

Part II.H.2 Quality of Care

A. Service Provision Assessment (SPA)

- Percent of facilities prepared to provide the essential service
- Percent of facilities with systems that support quality service delivery (assessed separately for each service)
- Percent of facilities where _ percent of clients receive the service that meets the expected standards

B. The Quick Investigation of Quality (QIQ)

- Quick Investigation of Quality (QIQ)

C. The Quality Assurance Approach (Applied to Maternal Health)

- Percent of newborns receiving immediate care according to MOH guidelines
- Facility perinatal mortality rate
- Percent of deliveries in which a partograph is correctly used
- Percent of deliveries in which a perinatal clinical record was properly completed
- Percent of mothers examined every 30 minutes during the first two hours after delivery

Quality of care (QC) has been a central focus of the international family planning programs for the past decade. Consistent with the major theme of the 1994 ICPD Conference for more client-focused services, many governments and NGOs worldwide designed and implemented initiatives to improve QC within their service delivery environment. The paradigm behind much of this work is the Bruce/Jain framework, which defines the six elements of quality of care: choice of methods, information given to clients, technical competence, interpersonal relations, follow-up and continuity mechanisms, and the appropriate constellation of services (Bruce, 1990).

With the increased interest in quality that developed during the 1990s, many organizations searched for means to **evaluate** quality for the purposes of (1) underscoring to staff the importance of quality, (2) identifying problems they needed to address, and (3) measuring the effectiveness of interventions designed to improve quality.

In this *Compendium*, we present three approaches to measuring quality of care: the Service Provision Assessment (SPA), the Quick Investigation of Quality (QIQ), and the Quality Assurance (QA) Approach.

A. Service Provision Assessment (SPA)

The most comprehensive tool for evaluating quality of care is the Service Provision Assessment (SPA), a national survey of a representative sample of public and/or private facilities that provide maternal, child, and reproductive health service. In addition to quality, it also measures the general functioning of a network of clinical facilities, and it provides an inventory of available equipment and supplies. The SPA provides a means of assessing strengths and weaknesses in the service delivery environment, which (1) may explain the impact (or lack thereof) of the services on health behaviors in the catchment area, and (2) may guide policy makers and program administrators in prioritizing resources for better health outcomes.

The SPA uses four different data collection methods. The first is an *inventory* of resources and support services, which provides information on the “preparedness” of a facility to provide each of the priority services at an accepted standard of quality. As part of the inventory (also known as a facility audit), interviewers ask staff about their qualifications, training, perceptions of the service delivery environment, and related issues.

The second is a *provider interview*, during which interviewers ask health service providers for information on their qualifications (training, experience, continued education), supervision they have received, and perceptions of the service delivery environment.

The third is *observation* of services provided. The observation assesses the extent to which service providers adhere to service delivery standards.

The fourth is *exit interviews* with clients who have received services. The exit interview assesses the client’s understanding and perceptions of the consultation/examination, as well as recall of instructions regarding treatment or preventive behaviors. Recall of key messages increases the likelihood that the client will successfully follow treatment or will perform the preventive behaviors that optimize healthy outcomes.

The SPA not only measures quality of care but also overall functioning of the facility, as reflected by the set of questions it addresses:

- 1) To what extent are the surveyed facilities prepared to provide the priority services? (availability of resources)
- 2) To what extent does the service delivery process follow generally accepted standards? (care process)
- 3) To what extent do support systems for maintaining or improving the existing services exist, and how well are they functioning? (support services)
- 4) What are the issues the clients and service providers consider relevant to their satisfaction with the service delivery environment?

The SPA provides the following information on all four types of health services: family planning, STIs, maternal health, and child health:

- Preparedness to provide good quality services;
- Adherence to standards for provision of services; and
- Client understanding of the consultation.

Other data, specific to these topic areas, are as follows:

Sexually Transmitted Infections (STIs)

- Preparedness to offer both basic and higher level diagnosis and treatment of suspected STIs; and
- Preparedness to diagnose and to treat HIV/AIDS-infected persons, including specific program components related to HIV/AIDS prevention, treatment of opportunistic infections, palliative treatment, and family and client support services.

Maternal Health

- Preparedness to provide good quality basic and higher level antenatal care; and
- Preparedness to provide basic and higher level delivery services.

Child Health

- Preparedness to provide good quality immunization services; and

- Preparedness to provide good quality basic diagnosis and outpatient treatment of the seriously ill child.

For each of these health services, the SPA covers the following specific components:

- (1) Staff:** What is the qualification of staff who provide the service? Have the service providers received periodic continuing education on relevant topics, and how recently has training occurred? Have the service providers received a minimal level of supervision?
- (2) Process:** Do protocols and standards of practice for each service meet generally accepted quality standards for basic as well as advanced level services at referral facilities? Do providers adhere to the standards of practice for service delivery? The process assessed includes procedures followed, components of physical examinations, as well as the information exchanged between the provider and client (history, symptoms, advice). The SPA assesses if the process during service delivery meets the standards; it does not assess if providers correctly diagnose the problems.
- (3) Facility resources, equipment, and supplies:** What specific equipment and supplies are available for meeting various levels of service delivery? What are the basic systems and infrastructure that may impact utilization and capacity to provide standard level services? Are the elements required to provide the services meeting the minimum standard, present, functioning, and in the appropriate location for use during service provision? Are there systems for maintaining adequate availability of supplies (inventories; appropriate storage, equipment maintenance and repair/ replacement systems), and is there evidence of their effectiveness?
- (4) Systems for evaluating and monitoring services:** Are routine information systems up-to-date and able to provide basic client and service provision data? Are there systems for monitoring community coverage if community coverage is expected of the facility?
- (5) Facility management:** Does the facility have basic management systems in place, and do they include community representation? Does the facility

participate in any financing mechanism that impacts the cost to the community or client?

