PREPARING FOR NEW ROLES IN
HEALTH INFORMATION MANAGEMENT

by

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(Under the Direction of Dr. Laura Bierema)

ABSTRACT

This national quantitative research study surveyed Registered Health Information Administrators (RHIA) to learn about their level of preparedness for the new roles facing them. The Health Information Management profession is a profession in transition as a result of changes in laws, technology, and the healthcare delivery system. As a result, new roles have been identified by the American Health Information Management Association. There has not been any research on whether or not the RHIA is participating in continuing education to prepare for the new roles. This survey was designed to provide practical information to the RHIA and the American Health Information Management Association that could be used for two purposes: identify the level of diffusion of the new roles into the RHIA population and to help motivate RHIA to prepare for the future.

There were four independent variables addressed on the self-administered questionnaire: awareness of new roles, deterrents to participation, motivation to participate and the perceived importance of the new roles. The dependent variable was the amount of participation in continuing education on the new roles. The amount of participation was expressed in hours.

Mean, standard deviation, frequencies, multiple regression and additive scales were used to answer the research questions. Findings showed that a large percentage of RHIA did not know about the new roles. Many of the RHIA knew the new roles existed, only had a basic level of awareness. It also found that awareness of the new roles, motivations to participate and deterrents to participation affected the amount of participation in continuing education in which
the RHIA was involved. It was also discovered that RHIAs believed the new roles were important to the future of the Health Information Management profession. This means that the future of the Health Information Management profession is not assured since the RHIAs are not preparing for the new roles. The good news is that the RHIAs believe the new roles are on track for the future.

Spearman correlation, Chi square, ANOVA, and T-tests were used to conduct additional research which found that older RHIAs and those with more experience in Health Information Management were more likely to participate in continuing education. The additional research also found that having children under the age of 18 in the home deterred participation and that when the RHIA’s job required maintenance of the credential increased participation.

These findings indicate that the future of the Health Information Management profession is not secure. The RHIA is not preparing for the new roles being created by changes in healthcare and technology. The RHIA needs to be educated on the importance of preparing for the future otherwise the profession may become obsolete. To do this, the RHIA needs to develop a career plan. Also the RHIA needs to be motivated to participate in continuing education to prepare for these new roles. This motivation could be accomplished many ways such as mandating continuing education on the new roles or removing the barriers to participation. Only when the RHIA is prepared for these new roles will the future of the profession be assured.

INDEX WORDS: Registered Health Information Administrator, Participation, Continuing Education, Health Information Management, Profession in Transition
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DEDICATION

This dissertation is dedicated to my husband, Mark; my parents, George and Jeanette Burchfield; and my daughter, Rachel. I met my husband one week to the day before my doctoral classes began so I have been in school for our entire relationship. Mark, thank you for putting up with the amount of time that school took away from our time together and for talking me out of quitting the program. I am looking forward to having more time to focus on you, our relationship, and our little princess.

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“Alex, I heard that you wanted to see me,” Sarah said as she stuck her head in the door. “Yes Sarah, come in and have a seat,” Alex said as he turned to face her. “Sarah, I will get straight to the point. You have been a valuable asset to this hospital for the past twenty years, first as Assistant Director, and then as Director of the Health Information Management Department.” “Thank you,” Sarah responded. Alex continued by saying, “As you know, healthcare and health information management have undergone extensive changes in the past few years. As a result, the hospital is about to undergo a serious transformation. For example, we are preparing to develop a data model, implement a computerized patient record, as well as a data warehouse. Frankly, you do not have the necessary skills in order to spearhead these changes. We need someone in your role with information technology, data management, and project management skills. This person must lead the rest of the facility through the challenges we are facing. If you had kept your skills current, this change agent or project manager could be you. But because your information system management skills are nonexistent, we are going to have to terminate your employment with Macon General Hospital….”

As this scenario illustrates, without lifelong learning, healthcare professionals would be out of a job just a few years after completing their degree. Medical knowledge and technology are rapidly changing and healthcare workers must continually update their skills in order to keep their jobs or to prepare for nontraditional roles created by changes in healthcare. Healthcare professionals who do not engage in lifelong learning will not be prepared for the future (Brockett & Bauer, 1998). The Health Information Management (HIM) profession is an excellent example of a profession with this need for lifelong learning because it is at the center of two volatile areas: healthcare and technology. This volatility results from the rapid changes in both
healthcare and technology. The volatility demands lifelong learning from the HIM professional. Experts do not agree about what the future holds, but they do agree that there will be drastic changes (American Health Information Management Association [AHIMA], 1998).

Continuing education is a part of the lifelong learning process. One of many definitions of continuing education is “learning experiences that enhance and expand the skills, knowledge, and attitudes of health care professionals to enable them to remain current and to deliver competent professional services to clients, their respective profession, and the public” (Tassone & Heck, 1997, p. 97). Green, Grosswald, Suter and Walthall (1984) believe that continuing education begins after the learner has completed his or her formal course of study. Professional associations play a significant role in the lifelong learning process for healthcare professionals since they develop professional standards and mandate continuing education requirements on their members (Boissoneau, 1980).

