

# The Health Information Specialist: A New Resource for Hospital Library Services and Education Programs\*

BY ROBERT A. GOLD, *Director of Research*†

*Postgraduate Medical Institute  
Boston, Massachusetts*

WENDY RATCLIFF FINK, *Project Coordinator*

*Consortium for Information Resources  
West Suburban Hospital Association  
Newton Lower Falls, Massachusetts*

NORMAN S. STEARNS, M.D., *Executive Director*‡

*Postgraduate Medical Institute  
Boston, Massachusetts*

HAROLD BLOOMQUIST, *Librarian*

*Francis A. Countway Library of Medicine  
Boston, Massachusetts*

## ABSTRACT

Growing pressures for more effective education programs at community hospitals demand better and more responsive hospital library resources and services. It is suggested that, with a modest amount of additional training and support, a community hospital librarian can play a key role in (1) improving the effectiveness of the hospital's library services and resources, (2) assisting hospital educators with the task of developing, implementing, and evaluating education programs, and (3) facilitating coordination of health information resources and services with all aspects of hospital education programs. An expanded, more active role, that of the Health Information Specialist, is suggested for hospital librarians. A one-week training program for librarians and special orientation for hospital educators and administrators plus follow-

up field consultation for all three is described and proposed as an implementation strategy to provide the background and impetus needed to help hospital librarians evolve and expand their functional role into that of a Health Information Specialist.

## THE CONCEPT

IT is becoming increasingly obvious that pressures to improve the quality of health care in general, and its delivery at community hospitals in particular, will require development of improved education programs for professionals, paraprofessionals, and patients. Effective educational programs must transmit knowledge or skills and cultivate attitudes in order to affect behavior. In undertaking such programs in the community hospital one must be assured of an effective and responsive information service to back up, or in some cases to perform, the pedagogical function. An antecedent to the development of effective hospital education programs must be the creation of a reliable library resource and service.

In spite of the obvious need, our experience indicates that hospital information services are

---

\* This publication was supported by NIH Grant LM 01203 from the National Library of Medicine.

Send reprint requests to Mr. Bloomquist, 10 Shattuck St., Boston, Massachusetts 02115.

† Present title and address: Coordinator of Professional Education Programs, National High Blood Pressure Education Program and Senior Associate, Control Systems Research, Inc., Arlington, Virginia 22209.

‡ Present title and address: Associate Dean, Tufts University School of Medicine, Boston, Massachusetts 02155.

## HEALTH INFORMATION SPECIALIST

too often grossly inadequate or altogether nonexistent. In those instances where resources and services do exist, little has been done to integrate or coordinate efforts with educational programs or with the specific needs of their planners and participants (1-5).

It has usually not occurred to the hospital librarian that she is potentially a useful member of the hospital's education team—that information service is “educational” in nature, and that her contribution to the hospital could be magnified by initiating outreach activities to identify needs, to demonstrate the full range of skills and services she could deliver, or to collaborate actively with the hospital's educators in the development of innovative approaches to education and information dissemination. It has often not occurred to the hospital administrator that the library, both fiscally and organizationally, might well fall under the rubric, “education.” The physicians, nurses, and others who are the traditional educators in hospitals frequently have not thought of the library as a center for the materials of education or as a center for educational programs; nor have they viewed the librarian as a potential colleague in the educational process. Rather, the library has existed without relation to the hospital's programs, frequently atrophied, and rarely called upon for innovative or creative services.

Even in the best of situations, and with the common goal of improving patient care, the hospital's education programs and its library services have existed in splendid isolation from one another: the former a function and responsibility of the professional staff and the latter an appendage to the administrative structure. The education scene is further fragmented by the traditional divisions and barriers between physician education and all other hospital programs.

The complexity of the problem, and the need for new resources for hospital educators, is evident when one considers the fact that many community hospital educators (directors of medical education, in-service nursing directors or coordinators, education committee chairmen, etc.) frequently have other primary responsibilities which may in fact relegate their education activities to a part-time or secondary status. Clearly, if hospital educators respond to the challenge of improved education programs,

ways must be found to conserve their time by identifying others at the hospital who can assume some of their present tasks so that they can concentrate their primary energies in patient care areas requiring their specialty training, and at the same time more rigorously fulfill the demanding requirements of an “educator.”