- (6) Client understanding:** What information regarding the consultation, instructions, or follow up can the client recall?
- (7) Service provision environment:** Does the facility collect very basic information about the problems staff think should be addressed to improve their working situation and services? Does the facility collect data revealing the opinion of clients regarding issues related to satisfaction with their consultation and the service delivery environment?

The SPA yields data from four different instruments for four areas of reproductive and child health. (In fact, the sheer volume of data generated in this type of survey led to the creation of the QIQ, an instrument less comprehensive in scope, based on 25 indicators and focused exclusively on family planning.) Although evaluators provide the most complete picture of quality and service availability when they assess the four services areas together, a number of factors (e.g., limited human and financial resources, local interest in a particular service area) may dictate a limited scope of the SPA. The SPA has been developed so that evaluators can use each of the modules separately. Appendix G presents a full list of the indicators available from the SPA for each of the four areas: family planning, STI, maternal health, and child health. In addition, several composite indicators – presented on the following pages – assess the service delivery environment across these service areas.

The SPA module measures the service delivery environment. First, it identifies strengths and weaknesses of a set of clinical facilities at a given point in time, and if repeated, the data can demonstrate changes over time (as in Tanzania in the 1990s). Second, if a program is not achieving its desired outcome, the SPA data may reveal service-related reasons for this shortcoming. Third, the SPA data play an important role in a relatively new approach to evaluating program effects. Researchers link facility-based data from the SPA to household-level data from the DHS to demonstrate that changes (improvements) in the service delivery environment improve outcomes at the population level.

In this volume, we present three composite indicators to capture the functioning of subsystems a clinic needs

to achieve an objective. For example, to ensure proper sterilization of equipment, several conditions must be present: sterilization equipment is available, source of heat is available, provider can use the equipment, and items are properly stored after sterilization, among others. Whereas each individual indicator provides useful information, evaluators must combine specific items into composite indicators to evaluate the functioning of a given subsystem. The three composite indicators on the following pages represent Macro International's proposed approach to converting the findings on individual items from the SPA into composite scores. Whereas the composite indicators are still in the development stage (in terms of weighting of items, summary scores across items, and related details), most of the individual items that comprise the summary scores have been tested in field applications.

Indicator

PERCENT OF FACILITIES PREPARED TO PROVIDE THE ESSENTIAL SERVICES

Element: Service availability (family planning, STIs, maternal health, child health)

Definition

This composite indicator combines several indicators for preparedness to provide a given service at a minimum standard. It measures the percentage of facilities with each of the following:

- All essential equipment present, functioning, and located in the service delivery area or in reasonable proximity for utilization;
- All essential medications and supplies present; and
- At least one set of staff members assigned to the facility who have either professional or in-service training that qualifies them to provide the service following standard procedures.

Data Requirements (Service specific)

Inventory of functional status of equipment, and location in relation to the service delivery area; inventory of medications and supplies; inventory of all assigned staff and their basic qualification; and information on qualification and continued training related to the service provided, for staff providing the service on the day of the visit

Evaluators will use core definitions for “essential items” (based on generally accepted standards for practice) to compare preparedness to provide the service across various countries. However, evaluators may also adjust the essential items to reflect individual country service standards.

Data Source(s)

Interviews with staff and with persons in charge of each service; facility inventory and physical verification of equipment and supplies

Purpose and Issues

This indicator provides information on the preparedness of a facility to offer a specific service with a mini-

mum standard of quality. It can be used to identify gaps between planned service standards and actual resources on-site, which are required to provide the service to the given standard. These gaps will most often reflect problems with the support systems, such as the commodities and logistics systems, staff allocation, or staff training.

One important aspect of this indicator is that it assesses the resource availability at the delivery site. Evaluators interpret as “not available” any essential items absent from the service delivery area (e.g., a blood pressure gauge sitting in another service delivery area, or supplies locked in a storage closet). This approach more realistically assesses a facility’s capability for meeting service standards.

Preparedness is an important measure, because a facility that fails to meet the indicator standard is incapable of providing the service to the established standard.

Evaluators may analyze facility service availability by type of facility, by geographic area, or by sector (e.g., government, private for profit, private non-profit).

The SPA provides an assessment at a single point in time. However, one can evaluate changes over time by repeating the SPA at a given facility or at a set of facilities at periodic intervals (e.g., 3-5 years). With a representative sample, the picture of preparedness should accurately reflect the overall situation at a given level of analysis (e.g., region or nation), although it may not provide an accurate picture of an individual facility.

Several caveats warrant mention. First, the SPA provides data on the extent to which a given facility or set of facilities is “prepared” to provide service to a given standard. It does not measure the actual delivery of the service (e.g., whether the service meets the standard of quality during a given client visit). Similarly, the SPA does not measure whether service providers followed the right process and made the right decisions regarding the course of action for specific clients.

Second, the SPA does not assess preparedness in relation to the potential demand for the services based on normal client load. If the client load is greater than the facility can handle, the overload can increase waiting times, cause staff to neglect tests or other processes for which equipment is in short supply, or cause the clinic to have inadequate supplies to meet client demand. Thus, service quality declines.

Third, preparedness provides only one measure of access; this indicator fails to capture other aspects of access, such as hours the service is provided, and geographic, cultural or financial constraints.

Indicator

PERCENT OF FACILITIES WITH SYSTEMS THAT SUPPORT QUALITY SERVICE DELIVERY (ASSESSED SEPARATELY FOR EACH SERVICE)

Element: System support for quality

Definition

This composite indicator combines several indicators for support systems required for quality service delivery. It measures the percentage of facilities with each of the following:

- Resources and systems adequate for preventing transmission of infection;
- Service-specific written protocols for service delivery;
- Visual aids for educating clients about the service;
- Service providers with in-service training on a related topic within the prior 12 months;
- Service providers supervised while providing the service within the prior 6 months;
- Information systems providing basic information on clients and services provided;
- Use of individual client records/charts; and
- Systems for monitoring service coverage (where relevant).