Eichenwald (1998) recommends that professionals participate in formal degree programs or at least take formal college courses. She does not limit continuing education to college, but also recognizes seminars and self-study as other opportunities for continuing education. According to DiMauro (2000), professionals can get information about changes in their profession from a number of sources. She believes that the best source is printed materials including “newspapers, magazines, and journals” (p. 60). From these printed materials, the learner can get the most recent information about his or her profession and the changes influencing it. Professionals may also learn from peers through discussions and observations. Another source of continuing education is workshops and seminars. These can be offered at local, state, and national meetings, or even outside their specialty.

The HIM profession relies heavily on continuing education to keep skills current. Current skill enhancement is critical to Registered Health Information Administrators (RHIs) because they are at the center of healthcare. This centrality is because the HIM professional controls the healthcare data. This means that the RHIA’s are responsible for the management of the clinical data collected by the healthcare providers each and every day. The HIM profession
serves to “collect, integrate and analyze primary and secondary healthcare data; disseminate information; and manage information resources related to research planning, provision, and evaluation of healthcare services” (Brodnick, 1995, p. 26).

The American Health Information Management Association (AHIMA) is the professional association that supports and represents the RHIA on the national level. AHIMA also develops minimal education standards that one must meet in order to become a HIM professional. These competencies are updated every few years (Eichenwald, 2001).

To become a HIM professional, one must graduate from an accredited program with an Associate of Science degree in Health Information Technology or with a Bachelor of Science degree in Health Information Administration. The programs are accredited by the Commission on Accreditation of Allied Health Education Programs in conjunction with the AHIMA.

After graduation from an accredited program, the graduate is then eligible to take a national certification exam. The associate degree recipient takes the Registered Health Information Technician exam, while the baccalaureate prepared candidate takes the RHIA exam. This study will focus on RHIAs because their advanced skills are more impacted than the Registered Health Information Technician by the changes occurring in healthcare and technology (Eichenwald, 2001).

In order to maintain the RHIA credentials, the HIM professional must participate in 30 hours of continuing education every two years. A minimum of 15 of the continuing education hours must pertain to HIM. The content areas identified by AHIMA as being related to HIM are technology, management, clinical data management, performance improvement, external forces, and clinical foundations. This restriction was placed on the RHIA because many who worked in non-traditional roles were reporting all of their continuing education hours in non-HIM related areas. These non-traditional roles included educators and attorneys. Now at least half of the continuing education hours keep the RHIA current on changes and skills relevant to the HIM profession (Eichenwald, 2001).
Changes in Healthcare

Healthcare Delivery System

The RHIA’s need to update skills on current HIM roles is especially important now that the professional must manage data in a changing environment. The healthcare delivery system is in the midst of dramatic changes. Much of the patient care provided by hospitals in the past has been either shifted to the outpatient department or moved to other healthcare delivery settings. This, in addition to reductions and changes in Medicare reimbursement, has caused financial difficulties in many hospitals. Many hospitals have been forced to downsize (Mazzoni-Maddigan, 1996). Healthcare facilities have banded together to create integrated delivery systems so that they can compete in the new environment.

An integrated delivery system results when a healthcare facility has all types of healthcare settings such as home health, outpatient surgery, and physician practices. This merging allows the integrated delivery system to provide for all of the patient’s healthcare needs. Many healthcare organizations have merged in order to create an integrated delivery system. Sixty-four major mergers occurred in 1997 alone. These businesses had combined assets of 56 billion dollars (Lorence, 1998). These mergers are expected to benefit everyone involved because an integrated delivery system can provide better care or provide the care much cheaper (Jones-Burns, 1997). The cost of healthcare is a hot topic since the healthcare facilities are being forced to take action to reduce the costs.

Healthcare Costs

Many of the changes affecting healthcare have resulted from the rising costs of healthcare. In 1960, approximately $268 per person was spent on healthcare each year. This figure was expected to swell to $5,712 in 2000 (Burke, 1997). To combat the high cost of healthcare, managed care has emerged. Managed care is a form of healthcare that controls access to medical care and how much is paid for those services. To be successful, a managed care organization needs a multitude of information, especially in a capitated environment (Eichenwald, 2001). Capitation occurs when a healthcare provider is given a flat amount of
money each month to care for a patient whether the patient comes to the healthcare setting zero
times or is in the hospital intensive care unit for the entire month. This is obviously a major risk
for the healthcare provider. One of the restrictions that managed care organizations place on
their patients is access to specialists. This reduces the choices that the patient has about his or
her healthcare.

Reimbursement

The reimbursement that a hospital receives from managed care organizations and other
purchasers has changed significantly over the past few years. Medicare tends to utilize
prospective payment systems which limit the amount of money that a facility can receive for
treating the patient. This limit on reimbursement has meant that some hospitals have closed
while others are struggling to meet their payroll. The hospital’s solvency will again be impacted
by the most recent changes in healthcare (Ray, 2001).

