

Quality of Services: Issues of Measurement

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Introduction

Quality is a dimension of services and means different things to different people. Despite varying definitions, there is a general consensus that good quality means well equipped clinics with trained health personnel, where clients are treated courteously and provided appropriate services, and where a wide variety of services are available.

This wide ranging definition of quality covers so many different aspects and perspectives that a classification of the main concepts will be constructive for programmatic action. For the purposes of clarity, it is useful to distinguish between ‘readiness’ and ‘quality of care’. Readiness of programs refers to its level of preparedness to offer services and includes such aspects as infrastructure, equipment and buildings, availability of staff, and logistics; in other words, to those conditions which enable service delivery. Quality of care, on the other hand, refers to the way clients are treated and includes how providers interact with clients, conduct medical exams and provide information. These two concepts are often collapsed into one generic rubric of quality leading to a classification which is not useful to either researchers or program managers. The distinction between readiness and care also reflects the perspectives of two different constituencies—providers and clients—who might have entirely different expectations, priorities, and experiences of services.¹

Once concepts are clearly defined, the next step in the process is the measurement and creation of indicators. This paper begins with a brief overview of the major work done over the past decade to define and measure quality. Next, it develops an indicator of quality which measures choice of contraceptive methods from both the readiness and care angles using data from the Philippines. Finally, it concludes with a discussion of methodological issues and challenges.

Background

¹By providers we mean not only individual service providers but also more broadly the program offering services.

Judith Bruce's 1990 ground-breaking article on quality of family planning provided a theoretical structure for the study of quality, its determinants, and its effects. The framework describes six fundamental elements of quality which reflect clients' experiences of services and are: choice of methods, information given to users, technical competence, interpersonal relations, follow-up or continuity mechanisms, and appropriate constellation of services. The extent to which these six elements of quality are achieved depends on the structure of the program and the service-giving process. In other words, it depends on the program's goals or intentions about standard of care it wishes to offer, its level of preparedness to do so, and the actual process of service giving where intentions are translated into action. Users experience the outcomes of the service giving process in both the short and long terms; in the short term, they have greater knowledge about various contraceptive options and are satisfied with services they have received; in the long term, they are better able to achieve their reproductive goals.

Subsequent work, notably of the IPPF, have added the roles and perspectives of the providers to the framework. The needs of providers are explicitly considered so that they can address clients' rights to good quality services (Huezo and Diaz, 1993). Providers' needs are the right to training, information, infrastructure, supplies, guidance, back-up, respect, encouragement, feed-back, and self-expression while clients' rights include that of information, access, choice, safety, privacy, confidentiality, dignity, comfort, continuity and opinion. The development of such frameworks have helped in not only conceptualizing and defining quality but in also explicitly laying out the specific inputs and activities that are required to achieve it; thereby assisting in the measurement and translation of concepts into service delivery actions.

The Situation Analysis (SA) approach was developed around the Bruce framework to respond to the needs of program managers to know the state of their programs at the field level (Miller *et al.*, 1997). It is a field level assessment of the readiness of family planning/reproductive health programs to deliver services and the quality of care received by clients and addresses data collection efforts to the six elements of the Bruce framework. An attractive feature of the SA is that it provides managers with reliable information on the state of quality of care and service delivery in their programs;

it specifically provides information on those aspects over which they have administrative control, making programmatic changes possible.

During a SA, trained teams of researchers collect a wide range of data from a sample of clinics within a specified area or region in order to produce an assessment of an entire program. A standard SA includes information on clients, providers, observations of their interactions, a review of service statistics, and a complete inventory of a clinic's supplies and equipment. Thus it collects information on a clinic's preparedness or readiness to provide services as well as on the care provided to the client and received by the client. The data are collected using four questionnaires—an inventory of the facility, provider interviews, observations of interactions between providers and clients, and client exit interviews. Typically, data are collected at a facility on a single day, though longer durations of data collection have also been done.

