



Quick Investigation of Quality (QIQ)

MAQ Exchange



17-1



Why is measuring quality important?

- ◆ To detect aspects of service delivery in need of improvement
- ◆ To evaluate effectiveness of interventions designed to improve quality
- ◆ To increase the importance of quality for service providers (“if you’re evaluated on it, it becomes important”)

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17-2

Brainstorm with participants . . .



What is the QIQ?

- ◆ A low-cost, practical methodology for measuring quality in clinic-based family planning and related reproductive health programs



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17-3

- QIQ was developed in response to the need for a way in which to monitor quality on a routine basis
- Rationale: A simplified methodology will make it possible to repeat data collection on a regular basis (e.g., every 1 to 2 years)



How is quality measured?

- ◆ 25 “short list” indicators are measured using three instruments:

- Facility audit (inventory)
- Observation of client-provider interaction (CPI)
- Client exit interview



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17-4

- Because there are literally hundreds of indicators that can be used to measure quality, a pragmatic approach was taken to identify a “short list of indicators.”
- The idea behind the short list is that if a facility performs well on a few key indicators, it will most likely perform well on similar indicators--not measured by the QIQ instruments.
- As a result, a list of 25 key indicators was developed using a modified delphi approach.
- Several groups of experts with a particular interest in quality or evaluation were surveyed to identify those indicators that they felt would affect quality outcomes in terms of client behavior.
- The short list of indicators can be measured by using three methods of data collection.



What does each instrument measure?

- ◆ **Facility audit**
 - determines readiness of facility
- ◆ **Observation of CPI**
 - evaluates provider through observation of counseling and clinical sessions
- ◆ **Client exit interview**
 - determines quality of services received from the client's perspective



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17-5

The **facility audit** measures:

- Types of services provided
- Types and amounts of supplies in stock
- Condition of facility
- Types of records kept
- IEC materials/job aids

The **client exit interview** is the only instrument that collects information from the client's perspective. It measures:

- The client's recall of provider actions and the client's overall experience at the facility

Observation of CPI is performed by a trained clinician who follows the client. This instrument evaluates:

- The provider's performance during clinical and counseling sessions
- Assesses technical competence including the ability to comply with infection control procedures and clinical guidelines



How can QIQ indicators be used to assess quality?

- ◆ Example: Indicators used to measure “choice of methods”
 - I-4: Provider discusses with client which method she would prefer
 - I-16: Client receives her method of choice
 - I-18: Facility has all approved methods
- ◆ Using indicators from all three instruments gives a more complete overall assessment of quality

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17-6

Because each instrument provides a unique perspective on quality, it is advisable to use all three instruments.

- The facility audit is the only instrument that measures readiness.
- Observation of CPI is the only instrument that measures technical competence.
- The exit interview is the only instrument that captures the client’s perspective.

PLUS . . . Using all three instruments can help accurately identify the cause(s) of problems that impede high quality services.

For example:

Problem: The provider fails to offer a full range of methods to the client.

Cause: There is a stockout of a particular method.

Without information from the facility audit regarding the inventory, the provider may be faulted for being biased when the real reason for failing to provide the client’s preferred method is a stockout.



QIQ Field test countries

- ◆ **Ecuador**
 - Universe of all facilities in two private NGOs
- ◆ **Morocco**
 - Sample representative of all FP facilities in the country
- ◆ **Turkey**
 - Sample of health facilities in Istanbul
- ◆ **Uganda**
 - Sample of facilities in 13 districts
- ◆ **Zimbabwe**
 - Universe of all SEATS supported facilities



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17-7

To date, a total of five countries have field tested the QIQ.



Instruments used in field test countries

Country	Exit Interview	Observation	Facility Audit
Ecuador	✓	✓	✓
*Morocco	✓	✓	✓
*Turkey	✓		✓
Uganda	✓	✓	
Zimbabwe	✓	✓	✓

*Also used "mystery clients."

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17-8

Not all field test countries used all of the FP instruments.

For example, Uganda only used the exit interview and observation because a facility audit had recently been conducted. And, Turkey did not conduct the observation of CPI.

In addition, two countries added a third module . . . the mystery client (or simulated client). In Turkey, the mystery client was used in 15 low-volume clinics. In Morocco the results of the exit interview and observation will be compared to those found by the mystery clients.