Data Requirements (Service specific)

Equipment and standard procedures meeting requirements for infection control; relevant infection control supplies in service delivery areas; client information registers/forms and copies of protocols; and information on in-service training and supervision for service delivery staff

Evaluators may use core definitions for “minimum requirement” (based on generally accepted standards) for each of the aspects of quality measured so they can compare system support for quality services among various countries. However, evaluators may augment the essential items and details within each item with country-specific standards.

Data Source(s)

Interviews with staff and with persons in charge of each service; facility inventory and physical verification of equipment and supplies

Purpose and Issues

This indicator provides information on whether a facility has established systems to support and maintain minimum standards of quality. The indicator also assesses how the system functions (e.g., whether staff training is recent; whether staff know the appropriate procedures for disinfection/sterilization). It can identify gaps between planned systems and actual practices. These gaps will most often reflect problems with the support systems, such as the commodities and logistics systems, management and supervision system for the facility, or staff training.

Evaluators can analyze each component of the support system by type of facility, by geographic area, or by sector system (e.g., government, private for profit, private non-profit). Each of these factors may uniquely influence specific items (e.g., availability of items, access for supervision, establishment of acceptable standards) required to support quality of care.

Although this indicator provides information on the existence of systems that should support quality of services, the fact that a facility meets the indicator criteria does not mean that the facility functions to standard and achieves good quality results. For example, although staff may report following appropriate procedures for sterilizing equipment, the SPA does not observe the actual sterilization process. Similarly, although the SPA assesses the staff’s level of training, it does not evaluate actual performance and expertise on the job. The assessment of supervision likewise stems from facility reports, not from observation of practice.

Gender Implications of this Indicator

There are many overlaps between services that are gender sensitive and those that provide high levels of quality of care. The elements of a quality program should include gender equitable treatment by providers, respect for the client's dignity and attention to the client's rights to privacy, confidentiality and free and informed choice. If the elements of a gender-equitable program are included in the parameters that measure quality of care, the percentage of facilities that support quality service delivery will also reflect those that give explicit attention to gender.

Indicator

PERCENT OF FACILITIES WHERE __ PERCENT OF CLIENTS RECEIVE THE SERVICE THAT MEETS THE EXPECTED STANDARDS

Element: Adherence to service provision standards

Definition

This composite indicator combines several service delivery indicators for providing good quality client consultation and examination. The indicator measures the percentage of facilities in which providers use standard procedures in their interaction with clients, such as:

- Eliciting essential history and client information;
- Conducting essential physical examination and monitoring;
- Providing treatment (if relevant) or intervention that followed standards, based on the client assessment; and
- Providing essential information to the client during counseling.

Data Requirements

Content of client history elicited during consultation; specific examination procedures conducted; treatment or intervention prescribed/provided; and content of counseling provided to the client

Core definitions exist for “standard processes” providers must follow during service provision (processes based on generally accepted standards for practice); evaluators will use these definitions to compare availability of services between various countries. However, evaluators may augment the essential items with country-specific items that meet their service provision standards.

Data Source(s)

Observation of client-provider interactions

Purpose and Issues

This indicator provides information on the extent to which service providers adhere to specific standards for service delivery. Evaluators should interpret it in relation to the previous two indicators (which measure essential resources and apply to systems supporting the provision of quality of care). If the facility fails to meet the minimum standard for resources and systems to support the provision of quality services, then providers will have great difficulty in adhering to service provision standards. By contrast, if the facility does meet these minimum standards, but the provider fails to adhere to service provision guidelines, this result signals a need to review the adequacy of supervision, training/skills maintenance, and management/leadership.

Evaluators can analyze service delivery procedures followed by type of facility, by geographic area, or by sector system (e.g., government, private for profit, private non-profit). This indicator measures whether the service provision process follows accepted standards. The indicator does not, however, evaluate the accuracy with which providers interpret the information and the appropriateness of subsequent actions.

The major difficulty in measuring this indicator relates to the biases inherent in observing client-provider interactions, as well as issues related to sampling (discussed in the introduction to this section).

B. The Quick Investigation of Quality (QIQ)

In contrast to the SPA, which spans multiple areas of reproductive health, the QIQ was designed explicitly for family planning.

Because quality of care is a complex, multi-faceted issue, evaluators could use literally hundreds of indicators to measure it, and the resulting volume of data would be overwhelming. For practicality, the QIQ was designed as a “short list” of 25 indicators relevant to client behavior and outcomes. These key indicators – while by no means comprehensive – serve as “markers” for a wide range of behaviors or conditions; facilities that perform well on these should perform well on the larger set. For a complete description of the QIQ, see Sullivan and Bertrand (2000). Table II.H.2.1 lists the 25 indicators; the numbering (I-1 to I-25) is consistent with previous publications on the QIQ.

Evaluators can measure each indicator by one (or more) of three methods of data collection, as shown in Table II.H.2.1. The three methods are the same as for the SPA:

- **Facility audit** with selected questions to the program manager;
- **Observation** of client-provider interactions and selected clinical procedures; and
- **Exit interviews** with clients departing from the facility (and previously observed).

The facility audit measures the **readiness** of a facility to deliver quality services. Because evaluators observe client-provider interaction, they can directly assess the actual level of **quality given**. The exit interview provides feedback from clients on their perceptions of the **quality received**. The basic premise is that improved quality of care leads to service utilization, contraceptive adoption, and contraceptive continuation. The items included in the QIQ were drawn largely from the Situation Analysis (Miller et al., 1997) and were later reformulated to be consistent with the SPA (i.e., most of the items contained in the QIQ are included in the SPA instrument for family planning).

Table II.H.2.1 below presents the short list of QC indicators and identifies the type of data collection instrument appropriate for each indicator. These indicators measure five of the six elements of the Bruce/Jain framework (all but “an appropriate constellation of services”).