A number of the applications of the Situation Analysis, especially in Africa, have been documented (Askew, *et al.*, 1994; Mensch *et al.*, 1994; Miller *et al.*, 1998; Miller, *et al.*, 1992).² The data collected have been useful to describe how programs were functioning at the field level and to provide systematic information on program strengths and weaknesses. For example, Situation Analyses conducted in Nigeria, Tanzania, and Zimbabwe found that there were many problems which constrained service delivery: in the supplies of commodities, in facilities and equipment, in staffing and training, in IEC, and in record keeping (Mensch *et al.*, 1994).

Since the development, testing and wide-scale use of the Situation Analysis methodology, other researchers have devised other methodologies as well (Brown, *et al.*, 1995; MEASURE Evaluation, 2001). The most recent initiative has been that of the MEASURE Evaluation project which has developed the Quick Investigation of Quality (QIQ). The QIQ is a modified and pared down version of the Situation Analysis and collects data on 25 indicators of quality of care for the purpose of monitoring clinic based

² Since 1989, SA have been conducted in over 27 countries.

family planning programs in developing countries.³ As in the Situation Analysis, data are collected through a facility audit to determine readiness of facilities, observations of client-provider interactions to evaluate provider performance in counseling and clinical procedures, and a client exit interview to determine the client's experience at the clinic; the QIQ has omitted interviews with providers. This methodology was tested in four countries— Turkey, Ecuador, Uganda, and Zimbabwe (Sullivan and Bertrand, 2000).

Conceptually, indicators of readiness of facilities are different from those of quality of care. However, there is a common tendency among both researchers and program managers to group them together; typically, there is a tendency to equate infrastructure—modern clinic buildings with all amenities and equipment—with quality care. This can lead to puzzling results as clients in well-equipped facilities can be treated poorly while clients in less endowed clinics may be able to provide better care.

Pragmatism and common sense indicate that there is a link between readiness and care. In situations where quality of care is poor, providers are often taken to task on the premise that they did not provide services of adequate quality. However, very often these providers work in circumstances which are ill-equipped for a variety of reasons: they may lack the training to provide the requisite services; service facilities may lack basic infrastructure such as running water and electricity; or supplies of commodities, drugs, and consumables may be insufficient and irregular. Such problems are more system or organizational in nature rather than those of individual providers. Thus, even the most conscientious employees will be unable to perform their tasks if the systems they work in are deficient (see Kols and Sherman, 1998). It will be necessary to fix such flaws before expecting changes in quality of care. The link between readiness and care is very evident in such situations—good care cannot be given or received when the enabling conditions do not exist.

³24 of the 25 indicators measure five of the 6 elements of the Bruce framework and hence there is a great degree of correspondence. The element of the Bruce framework which is not measured is the constellation of services offered; the QIQ additionally measures the existence of mechanisms at the facility which can make programmatic changes based on client feedback.

However, there is emerging evidence that readiness by itself is no guarantee that good care will indeed be provided (Ndhlovu, 1998; Haberland *et al.*, 1998). An analysis of the 1995 Kenyan Situation Analysis found that there was only partial support for the hypothesis that well equipped health facilities, with trained staff, IEC materials and contraceptives will provide better care (Ndhlovu, 1998). For example, the availability of some equipment and IEC materials indicated that they would be used in consultations with clients; however, the presence of a trained provider or availability of various contraceptives did not always translate into greater contraceptive choice for the client. An analysis of five other African countries reported similar findings: clients who wished to space were offered limited contraceptive options even though the contraceptives were available; IEC materials are not used always even if present; providers did not wash hands or use gloves while conducting pelvic exams even when water and gloves were available (Haberland *et al.*, 1998). Thus, both these analyses indicate that there is an underutilization of resources already present in clinics, often resulting in poor quality care for the client. It is clear that a lot of improvements can be made within existing infrastructure and resources. Providers can follow service norms and guidelines where possible, use available resources, treat clinic users courteously, provide adequate and accurate information. Such changes can be undertaken at no greater outlay, and in fact, may be cost-effective as resources do not remain underutilized.