Services assessed in field test countries

Country	Family Planning	Antenatal	Post-partum	Post-abortion
Ecuador	✓			
Morocco	✓			
Turkey	✓		✓	✓
Uganda	✓	✓		
Zimbabwe	✓			

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17-9

Another difference among the field test countries is the number of service areas covered. Most countries implemented only the FP instruments; however, Uganda and Turkey assessed other services.

In Turkey, quality of post-partum and post-abortion services was also examined.

In Uganda, the QIQ FP modules were adapted to measure quality of antenatal care.



How can quality results be used?

- ◆ To compare intervention to non-intervention areas (Uganda)
- ◆ To contrast performance of different types of providers (Ecuador)
- ◆ To compare quality in different types of facilities (Turkey)
- ◆ To compare quality in a given set of facilities over time (Turkey)

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17-10

Because the objectives for each field test varied, the results were used in a variety of ways.

Among the countries, a variety of comparisons were drawn. For example,

- Intervention: Delivery of Improved Services for Health (DISH) compared to non-DISH
- Practitioner type: Doctors compared to nurses
- Different types of facilities (hospitals compared to outpatient clinics)
- Time 1 compared to Time 2



What is the cost of implementing the QIQ?

Country	Number of facilities	Cost of field work ¹	Cost per facility
Ecuador	43	\$46,000	\$1070
Turkey	128	\$33,000	\$ 258
Uganda	72	\$65,000	\$ 903
Zimbabwe	39	\$19,000	\$ 487
Mean	71	\$40,750	\$ 680

¹ Excludes cost of TA and local dissemination

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17-11

The cost of the field test varied quite a bit from country to country;

The overall cost was lowest in Zimbabwe (\$19,000) and highest in Uganda (\$65,000), with an average overall cost of about \$41,000.

Because the number of facilities included differed by country, the cost of the field test is also presented per facility. The average cost per facility varied from \$258 in Turkey to \$1070 in Ecuador, with an average cost per facility of \$680.

The above numbers should be observed with caution because a number of factors influenced the cost.



What factors affect cost?

◆ Scale or magnitude of field test

- Number of instruments used
- Number of service areas included
- Geographical dispersion of facilities
- Number of facilities visited
- Number of field work teams
- Sample size per instrument



Kim Longfield, Tulane University

◆ Time required to conduct the field work and preliminary analysis

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17-12

A major factor that affects cost is **the scale or the magnitude of the study**. The following items varied from field test to field test:

- The number of instruments: from 2 to 4
- The number of service areas: Turkey (3), Uganda (2), others (1)
- Dispersion: Turkey: all 128 facilities were in Istanbul, Zimbabwe: 39 facilities were in 6 urban areas, Uganda: 13 different districts were included, Ecuador: 39 cities/towns in 21 provinces were included
- The number of facilities varied: Turkey (128), Uganda (72), Ecuador (43), Zimbabwe (39)
- The number of exit interviews: Range 584 (Ecuador) to 1482 (Turkey)
- The number of observations: Range 584 (Ecuador) to 1072 (Uganda)
- The number of field work teams: Uganda (20), Turkey (15), Zimbabwe (4), Ecuador (2)

Time and personnel required to carry out the field work

- Training of field personnel: 3 to 5 days
- Data collection: 3 to 7 weeks (x = 5)
- Preliminary analysis: 4 to 6 weeks
- Note:** Although Turkey and Uganda conducted much larger field tests, the field work and preliminary analysis were concluded in a much shorter time because of the larger number of teams.



Resources

- ◆ **Compilation of country reports**
“Monitoring Quality of Care in Family Planning by the Quick Investigation of Quality (QIQ): Country Reports”
- ◆ **User’s Guide**
“Quick Investigation of Quality (QIQ): A User’s Guide for Monitoring Quality of Care”
- ◆ **Compendium of all QIQ instruments used in field test countries**

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17-13

Further information about the field test can be found through the following 3 sources:

A compendium of instruments is available on MEASURE website.

To view QIQ sources, visit the website at

<http://www.cpc.unc.edu/measure/initiatives/qoc/qoc.html>



Compilation of country reports

- ◆ Overview of field test
- ◆ Country reports from Ecuador, Turkey, Uganda, and Zimbabwe
- ◆ Methodological lessons learned
- ◆ Cost and practicality of the methodology
- ◆ Recommendations for future applications
- ◆ Summary results from the short list of indicators



User's Guide

- ◆ Overview of QIQ
- ◆ Guidelines for sampling and training of field personnel
- ◆ Instruments and guidelines
 - Facility audit
 - Observation of CPI
 - Client exit interview
- ◆ Data analysis and presentation of results

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17-15



**For more information about
the QIQ contact:**

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17-16



Optional slides

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17-17



What are important aspects of quality?

