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Developing a media center in a health care facility

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Developing a media center in a health care facility

Abstract

The director of education approached the librarian and asked her how to make slides for a medical staff presentation. The librarian was at a loss as to how to assist the director. In another situation, the marketing department of a health care facility was approached by another department to develop and shoot a video promoting a new piece of equipment. Members of the marketing department had no idea where to begin—their experience was limited to print media.

DEVELOPING A MEDIA CENTER
IN A HEALTH CARE FACILITY

A Research Paper
Submitted
In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

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CHAPTER I

Introduction

The director of education approached the librarian and asked her how to make slides for a medical staff presentation. The librarian was at a loss as to how to assist the director. In another situation, the marketing department of a health care facility was approached by another department to develop and shoot a video promoting a new piece of equipment. Members of the marketing department had no idea where to begin---their experience was limited to print media.

What the librarian and marketing department experienced is not uncommon to other professionals involved in public relations, corporate relations, administration, and/or education in a health care setting. Very few of these professionals have been trained to use media, let alone produce it. This will have to change as health care professionals continue to discover that programs and instruction can be made more effective and more polished with the use of quality media.

The need to have access to media in a health care facility, whether large or small, will continue to grow. Used and produced correctly, media can be developed to meet the needs of the public, students, patients, and personnel in a health care setting.

In 1975, in an article by Koch (p. 29), she says, ". . . audiovisual instruction, mediated learning, or educational technology---by whatever name, this new way to teach and learn is here to stay." This statement is supported in a proposal submitted to the Allen Memorial Hospital Board, October, 1985.

The vice president of education writes, "Providing patient education, physician education and staff development is important because of advancements in health care, but we must also do it efficiently and economically, while maintaining quality and relevance."

The report continues that this can be accomplished by the centralization and expansion of the audiovisual or media services of the hospital, which includes production and the reinstallment of the closed-circuit television system (Hasek, 1985).

With the advancement of technology and the increased competition among health care facilities, a solid media program can be used as an effective incentive for drawing patients to one facility over another. "Patients have a real desire to know what is happening and what will happen to them. This could well become one of the hospital's most valuable services" (Coit, 1981, p. 26).

Additionally, media can be an invaluable tool for teaching. Nurses and other health care personnel can utilize media software to explain complicated procedures. For them, the cliché, "A picture is worth a thousand words" becomes a matter of reality when trying to explain a complicated procedure such as heart surgery.

The nature of media also makes it a natural companion to the health care field. Media software is quick to produce and provides more up-to-date information than many printed materials. Thus, medical personnel, students, and patients are continually informed of the latest developments and technologies (Grayshon, 1985, p. 24).

Problems do arise when a health care facility investigates the enormous cost involved with establishing media facilities. Hospital boards will discover that these problems will have to be faced and overcome as more studies support the cost-effectiveness of having in-house media facilities.

One study showed a hospital utilizing video in its orientation program for patient education, saved \$100,000 in nursing time per year (Gates & Reilly, 1985, p. 22). This time savings allowed nurses to spend more time giving patients one-to-one health care attention since they were freed from spending up to an hour going over routine procedures with individual patients. It must be stressed

that media software, such as video, is meant to supplement formal and informal patient education and health promotion activities. Media is not a substitute for personal interaction (Squyres, 1981, p. 7).

Because the growth of media utilization and production is a relatively new venture for health care facilities, this paper will address the need for media and offer guidelines on how to begin to build a media production center. The information to follow is meant to act as a guideline only . . . the needs of individual health care facilities are as varied as the needs of individual businesses.

Media facility is defined as the department that facilitates education, training, and promotion through the production of media software such as slides, overhead transparencies, audio tapes, videos, etc. (Schmid, 1980, p. 1). Media also refers to media hardware such as videocassette players, computers, tape players, overhead projectors, slide projectors, etc.

CHAPTER II

Review of Literature

"Today media centers are found in many areas: education, business and industry, libraries, medicine, government, the military, and museums" (Schmid, 1980, p. 1). Hospitals, public health agencies, and clinics are especially in need of coordinated, educational services involved with media (Mikan, 1980, p. 3). The degree that health services become involved with media is dependent upon the unique needs of individual institutions. "Some media facilities are small with limited production capability, while others provide a full range of support" (Schmid, p. 1).

Sunnybrook Medical Centre in Canada is one institution that has experienced both simple and complex media production. In 1948, the media facility provided art and photography for clinical documentation of patients and some teaching materials. Now the 1,900 bed teaching facility employs 18 staff members who consult with and provide almost limitless services in audio, video, graphic, photographic, and slide production in print and nonprint media for personnel, patients, students, and the public.

Dr. Martin Barkin, president and chief executive officer of Sunnybrook Medical Centre, firmly believes every health care facility should establish a comprehensive media service. The alternative is to have easy access to

one (Klicius, 1985, p. 28). He says the media facility of Sunnybrook Centre is able to serve the public, students, and medical personnel by providing "phenomenal amounts of information succinctly" (p. 28).

Educating the Patient with Video

Media in a general term encompasses a vast field of equipment and services. To examine the potential of media, one area will be highlighted; the area of video. Video is a medium that has experienced phenomenal growth in the last few years. "Video has now become commonplace for communications and training in most organizations and is no longer considered a novelty. No one fears the technology any longer" (Bové, 1986, p. 27).

In fact,

The use of television as a medium for instruction has become common in hospitals. A recent survey by the American Hospital Association estimated that over 50 percent of member hospitals use closed-circuit television for patient education. Present users have found that television attracts more interest than classroom situations and studies have shown that information presented via closed-circuit television is well retained (McMaines, Kabel, and Nickolas, 1982).

