

# A Quality Assurance Process in Health Sciences Libraries

BY PHYLLIS C. SELF, *Health Sciences Librarian*

*University of Illinois at Urbana-Champaign  
Urbana, Illinois*

KAREN A. GEBHART, *Health Sciences Librarian*

*St. Mary's Hospital  
Decatur, Illinois*

## ABSTRACT

A goal of libraries is to assure the improvement of library services. Many organizations have attempted to use standards as a method to assure quality services, but often standards have failed through a lack of individual commitment to those standards and to the methodology used in establishing the standards.

Many segments of the health care field have adopted the concept of quality assurance and are applying it to the service and care they provide. This process has the potential to raise or assure quality of service in health sciences libraries. The process involves: selecting a subject for review; developing measurable criteria; ratifying the criteria; evaluating existing services using the criteria; identifying problems; analyzing problems; developing solutions; implementing solutions; and reevaluating services.

Two pilot quality assurance studies conducted in the Midwest Health Science Library Network during 1978 are described. Plans are under way to use this process on a regional basis.

**A PREVAILING TOPIC** of discussion among librarians is the improvement of library services. Librarians design, evaluate, redesign, and reevaluate services and programs without assuring any improvement. We intend to describe a process that assures the improvement of library services.

Since 1973 the term "quality assurance process" has been used by health care professionals. In that year the Bureau of Quality Assurance was created in the reorganization of the Department of Health, Education, and Welfare. A review of the literature indicates that many segments of the health care field have adopted the concept of quality assurance and are applying it to the services and care they provide. The quality assurance process provides: (1) standardized development procedures, (2) group problem-solving, which includes developing an action plan with assignments and deadlines, (3) measurement of behavioral characteristics of

services, and (4) evaluation of the quality of service in an objective way.

## REVIEW OF LITERATURE

Almost every library organization has a committee devoted to evaluating library services and defining standards. In the past, evaluation studies have been based primarily on statistics, such as reference questions answered, books circulated, and size of library collection. While statistics are valuable as base-line measures they do not guarantee the improvement of library service.

In his "Review of criteria to measure library effectiveness," Evans discusses the need for clearer goals and objectives in the interpretation of results and evaluation of library services. He further emphasizes that investigation should relate evaluation criteria to the entire library program. Too often "each evaluation criterion is taken in isolation rather than as part of the whole" [1].

Many evaluation studies have been done in the areas of circulation, document delivery, automated systems, and reference services [2]. The objective of these studies has been to measure quantity rather than quality in delivery of library services. It is particularly difficult to translate statistical data into action and change in operating procedures [3]. The methodology used in the past has been to collect statistics that represent the present situation. These studies have not demonstrated a direct influence on improving the quality of library service; they have served as a justification for continuing as is.

Another drawback to data provided in these studies is that the library director's responses to surveys are often based on library policy as opposed to actual practice, and discrepancies do exist between services dictated by library policy and those actually offered. Availability of a service

does not guarantee the service's quality. In 1968 Orr recognized that "these limitations should be kept in mind when one is interpreting inventory data" [4].

Not only evaluation studies but also the development of standards has been dependent on interpretation of statistics. The use of statistics in this manner has been questioned. After applying statistical analysis to medical school libraries, Pings et al. [5] drew the following conclusion: Statistics are (1) highly redundant, (2) essentially descriptive and not amenable to analysis for predictive purposes, (3) of questionable reliability, and (4) of minimal utility for library investigators and managers *and of doubtful value for establishing standards* (italics ours).

Various agencies have developed standards for library service; these standards, however, are not useful for all sizes and types of libraries. The American Library Association, Special Libraries Association, Joint Commission on Accreditation of Hospitals, and other organizations have standards for particular types of libraries. However, each set of standards is aimed at just those particular kinds of libraries and services. Public library standards cannot be applied to academic libraries, nor vice-versa. It is also apparent that these standards have had limited effect on the improvement of library services.

Another weakness in existing standards is that standards that have been developed by statistical means alone lack individual commitment and often set goals that are unrealistic and unattainable for many libraries. Many existing standards address the quantity rather than quality of library materials and services: "Lowell Martin has admitted in his review of the public library standards study after eighteen months of operation that the greatest failure has been in the lack of improvement in the quality of the subject collections and in the quality of the service given the serious reader" [6].

Four methods can be used to establish standards: (1) quantitative methods, (2) survey methods, (3) existing standards methods, and (4) qualitative methods. Literature shows that the first three methods have not been useful in improving service. The last method is said to be the "most difficult and yet the most vital . . ." [7]. As librarians we are concerned with both assuring and improving library service. Other professional service organizations have experimented with various methods to improve the quality of service; by

careful examination librarians can learn to adapt these existing methods to improve the quality of library service.