- ◆ Choice of methods
- ◆ Information given to clients
- ◆ Technical competence
- ◆ Interpersonal relations
- ◆ Mechanisms to encourage continuity
- ◆ Appropriate constellation of services



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17-18

Note: Brainstorm with group. What are some important aspects of quality?

Note that in family planning the Bruce/Jain framework is widely used to assess quality.

- 1) Choice of methods: number and variability of methods offered
- 2) Information given to clients: range of information given to clients so they can choose and use method effectively (e.g., how to use, side effects, relationship of methods to STIs/HIV)
- 3) Technical competence: assessment of clinical techniques (infection control, adherence to clinical guidelines)
- 4) Interpersonal relations: personal component of client provider interaction
- 5) Mechanisms to encourage continuity: supporting users to continue care (e.g., follow-up mechanisms)
- 6) Appropriate constellation of services: services that are convenient and acceptable, and respond to client health needs



Why is quality important . . .

- ◆ To YOU?
- ◆ To clients?
- ◆ To providers?
- ◆ To program managers?
- ◆ To policy makers?
- ◆ To donors?



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17-19

Brainstorm why quality is important for each category.



Participating projects/organizations in development of QIQ

- ◆ AVSC
- ◆ CEDPA
- ◆ FHI
- ◆ IPPF/WHO
- ◆ JHU/CCP
- ◆ JSI (SEATS, M2)
- ◆ PATH
- ◆ Population Council
- ◆ UNC/M2
- ◆ URC/Quality Assurance
- ◆ USAID

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17-20

- Supported through funding from USAID Office of Population, the QIQ was developed through the efforts of numerous projects/organizations including those listed above.
- These projects and organizations contributed to the process of
 1. Developing the short list of indicators
 2. Developing the set of instruments to measure them
 3. Field testing the instruments in 5 countries: (4 of which have completed the process: Ecuador, Turkey, Uganda, and Zimbabwe) and one in which it is ongoing: Morocco.



Purpose of developing quality indicators

- ◆ To provide USAID Missions with quality indicators for the R4 process
- ◆ To develop an approach to monitoring quality
- ◆ To increase collaboration of approaches on the measurement of quality



Additional benefits of the QIQ field test

- ◆ Experiment with a sampling strategy
- ◆ Determine feasibility of data collection
- ◆ Test the comparability of results on two instruments:
 - Client exit interview
 - Observation of CPI
- ◆ Determine cost of collecting this type of data

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17-22

The development and field test of the QIQ yielded some additional benefits. For example:

Sampling uses fewer facilities but still yields representative results.

- Go to facilities for set number of days (predetermined based on average client flow).
- Use a “take all” strategy (i.e., all clients who come through the clinic in a specified period are included in the sample).



How does QIQ relate to other tools?

- ◆ QIQ is contained within the FP modules of the Service Provision Assessment (SPA), which is a companion survey of DHS.
- ◆ SPA is larger and covers four service areas: family planning, sick child, antenatal care, and STIs (intended for 3 to 5 years).
- ◆ QIQ is leaner, more targeted, and intended for more routine use (1 to 2 years).

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17-23

SPA is a more comprehensive methodology that covers 4 service areas: FP, sick child, antenatal care, and STIs. SPA has 11 modules.

QIQ is better suited for smaller scale studies (as shown in field test), although it is possible to use a nationally representative sample.

QIQ can be used on a more routine basis (1 to 2 years).

SPA is more comprehensive and is meant to be rolled out in a manner similar to that used for the DHS (3 to 5 years). It should be noted that a country can choose from the 11 modules, as dictated by their needs.



Short list of quality indicators

	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 which method she would prefer	✓	✓
I-5	• Mentions HIV/AIDS (initiates or responds)	✓	✓
I-6	• Discusses dual method use	✓	✓
I-7	• Treats client with respect/courtesy	✓	✓

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17-24

The next few slides show the short list of quality indicators matched to the QIQ instruments that measure a particular indicator.

As you can see, there is quite a bit of overlap between the exit interview and the observation in that a number of indicators are measured on both instruments.



Short list of quality indicators

(cont.)