Improvement of education programs and information services will, at least in part, be dependent upon the degree of success achieved in coordinating, if not integrating, them at the activity, personnel, planning, and organizational structure levels. We believe that with proper training and support, hospital librarians can play a key role in (1) improving the effectiveness of the hospital's library services and resources, (2) assisting hospital educators with the task of developing, implementing, and evaluating education programs, and (3) facilitating coordination of health information resources and services with all aspects of hospital education programs. In short, we see the hospital librarian in a unique position to be a change-agent working to draw together the worlds of “education” and library within the same institution. Such an agent of change, trained in both information and education-support services, we have designated *Health Information Specialist* (HIS). A program to develop a curriculum and to train the HIS, and to evaluate the results has been underway at the Francis A. Countway Library of Medicine and Postgraduate Medical Institute since 1971.

### THE NEED

The modern hospital, with its complex of highly specialized and sophisticated facilities, personnel, and services, has become the focal point for the delivery of health care in the United States. As noted by Rees and Berger, dependence on coordination of the diverse resources of the hospital is significant and increasing:

The rapid institutionalization of medical practice, the rise of specialization, the increasing dependence of physicians on each other, on allied personnel and on expensive, specialized equipment have required that the physician use more extensively the resources and facilities of the hospital. The decline in number of general practitioners has fostered a team approach to health care which requires coordination of the

physician, a variety of specialties, and an ever increasing number of allied health personnel (6).

Beyond the straightforward delivery of health care, the hospital is also involved in the other two cornerstones of modern medicine: research and education. Stored information and the services to make it available are essential tools of the modern clinical researcher and are indispensable components of the communications process for disseminating findings to colleagues.

The hospital is rapidly becoming a major learning milieu for the health professions. Today, hospitals are engaged in the education of medical students, house officers, as well as nurses and a whole spectrum of allied health professionals and paraprofessionals. Clinical experience is becoming a universally acknowledged essential element of virtually all training programs. In few places is that experience so readily accessible as in the modern hospital. But it is after basic training that the hospital's full potential emerges as an ideal setting for the life-long education and learning of health care practitioners.

No one any longer questions the data indicating that even the finest basic training becomes obsolete rapidly unless the practitioner pursues a systematic and vigorous program of continuing education (7). Professional, public, and legislative recognition of this fact is reflected in a growing number of pressures to require continuing education programs in general and hospital-based programs in particular, for example: (1) state medical and nursing association or specialty society requirements for participation in continuing education programs; (2) incentive programs, such as the AMA's Physician Recognition Awards; (3) the plan of one specialty board (Family Practice) to require periodic recertification; (4) the recommendation of the National Advisory Commission on Health Manpower for relicensing of physicians as a means of assuring their participation in educational programs; (5) recent court decisions asserting hospital (trustee) responsibility for the care provided by hospital physicians and eliminating geographical considerations from definitions of adequate care (8, 9); (6) standards of the Joint Commission on Accreditation of Hospitals which require provision of continuing education programs for

physicians and nurses or evidence of participation in such programs; (7) increased consumer sophistication and demands for accountability; and (8) development of quality assessment-remedial education programs by several national organizations (the AMA Peer Review Program, the American Hospital Association's Quality Assurance Program, and a similar proposal by the Joint Commission of Accreditation of Hospitals), by EMCROs (Experimental Medical Care Review Organizations), developed under the auspices of the National Center for Health Services Research and Development and, in the near future, by legislatively required PSROs (Professional Standards Review Organizations).

As an educational setting the hospital offers a number of unique advantages that have been highlighted frequently (10-12). The community hospital, where health care providers attend patients and meet with colleagues, lends itself to the creation of educational programs that can have real and immediate relevance to the problems encountered in daily practice and, thus, offers a unique opportunity to integrate continuing education with patient care.

#### THE ROLE OF THE HEALTH LEARNING CENTER

Given the fact that quality patient care, education, and research require ready access to current information and that it is generally acknowledged that there are serious gaps between current medical knowledge and its application in daily practice, one can easily understand the urgency of finding more effective ways to provide access to available knowledge through education programs and information services. We contend that hospital librarians can help bridge the gap between current knowledge and its application by expanding their traditional role in several distinct areas: one, by assuming a more aggressive stance concerning the improvement of facilities, collections, personnel, and services in hospital libraries as they exist today. Next, they should develop an outreach approach that extends and relates library services directly to the needs of both formal and informal education activities within the hospital. Hospital librarians must involve themselves in hospital education programs in every possible way thereby illustrating

## HEALTH INFORMATION SPECIALIST

to the educator that the library's services are indispensable to him. Eventually, by taking advantage of the unique perspective afforded by their involvement in education and library activities, librarians will be better able to coordinate information resources and services to support all aspects of the hospital's education programs. The HIS program was developed to enable librarians to expand their role into these areas so that the hospital library can become the institution's center for learning resources. The expansion of the hospital librarian's role constitutes an essential step toward the longer-range goal of transforming the hospital library into a viable Health Learning Center coordinating all elements of hospital education/information services.