A study done at a children's hospital and presented at a medical conference in Alabama (Melamed, 1980) supports

this statement. Children who viewed a media presentation acquired and retained more information about impending surgery than those who did not view the media presentation.

In another experiment conducted at Kettering Medical Center in Ohio, videotapes have been used for patient education for several years. Janis Tucker, a nurse and the hospital's media specialist, says videotapes are used in patient education on topics ranging from bathing a newborn to how to live with a colostomy. "The system's not cheap. But when you consider its effectiveness and the time it saves our nurses, we think it's worth the cost" (Banks-Gould, Stephenson, and Hufschmidt, 1982, p. 55).

The cost Tucker refers to can be \$100 to \$500 for a commercially produced video (Ford & Griffin, 1983, p. 19). When produced in-house, videos can be as little as \$15, which is the cost of the tape or as high as \$3,000 for a sophisticated piece (Cherepski, 1983, p. 19).

A \$3,000 price tag may be justified when the advantages of having a quality tape are considered. Patients consider viewing a video a way to retain their privacy and they enjoy watching television, so viewing is not necessarily a chore. Also, the videotapes allow the patient to view them when he or she is feeling receptive to the information, rather than when the nurse has time to teach. Nurses find the use of this medium a way to save time and reinforce previously learned information.

The videotapes are supplemental to one-to-one teaching. After a patient watches a tape, he or she can ask his or her nurse questions. Then the patient can see it again if he or she wants (Banks-Gould, et al. p. 55).

A hospital in Virginia conducted a test to see how effective video was for educating patients. Volunteers were divided into three groups, with one being shown a videotape on hypertension, a second group had one-on-one teaching and the third group received no instruction. The results of the true/false test revealed that the groups who received videotape and one-on-one instruction scored significantly higher, with neither method scoring higher than the other. The advantage was the videotape method allowed nurses more time to attend to other patients' needs---guilt free (Banks-Gould, et al. p. 55).

Using video also provides a uniform, consistent format to present information. Nurses and other health care personnel are relieved of the fear of "forgetting some important information." The camera is able to record an objective and thorough picture for a patient to view (Koch, p. 31).

Video can provide health care facilities with handy public relations/public information tools. Cable television companies are just one of the organizations asking to borrow original programs dealing with health to air on public information channels. The public wants

any and all information available on health. Allen Memorial Hospital was approached by a cable company several times in 1986 for permission to broadcast video productions that had been produced in-house (E. Hughes, personal communication, May, 1986).

The importance of media in business is reflected in the amount of money delegated to the production of video. In 1986, \$2.5 billion was spent to produce video programs for employees, shareholders, and specialized audiences. It is projected that \$4.5 billion will be spent for video production in 1990. These numbers are remarkable since the total spent for production in 1981 was a mere \$1 billion (Bové, p. 27).

Media Services

Video is just one medium that can be utilized in the education and training of health care personnel, students, patients, and the public. Many media facilities have divided media services into three groups: television/audiovisual, photography/slides, and graphics/illustration (Williams & Hecht, 1976, Calhoun, Hamlin, and Heller, 1979, & Klicius, 1985).

The television/audiovisual section of Sunnybrook media center takes care of all sound and video recording. The facility is used extensively by the departments of psychiatry, neurosciences, and orthopedics. Video has

been chosen to record the images rather than, for example, movie film, because, "It is much more cost-effective to use videotapes." A three-minute clip produced with film would cost \$80 for supplies and processing, whereas \$32 is spent for video supplies (Klicius, p. 26).

The photography/slide section provides photographic documentation for teaching, research, and public information. "Of all the audiovisual media currently in use today, the single-projector slide-tape presentation is the most cost-effective and easiest to produce." The equipment is easy to use and the film available for production is extremely flexible (Bishop, 1984, p. 7). In fact, medical photography is considered to be the "money-maker" at Sunnybrook, with more than 400 slides processed and mounted each day. Slides are taken of x-rays and the center has the capability to generate slides in multi-colors (Klicius, p. 26).

Graphics/illustration is the third section of most media facilities. It is here that original artwork is created and brochures, graphs, anatomical drawings, posters, and displays are generated (Klicius, p. 26). These things are used in books, newsletters, reports, brochures, and on bulletin boards, flipcharts, chalkboards, transparencies, and more (Kemp & Dayton, 1985, pp. 37-38). This area also develops visuals to be used for video and slide productions (S. Hendrickson, personal communication, September, 1985).

With technology advancing as it is, it will be a struggle for all groups to stay informed and "on top" of current procedures and recent discoveries. "In today's world, learning is an ongoing activity, with schooling extending beyond basic skills into specialization and continuing education, as well as retraining" (Mikan, 1980, p. 2). With this continual cycle of learning and training, media becomes a valuable tool for health care personnel, patients, students, and the public. As a result of the increased use of media, production of media software to address the needs of individual facilities will become a priority.

More and more, the fragmented approach to media usage will evolve into an integrated approach, with books, television, films, and graphics all considered as having specific importance (Mikan, p. 3).

CHAPTER III

Building a Media Facility

Building a comprehensive media center, designed to service all groups associated with a health care facility, is not an easy task. The existence of the media service needs to be justified in that some form of action is performed by the learner or viewer after being exposed to media, such as the learner being motivated, informed, or instructed (Kemp & Dayton, p. 263). The challenge for the media professional is to convince people to use the service when most people tend to resist change because they are uncomfortable with new things (R. Hardman, personal communication, June, 1985).

Resistance to using media software and hardware and/or using them incorrectly can be a real problem in a health care facility because,

Audiovisuals became part of medical library collections fairly recently and, unlike books and journals, come in a variety of formats, each of which needs specific equipment (McCarthy, 1983, p. 391).