QUICK INVESTIGATION OF QUALITY (QIQ)**Definition**

The QIQ is a set of 25 indicators that collectively measure quality of care in family planning programs

Data Requirements

The ratings or assessments of an external evaluator (in the case of the facility audit, observation guide, and mystery client) and self-report on the client exit interview

Data Source(s)

Facility audit; client exit interview; observation guide; and/or mystery client. Note: the first three draw heavily on similar instruments used in Situation Analysis (Miller et al., 1997).

Purpose and Issues

The QIQ is a low-cost, practical instrument that assesses quality of care in family planning programs. Although specific to FP, it has been adapted to related RH topics in several instances (Sullivan and Bertrand, 2000).

The instruments have been tested to date in five countries (Ecuador, Turkey, Uganda, Zimbabwe, and Morocco). The field experience indicates that data collection for obtaining these indicators is practical and that the results are relatively consistent across instruments (i.e., observation and client exit interview [Bessinger and Bertrand, 2001]).

Ideally, one would like to develop a summary score for the full set of indicators. Although it will continue to be valuable to report the strengths and weaknesses of specific facilities or a network of facilities, a summary score will facilitate comparisons among facilities in a network or in a given facility over time. However, to justify the development of a summary score, all elements must “move in the same direction.” An in-depth analysis of the data from the field tests in Ecuador and Zimbabwe indicated that most but not all of the indicators were positively correlated; as a result, no summary score was calculated (Sullivan, Rice, and Bertrand, 2001).

Table II.H.2.1 Short list of QIQ Indicators

| Indicator Number | Indicator | Client Exit Interview | Observation | Facility Audit |
|------------------|---|-----------------------|-------------|----------------|
| | PROVIDER | | | |
| I-1 | Demonstrates good counseling skills (composite) | ✓ | ✓ | |
| I-2 | Assures client of confidentiality | | ✓ | |
| I-3 | Asks client about reproductive intentions (more children? when?) | ✓ | ✓ | |
| I-4 | Discusses with client the method she prefers | ✓ | ✓ | |
| I-5 | Mentions HIV/AIDS (initiates or responds) | ✓ | ✓ | |
| I-6 | Discusses dual protection (method use) | ✓ | ✓ | |
| I-7 | Treats client with respect/courtesy | ✓ | ✓ | |
| I-8 | Tailors key information to the particular needs of the specific client | ✓ | | |
| I-9 | Gives accurate information on the method accepted (instructions for use, side effects, complications) | ✓ | ✓ | |
| I-10 | Gives instructions on when to return | ✓ | ✓ | |
| I-11 | Follows infection control procedures outlined in guidelines | | ✓ | |
| I-12 | Recognizes/identifies contraindication consistent with guidelines | | ✓ | |
| I-13 | Performs clinical procedures according to guidelines | | ✓ | |
| | STAFF (other than provider) | | | |
| I-14 | Treats clients with dignity and respect | ✓ | | |
| | CLIENT | | | |
| I-15 | Participates actively in discussion and selection of method (is “empowered”) | ✓ | ✓ | |
| I-16 | Receives her method of choice | ✓ | ✓ | |
| I-17 | Believes the provider will keep her information confidential | ✓ | | |
| | FACILITY | | | |
| I-18 | Has all (approved) methods available; no stockouts | | | ✓ |
| I-19 | Has basic items needed to deliver methods available through SDP (sterilizing equipment, gloves, blood pressure cuff, specula, adequate lighting, water) | | | ✓ |
| I-20 | Offers privacy for pelvic exam/IUD insertion (no one can see) | ✓ | ✓ | ✓ |
| I-21 | Has mechanisms to make programmatic changes based on client feedback | | | ✓ |
| I-22 | Has received a supervisory visit in past months | | | ✓ |
| I-23 | Stores adequately contraceptives and medicines (away from water, heat, direct sunlight) on premises | | | ✓ |
| I-24 | Has state-of-the-art clinical guidelines | | | ✓ |
| I-25 | Has waiting time acceptable to clients | ✓ | | ✓ |

Box II.H.2.1 Definition of 25 QIQ Indicators

I-1: Provider demonstrates good counseling skills (composite of I-2 to I-9)

Good counseling skills are defined in terms of *how* the provider communicates with the client and *what* information the session covers. A provider who demonstrates good counseling skill receives a “yes” score on indicators I-2 to I-9.

I-2: Provider assures client of confidentiality

“Confidentiality” is assurance that the provider will keep private the information the client shares during the session. That is, information such as client records are secure (e.g., in a filing cabinet with a lock) and the provider shares only that information relevant to the case in an appropriate manner (e.g., within the clinic setting, where other clients at the clinic cannot overhear information).

I-3: Provider asks client about family planning intentions (more children? when?)

The provider inquires about family planning intentions: *desire* for more children and *timing* of future births. *Desire* refers to whether or not a woman would like a/another child, and *timing* relates to when she would like to have a/another child.

I-4: Provider discusses with client the method she prefers

“Method preference” is the contraceptive method the client wishes to use when she enters the clinic. The client may prefer a temporary method such as the Pill, the injectable, or the condom if she wishes to space births. Alternatively, she may prefer a long-term method such as the IUD or implant, or a permanent method such as female sterilization if she wishes to limit her births.

I-5: Provider mentions HIV/AIDS (initiates or responds)

HIV (Human Immunodeficiency Virus) is the precursor to the disease AIDS (Acquired Immunodeficiency Syndrome). A provider mentions HIV/AIDS if s/he discusses how the disease is spread and/or how to protect oneself (condom, abstinence, fidelity to an uninfected partner).

I-6: Provider discusses protection (dual method use)

“Dual protection” refers to the use of condoms (to prevent STIs and HIV/AIDS) alone or in addition to another contraceptive method to prevent unwanted pregnancy. Although condoms can prevent both disease and pregnancy, they have not been the “contraceptive of preference” for most couples. (This trend is changing in some countries in response to HIV/AIDS.) Thus, some individuals select or continue to use a highly effective contraceptive for pregnancy prevention, in addition to condoms.

