\$ J	81	(~)	8 W	193	ž.,	12	2
Ć.	· :.	88.	- 3				80.8	786	÷.	3	• • • • • •	W.	be.	30	30	: :	à ir		Ä'n,	W.	190	1	: : ;	
<u>ۇ.</u>	**	ii.	-1	· .			W		ş \$+ -	%.		·	À. :	9 C	¥.	유.	×	S. 14	3, 3	334	Œ.	'n	2(4
3.	- 1	ub	al.	₩y	aи	u	Ø.	-0.0	8. 1	Sa)	(130	€	ŵ.	80	(∙ (30	40	337		900	- 4	4	1
33			837	š T,		/ 3%	~~		X d		21. 20. j	. ·	Ť. :	1377	.::(Ç.,	-32	385	, sas		33		8
300	r	er)			ďξ	::::::::::::::::::::::::::::::::::::::	8	2 3	20 C	7.73	W)	Ý	À.	-83	٠. ١	80	įπ	28) & .		9.3	. 7	2	30
*	3	~	~					97 (3:3	0.33	886	84	8.3	-86	ë,	\$60		15	# D	ij.K.,	3.3			80
30	8. 1	9-W	300	Ŷ.s	2 3	##	10	84	27		???	80	w	:30	ř :	S.	9.7	7 N		M.	3 23	೯೪		8
	\boldsymbol{C}	or	ır İr	m	19*	Ø	- 41	23	w	. 0	₹.	XŽ	ű%	. 8	À J	\$.	()	23	9.3		.ŵ	ß	9	ï
40			2	w		9:Y	1	788			Ø.,		9.9		8	j~,	87	307	83	20	8	- 0	383	
ją,		(Y	ą, i	åä.	2000	ुं अः		399		ž.,	1	.j.	8:0	γ.,	27	810	×.	:8	47.		gris.	्र		13
e Ø	N	lati	ur:	1		100	80. j	W.	25	<u>کون</u>		<u>.</u>	1.	W.C	.Q;.	1	×.	æ	33	- 0	23	grig	e. 8	5
		170		97	90	- 447	966		ŝ. i.	82		9.	¥(20		(M)	9.0	*		`: ·	2.00	84	,	≫
9				بأسان	(()	100	::::::::::::::::::::::::::::::::::::::	33.3	8. T	Mi	W- 38	ġ'n:	**	. 83	٠.	W)	; ïy	;	<i>.</i>	A 88.	100	m	~	à.
	n	or)ii	\$/ I	ţ.	28.	37	多点色	808			3 ;	70	: 160	ž.	8. j	3.48	ő	813	#y	×.		0	3.
	X.		. 3.	٠.	23	N. 3	3.	å A	2 X	186	W.	88	99	; 	3.5	, i i	€ 1	ĭ. ĭ	3.7	T.,	Så.	100	43	
*	*****	****		***	. 4	···		· ·	3.3		erenteren V	3.1							4.4		3 - A	- 3	****	پيد
٠.			00.00 9 ± 00	()	1 13		;	X.	٠ <u>٠</u>	100	9	Ø.,	H-]	& ^	3/2	ે પૂર્વ	às.	ŵ.	430	15	2 2	30		
Ş.	: 1	ote	u.	į., j	100	» i) }	38.	140	2.5	. 7	F.		\$ i	§ 3	N. Se	ki a	ø.	.Ş.	110	ಿ	. 1	62	2
3	v.'''	587	Ø.	8.20	₩.	·^ 3	M. J	· ***	.4	96	. 1	: " P	: :	¥1.	ğ.	ÇÜ.	71 T	٠				್ಟ		01

*Not including condoms distributed in STD/HIV clinics

Evaluating Quality Improvement

As discussed previously, EngenderHealth's continuous quality improvement methodologies involve the solution of problems through action plans. Thus, evaluating progress in implementing action plans would be an obvious way to assess quality improvement.

Supervisors should review the action plan periodically, with a view to assessing progress. Ask questions like: Which of the problems have been solved? How many of the total have been solved? What percentage? What are the reasons why the unsolved problems are still pending? Do we need to review them to make sure that we've identified the true cause of the problem? Always make sure to praise the staff for problems solved and to recognize those who have done good work.

EngenderHealth's COPE methodology provides for regular follow-up meetings for this purpose. The COPE process uses the following chart.

Sample Action Plan Evaluation

Problem and cause	Recommendation	Status (accomplished, in progress, not attempted)	Comments
Clients have trouble finding services because of a lack of signs	Prepare and affix signs	Accomplished	File clerk left; had to assign new file clerk to task
Long delay at receptionist because it is difficult for staff to find client records	Remove and store obsolete records	In progress	Decision to renovate forced post-ponement of this task
Shabby exterior of site because it hasn't been painted in 10 years	Paint exterior walls	Not attempted	tins task

Questionnaires may be used to evaluate the quality of services. Periodic use of the same questionnaires and comparison with previous results will show improvement or the lack thereof. For example, when using EngenderHealth's Quality Improvement Questionnaire, staff give themselves one point for every positive answer to a quality question, then total the points and calculate a percentage for each quality area. Percentages for each area can then be compared with the subsequent scores to assess progress.

Using Data to Communicate with External Audiences

Data can help site staff evaluate quality and its improvement. However, the same data can also be useful outside the site to prove to external audiences that assistance is needed or that quality is good or being improved.

Exercise

Using Data with External Audiences

Consider the types of data discussed above. Which types would be useful in communicating with the following external audiences and why?

External audience	Type of data	Reason
1. Ministry of Health		
2. Local community leaders		
3. Funding agencies		

Possible answers:

Type of data

Reason

- 1. Method mix
- 2. Workload/staff
- 3. Cost analyses

To indicate shortage of supplies

To indicate need for additional staff
To prove budgetary needs and need for in-kind

donations