Indicator	Exit Interview	Observation	Facility Audit
I-8 • Tailors key information to the particular needs of the specific client	✓		
I-9 • Gives instructions on when to return	✓	✓	
I-10 • Gives accurate information on the method accepted (how to use, side effects, complications)	✓	✓	
I-11 Follows infection control procedures outlined in guidelines		✓	
I-12 Recognizes/identifies contraindications consistent with guidelines		✓	
I-13 Performs clinical procedures according to guidelines		✓	

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17-25

The indicators that measure technical competence in terms of ability to comply with infection control procedures and clinical guidelines can only be measured through the observation of CPI.

The client would more than likely not have the knowledge to judge these items herself.



Short list of quality indicators

(cont.)

Indicator	Exit Interview	Observation	Facility Audit
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 Client believes the provider will keep her information confidential	✓		
FACILITY			
I-18 Has all (approved) methods available; no stockouts			✓
I-19 Has basic items needed for delivery of methods available through SDP			✓

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17-26



Short list of quality indicators

(cont.)

Indicator	Exit Interview	Observation	Facility Audit
I-20 Offers privacy for pelvic exam/IUD insertion	✓	✓	✓
I-21 Has mechanisms to make programmatic changes based on client feedback			✓
I-22 Has received a supervisory visit in past __ months			✓
I-23 Adequate storage of contraceptives and medicines			✓
I-24 Has state-of-the-art clinical guidelines			✓
I-25 Waiting time is acceptable	✓		✓

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17-27

Only one indicator is measured on all three instruments: “offers privacy for pelvic exam/IUD insertion.”



Methodological issues

- ◆ **Observation guide**
 - Reliability of observations
 - Hawthorne effect

- ◆ **Client exit interview**
 - Recall bias
 - Courtesy bias

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17-28

The QIQ was subject to the same pitfalls that others have noted in the literature.

Observation

- **Reliability of observations** (inter-rater reliability) In Uganda trained to assess session, and only took those most accurate
- **Hawthorne effect** - white coats

Exit interview

- Highly comparable results were found across the observation and exit interview suggesting **recall bias** was not a particular problem in this field test.
- As in the past, **courtesy bias** an issue. BUT when given a choice of well or very well, very few people fell into the very well category.



Methodological issues (cont.)

- ◆ **Facility audit**
 - Counting equipment and supplies
- ◆ **Sampling**
 - Client volume
 - Weighting
 - Selection bias
- ◆ **Other**
 - Client flow
 - Sensitivity of indicators

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17-29

Facility audit: The original design required that all items listed on the instrument be counted. BUT this was extremely time consuming. Sufficient information can be collected and MUCH time can be saved.

Consider the following factors:

Client volume: (1) In low prevalence countries, it may be desirable to stratify by low- and high-volume clinics. (2) A field test can be restricted to facilities with sufficient client flow (Uganda: 22 FP clients a month) (3) Mystery clients can be used in low-volume clinics (Turkey).

Weighting:

- When multiple types of reproductive health services are involved in a single study, sampling becomes complex. The volume of clients for different services can vary.
- The Uganda field test used a strategy that led to a representative sample of family planning clients. This field test also collected information on antenatal volume, so that results could be weighted.

Selection bias: Only those who sought and received services and who came during typical working hours were included. In Uganda, however, women go at night.

Client flow: Ecuador did not observe an initial one-on-one counseling session.

Sensitivity of indicators: Standard scores were used (e.g., if at least 8 infection control procedures were observed). These scores provide information about whether or not the standard is met, but do not provide information about how far the facility is from reaching the standard. Therefore, it is not possible to monitor whether or not progress is made toward meeting the standard.



Next steps

- ◆ Continue to field test QIQ in other countries.
- ◆ Disseminate QIQ further and train CAs to use the methodology.
- ◆ Continue to disseminate results of the field tests.
- ◆ Develop a quality index.

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17-30

Paper titled: “Monitoring Quality of Care in FP Programs: A Comparison of Observation and Client Exit Interviews” has been submitted for review by Ruth Bessinger and Jane Bertrand.

•Using the data from Ecuador, Uganda, and Zimbabwe, the authors find a “strong comparability across instruments: results from the two instruments were extremely close.”

Quality Index:

- We are currently attempting to develop an index for each element of Bruce/Jain that is measured through QIQ.
- 5 of 6 elements will be measured
 - Choice of methods
 - Information given to clients
 - Technical competence
 - Interpersonal relations
 - Mechanisms to encourage continuity
 - Appropriate constellation of services
- An overall index will be developed and should be reported along with the individual components.