These advancements in frameworks and data collection have led to greater clarity in the development of appropriate indicators and the accompanying methodology. One approach indicates that quality assessment can be done at 3 different levels: at the policy level, at the service delivery point, and the client (Jain *et al.*, 1992; Kumar *et al.*, 1989). At each of these levels, quality is measured from a different perspective. At the policy level, the philosophy and intention of the government to provide good quality services is measured; in other words, the degree of policy commitment to the concept of quality is ascertained. At the service delivery level it measures the readiness of the clinics to provide a given standard of care as well as the actual quality of services provided. Finally at the client level, the assessment is made on the quality of care received by clients during service delivery. Studying quality at these three levels is meaningful from both a conceptual and programmatic points of view. Conceptually it incorporates the

differing perspectives of those supplying the services (the SDP, provider, or the overall program) and those who avail the services (the clients). Stated differently, a distinction is made between readiness to provide services and clients' actual experiences of care. From a programmatic angle, the policy and SDP levels, influence in part, quality at the next lower level; for example, the care received by clients is determined, in part, by the norms and guidelines followed at the SDP, which in turn are guided by policies set by regional or national bodies. Thus, quality that clients receive cannot be independent of the policy climate or the readiness of the SDP at which they seek services.

In this paper, we illustrate the ideas discussed by empirically deriving an indicator of quality from the Bruce framework—Choice. It is derived at both the SDP and client levels and hence reflects both the readiness and care aspects of quality.

Methods

The *conceptual model* used in this paper reflects the main themes described earlier.

Readiness-----→ Client Provider Interaction-----→Care received by client

First, clinics have to be ready or be able to provide services of good quality; such readiness can be in the form of being equipped with infrastructure, equipment, supplies, and trained personnel; further, other support systems such as functioning logistics and MIS systems exist.⁴ As a result of such readiness, providers have all the resources required to be able to serve their clients. The final outcome in this causal chain is that clinic users may receive good quality care. There is sufficient information in the literature about the two ends of this causal chain—the readiness and the quality of care received boxes—and relatively little is known about the client-provider interaction box. For example, it is clear that program inputs such as infrastructure, equipment and training constitute readiness and these support providers as they tend to clients; further, good client-provider interactions result in good quality care received by clients, be it

⁴This model assumes that the policy context is given; for example, decisions about types of services and the specific methods to be offered at different levels of the health system have already been made.

information or an appropriate service.⁵ However, while there is agreement about what constitutes a good client-provider interaction, not much is known about the specific ingredients and mechanisms which foster and sustain it (Simmons and Elias, 1994; Murphy and Steele, 1998). For example, little is known about the motivation of providers to engage in meaningful client provider exchanges; some researchers have hypothesized that organizational factors such as the organization's missions and goals, structure, and reward systems among others are important in fostering a good client provider interaction (Jennings *et al.*, 2000).

Type of indicator: We illustrate these concepts by going through the process of creating an indicator of quality—Choice—at the SDP and client levels. We focus on Choice as it is a fundamental aspect of quality.⁶ We define Choice at the SDP level as a clinic's readiness to provide a choice of 4 different methods—pills, IUDs, injectables, and condoms. Readiness to provide a method is defined by the availability of three items: a trained provider, available supplies of the contraceptive, and requisite equipment, if required. Each clinic receives a score ranging from 0 to 4 depending on its readiness to provide the 4 contraceptives under study; thus clinics which rate 4 on the scale are able to provide complete choice while those scoring 0 are unable to provide any choice any contraceptives.

Choice at the client level is defined on the basis of a clinic user being asked and proffered various contraceptives during a visit; specifically this comprises of four items: being asked if there was a preference for any specific contraceptive, receiving the chosen method, being told of a method in addition to the one chosen, and not having any particular method being promoted by the provider.

Over the past decade there have been a few attempts to create indicators for each of the elements in the Bruce framework (Askew, 1994; Brown, 1995; Ndhlovu, 1998; Sullivan and Bertrand, 2000). The present effort differs from earlier research in three

⁵ We use the term service to refer generally to a variety of activities—delivery of the contraceptive, management of side-effects, and physical or medical exams.