#### QUALITY ASSURANCE PROCESS

Quality assurance is used to refer to the efforts of health care professionals and institutions to provide evidence that quality and utilization of medical services are appropriate. It is recognized in most fields that average practice and best practice are far apart, and that even best practice may be somewhat removed from the true objective [8]. The assumption has been made by many librarians that given a good collection and a good facility, good service will follow. The quality assurance process emphasizes quality rather than quantity, provides a rationale for evaluation, involves the total library system, and ensures a commitment to better service.

Many methods exist for assessing quality of service in the health care field. The method being proposed for use in the Midwest Health Science Library Network (MHSLN, Region VII) is the quality assurance process developed by the California Medical Association—California Hospital Association Process—and adapted for health sciences libraries at St. Luke's Methodist Hospital, Cedar Rapids, Iowa, by Melanie Adair [9]. It is based on the following premises:

1. Improvement of service delivery is based on the commitment of all individuals participating to achieve a particular level of service.
2. It is probable that there are numerous areas agreed to be important to quality service that are not being acted upon.
3. Standards and criteria for evaluation should be developed by the individuals responsible for the services being provided.
4. Problem solving should be a built-in part of the process.

The Quality Assurance Process follows a specific cycle:

1. Select the subject for review and a sample population.
2. Develop measurable criteria.
3. Ratify the criteria.
4. Evaluate existing services using the criteria.
5. Identify problems.
6. Analyze problems.
7. Develop solutions.
8. Implement solutions.
9. Reevaluate services.

*Topic Selection*

In the first step of the quality assurance process cycle, a topic is selected. The topic can be a specific procedure: checking out library materials, for example; a status: physicians' knowledge of library reference services, for instance; or it can be an outcome, such as effectiveness of a library instruction program. In choosing a topic, the group or committee should consider that a problem exists, the problem effects good service delivery, there are practices that are well agreed upon to solve the problem, and the topic is of special interest to those involved. Important to the selection of the topic is the involvement of the individuals participating in the process or audit.

*Limiting the Focus*

After selecting the topic, a focus is chosen. It is necessary to narrow the topic to one specific aspect of service delivery, or to an aspect of service delivery known to be a problem elsewhere and a potential problem locally, or an aspect of service delivery most crucial to providing quality service. The wording of the objective (focus) should include the phrase "to assure" or "to improve." The purpose of the audit is not to collect data, but rather to effect the assurance or improvement of a service. Therefore, phrases such as "to evaluate" or "to measure" are inappropriate. Examples of audit topics and objectives are:

- TOPIC: Charging out library materials.  
FOCUS/OBJECTIVE: To assure that library users know how to charge out materials.
- TOPIC: Physicians' knowledge of library reference services.  
FOCUS/OBJECTIVE: To improve physicians' requests for literature searches.
- TOPIC: Effectiveness of a library instruction program.  
FOCUS/OBJECTIVE: To assure that students who participated in the library instruction program know how to use *Index Medicus*.

As in other methods of evaluation or research, it is necessary to further limit the topic. A population is chosen to which the criteria will be applied, for example:

1. All users for one week.
2. The next twenty house physicians who use the library.

3. Students who participated in the library instruction program.

*Choosing Criteria*

Four to eight critical indicators are identified by the group to determine good service delivery. From these, the group develops the criteria to be used in the audit. The following set of guidelines are useful in evaluating the criteria statement.

Is the criterion:

1. relevant—an important indicator of good service?
2. understandable—clearly worded?
3. measurable—Can a method be designed to test the criterion?
4. behavioral—under the control of human behavior?
5. achievable—Is it a realistic, attainable goal?

Each criterion is a clear and specific statement. Definitions should be added to avoid differences in interpretation. For example:

Criterion

Students who participated in the library instruction program will be able to identify the elements of a citation in *Index Medicus* (author, title, journal title, volume number, and pages).

For each criterion, the group determines a level of expected performance. This is the level at which the criterion should be fulfilled in assuring good service and it is an intuitive judgment made by the group. If the expected performance level is not reached, participants are committed to develop a plan for action. Expected performance levels generally range between 75% to 100%. For example:

Criterion

Students who participated in the library instruction program will be able to identify the elements of a citation in *Index Medicus* (author, title, journal title, volume, number, and pages).

Expected Performance Level

96%

The criteria and the expected performance levels must be ratified by all those whose practice will be audited. Others who will use the criteria now have the opportunity to approve, modify, or reject the

proposed criteria. This ratification process is essential to: (1) obtain individual commitment, (2) involve more people, ensuring the best ideas for criteria development, (3) clarify criteria, and (4) inform individuals of the standards by which their performance will be judged.