The Health Learning Center might also house education offices and classrooms; a single, hospital-wide, comprehensive library collection, including audiovisual formats and machinery; and computer-access and extra-hospital information retrieval and networking terminals. This conceptualized Health Learning Center, which will integrate many library and education activities, may well become reality within the next decade. Currently, librarians are preparing for the demands that management of such facilities will entail. Hospital librarians should consider the expansion of their activities into education programs as one avenue for such growth.

### THE "HIS" ROLE

Basic knowledge and skills needed to perform effectively as a hospital health sciences librarian must be supplemented by additional training for the role that is proposed. New knowledge includes the following:

1. An understanding of how a hospital serves a community as well as the internal mechanisms by which it operates. The HIS should feel confident that she has a firm grasp of the medical, sociological, and educational interrelationships of the major departments before she is likely to feel comfortable with the prospect of leaving the security of her library to approach directly a wider segment of the potential user population.
2. An understanding of educational principles, methods, and media; for example, relevant principles of adult education.
3. An awareness of the various types of education which do or can occur in the community hospital settings; for example, medical student, intern, resident, degree and associate nursing programs, laboratory or x-ray technology programs, continuing medical and in-service nursing education programs, and orientation programs for all hospital personnel, as well as specific educational formats and techniques, such as grand rounds, bedside rounds, mortality conferences, nursing conferences, lectures, journal clubs, and audit and other quality care assurance activities.
4. An understanding of the potential function and role of a Health Learning Center that has expanded to serve all education activities.
5. Ability to select, use, and care for audiovisual hardware and software.
6. Knowledge of and skills in specific applications and uses of library information services within the hospital's education/care programs; for example, the ability to perform MEDLINE searches for planners of major new education programs; to prepare bibliographies listing sources of information relevant to topics of upcoming speakers; and to review professional health education literature and secure reprints for an educator's resource file.
7. Willingness and ability to perform specific education services in direct support of the education programs in the hospital; for example, to prepare and distribute to the staff survey instruments to assess educational needs and resources, to maintain a schedule of rooms available for education programs and a master calendar of hospital-wide education activities, and when appropriate, to coordinate advance distribution of case materials to those involved in education programs.

### IMPLICATIONS FOR THE HOSPITAL

Evolution of hospital librarians into Health Information Specialists and implementation of their expanded role implies a number of changes in hospital policies, administrative organization, working relationships, and supervision patterns. Key to the concept is the integration of library resources with education

programs. Existing separate libraries, i.e., physician, nurse, etc., should be merged into a hospital-wide health sciences library serving the entire hospital. Similarly, existing education and library committees should be merged. Library committee membership should include the librarian, hospital educators, and other representatives of the hospital community for which information services are relevant—that is, medicine, nursing, allied health, and supportive services. This integrative approach is in keeping with current theories of hospital library practice and supports current trends toward a team approach to patient care (13).

Since the HIS concept imposes a significant expansion of the librarian's role, significant administrative support in the form of additional staff time and increased remuneration should be directly commensurate with the expanded HIS responsibilities.

Designation of responsibility for the supervision of the HIS is not obvious at this point. The current state of affairs varies widely from institution to institution with the most typical pattern being one in which the library exists as a quasi-autonomous department with the librarian reporting to an administrator or assistant administrator who provides only a modicum of supervision or other attention. The introduction of a direct working relationship with educators in hospitals raises the possibility of a direct supervisory relationship with educators. This relationship would present a number of obvious problems as well as some advantages. Some kind of supervision is both necessary and desirable, for as noted by Dr. Anthony Komaroff:

“to delegate responsibility . . . without clearly defining that responsibility and without monitoring its performance is not to delegate responsibility at all; it is to abdicate responsibility” (14).

Perhaps the most reasonable of all arrangements would be to maintain a strengthened supervisory role from administration and at the same time to initiate and cultivate a colleague relationship with the educators, incorporating an explicit provision for regular exchanges of constructive feedback.