I-7: Provider treats client with respect/courtesy

The manifestation of “courtesy and respect” may differ from culture to culture. In general, courtesy involves greeting a person in a culturally appropriate manner (e.g., exchanging greetings, shaking hands), communicating with words or gestures that the person is welcome, addressing him/her in a positive, non-degrading manner, and so forth.

I-8: Provider tailors key information to the particular needs of the specific client

The provider “tailors” key information to the client’s needs by assessing the background of the client (through reviewing the client record and/or through questioning the client about herself) and by adapting the information discussed in the visit accordingly. For example, the provider may ask the client about her reproductive intentions and may only discuss temporary methods if the client reports that she wishes to have more children in the future.

I-9: Provider gives accurate information on the method accepted (instructions for use, side effects, complications)

“Accurate” information is factually correct. In the context of the provision of contraceptives, a provider should discuss current standards on how to use the method, side effects, and any complications that may arise as a result of using the contraceptive method.

I-10: Provider gives instructions on when to return

The provider informs the clients when they should return for their next visit.

I-11: Provider follows infection control procedures outlined in the guidelines

“Infection control” relates to maintaining aseptic conditions in the clinic environment. Some examples are washing hands, wearing sterile gloves, and sterilizing equipment after each use. “Guidelines” are the standards or protocols specified by the program or by national or international standards (or a combination of all three).

I-12: Provider recognizes/identifies contraindications consistent with guidelines

Contraindications are those client attributes that make unsafe her use of a particular contraceptive method. For example, if a client has an STI/HIV, a provider should not advise her to use the IUD because it may lead to pelvic inflammatory disease.

I-13: Provider performs clinical procedures according to guidelines

Clinical procedures are specific actions (other than infection control procedures above) that the program recommends. For example, a common guideline is that providers explain certain aspects of the physical examination to the client.

I-14: Staff treats client with dignity and respect

The “staff” refers to the clinic personnel (other than the provider) whom the client interacts with at the clinic. The staff includes the personnel who admit patients and other auxiliary staff, such as health educators, social workers, and the receptionist. A client receives respect if the staff greet her in a friendly manner and treat her with culturally appropriate courtesy.

I-15: Client participates actively in discussion and selection of method (is “empowered”)

Clients “actively participate” in the discussion when they ask questions and volunteer personal information. “Empowerment” refers to a sense of personal agency in a given situation. In the context of health care, a client must feel the confidence to ask for the care she needs. Clients demonstrate empowerment when they ask questions and feel comfortable to select the method they feel is best for them (rather than feeling they must accept the provider’s recommendation).

I-16: Client receives her method of choice

The client’s preferred method refers to the method she wants when she first walks into the clinic. A client receives her method of choice if she actually receives that method the day of her visit, or if she is referred for or prescribed that method. (Note: This indicator is difficult to track in cases where a client must return for follow-up care or when she is referred elsewhere or prescribed a method.) Note: she may not receive her method of choice if it is medically contraindicated.

I-17: Client believes the provider will keep her information confidential

Confidentiality is the extent to which personal information is kept private within and outside the clinic system. Through her visits to the clinic, a client may come to believe that the clinic will or will not protect her personal information. Information is treated confidentially when the providers use the client names only when necessary, secure client records, and discuss client cases only as necessary in the clinic setting and not

in the broader community. (Note: the field tests of these instruments indicates that provider assurance of confidentiality [I-2] may fail to translate into the client belief that information will remain confidential.)

I-18: Facility has all (approved) methods available; no stockouts

Approved methods are those a clinic is licensed or authorized to carry. For example, some clinics may lack clinical staff trained to administer methods requiring substantial clinical training to deliver (e.g., male or female sterilization, IUD insertion). A “stockout” refers to the inability to give a contraceptive to a client because it is unavailable at the clinic on the day the client visits. Stockouts can vary by method, and by duration and by frequency. For example, a clinic may reliably provide the pill, but have a stockout of condoms for one week every month.

I-19: Facility has basic items needed to deliver methods available through the service delivery point (sterilizing equipment, gloves, blood pressure cuff, specula, adequate lighting, water)

“Basic items,” items essential to safely deliver contraceptive methods, are available if at least one is stocked and usable. Necessary equipment varies for each contraceptive method. A clinic should have the minimum equipment required for each method. (Note: one must distinguish between a basic list of instruments and a comprehensive list of instruments. Users of this tool have found it more practical, when they monitor QC, to limit this question to a “short list” of essential items, rather than to include an exhaustive list typically used for supervision.)

I-20: Facility offers privacy for pelvic exam/IUD insertion (no one can see)

Visual privacy refers to an area secluded from others for a physical exam. A private area is a room with a door or a curtained-off area.

I-21: Facility has mechanisms to make programmatic changes based on client feedback

Mechanisms refer to the means available to make needed changes in the program. Some mechanisms for obtaining client feedback include: suggestion boxes, informal interviews with clients, and community meetings with clients from the catchment area. Staff/management must then review the suggestions and decide to act (or not).

I-22: Facility has received a supervisory visit in the past __ months

A supervisor visit – a periodic visit from the program manager or supervisor – ensures that facilities comply with current standards and guidelines. The frequency of these visits may vary according to program needs (e.g., a minimum of once every six months).

I-23: Facility adequately stores contraceptives and medicines (away from water, heat, direct sunlight) on the premises

“Adequate storage” refers to an area set aside to maintain the integrity of contraceptives and of medicines. It is operationally defined as an area away from water, heat, and direct sunlight, and off the ground.

I-24: Facility has state-of-the-art clinical guidelines

“State of the art” means up-to-date information reflecting the current and international guidelines regarding clinical protocols. State-of-the-art guidelines ensure that recommended practices and procedures are based on the most up-to-date research.

I-25: Facility has waiting time acceptable to clients

“Waiting time” refers to the amount of time the clients must wait from the moment they enter the clinic until they see the primary provider. “Acceptable” is based on self-report (i.e., was the “wait time” too long or satisfactory). An acceptable waiting time may differ from country to country; clients come to “accept” what they view as inevitable. Others may define an acceptable wait time as fewer than 30 minutes.