⁶ In fact, Bruce's article goes further to state "...a choice of methods is a virtual pre-condition for achieving quality of care."

important respects. First, it calculates choice at two different levels: at the SDP and client levels which creates a conceptual mechanism to link readiness and care received. This also implies that disparate data sources such as the inventory and client reports are not combined to create the indicator. Second, it differs in the construction of the indicator; typically, Choice has been defined as the number of different methods available at a facility or clients were observed (or clients report in exit interviews) to have been proffered a range of appropriate methods, or if they had received their chosen method. In this paper, Choice at the SDP level, is instead measured by the clinic's readiness to provide the four reversible methods in the program and thus includes more of the requisite factors; at the client level, it measures being given more options.⁷ Third, it provides a “readiness to provide choice” score to individual SDPs instead of a score for an aggregated group of SDPs.

Data come from three sources—two Situation Analysis and a survey of new family planning users. Both Situation Analyses were conducted in the provinces of Davao del Norte and Compostela Valley in southern Mindanao and covered 80 clinics. Two types of facilities were covered—Rural Health Units (RHUs) and Barangay Health Stations (BHS). RHUs are bigger health facilities and are staffed by a doctor, a nurse and one or more midwives; they are typically located in the main town of a municipality. BHSs, on the other hand, are smaller health facilities, and are staffed by a midwife; BHSs are located in the barangays (the smallest administrative unit) surrounding the main town.

Information presented here are from two of the four data collection instruments used in the SAs: the inventory of clinic facilities and an interview of service providers. The specific information that is used from the inventory are the availability of equipment and supplies for the provision of various contraceptives. Nurses and midwives⁸ working in the clinics were interviewed and information is available on their training they have received for the provision of various contraceptives, their recommendations on the best

⁷ The choice of items which go into the creation of an indicator is fairly subjective, even though they are based on professional judgment and field experience of service delivery conditions. Thus different researchers have different constructions though there are some similarities.

⁸ In some of the bigger clinics, doctors were interviewed as well. However, the analysis focuses on midwives and nurses as they are the main providers of family planning services.

methods for spacing or limiting childbearing, and if they restrict some methods to some clients based on the latter's age, parity, marital status, or need for spousal consent.

The first SA was conducted in February-March 1997 and the second, a few months later in July-August 1997. Information from both the inventory and staff interviews are necessary to build the indicator. In both SA's the available information from these two tools is less than the total sample of 80 clinics; in the first SA, information is available for 70 clinics where 84 nurses and midwives were interviewed.⁹ In the second SA information is available on 76 clinics where 91 nurses and midwives were interviewed.¹⁰

The third data source is an interview with new family planning users who had visited the 76 clinics covered in the second SA; 1643 users had visited the clinics between April 1997 and December 1997. These users were interviewed at home between September 1997 and January 1998. They were queried on various aspects of care they had received during their visit to the clinic. In the analysis presented in this paper, we focus on the choice of contraceptives they were offered during their visit.

Results

This section is written in three parts. The first presents data from the first Situation Analysis on the readiness of clinics and providers to offer choice. The second discusses the use of indicators to monitor changes over time by comparing readiness as measured in the first and second Situation Analyses. Finally, the last discusses the choice that clients report receiving.

Readiness of SDPs to provide contraceptives

Table 1 presents indicators of readiness to provide the four modern reversible methods that are required by policy to be available at these SDPS.¹¹ In general, in terms

⁹ No information was collected from 5 clinics as they were closed on the day the data gathering team visited them and one of the two tools was not complete for another 5 clinics.

¹⁰ Of the 80 clinics, 2 were closed on the day of the visit and a provider interview is not available for another 2 clinics, thus reducing the sample to 76.

¹¹ LAM and NFP are the other available methods but they receive lesser emphasis in the public program. These SDPs also provide referrals to bigger facilities where male and female sterilizations are performed.

of the three program inputs—personnel, supplies, and equipment—the main bottleneck appears to be the lack of equipment. At least three-quarters of the SDPs had at least one trained provider who could deliver the four methods and about three-fifths had a provider who could dispense all four; supplies of contraceptives are uniformly available. However, equipment is lacking for those methods which require them; nearly half the facilities did not have the necessary equipment for IUD and a fifth did not for injectables. From these indicators of readiness it appears that facilities are best prepared to those methods which do not require equipment for service delivery which are pills (86%) and condoms (84%); they are somewhat ready to provide injectables (66%); and least ready to offer IUDs (40%).