#### TRAINING AND SUPPORT NEEDS

Training for the Health Information Specialist is predicated on a solid base of knowledge and skills in health sciences librarianship suffi-

cient for functioning in a community hospital. While the debate over the training and education needs of the “hospital librarian” continues, an examination of the available data indicates that there are fewer than 1000 professional librarians functioning in the almost 6000 community hospitals in the U.S.<sup>1</sup> With fewer than 130 of the graduates from fifth year library schools entering health sciences libraries annually, one concludes that at the present rate of production of professional librarians, their availability to the community hospital is likely to be small. The HIS concept suggests that all hospital librarians, degreed and non-degreed alike, should concern themselves with learning about educational processes that occur in hospitals so that their libraries can in turn be more responsive to their users.

As an implementation strategy to equip existing hospital librarians to begin to evolve into Health Information Specialists, we believe that an intensive one-week training program can provide a working knowledge of relevant educational philosophy, theory, and practices geared to the practical aspects of supporting development of varied education programs in community hospitals. The objective would not be to turn librarians into professional educators in one week; rather it would be to help skilled and eager hospital librarians find new or more effective ways to expand their role to directly support hospital education activities. In addition, the HISs would learn a number of new skills directly applicable to educational program development.

Since implementation of the HIS concept would involve some fundamental role changes for the hospital librarian, the hospital educators with whom she would be establishing new working relationships, and the administrators who have ultimate responsibility for the institution's programs, training should include orientation for all three groups in an effort to address their collective concerns as they return to their institutions and begin to implement their program. Follow-up field consultation by trainers could provide this clarification, support, and problem-solving assistance for the HIS, hospital educators, and administrators as they collectively try to synthesize education and library programs in their particular institution.

<sup>1</sup> National Hospital Panel Survey, American Hospital Association, 1970.

## HEALTH INFORMATION SPECIALIST

An implementation strategy for the training and support of the suggested role of the Health Information Specialist would, therefore, center on three components:

1. A week of intensive training for the HIS.
2. A day of orientation and training for hospital educators, administrators, and the HIS.
3. Follow-up supportive field consultation for all three.

Above all, what is needed is an active and enthusiastic commitment on the part of all concerned to innovation and education as meaningful avenues to the improvement of the quality of patient care.

A suggested outline for a five-day HIS training institute, including orientation for educators and administrators, follows and reflects the model employed in undertaking two pilot institutes in Boston in 1971.

*Day 1—(theory day)* would be devoted to presentation, conceptual consideration, and discussion of the central themes to be developed, examined, and reinforced throughout the week: (1) scope and nature of hospital-based education; (2) definition of the Health Learning Center as a successor to the traditional hospital library; (3) delineation of the role of the Health Information Specialist; and (4) the relationship of the Health Information Specialist to the rest of the hospital, including consideration of problems to be anticipated in gaining acceptance of the expanded role and in effecting changes associated with functioning in it.

*Day 2—(skill practice day)* would be designed to provide a more detailed examination of the various specific library and education-support skills and services associated with the role of the Health Information Specialist as developed the previous day. Although time limitation might well preclude "trying out" all potential skills, particular emphasis should be given to actually practicing a range of novel education-support skills and services. To assure the coherence of the various skill practice exercises, a case study approach would be used in which most exercises are geared to the tasks a Health Information Specialist might perform in support of a single long term, hospital-wide education activity, such as the training of staff for coronary care or intensive care units.

*Day 3—(field observation day)* would involve a field trip to a community hospital to observe a variety of live education and training activ-

ities, to talk with the educators responsible for developing and implementing the programs, and to encourage conversation between educators and the students. Such involvement would afford trainees a first-hand opportunity to observe information service and other support needs which they might fulfill in their expanded librarian role as Health Information Specialists.

*Day 4—(joint training for the HIS and the hospital educators and administrators)* would be designed to orient educators and administrators from the trainees' hospitals to (1) the goals of the HIS program; (2) the concept of the Health Learning Center and the role of the HIS; (3) present new approaches to developing education programs designed to make maximum use of the information services and education-support skills which HIS trainees were prepared to offer or develop; (4) to enlist the educators' and administrators' support in aiding the Health Information Specialists gain acceptance of their new role back at their home institutions. The joint training would also provide a common learning experience which would help the trainees and their educators and administrators develop a new, more effective working relationship with each other.

*Day 5—(review and wrap-up day)* would be much less structured than the preceding days to permit the HIS trainees to synthesize and integrate the barrage of experiences and inputs of the four preceding days, and to help trainees anticipate the process of translating and applying what they have learned to their back-home situations, as well as dealing with apprehensions raised by that prospect.