#### *Expected Performance Measured*

Data retrieval, deficiency identification, and problem solving are the next steps in the quality assurance process. Because the quality assurance process is a retrospective review, data are retrieved on procedures occurring prior to development and ratification of criteria. Data may be available from records kept in the institution, or it may be necessary to develop a questionnaire or survey to collect the needed information. Using this information, the actual outcome is compared with the expected performance levels of each criterion.

All criteria having actual compliance levels below expected performance levels are examined for deficiencies or discrepancies. For instance, if it was expected that 96% of all students who participated in the library instruction program would be able to identify the elements in a citation of *Index Medicus*, and 85% were able to do so, there is a discrepancy. Discrepancies can occur because of gaps in skills or knowledge of staff, problems with policies or procedures, environmental difficulties, or lack of materials or equipment. If an unclear or poorly written criterion is apparent, rewrite it and collect the data again.

#### *Implementation and Evaluation*

Effective problem solving to include implementation and evaluation completes the next step of the quality assurance process, with reaudit continuing the process and beginning a new cycle. To solve the problems noted, determine the importance of each discrepancy in the following manner:

1. Does the performance deficiency have serious implications in delivering quality service?
2. Can the deficiency be handled with little time, materials, or money?
3. Is the deficiency related to other problems in service delivery?
4. Were staff members aware of this deficiency before the audit?

Each of these considerations will be useful in determining how the problems will be solved, how to implement the solutions, and how to evaluate the success or failure of the solution.

At this point in the quality assurance process,

the commitment of each individual to the process is especially important. As solutions are worked out, each person is given a specific task with a completion date. Because of individual involvement at each step of the process, the assignment of tasks is expected and accepted. Each person has a stake in the outcome of the process.

Effecting a change in the quality of service is the goal of the quality assurance process. To determine if the solutions to the problems are successful, a date for a reaudit of the criteria is set, thus ensuring an ongoing process.

#### APPLICATIONS

The MHSLN Criteria Committee held two pilot studies to test the usefulness of the quality assurance process. The first was conducted in November 1978 using the Southeastern Wisconsin Health Science Library Consortium, Milwaukee, Wisconsin; and the second using the MEDLINE Users Group of the Twin Cities Biomedical Consortium, Minneapolis, Minnesota, in December 1978. These pilot studies served a useful purpose in evaluating the potential effectiveness of the quality assurance process for health sciences libraries. They demonstrated its applicability to several different types of library groups (a committee from different settings, a consortium of hospital libraries, and a group of on-line users). They provided participants with first-hand experience in using group process techniques to develop criteria, identify problems, and do problem solving. The pilot studies provided the facilitators with additional information that will be helpful in further adapting the quality assurance process for libraries.

Currently the MHSLN is investigating the use of this process on a regional basis. The criteria committee feels this process will be useful in improving existing services and establishing regional standards. The process has the potential to be incorporated into a long-range planning process because of its emphasis on (1) individual commitment, (2) group problem solving, and (3) objective evaluation of behavioral characteristics of library services.

#### CONCLUSION

Skillful use of the quality assurance process can upgrade services, maintain quality service, provide a mechanism for goal setting, make library staff more responsive to user needs, and influence behavior practices in the library. However, further investigation and evaluation of this process is

needed to determine its usefulness in the library setting.

REFERENCES

1. Evans E, Borko H, Ferguson P. Review of criteria used to measure library effectiveness. *Bull Med Libr Assoc* 1972 Jan;60:102-10.
2. Lancaster FW. The measurement and evaluation of library services. Washington, D.C.: Information Resources Press, 1977.
3. Systems and Procedures Exchange Center. User Surveys no. 24, Feb. 1976.
4. Orr RH, Pings VM, Olson EE, Pizer IH. Development of methodologic tools for planning and managing library services: III. Standardized inventories of library services. *Bull Med Libr Assoc* 1968 Oct;56:380-403.
5. Pings VM, Olson EE, Orr RH. Summary report of a study of academic medical library statistics. *Bull Med Libr Assoc* 1969 July;57:233-8.
6. Norris ED. Establishing standards. *Spec Libr* 1960; 51:229-31.
7. *Ibid.*
8. Monroe ME. Standards—criteria for service or goals for the future. *ALA Bull* 1962 Oct;56:818-20.
9. Adair MN. Quality assurance process; adapted for use by health science libraries. Cedar Rapids, Iowa: St. Luke's Methodist Hospital, 1978.

*Received November 13, 1979; revision accepted March 19, 1980.*