Given this level of readiness, it is clear that choice will be constrained. Table 2 confirms this conjecture: just about a quarter of facilities are ready to provide all four methods with substantial differences between RHUs and BHSs. Two-fifths of RHUs are able to provide all the four methods under study compared to a fifth of BHSs. In general, both RHUs and BHSs are ready to provide on average a little less than three methods. Tables 1 and 2 together suggest that despite fairly good program inputs, the readiness of facilities to provide a range of contraceptive options is relatively constrained.

Provider level influences.

Apart from physical resources such as supplies and equipment, providers too can influence the choice that they offer to clients. A lack of training in delivery of specific methods, certain attitudes which withhold some methods from some individuals, or proclivities to some methods over others are some ways in which providers can constrict choice.

On reviewing these aspects, it appears that training is fairly prevalent: over three quarters of the providers reported being trained in the delivery of at least three of the four methods under study, with about three-fifths being able to provide all (Table 3). In general, there do not appear to be any considerable difference in the readiness to provide choice by the size of the facility, though providers stationed at RHUs are more likely to be able to trained than those at BHSs. In terms of attitudes, providers reported that they

take into account the presenting client's characteristics such as age, parity or marital status, or require spousal consent before they offer the available methods (Table 4). Further, they are more likely to restrict some methods more than others; they are most likely to provide condoms without any restriction (57%) and least likely to provide pills (4%). It appears that providers practice some form of restriction on every available method in the facility; in other words, there is no restriction-free method. In the presence of such widely practiced behavior, the choice, if any, they offer to clients is greatly reduced. From these data it is not possible to explain why they have these attitudes and withhold some methods; one can speculate that it may be due to their own convictions that condoms are unlikely to cause the side-effects more commonly found in hormonal methods (such as the pill or injectable) and hence are selective of potential users; or they do not provide services to unmarried individuals; or that there are wider factors which operate through emphases given during training or supervisory instructions on specific methods.

We further study provider attitudes by reviewing the choices they report they are likely to offer clients who wish to space or limit childbearing. Those who wish to space are more likely to be given a greater choice than those who wish to limit. About a quarter of providers were able to report all four methods which can be used for spacing purposes, while not one provider was able to report all the possible methods available in the program which they would offer to those clients wishing to limit births. On average, providers are able to report about two methods for spacing (2.4) and limiting (1.7).

Thus, from the above it is clear that there are several biases and attitudes on the part of providers which effectively limits the choice they could potentially offer clients. However, while these indicators provide some information that choice can be restricted, they do not shed light on the factors that cause providers to have the attitudes they have.

Monitoring Choice over time

Tables 5 to 8 present data from the second Situation Analysis and are similar to the ones presented earlier. The two SAs are about 3 months apart and during this time, some providers underwent a training in counseling which emphasized a two-way

dialogue between providers and clients and establishing rapport with the client. Thus, changes, if any, are expected on provider attitudes though the training did not specifically address the issue of biases and restrictions on contraceptives.

We find that there have been some changes in the readiness of clinics to provide the various methods; there has been a substantial increase in the proportion of SDPs with trained providers, with minimal changes in the supply or equipment situation (see Table 5). As a result, clinics are considerably more ready to provide all four methods—up by 17 percentage points from 26 percent of clinics in the first SA to 43 percent in the second SA (Table 6). The average number of methods that clinics were ready to provide increased significantly from 2.8 to 3.2. This change in the presence of trained providers was unanticipated. Table 7 confirms that more providers reported having received practical training in service delivery of various methods. These results suggest that some providers probably reported the training in counseling as training in practical delivery. Contrary to expectation there were no changes in providers' attitudes on the restrictions they would apply to various methods and the choices they would offer clients (Table 8).

There have been analyses of changes in readiness and quality of care over time (Miller, 1998). Typically, the interval between measurements has been several years and over which period many program modifications and interventions had taken place. From the data shown here it appears that fielding two measurements at a close interval may not produce reliable indicators of readiness, although reliability of other indicators such as knowledge or biases may not be affected. This finding suggests that light needs to be shed on the appropriate interval between SAs—sufficiently long to allow changes to take place but short enough to provide relevant information.