The successive days of the week-long institute are designed to have distinct content focus and pedagogy, each carefully related to sessions that precede and follow so that the training experience provides a coherent integration of theoretical and conceptual presentations, applied skill practice, and field observation. Extensive amounts of time are allocated to seminar discussion and reaction to help trainees translate the theoretical into the pragmatic and the conceptual into the real in their own hospital settings.

### EVALUATION OF THE CONCEPT

Any untested or innovative program should be implemented initially as a pilot and should be

coupled with a careful, objective evaluation to determine (1) its acceptance, (2) its impact on the system or systems it is intended to affect, and (3) ways in which it may be improved. Specifically, we would suggest that the HIS concept and the training/consultation implementation strategy suggested be evaluated systematically at a minimum of four levels.

1. Knowledge acquisition from training,
2. On-the-job skill performance following training,
3. Change in education/information services related to objectives of the training program, and
4. Utilization and acceptance of the HIS role.

Such a pilot evaluation of the HIS concept and training/consultation implementation strategy is currently underway at the Countway Library. The study's findings will be reported in a subsequent paper.

#### CONCLUSION

Improvement of patient care should be the ultimate goal of both hospital education programs and information services. Our earlier depiction of the librarian and the educator too often pursuing the same goals in isolation need not persist. We believe that hospital librarians, both graduate-degreed and non-degreed, can and will take up the challenge to make themselves and their libraries integral and important parts of a hospital-wide health care and education team; we believe that hospital educators will welcome the assistance offered by an expanded and revitalized resource; and we believe that hospital administrators will support a department that takes initiative to increase its utility to the hospital's patient care and education programs. All that is needed is the impetus to overcome inertia, the awareness of the problems and needs that exist, the knowledge of the most useful procedures and techniques to follow, the sensitivity to initiate change effectively, the commitment of all concerned parties, and possibly, the guidance and support of an extra-hospital source of expertise that can view the situation objectively.

#### REFERENCES

1. STEARNS, N. S., and RATCLIFF, W. W. A core medical library for practitioners in community hospitals. *N. Engl. J. Med.* 280: 474-480, Feb. 27, 1969.
2. STEARNS, N. S., and RATCLIFF, W. W. An integrated health science core library for physicians, nurses, and allied health practitioners in community hospitals. *N. Engl. J. Med.* 283: 1489-1498, Dec. 31, 1970.
3. STEARNS, N. S.; BLOOMQUIST, H.; and RATCLIFF, W. W. The hospital library. Part 1. *Hospitals* 44: 55-59, Mar. 1, 1970.
4. STEARNS, N. S.; BLOOMQUIST, H.; and RATCLIFF, W. W. The hospital library. Part 2. *Hospitals* 44: 88-90, Mar. 16, 1970.
5. Core Library Survey. Appendix 1-4, Final Report of Postgraduate Medical Institute/Tri State RMP Contract, 1971.
6. REES, A. M., and BERGER, C. Role of the Library in the Hospital. In: Bloomquist, H.; Rees, A. M.; Stearns, N. S.; and Yast, H., eds. *Library Practice in Hospitals: A Basic Guide*. Cleveland, Press of Case Western Reserve University, 1972.
7. COGGESHALL, L. T. Planning for Medical Progress Through Education. Evanston, Ill., Association of American Medical Colleges, 1965.
8. *Darling v. Charleston Community Memorial Hospital*, 33 Ill. 2d 326, 211 N.E. 2d 253, 1965.
9. *Brune v. Belinkoff*, 354 Mass. 102, 235 N.E. 2d 793, 1968.
10. STEARNS, N. S.; GETCHELL, M. E.; and GOLD, R. A. *Continuing Medical Education in Community Hospitals: A Manual for Program Development*. Boston, Massachusetts Medical Society, 1971.
11. FREYMANN, J. C. The community hospital as a major focus for continuing medical education. *JAMA* 206: 615-616, Oct. 14, 1968.
12. ROSINSKI, E. F. The community hospital as a center for training and education. *JAMA* 206: 1955-1957, Nov. 25, 1968.
13. BLOOMQUIST, H.; REES, A. M.; STEARNS, N. S.; and YAST, H., eds. *Library Practice in Hospitals: A Basic Guide*. Cleveland, Press of Case Western Reserve University, 1972.
14. KOMAROFF, A. L.; REIFFER, B.; and SHERMAN, H. Protocols for paramedics: A quality assurance tool. In: *Quality Assurance of Medical Care: Monograph, Regional Medical Programs Service, Health Services and Mental Health Administration, Department of Health, Education and Welfare*, 1973.