Thus, the professional will need to draw upon experience, common sense, research, needs analysis, and goals and objectives of individual health care facilities in designing a media center.

There is no "formula" for achieving the "perfect" facility because any media center is a product of its environment and "the environment is affected by such factors as clients, management, staff, politics, facilities, equipment, and budget (Schmid, p. 3). Because these elements are vital to the development and continual existence of a media facility, they will be explored in greater detail.

Clients

Who exactly will the media center service? This question needs to be answered before any work is done by the media facility. The clients will probably be the very people targeted to use media: health care personnel, students, patients, and the public. The degree to which each group is served, is based upon the capabilities of the media facility.

As one example, Allen Memorial Hospital's media specialist supplies services for students and hospital personnel. Sunnybrook Medical Centre, because of its size, is able to serve students and the hospital, along with five additional hospitals and clinics it contracts out to (Klicius, p. 26). Contracting out is not an innovative practice since the University Health Sciences Media Centre in Canada has been contracting out since 1975. The center found that its output capabilities exceeded the

need of the hospital, so it solicited outside jobs that have a health science orientation (Conway & Gilder, 1975, p. 167). The University of Kentucky's Health Sciences department of media has expanded enough to serve medical practitioners in other states (Calhoun, Hamlin, and Heller, 1979, p. 36).

No matter who the client of the media facility is, he or she will be concerned with receiving convenient, reliable service with the number one priority being to meet his or her needs (Schmid, p. 4). Only if the media facility meets the needs of the people it is intended to serve, will it and can it survive (Mikan, p. 8).

Management

The area in charge of the media facility can fall under several different departments in a health care facility. Where the responsibility for media lands is dependent upon such factors as the philosophy and goals of the facility, available support services, resources already available, and people (Mikan, p. 11).

In some instances, nurses are in charge of developing media software (Grayshon, p. 25). Grayshon points out that there are workshops designed specifically for nurses to teach them how to make media software. In this case, there is no formal organizational structure for media. The responsibility of who produces media falls to the person who has the idea.

Many health care facilities have a director of media who answers to top administrators (Williams & Hecht, 1976, p. 33). After the director, there is a lateral breakdown, with the facility having a media specialist, technical workers, a coordinator/librarian who catalogues media, and assistants.

The University of Kentucky includes its media service under the combined department of Medical Center Library and Communication Systems, with the director answering to the vice president for the Medical Center, who answers to the president of the University (Calhoun, et al. p. 36). Allen Memorial Hospital's media service is set up in a similar manner. The librarian supervises all media, and she answers to the senior vice president of professional services, who answers to the president (E. Hughes, personal communication, November, 1986).

Other departments media may fall under include public relations, corporate relations, marketing, education, communications, or continuing education. The possibilities are as endless as the titles.

No matter who is in charge of the media facility, there is one responsibility that he or she must be made aware of. Health care administrators, many times, are not aware of the advantages to having media centers (Schmid, p. 6). They usually have little experience with media

and are many times enthusiastically naive (Conway & Gilder, p. 167) with only a vague notion of what can be done with media (p. 168). The media director needs to educate administrators of the importance of media before it is categorized as a luxury.

Staff

According to Mikan (p. 2), there has been a need for some time to have specialists trained to handle media on the health care facility staff. Personnel trained to design, produce, and operate media is very important. In fact, the personnel is considered the most important component of a media facility (p. 9).

To meet the challenges of media used in education, three groups of specialists are evolving: those who plan and design learning situations to make the most effective use of media; those knowledgeable in the technology of supporting hardware, its operation, maintenance and repair; and those skilled in television, film, and graphics production (p. 3).

In simpler terms, personnel should include idea people, people to create the visuals, and people to operate and repair the equipment used in production and presentations.

When a health care facility first begins building a media center, the staff may consist of one and services will be limited since that person has to cover the areas of video/audiovisual, photography/slides, and graphics/illustration. As the media facility grows, so will the specialization of jobs. A staff of one will grow, with specialization in administration, graphics, photography, video, film, audio, computers, printing, and writing (Kemp & Dayton, p. 265).

In a health care facility, personnel can have a wide variety of backgrounds. Sunnybrook's personnel have all been trained in their individual areas of media, with the photographers going one step further and becoming certified by the Biological Photographic Association (Klicius, p. 27). Kettering Medical Center's media specialist was originally trained to be a nurse (Banks-Gould, et al. p. 55), and Allen Memorial Hospital's media specialist has a background in public relations and education (E. Hughes, personal communication, November, 1986). Some of the titles given to media personnel have been included in Appendix A. Sample job descriptions have been included in Appendix B.

No matter the background, media staff members should be comfortable working with and developing media. They should exhibit the characteristics of being easy to get along with, flexible, service oriented, and professional (Schmid, p. 6).

Politics

"Political factors pertain to the power of individuals and groups that make decisions" (Schmid, p. 6). Schmid says to be aware of who makes the decisions that can affect the media facility. There is a distinction between an administrator who has the title, but no authority and the person who does not have the title, but has the authority. Be aware of the chain of command, both formally and informally. For the sake of the media facility, report as high up on the corporate ladder as possible. Finding the right support for the media facility will assure a future of growth for media in any organization.

Facilities

There is a direct relationship between good facilities and the ability of the media center to meet service demands. The location of the facilities is overlooked by many organizations (Schimid, p. 7). Some health care facilities may even discover a need to build special facilities because new ways of communicating require new physical settings (Mikan, p. 3).

Production space may range from an office converted to a graphic arts and photography shop to an entire production center which prepares complete videotape resources . . . " (Mikan, p. 11). Appendix C presents a

model for a media facility in the beginning or slightly advanced stages of media production. The model also takes into account the possible expansion of the facility.