Choice received by clients

Table 9 presents the choice that clients reported receiving when they had visited these facilities for procuring a contraceptive. Client reports indicate that high proportions are likely to be asked about the method they prefer (93%) and indeed be given it (99%). While the provider was not perceived to push any specific method (91%), they are less likely to be told about another method in addition to the one they had chosen (65%).

According to the definition we use in this paper, a client can be said to have received a full choice when they receive all four elements and just about half the clients reported receiving such care. It is also interesting to note clients receive similar care in both types of facilities, indicating that the size of the facility is not an important factor.

A bivariate analysis compared the readiness of facilities to provide full choice and the choice that clients reported receiving (Table 10). This analysis indicated that there is no direct link between readiness and care though there are inter-facility differences. Readiness of RHUs is directly related to the increase in the choice received by clients, as suggested by the monotonic increase in the reported care; no such pattern is observable for BHUs. We further examined if there were significant differences in care received between fully ready clinics and others; while fully ready RHUs were significantly more likely to provide better choice (59% in fully ready clinics compared to 47% in others), the reverse was true for BHSs (48% in fully ready clinics compared to 58% in others). As a result, there is no relationship observable in the combined facility data. In summary, though clinics are ready to provide all four methods, clients are however unlikely to be given the choice. This supports the findings of other research.

Conclusion

In this paper we have presented one possible indicator which assesses if a choice of contraceptives is available in family planning clinics from two viewpoints. First, the indicator measures whether the facilities are capable or ready to offer a choice of contraceptives; second, whether users visiting these clinics do indeed receive such a choice. In the sample of clinics used in this analysis, the facilities were somewhat ready to offer a choice of methods. In terms of the choice that clients receive, they are highly likely to be asked/told individual pieces of information (over nine-tenths of the time) but just about half are likely to receive the entire package to make a real choice.

Furthermore, bi-variate analysis indicates that there may not be any link between readiness of clinics to provide choice and the actual choice that clients receive. This finding confirms earlier research that while readiness is a necessary condition for the provision of good quality care, it alone is not enough to guarantee care.

The selection of the item(s) comprising the Choice indicator is critical and may lead to differing results. For example, had the indicator of Choice (reflecting that received by clients) comprised of the sole item “receiving the method of choice” as some analysts have used (Askew et al., 1994; Sullivan and Bertrand, 2000) instead of the four, the results would vary widely—over 90 percent compared to 54 percent. However, we argue that the items which comprise an indicator must be picked to reflect the underlying theoretical construct. Each item represents a different and unique dimension of choice that a client received and hence all them put together may represent the whole concept. Furthermore, such a grouping of items may also have the potential to provide practical guidance for service delivery as they can be used as norms or goals to aspire to. For example, training programs and regular supervision can reinforce to providers that clients need to be asked/told the four items to receive choice of contraceptives.¹² A different but related issue is of the relative ranking of the items within an indicator. In some cases, an item may be deemed to be less important than another and a ranking may be possible, but for the most part, ranking is a difficult process. Since ranking is based on values, the perspective chosen—the client or the service provider—to guide the process also becomes critical. For example, clients may value being given the method they prefer to not being motivated to accept certain methods; on the other hand, providers may place greater weight on not promoting a particular method to giving clients what they prefer. In summary, there are many challenges in creating meaningful indicators that range from the selection of an appropriate number of items to adequately reflect the theoretical construct, the relative weight to be assigned to each, and the ease of data collection.