C. Quality Assurance Approach (Applied to Maternal Health)

The Quality Assurance Approach

The Quality Assurance (QA) approach to addressing quality of care issues incorporates three core quality assurance functions: **defining quality**, **measuring quality**, and **improving quality** (QAP/URC, 2001a.) The

QA triangle (see Figure II.H.2.1) effectively illustrates the synergy between these three QA functions. Each core function actually represents a constellation of activities, as explained below. The triangle shape indicates that rather than a unique sequence of steps that initiate QA activities, all core functions need to take place in a balanced manner for a QA strategy to be effective. The greatest impact on quality of care results only when all three functions are implemented in a coordinated fashion. In this *Compendium*, we focus on issues relevant to the measurement of quality.

Figure II.H.2.1 Core Components of a QA Approach

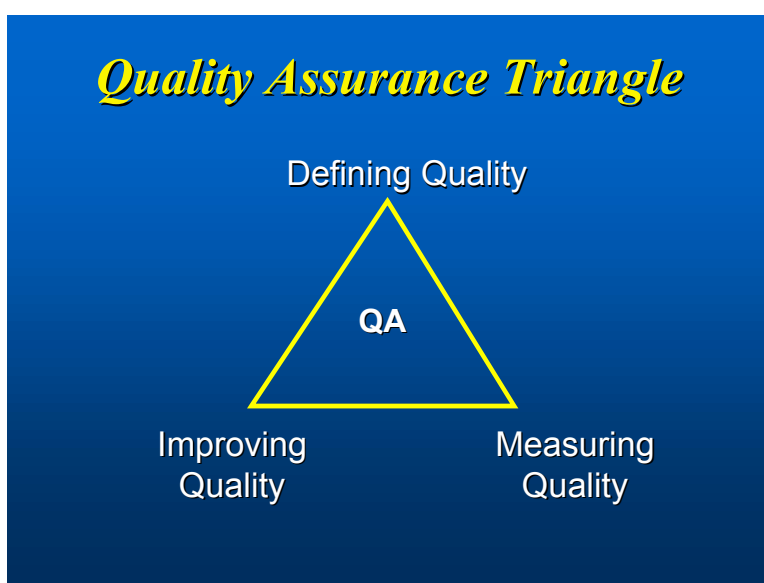


Figure II.H.2.2 Dimensions of Quality



Defining Quality means developing expectations or standards of quality. Standards can be developed for inputs, processes, or outcomes (expected outputs, results or impact on health status); they can be clinical or administrative. Standards state the expected level of performance for an individual, a facility, or an entire health care system. A good standard is reliable, realistic, valid, clear, and measurable. Standards of quality can be developed for each of the nine dimensions of quality shown in Figure II.H.2.2, which cover widely recognized attributes of quality of care. Clinical care standards should be based on the best scientific evidence available. The definition of quality standards also includes stakeholder perception and expectations of quality (including client and community).

If standards do not exist, practitioners must design or adapt them from international standards. Although standards are context specific, universally accepted standards are often a good starting point for developing local standards. Sometimes, even when national standards exist, they must be refined or made operational for local use.

Improving Quality uses quality improvement methods (problem solving, process re/design or re-engineering) to close the gap between the current and the expected level of quality (defined by the standards). This core function applies quality management tools and principles to: 1) identify/determine what one wants to improve; 2) analyze the system of care/problem; 3) develop a hypothesis on which changes (solutions) might improve quality; 4) test/implement the changes to see if they really yield improvement; and 5) based on the results of testing, decide whether to abandon, modify, or implement the solutions (QAP/URC, 2001b).

Measuring Quality consists of quantifying the current level of performance or compliance with expected standards. This process requires identifying indicators of performance, collecting data, and analyzing information. Measuring quality is inextricably linked with defining quality because the indicators for measuring quality are related to the specific definition or standard of quality under study. When standards define quality, measuring quality requires assessing the level of compliance with standards. Hence, measuring quality is easier with a clear definition or standard, because the indicators are directly derived from the expression of the standards. Likewise, measuring quality leads directly to identifying areas for improvement or enhancement –

the first step in quality improvement. A few key points in the measurement deserve highlighting; the details appear in different publications (QAP/URC, 2000a and 2000b):

- If one starts the QA approach with measuring quality, the scope of measurement should be limited to what the system is able/willing to improve (i.e., a quality improvement objective must be defined).
- The QA team must be realistic about what data the team can readily collect at the facility level or across the system. A simple performance monitoring system with a limited number of indicators related to the improvement goal is usually very effective.
- Measurement strategies, such as special surveys, self-assessment, audits, and supervision visits, must be carefully designed so that those stakeholders ultimately controlling the quality of care (usually the providers) take full ownership of the quality improvement process. The team in charge of making improvements should fully participate in defining standards, identifying indicators, and developing a measurement strategy.

In this section, we focus on measuring the quality of neonatal and maternal health services, specifically essential obstetrical care, at a facility or operational level. Hence, the illustrative indicators are based on existing Neonatal and Essential and Emergency Obstetrical Care (EOC) standards relating to newborns and safe motherhood. However, even when well-defined national standards exist, defining new standards (and indicators) specific to the needs of the facility and community served may be necessary. Thus, the indicators used to measure quality will vary in each setting, based on the particular standards used and the level of the system (facility, district, regional, or national) on which measurement focuses.

The illustrative standards and indicators presented in this section are drawn from the Latin American Maternal Mortality (LAMM) Initiative. This initiative, implemented in collaboration with the MOH in each participating country and PAHO, aims at reducing maternal mortality by increasing the use, quality, and availability of maternal health services in eleven countries. In three of these countries – Bolivia, Ecuador, and Honduras – QAP and NGO subcontractors provided techni-

cal assistance in measuring quality, using the QA approach. The QA approach improved the ability of health care providers and facilities to detect and manage neonatal care and obstetrical complications at the facility and district levels. Detailed results of this work can be found in the LAMM/Briefer by Askov, Legros, and Camacho, 2001.