Some of the things to consider when scouting a media center location is the access to electrical outlets, quiet areas for audio work and editing, adequate lighting, and plenty of room to store and move equipment around. Room temperatures must remain constant and ventilation must be good. An ideal facility is designed to allow for media storage and retrieval and the production of a variety of media to meet special needs (Mikan, p. 2).

Allen Memorial Hospital is in the initial stages of media production. An office has been converted into a media facility, with the capability for slide production, limited video production, video and audio duplication, and graphic production (E. Hughes, personal communication, November, 1986). According to Hughes, the proposal presented to the Allen Memorial Hospital Board (Hasek, 1985) was passed and the hospital administration hopes to expand to fullscale media production, with an emphasis on video. The hospital is preparing to reinstall closed-circuit television and to purchase a satellite dish to receive cable programming.

When deciding on a facility site, health care professionals should make their decisions based upon present need, with an awareness that expansion is inevitable. Allen Memorial Hospital administrators were aware of this, since the proposal (Hasek, 1985) suggested locating the media facility in an area that allowed for expansion, easy access, and space. Even Sunnybrook's media center (Klicius, p. 28), with its many services, is looking to the future. The three departments of the center, graphics/illustration, photography/slides, and video/audiovisual, have become so large that the center is expanding to include microcomputers. The computer will improve communication between departments and shorten turnaround time in production.

In general, a facility should be designed to leave room for growth because many services require special facilities for production. Room should be left for administrative purposes, computer-based instruction, graphic, photographic, audio, and video and film production, media duplication, and prop and display construction (Kemp & Dayton, p. 265).

Equipment

The purchase of equipment is one of the most exciting tasks for a media professional. Because of equipment, production can be made faster, more professional, and more complex. It is because media is affected in much

the same way the medical field is, with important advancements in technology (Hasek, 1985) continually taking place, it is a challenge to purchase equipment. With this in mind, the golden rule for equipment is, "The simplest piece of equipment made for the lowest price that accomplishes the required task is the best purchase" (Schmid, p. 112).

There are four factors that influence the purchase of equipment: types of software available, production needs and resources, decisions and purchases already made, and budget (Mikan, p. 7). To explain the interrelatedness of these four areas, video production will again be used.

A hospital needs a videotape on the topic of open heart surgery and there is a commercially produced video available for \$500 on 3/4" videotape. To produce the same video in-house would cost approximately \$1,000. Last year, this particular hospital made the decision to purchase all video equipment and materials in the VHS or 1/2" format, so the hospital did not own a video player that was made to run 3/4" tape. The hospital could pay to have someone copy the 3/4" tape to VHS, but this had not been provided for in the budget. Besides, the hospital would be stuck with a 3/4" tape it could not use. Administrators eventually decided to produce the video in-house because the VHS equipment was readily available

and the video could be tailored to showcase the hospital. This example also brings up the need to keep three principles in mind when equipping a media facility. These principles are flexibility, compatibility, and standardization of equipment (Mikan, p. 7).

"Flexibility is necessary to ensure as much utilization of the equipment as possible" (p. 7). For example, a thermal transparency machine can be used for many purposes. It can produce color transparencies, black and white transparencies, and overlays for slides and graphics. When a transparency is projected on an overhead, an exchange of facts, statistics, summaries, and more can be accomplished with a small, medium, or large group (Kemp & Dayton, p. 173). Those transparencies can also be transferred to slides which achieve the same purpose.

Compatibility of the equipment is the second principle. This is a problem even general consumers face when adding accessories to their audio, video, and computer equipment. If a health care facility purchases a filmstrip/audio player, it needs to make sure this player "reads" the sound cues on the cassettes the facility already owns. If the player will not work with the software owned, the facility will either have to buy all new filmstrip/audio programs or the player will remain unused.

The third principle is standardization. This process simplifies maintenance and operation requirements. "The greater the similarity between pieces of equipment, the less threatening a new piece of equipment will appear" (Mikan, p. 7). It is also cost-effective to have similar equipment since there is less need for a large inventory of spare parts.

Justifying the cost of purchasing media equipment can be difficult because of the tremendous expense involved. The key is to build the media facility with equipment that is flexible, compatible, and standardized with the ability to support media utilization and production (Mikan, p. 7). In this way, media can be used to best serve health care personnel, patients, students and the public in continuing education and training.

Budget

Creating a budget for a media facility is a challenge even for the most experienced administrator. It is difficult to determine the financial needs of a facility when potential clients are not sure of their needs.

According to E. Hughes (personal communication, November, 1986), budgeting many times becomes a matter of trial and error. Appendix D show the 1987 budget she submitted to hospital administrators for approval. Hughes says that this is the first time media has been considered an individual department, so estimates are conservative.

There are basically three methods available for budgeting a media facility. An account from a general fund can be created and media materials and equipment are drawn from this fund. A second system is the chargeback system in which individual departments are responsible for all costs incurred. The third system is a shared cost system. The general fund may cover salaries and the overhead of the media facility, with individual departments paying for materials and supplies (Kemp & Dayton, p. 264).

While the media department at Allen Memorial Hospital has submitted a budget for the general fund, E. Hughes (personal communication, November, 1986), says the third budgeting alternative of shared costs will be the most logical for the hospital to adopt. She has urged individual departments to prepare for shared costs so when they need work done, they have the money to get it done quickly and professionally.