The cycle of indicator development is completed with the assessment of indicators; indicators have to be scientifically sound (i.e. be valid, reliable, specific, and sensitive), representative, useful, understandable, accessible, and ethical (WHO, 1997). The relative relevance of these various criteria depends on the purpose for which the indicator is used. Indicators may be used for a variety of purposes: to raise awareness, for needs assessment, to monitor programs over time, to monitor differences between

¹² We wish to make clear that this illustration is but one way of measuring choice and different researchers and programs will have other opinions. We believe that it is possible to have a core group of items which can apply to any program and cultural setting; other items may be added to this core to reflect different contexts.

groups, assess impact of interventions, analyze and explain quality of care, and for strategic planning and resource allocation.(Askew 1998; Blanchard, Elul, and RamaRao, 1999). Some of the criteria listed may be more important for some purposes than others; for example, indicators for advocacy purposes need to be more understandable (proportion of clinics with a specific method) while those required for further analyses (proportion of clinics offering a complete range of methods) have to be scientifically robust.

Indicators for monitoring the quality of programs serve the needs of program managers who can take specific administrative decisions to modify their programs based on the information. In the past, data from Situation Analyses have been used by managers to strengthen their programs, guide formulation of policies and action plans, and evaluate them. Field experience shows that program managers are able to make the utmost use of indicators when they understand how they are measured, understand the standards set on each indicator, and are thus able to interpret the results. The information from the indicators then guides their administrative actions. There is a debate about how indicator scores should be presented to program managers and policy makers (Askew, 1994; Brown, 1995). One viewpoint is that a single composite score summarizing a lot of information (as illustrated in this paper) will be succinct and easy to present. On the other hand, other analysts feel that composite scores cannot be statistically justified and that they cannot be used to determine how or where to improve services; they advise the use of scale methodologies for creating indicators or presenting the individual scores of the items comprising the indicator. We believe that some composite indicators are conceptually more meaningful than non-composite ones and that discussions between researchers and program managers can facilitate their use in program management.

Finally, indicators only 'indicate' existing situations and cannot be used as tools for diagnosis. In other words, while they can identify problem areas, they cannot fully explain how that came about. Use of a conceptual model such as that presented earlier can provide the structure to identify where the problems lie and the potential solutions. For example, in the illustration used in this paper, the data indicated that clients do not receive full choice and the conceptual model allows us to trace if this is due to some lapse

on the part of the providers or is more system related. In this scenario, a partial explanation is that there are both provider and clinic level effects at work; providers do have biases and withhold specific methods from some individuals while clinics are not fully ready to facilitate the provision of a full choice of methods. However, the data have also indicated that clinics being ready are no guarantee for full choice. It appears that in addition to clinic readiness and provider level attitudes, there are other factors as yet unidentified which probably influence the client-provider interaction in ways such that clients do not receive choice. As has been commented by several other researchers, the nature of the client-provider interaction is still a 'black box' and enough is not known about what makes some providers perform differently than others or treat some clients differently than others.

This paper has described the various efforts in developing indicators of quality over the past decade. A number of challenges still remain before they can be used routinely in program monitoring and research. In the post Cairo context, there is a growing recognition for the need for reproductive health indicators; the WHO has listed 15 potential indicators and has identified quality of care as an area requiring additional research. Thus, the quest for appropriate indicators continues.

Table 1: Readiness of clinics to provide various methods

	Condom (%)	Pill (%)	IUD (%)	Injectable (%)	All methods
At least one trained provider	86	87	79	74	59
Method in Supply	99	99	99	96	93
Equipment available	n.a.	n.a.	47	81	41
All of above	84	86	40	66	26
Number of facilities	70	70	70	70	70

Source: Inventory, First Situation Analysis

Table 2: Clinic level readiness to provide choice

Readiness to provide contraceptives	BHS (%)	RHU (%)	All facilities (%)
No method: 0	4	6	4
1	8	0	6
2	21	39	26
3	46	17	39
All methods: 4	21	39	26
Number of Facilities	52	18	70

Table 3: Provider level readiness to provide Choice

Readiness to provide contraceptives	BHS (%)	RHU (%)	All providers (%)
No method: 0	4	6	5
1	2	3	2
2	19	6	14
3	17	25	20
All methods: 4	58	59	58
Number of providers	52	32	84