Organizational Levels of Care

As explained below, when developing indicators to monitor the quality of maternal care, one needs to consider various organizational levels of the health care system (operational/facility, intermediate, and strategic). The indicators will vary based on the level and on the specific standards selected for measuring quality (QAP/URC, 2001c). Whenever possible, the QA team should select indicators that use available data collected through the routine health information system. A brief description of organizational levels follows.

- **Operational level** - refers to the facility where processes that directly affect users and generate the monitoring data are carried out.
- **Intermediate level** - involves decision-makers who influence quality and the delivery of care, such as heads of departments, sections, or services.

- **Strategic level** - includes top management and political decision-makers at local, provincial, and national levels.

Table II.H.2.2 describes the differences between these levels.

A complete quality monitoring system for neonatal and essential obstetric care will include indicators for the processes, outputs, and outcomes of the different levels of services. They should reflect levels of compliance with the best clinical evidenced-based standards available. The frequency of measuring indicators varies; whereas some require monthly or quarterly measurements (compliance with process of care standards), others will require less frequent measurements (outcome measures such as disease-specific maternal mortality rates). When the number of cases are small, one can pool the data of several facilities in a region. Plotting those data over time allows evaluators to follow trends or patterns of performance and improvement (the product of which is a “run chart”).

Although the illustrative indicators that follow have particular use at the facility or service level, one can also use some at national program levels.

Table II.H.2.2 Organizational Levels

| Level | Monitoring Objective | Process | People Involved |
|---------------------------|---|---|--|
| Operational level | Track service- delivery processes, results, and the availability of inputs | An emphasis on individual processes or services at the facility level | Management and improvement teams that examine the quality of processes at the facility level |
| Intermediate level | Compare processes carried out at the operational level | An emphasis on the results and products of the combined processes or services | Heads of departments, programs, and services at the district level |
| Strategic level | Evaluate the overall system results, compare results with the objectives, act on differences, assure the quality of the entire system | An emphasis on the overall results of the system and strategy to better meet objectives | Top organizational management at the national, regional, or local government levels |

Source: QAP/URC, 2001c.

Indicator

PERCENT OF NEWBORNS RECEIVING IMMEDIATE CARE ACCORDING TO MOH GUIDELINES

Definition

The percent of newborns receiving immediate care according to MOH guidelines

The clinical standard for the immediate care of newborns includes a physical examination consisting (at a minimum) of the following:

- Vital signs;
- Heart rate;
- Respiratory rate;
- Temperature;
- General appearance (e.g., color, malformations, activity level, weight, length, head circumference);
- Gestational age;
- Apgar score; and
- Other interventions (e.g., ophthalmic prophylaxis, vitamin K administration, and completion of the neonatal clinical history).

This indicator is calculated as:

$$\frac{\text{\# of newborns delivered at the facility who receive immediate care according to the MOH clinical guidelines}}{\text{\# of newborns delivered at the facility}} \times 100$$

The indicator is calculated for a specific reference period (e.g., per quarter or per year, depending of the size of the facility).

Data Requirements

Number of newborns delivered at the facility during the reference period who receive immediate care according to MOH guidelines; the total number of newborns delivered at the facility during the reference period

Data Source(s)

Review of medical records; direct observation of providers

Purpose and Issues

Immediate care of the newborn helps identify whether the baby has a normal condition; has a condition or problem requiring urgent, rapid treatment; or has a condition/malformation or other problem that requires transfer to another facility or service.

Providing immediate care to newborns helps reduce neonatal complications, sequelae, and deaths.

Physicians and nurses at all levels can learn to systematically perform immediate care for newborns.

For the newborn record to be a reliable data source, staff must fill the record out consistently and accurately. Ideally, the recording form will specify the standards, will facilitate accurate charting, and will stimulate appropriate actions.

The immediate care guidelines can also include specific protocols for identification and treatment of asphyxia, hypothermia, or hypoglycemia.

A low score on this indicator should trigger some intervention(s) to address skills and knowledge of providers, the organization of care, or both. The district health team or facility supervisor can provide support and encouragement to facility staff to ensure compliance with this important standard. Quality improvement teams can also help the facility determine causes for observed difficulties in compliance with the standard, as revealed by the indicator.

Indicator

FACILITY PERINATAL MORTALITY RATE

Definition

Perinatal mortality refers to stillbirths (babies born dead after 22 weeks gestation) and early neonatal death (death within the first seven completed days of life). This indicator, the facility perinatal mortality, measures perinatal mortality among deliveries at a facility or network of facilities.

The indicator is calculated for a given period as:

$$\frac{\text{\# of perinatal deaths}}{\text{\# of births}} \times 100$$

Data Requirements

Number of perinatal deaths and number of births during a given period (e.g., 3 months, 12 months) at a given facility or a set of facilities

Data Source(s)

Review of medical records at the facility

Purpose and Issues

The perinatal mortality rate is a key health status indicator that reflects the overall quality of maternal and neonatal care. It depends on the socio-economic status of the community, access to health care, and the quality of that health care.

Several factors influence the level of perinatal mortality, including: effectiveness of treatment for medical conditions and complications during pregnancy, such as diabetes and high blood pressure; availability of special or neonatal care for very sick or premature infants; and availability of facilities for prenatal diagnosis of congenital malformations. The quality of obstetric and pediatric care available and the public health policy also affects the perinatal mortality rate.

Note: The **Facility Perinatal Mortality Rate** reflects quality of care at a given facility or network of clinics. For its application at the population level, see Part III.E.

Indicator

PERCENT OF DELIVERIES IN WHICH A PARTOGRAPH IS CORRECTLY USED

Definition

The percent of deliveries correctly monitored with a partograph

A partograph is a simple chart that clinical staff can use to monitor labor and identify when it is not progressing satisfactorily.