The combination of drawing from a general fund and recovering additional costs through chargeback, is the most common budgeting method among health care facilities. Sunnybrook's media center receives its budget from the hospital's global fund, with any differences made up on a cost-recovery basis (Klicius, p. 27). The University Health Sciences Media Centre (Conway & Gilder, p. 167) charges clients a set fee-for-service price, with

outside jobs used to balance the budget. The Medical Center Library and Communication Systems at the University of Kentucky has a budget of \$1.3 million, with the rest recovered through a charge for services (Calhoun, et al. p. 37).

Developing a budgeting method is a creative and scientific process. Scientifically, media needs to be designed to provide the greatest amount of learning, for the largest number of learners, over the longest period of time, to meet the learning needs of individuals (Sleeman, 1979, p. 158). Additionally, budgeting has to be creative to prepare for the cost of media produced in-house and/or produced commercially.

Summary

The utilization and production of media in the health care field is a growing area and will soon need to become an integral part of every facility. When used effectively, media is a powerful tool in educating, training, and informing patients, personnel, students, and the public. When produced efficiently, media provides improved utilization of people, time, and money.

Studies are beginning to show the advantages media utilization provides in a health care setting. Media can be targeted to one person or hundreds of people at a time. Some of the advantages of media usage follow.

For the health care professional, routine procedures do not have to be repeated dozens of time each day. For example, an instructor who works with expectant mothers no longer has to demonstrate and lecture them on the correct procedure for bathing a newborn baby. The instructor shows a videotape of the procedure. The mothers then have the opportunity to practice what they viewed, with the instructor observing.

Additionally, media provides a tool for reinforcement or review. Perhaps one of the expectant mothers missed a point presented in the video on bathing a newborn. Because media can be used repeatedly, she has the opportunity to go back and review the information. This in turn provides reinforcement of the information presented.

Two other advantages of using media are that complicated procedures can be simplified and information can be quickly updated. Surgery of the brain is a complicated and delicate procedure. Colored slides were chosen to aid the instructor in teaching interns the procedure; and because discoveries are continually being made about the brain, the slide show can be updated and changed quickly to accommodate new information.

The final advantage to be discussed is media can provide a means to present information in an objective, consistent manner. This was the need identified by a local hospital that specializes in open heart surgery. The

staff felt an objective and consistent informational aid was needed to prepare a patient and his/her family for impending surgery. A video that combined live action, slides, and graphics was produced. The result was increased confidence and decreased anxiety for patients because they have information about what they face, presented in a consistent and objective manner.

Media usage for patients, personnel, and students has been identified, but the public is included in health care education. The director of radiology at a local hospital talks to many groups about blocked arteries and the options open to them to have the condition corrected. A video and slides are used in her presentation. These aids have become very important to her from a public relations/public information standpoint. By utilizing media hardware and software, she can visually introduce millions of dollars of sophisticated equipment and its operation to hundreds of people. In this way, she is marketing the hospital and educating potential patients, simultaneously.

This leads to the second area that media facilities are having to contend with---media production. Production can be as simple as making a graphic or as elaborate as a major video production. No matter the size, most facilities will need to produce or have access to production in three areas: television/audiovisual, photography/slides, and graphics/illustration.

Television/audiovisual deals with video and film production. This area would include such features as film and video editing and viewing equipment, audio recording equipment, and computers.

Photography/slides is an area that can specialize in images recorded for print and nonprint media. This is a flexible area of production, in which a 35mm camera can be taken everywhere from the operating room to the laboratory to patient rooms. A camera can reproduce images from a book or pamphlet.

Graphics/illustration provides artwork and visuals for display. Graphics include clip art, original drawings, charts and graphs, and lettering and design. Graphics can also include computergraphics as software is developed and made affordable and compatible with existing computer systems.

What has to be stressed is that media production is a combination of all three of these areas. For example, video is by far the most common form of media production requested by personnel at Allen Memorial Hospital. The productions requested to do not limit themselves to strictly video. Many times slides, graphics, and sound effects are needed to complete the final product. Once administrators of a health care facility decide that media will include production, the size and capability of the

media production center will need to be determined.

There is no formula designed to make this determination, but there are seven factors to consider in the media center design: clients, management, staff, politics, facilities, equipment, and budget.

The clients of a media center are those for whom the center is designed to serve. When production is limited, doctors may be the center's only clients. As the center grows, clients may then include all health care personnel, students, patients, and the public. Some media facilities are so advanced they are able to produce media for health care facilities in other states.

The person or persons responsible for the media center becomes its management. This decision is based upon such factors as the philosophy and goals of the facility, available support services, resources available, and people. Some of the more common departments media is associated with in health care are marketing, continuing education, public relations, and the library.

Rarely do health care personnel have the training and/or background to comprise the media facility staff. There is a need to have a staff that can create and produce media software and service and set up media hardware. Health care facilities are finding they need to look outside their staff to find qualified media people. The alternative is for existing staff to receive media training.

Knowing who is in charge and who makes the decisions is an important concern for a media professional involved in health care facility politics. Many times administrators and directors are excited about media and its development and growth within their facility. The problems arise when the expense and commitment of beginning and continuing a facility is realized. By understanding who makes the actual decisions, a media professional can eliminate some of the many obstacles by going to this person or persons directly.

There is a direct relationship between good facilities and the ability for them to meet service demands. A good facility can be housed in an entire wing of a health care facility or it can be an office that has been converted to a work area. The size will depend upon the number of staff members, production capabilities, and budget.

Equipping a facility is one of the most exciting areas for a media professional. The market is flooded with a wide selection of equipment and prices. The four factors that should guide the equipment purchase are software available, production needs and resources, decisions and purchases already made, and budget. In addition to this, the equipment needs to be flexible, compatible, and standardized as the media center looks to the future and the expansion of the department.