Source: Provider interview, First Situation Analysis

Table 4: Provider attitudes towards various contraceptive methods

	BHS providers (%)	RHU providers (%)	All providers (%)
Providers not imposing Restrictions on methods			
Pill	2	6	4
IUD	29	22	26
Injectable	17	13	15
Condom	52	66	57
All 4 methods	0	0	0
Methods recommended for limiting¹			
Able to report all possible 6	0	0	0
Average	1.6	1.9	1.7
Methods recommended for spacing²			
Able to report all possible 4	27	19	24
Average	2.4	2.4	2.4
Number of providers	52	32	84

1. The methods included are pills, IUD, injectables, condoms, male and female sterilization.

2. The methods included are pills, IUD, injectables, and condoms.

Source: Provider interview, First Situation Analysis

Table 5: Readiness of clinics to provide various methods

	Condom (%)	Pill (%)	IUD (%)	Injectable (%)	All methods (%)
At least one trained provider	92	93	93	92	83
Method in Supply	99	99	92	96	88
Equipment available	n.a.	n.a.	61	84	53
All of above	91	92	58	78	43
Number of facilities	76	76	76	76	76

Source: Inventory, Second Situation Analysis

Table 6: Clinic level readiness to provide choice

Readiness to provide contraceptives	BHS (%)	RHU (%)	All facilities (%)
No method: 0	2	0	1
1	5	0	4
2	14	10	13
3	40	35	38
All methods: 4	39	55	43
Number of Facilities	56	20	76

Table 7: Provider level readiness to provide Choice

Readiness to provide contraceptives	BHS (%)	RHU (%)	All providers (%)
No method: 0	2	0	1
1	2	0	1
2	7	11	9
3	11	9	10
All methods: 4	79	80	79
Number of providers	56	35	91

Source: Provider interview, Second Situation Analysis

Table 8: Provider attitudes towards various contraceptive methods

	BHS providers (%)	RHU providers (%)	All providers (%)
Providers not imposing Restrictions on methods			
Pill			
IUD	4	3	3
Injectable	16	40	25
Condom	9	37	20
Any	52	60	55
Methods recommended for limiting¹			
Able to report all possible 6	0	0	0
Average	1.4	1.2	1.3
Methods recommended for spacing²			
Able to report all possible 4	13	17	14
Average	1.6	2.0	1.8
Number of providers	56	35	91

1. The methods included are pills, IUD, injectables, condoms, male and female sterilization.

2. The methods included are pills, IUD, injectables, and condoms.

Source: Provider interview, Second Situation Analysis

Table 9: Client level Choice

Respondent was:	BHS (%)	RHU (%)	Total (%)
Asked type of FP method preferred	93	93	93
Told about other method	65	66	65
Did not have a method promoted	92	89	91
Given chosen method	99	98	99
Received full choice	55	52	54
Number of clients	1058	585	1643

Source: First Round SDP Survey

Table 10: Clinic level readiness and Clients receiving full choice

Clinic level readiness to provide contraceptives	BHS (%)	RHU (%)	All facilities (%)
No method: 0	44	--	44
1	58	--	58
2	56	34	46
3	59	53	57
All: 4	48	59	53
Number of clients	1058	585	1643

Appendix
Construction of the indicators

Indicator	Definition of indicator	Range	Notes	Unit of Analysis
CLINIC LEVEL Presence of at least 1 trained provider	Provider has received practical training in providing contraceptives	0-1	Method specific data	Clinics
Availability of contraceptives	Method available on day of clinic visit	0-1	Method specific data	
Availability of equipment	All equipment available for service delivery ¹	0-1	Method specific data	
Readiness to provide choice	Includes all 3 elements	0-3		
PROVIDER LEVEL Provider is trained	Provider has received practical training	0-1	Method specific data	Providers
Readiness to provide choice	Includes 1 element	0-1		
CLIENT LEVEL	Client reports:			Clients
Method preference	Asked of method of choice	0-1		
Receiving method of choice	Receiving chosen method	0-1		
Told more than 1 method	Being told of at least 1 additional method	0-1		
No promotion of a method	Was not promoted any specific method	0-1		
Receiving choice	Includes 4 elements	0-4		

1. Tenaculum, uterine sounds, gloves and speculum are basic equipment necessary for IUD insertion. Injections require sterile needles and syringes. Not applicable for condom and pill.

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