Correct use is defined as: (1) starting the monitoring process only after the woman begins labor and (2) measuring the essential parameters, such as cervical dilation, descent of fetal head, and uterine contractions.

The indicator is calculated for a specific reference period as:

$$\frac{\text{\# of deliveries correctly monitored with a partograph}}{\text{Total \# of deliveries}} \times 100$$

Data Requirements

Number of deliveries monitored with a partograph; evidence of correct use of the partograph; number of deliveries at the facility during the reference period (e.g., 3 months, 12 months)

Data Source(s)

Review of medical records; direct observation by supervisor or external evaluator (regarding correct use); and review of the partograph

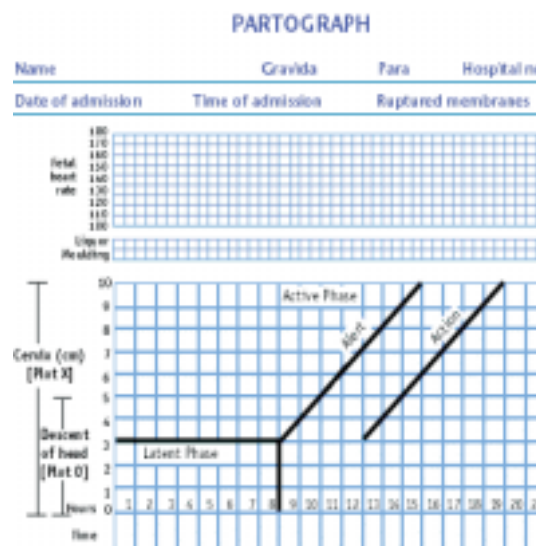
Purpose and Issues

The partograph displays the dynamic of labor during the first stage of delivery. It records fetal condition, labor progress, and maternal condition, and it provides a visual display of the progress of labor and immediately alerts the care provider to abnormal developments. In this way, the partograph acts as an “early warning system” that detects insufficient uterine action and/or cephalopelvic disproportion leading to obstructed labor (WHO, 1991a).

If properly used, the partograph helps reduce prolonged labor and its sequelae through earlier referral. Midwives, physicians, and nurses at all levels can learn to use and interpret partographs correctly, and thus can reduce cases of prolonged labor, maternal morbidity, and perinatal mortality (Schwarcz, Díaz, and Nieto, 1990).

A low score on this indicator may reveal a need for additional interventions, such as on-the-job training or refresher tutorials for staff.

Figure II.H.2.3 Partograph



Indicator

PERCENT OF DELIVERIES IN WHICH A PERINATAL CLINICAL RECORD WAS PROPERLY COMPLETED

Definition

The attentiveness of staff to maintaining a complete record on the mother and baby from the prenatal period through 22 weeks post-partum

The perinatal record is one or more forms containing information for both the mother and the neonate at each contact – during pregnancy, delivery, and the neonatal period.

This indicator is calculated for a specific reference period as:

$$\frac{\text{\# of deliveries at the facility with a properly completed perinatal clinical record}}{\text{\# of deliveries at the facility}} \times 100$$

The reference period for this indicator is determined locally, but is generally from 3 to 12 months.

Data Requirements

Number of deliveries with a perinatal clinical record completed; number of deliveries at the facility during the reference period

Data Source(s)

Review of medical records; direct observation of providers

Purpose and Issues

The importance of a complete standardized perinatal clinical record is paramount to the quality of maternal care, because it reminds health providers of the standards of care. In Latin America, most Ministries of Health have adapted the model of a “simplified perinatal clinical record” developed by the Centro Latinoamericano de Perinatología. The standard clini-

cal record has sections for identification data, obstetrical history, pregnancy data, as well as delivery, newborn, and postpartum information. The clinical record has sections in yellow that represent some important factors that can increase perinatal risk.

The format and content of the perinatal clinical record may vary by country, or even within a country if the MOH has not introduced a standardized format. Whatever the format and content agreed upon at the facility, providers should use and know how to complete it accurately for each pregnancy and delivery. This indicator creates awareness among program administrators of the need for a standardized perinatal clinical record or for improvements to an existing one.

This indicator measures the attentiveness of staff to maintaining a complete record on the mother and baby from the prenatal period through 22 weeks post-partum. Whereas staff have a responsibility to maintain records on all women in their clinical facilities, they cannot be held totally responsible for women who do not return to the facility for postpartum care. This indicator primarily measures staff compliance with record-keeping, an important function that improves continuity of care.

Indicator

PERCENT OF MOTHERS EXAMINED EVERY 30 MINUTES DURING THE FIRST TWO HOURS AFTER DELIVERY

Definition

The number of newly-delivered mothers receiving standardized checks every 30 minutes after delivery for the first two hours

“Examined” refers to a series of standardized checks: vital signs, bleeding, and uterine status.

The indicator is calculated for a given reference period as:

$$\frac{\text{\# of mothers examined every 30 minutes during the two hours after delivery}}{\text{\# of deliveries}} \times 100$$

Data Requirements

Number of newly-delivered mothers receiving standardized checks every 30 minutes after delivery for the first two hours; number of women delivering at the facility during the reference period. The checks must be timely (every 30 minutes) to be considered valid.

Data Source(s)

Review of medical records; direct observation from supervisor or external evaluator.

Purpose and Issues

An important proportion of maternal deaths occur after delivery. The most important single cause of these maternal deaths is hemorrhage, most commonly in the immediate postpartum period (WHO, 1999a). Hence, routine checking for vital signs (especially blood pressure) and for vaginal bleeding and uterine status during the first two hours after delivery is an important standard of quality care that will help in the early detection of a potential life-threatening complication.

If a specific post-partum record is available and designed according to the standard of care, then it reminds providers to comply with the standard. If a specific form is unavailable, focusing attention on this standard may trigger the development of a specific job-aid.