There are basically three ways to budget the media facility. A specific account can be set up by the facility as a general fund that the media center staff draws from for equipment and supplies. There is also a chargeback system in which individual departments are responsible for all costs. The third, and most common system, is the shared cost system. The health care facility takes care of wages and overhead of the media facility and individual departments pay for materials and supplies. No matter what process is chosen, it will not be perfect, but it is an evolving process based on trial and error.

Media and its usage has become and will continue to be a very important component in the health care setting. Studies will continue to support the integration of media for the purposes of educating, informing, and training personnel, students, patients, and the public. Technology will continue to provide better and faster ways to create and produce this media. For media to succeed in a health care setting, it needs the support of those it is designed to serve: health care personnel, students, patients, and the public.

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Appendix A

Jobs in Media

Artist/Graphic Artist/Layout Artist
Audio-visual Manger
Communications Coordinator
Communications Specialist
Director of Communication
Education-Training Director/Director of Staff Development/
Continuing Education
Graphics Coordinator/Designer
Graphics Production Specialist
Instructional Designer/Instructional Developer
Media Director/Audio-Visual Director
Media Production Specialist
Media Specialist
Medical Librarian
Medical Photographer
Medical Production Specialist
Production Specialist
Public Relations Director
Public Relations Specialist
Teleconferencing Specialist
Television Producer/Director
Video Specialist

Appendix B
Job Descriptions

MERCY HOSPITAL MEDICAL CENTER
JOB DESCRIPTION

TITLE: Media Production Coordinator

JOB CODE: 496

ORGANIZATION: Health Education/
Educational Services Center

REPORTS TO: Director, DHE or designee

PREPARED BY: Health Education

DATE PREPARED: 7/82 Revised

APPROVED BY: Myrna Grandgenett

DATE APPROVED: 7/82

BASIC FUNCTION: Coordinates the planning, development and evaluation of instructional media such as videotapes, slide/sound programs, audio tapes and photographic products to meet educational needs of hospital personnel, patients, and the "well" community; coordinates the development and functioning of production facilities and equipment to maintain production schedules.

Acts as work leader for Production Specialist.

NATURE AND SCOPE: Coordinates and performs planning, shooting, editing and reviewing functions in productions to ensure that projects are completed on time, within budget, and to the user's satisfaction. Develops and recommends policies, plans and programs which apply existing and emerging audiovisual technology in the production of educational media. Assists the Director in the budgeting process through preparing recommendations for operating and capital expenses in the production area, preparing action plans.

Consults with other departments as necessary to provide information on the compatibility of audio-visual products with existing equipment, the quality of audio-visual products from a technical standpoint, and the options available in the selection of audio-visual equipment and media. Coordinates scheduling of audio-visual productions with other DHE coordinators to meet production schedules. Maintains records to verify hours, equipment utilization and production costs for in-house production projects. Trains other personnel in use of microphone systems and audio-visual equipment as necessary. Does special project microphone and audio-visual set-ups as directed by Director.

Keeps informed of current trends in health education and specialized areas of expertise to provide information resources necessary to maintain effective media production.

Assigns work duties for Production Specialist as directed. Provides input to Director DHE regarding personnel matters (e.g. performance, discipline, etc.) for Production Specialist.

Performs related work as required.

JOB REQUIREMENTS: Work requires a professional level of knowledge in a specialized field (e.g. telecommunicative arts, communicational media, electronics or related field), which is equivalent to that which would be acquired by completing a regular four-year college program. Two years post-bachelors degree graduate work preferred. Experience in using video cameras, editors, 35 mm cameras, audio-visual equipment, and microphones. Experience in scripting, producing, teaching, and developing instructional materials. Any equivalent background.

Skill in: See job dimensions and behaviors developed by the department.

**ALLEN MEMORIAL HOSPITAL
JOB ANALYSIS QUESTIONNAIRE**

POSITION TITLE: Librarian/Media Specialist

DEPARTMENT: School of Nursing

SECTION: Library

SUPERVISORS TITLE: Elaine Hughes, Librarian

DATE: 8/1/86

GENERAL INSTRUCTIONS: In answering questions, please respond only to the requirements necessary to perform the duties of the job in an acceptable manner. Do not be unduly influenced by the performance of individuals currently in the job.

1. **PURPOSE:** In a short paragraph describe the major purpose of this job. Coordinates the planning, producing, and operation of media such as videotapes, slide/sound programs, audio tapes, photographic products and transparencies to meet the needs of hospital associates, patients, and the "well" community as needed to meet identified and relevant educational needs. Assists with library functions and staffing as necessary.
2. **DUTIES:** Please list the significant tasks required on the job and the percent of time each task requires. Please be clear and concise and also be sure the percentages add up to 100.

TASK NO.	DESCRIPTION	%
1.	Coordinates and performs planning, shooting, editing and reviewing functions in productions. Directs the actual production, editing, completion and review of products in conjunction with health education coordinators.	35%
2.	Consults with other departments as necessary to provide information on the compatibility of audio-visual products with existing equipment, the quality of audio-visual products and options available in the selection of audio-visual media and equipment.	15%
3.	Works with hospital staff in planning audio-visuals for presentations, workshops, classes, training sessions, etc.	10%
4.	Works closely with hospital librarian in ordering, researching and purchasing materials for closed circuit television.	5%
5.	Instructs hospital staff in use of audio-visual equipment and software.	5%
6.	Duplicates, labels and distributes audio and video tapes as needed by hospital staff.	10%
7.	Organizes and maintains audio-visual hardware. Troubleshoots problems in operation of equipment.	10%
8.	Keeps records on audio-visual usage, requests and costs.	5%
9.	Has a working knowledge of the nursing and medical libraries in order to assist hospital staff in finding materials and assists in library functions.	5%

3. EDUCATION AND FORMAL TRAINING: What kind of formal education and training is normally required to perform this job? Are there special courses, programs, degrees, certifications or licenses required? Check the description that best fits the requirements for the job:

- Ability to read, write, speak English and perform simple arithmetic calculations
- High School level
- High School plus 6 months technical training
- High School plus less than 1 year technical training
- Equivalent of 1 year of college or technical training
- Equivalent of 2 years of college or technical training
- Equivalent of 3 years of formal technical or specialized training
- Equivalent of a bachelor's degree
- Equivalent of 1 or 2 years post-bachelor's work
- Equivalent of 3 or more years post-bachelor's work

4. PRACTICAL EXPERIENCE: If someone had the preparation and training as required in question #3, how much prior experience in the field in addition to the amount of on-the-job training would it take before he or she would be able to perform the job adequately?

- 1 week or less
- 8 to 30 days
- 1 to 3 months
- 3 to 6 months
- 6 to 12 months
- 1 to 2 years
- 2 to 3 years
- 3 to 5 years
- more than 5 years

5. PROBLEM SOLVING:

a. What kinds of decisions does this job require an employee to make without supervision? What guidelines would the employee use? (procedures, policies, detailed instructions, etc.) For example: "Decides which type of pass to be issued based on whether the person is a visitor, temporary employee, etc."

Decisions	Guidelines
1. <u>Production decisions</u>	<u>-hospital criteria/policy</u>
2. <u>Troubleshoot operation problems (A-V equip.)</u>	<u>-operation manuals</u>
3. _____	_____
4. _____	_____

b. What decisions are referred to the supervisor?

Management, personnel

6. LEADERSHIP:

a. How many employees formally or informally report to this worker?

Job Title of Those Supervised	Number
Work study students	4 to 6
coordinates with all associates in production	

b. What percentage of the time is involved in supervising other employees? 10 to 20%

c. If supervision is involved, check the following items to indicate the extent of participation required in this position:

	No Respon- sibility	Make Recommendations Only	Responsible
Selection of Employees	X	_____	_____
Make work assignments	_____	_____	X
Scheduling hours	_____	X	_____
Check quality of work	_____	_____	X
Train and orient employees	_____	_____	X
Evaluate performance of employees	_____	_____	X
Take disciplinary action	_____	X	_____
Request service from other sections	_____	X	X
Make operating decisions	_____	_____	X
Make policy or administrative decisions	_____	X	_____

7. CONTACT WITH OTHERS:

What contacts with people within your department, other Allen departments and/or people outside Allen Hospital are required? Indicate the reason and how often the contacts are made. Do not include contacts with supervisors and/or subordinates, but do include and describe contacts with patients. Include contacts made in person, by telephone or by letter.

Describe Type and Reason of Contact	Frequency
Associates	Daily
Physicians	Weekly
Patients	Occasionally
Students	Daily
Public	Daily to weekly

8. RESPONSIBILITY:

a. **For Patient Welfare:** What patient-centered activities is the employee responsible for and what are some of the probable results of accidents, carelessness or negligence of the employee's part?

Describe	Results of Error
Right of privacy	Complaint/legal action
Confidentiality	" "
Copyright regulations	Legal action

b. **For Safety of Others:** What duties are you directly engaged in that involve the protection of visitors, employees and others? What dangers do these duties prevent?

Duties	Dangers
Audio-visual operation/production	Mechanical & electrical

c. **For Equipment or Materials:** What equipment, supplies, money, or other materials is the employee frequently accountable for in this job? What is the approximate worth of these in dollars?

Equipment:	Audio-visual -- hundreds of thousands of dollars
Supplies:	Audio-visual & library
Money:	small amount
Other Material:	print material

TOTAL RESPONSIBILITY \$ 100,000 +

d. **CONFIDENTIALITY:** What confidential information do you normally have responsibility for? Consider information on patients, employees, etc. and the problems that would occur if the information was disclosed.

Types of Information	Problems
Testing materials	test security

9. How much mental effort is required in the job? Give brief examples and frequency of duties which require decision making, judgement, concentration, attention to detail, reading closely inspecting, examining, etc. Include the examples of emotional stress.

Example	Frequency
Production	Constant
Operation	Constant

10 How much physical effort is required? State requirements of walking, standing, pushing, lifting or carrying (give weight of object) and frequency of these duties.

Describe Duty	Weight	Frequency
Lifting and carrying	70-100#	Weekly

11. CONDITIONS OF WORK:

a. Are there aspects of the work environment which are disagreeable or unpleasant? Consider heat, cold, noise, dirt, fumes or unpleasant sights. Give some brief examples.

NA

b. Does this job require employees to rotate shifts, work weekends, or holidays? Are employees frequently called in to work without extra compensation? Please give examples.

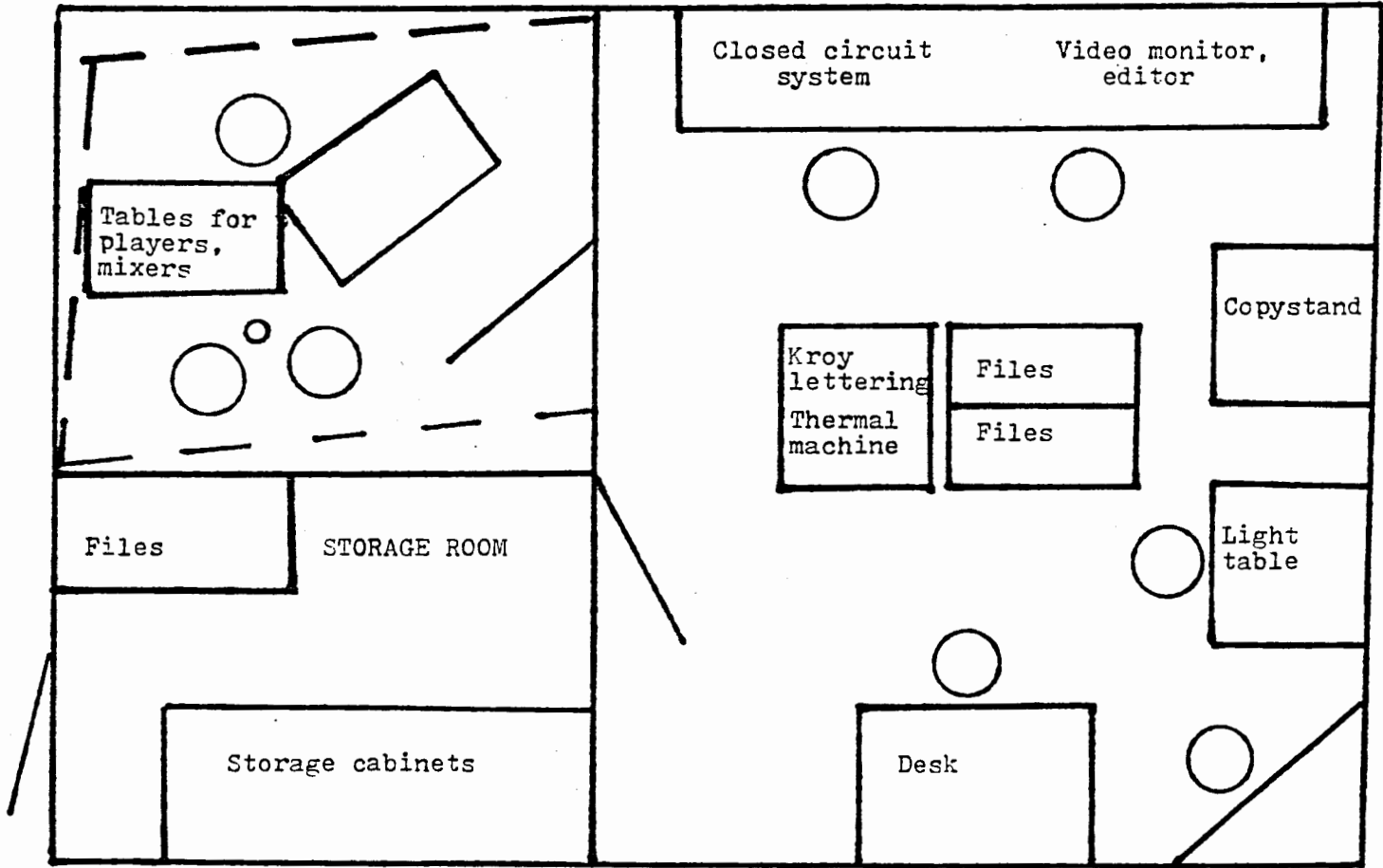
Occasional days and weekends.

c. What conditions of the job involve danger to the employee's health or safety? Give brief examples of the hazard (eg. must work in high places), and the harm or injury that would probably occur. (Could these hazards be avoided by obeying all health and safety regulations?)

NA

Appendix C

A Model Media Facility



Appendix D
A Sample Budget

PHOTOGRAPHY/SLIDES

Slide Mounts	\$ 40.00
Slide Cleaner	8.00
Bulbs	100.00
Batteries	
Camera	8.00
Flash	10.00
Slide Sleeves	25.00
Notebooks	25.00
Filters	25.00
Cable Release	15.00
Bulk Loaders	45.00
Canned Air	10.00
Film Canisters	45.00
Ektachrome Film	250.00
Vericolor Film	250.00
Kodalith Film	100.00
Camera Lens	200.00
Tripod	125.00
Cleaning Cloth	10.00
Layout Pad	40.00
Stopwatch	25.00
	<hr/>
	\$1,356.00
Developing	600.00
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	\$1,956.00

GRAPHICS

Lettering	\$150.00
Masking Tape	10.00
Bright Light	30.00
AV Literature	50.00
Clock	15.00
T-Square	30.00
Right Triangles	20.00
Markers	30.00
Templates	30.00
Mounting Board	50.00
Roller	10.00
Rubber Cement	4.00
Scissors	10.00
Rubber Erasers	8.00

\$447.00

EQUIPMENT

Thermo-fax Transparency Machine	\$ 800.00
Film	350.00
Frames	75.00

\$1,225.00

Kroy Lettering	800.00
Kroy Tape	300.00
Kroy Wheels	300.00

\$1,400.00

AUDIO

Splicing Block 1/4"	\$ 30.00
Cassette	25.00
Bulk Eraser	45.00
Splicing Tape	15.00
Leader Tape	20.00
Razors	15.00
Cassette Tapes	150.00
Cleaning Kits	40.00
Wiring Assessories	40.00
Tools	25.00
Sound Proofing	50.00
Batteries	35.00
	<hr/>
	\$490.00

EQUIPMENT

Reel-to-reel Recorder	\$1,500.00
Reel-to-reel Tape	75.00
Take-up reels	10.00
	<hr/>
	\$1,585.00

VIDEO

3/4" Tapes	\$ 750.00
1/2" Tapes	300.00
Cleaning Supplies	50.00
Replacement Bulbs	200.00
Music Library	300.00
Extention Cords	50.00
Editing (UNI)	1,200.00
	<hr/>
	\$2,850.00

EQUIPMENT

Drafting Table	500.00
File Cabinets	500.00
	<hr/>
	\$1,000.00