Health Insurance Portability and Accountability Act of 1996

The newest change to hit healthcare is the Health Insurance Portability and
Accountability Act of 1996 (Public Law 104-191). Some of the major tenets of this law are the
requirement for administrative simplification, privacy of medical information, and
confidentiality of medical information. Administrative simplification includes electronic billing,
verifying insurance eligibility, and electronic remittance advices. The privacy regulations
protect patient information from being released without patient consent. The confidentiality
regulations limit access to patient information and limit how patient information can be used by
the healthcare providers. These laws were enacted because confidential medical information is
being processed and maintained on computers, thus risking the security of the patient
information (Scott, 1999). The Health Insurance Portability and Accountability Act of 1996 is
being phased in gradually and is expected to have a major impact on healthcare because of the
costs of implementation and the changes that compliance with the standards will require.
Technology will be a major factor in the Health Insurance Portability and Accountability Act of
1996 implementation.
Technology

Technology is changing medicine because of the conversion to the computerized patient record and because of advances in medicine such as telemedicine, lasers, and picture archival communications systems (Austin & Boxerman, 1998). The increase in technology is obvious when looking at the increase in spending. Healthcare spent approximately $13.6 billion on technology in 1997, and this amount was expected to escalate to $21 billion in 2000. The percentage of overall budget spent on technology is expected to increase significantly as well. Estimated figures are expected to jump from 2.8% of the budget to 5 or 6% (Ball & Lillis, 2000).

Telemedicine has enabled physicians to treat patients even when the patient is not in the same room, same state, or even on the same continent. Lasers enable patients to have surgery on an outpatient basis instead of inpatient, have smaller scars, less pain, and a quicker recovery period. A picture archival communications system allow x-rays, CAT scans, magnetic resonance imaging and other images to be viewed and read by the radiologist from his or her home or office. It also enables the radiologist to manipulate the images so that he or she is able to get a better picture than with traditional film (Austin & Boxerman, 1998). All of this technology improves the quality of care and the quality of documentation.

One of the biggest technological changes expected is the computerized patient record. It is expected to take over the documentation of patient care from the pen and paper. The computerized patient record is expected to improve the quality of care provided by physicians and other healthcare providers. A major benefit of the computerized patient record is that it could provide quick and easy access to patient records from anywhere across the country. This will not be an easy task because of issues regarding the cost of implementing the system and protecting the patient’s confidentiality (Austin & Boxerman, 1998). In 1999, only 11% of the hospitals had a fully functional computerized patient record. This is up from two percent in 1997, and the numbers are expected to escalate (Ball & Lillis, 2000). In spite of problems with implementation, it provides extensive patient information which will improve patient care. These changes will take years to fully implement and will require the development of networks,
laws, national databases of health information, and a change in the way people look at health information.

Changes open many opportunities for those who seek them (Umiker, 1999). Nowhere is this truer than with the RHIA. As previously mentioned, the RHIA is at the center of the two very volatile environments: healthcare and information technology. With the advent of mergers of healthcare organizations, changes in reimbursement for inpatient and outpatient claims, and new technologies such as the computerized patient record, the RHIA finds himself or herself in a stressful and changing profession. In order to succeed, the RHIA must learn about and adapt to the changes (Fuller, 1999). Obtaining the necessary skills to succeed in the new healthcare environment will open many opportunities. Lorence (1998) quoted an anonymous source who believed that 56% percent of the HIM jobs will go unfilled and that it is one of the fastest growing professions (Lorence, 1998). The United States Department of Labor reports that the employment of HIM professionals which includes RHIA s and Registered Health Information Technicians is expected to grow at a faster than average pace (U. S. Department of Labor, 2002).

Diffusion of Changes

The question arises as to how these changes are being diffused into the HIM profession. Rogers (1995) writes that “diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system” (p. 5). There are four elements to diffusion: innovation, communication through channels, time and social system. Innovation is whatever is new to a person or group. The changes in healthcare described above are the innovation in this case. AHIMA has recognized the changes and the importance that they have to the HIM profession.

The communication through channels is being coordinated through AHIMA. The AHIMA Board of Directors studied what these changes mean to the HIM profession. The Board then took action. One of AHIMA’s major reactions to the changes in healthcare is the development of Vision 2006 in 1996. The part of Vision 2006 that is relevant to this study identified seven roles that the HIM professional will play in the future of healthcare. These roles
have been communicated to the RHIA through books, the *Journal of AHIMA*, and professional meetings. The roles are: 1) The health information manager for integrated systems works with all parts of the enterprise to ensure that the data needs are met; 2) The clinical data specialist is responsible for databases, coding, and other data management roles; 3) The patient information coordinator is a patient advocate. The RHIA can help the patients understand their healthcare and help them gain access to what they need; 4) The data quality manager is responsible for the data quality throughout the organization. This includes the management of the data dictionary and the development of policies; 5) The information security manager is responsible for maintaining confidentiality and security of the clinical information; 6) The data resource administrator will utilize the computerized patient record and other technology to collect and store clinical information; 7) The research and decision support specialist works with chief executive officers, other top management, and researchers to ensure that they have the information that they need (AHIMA, 1998). This creates many new roles for the RHIA and changes the focus of the profession itself.

The third element of diffusion is time (Rogers, 1995). AHIMA recognized that changing the HIM profession would not happen overnight. They knew that it would take many years from the development of Vision 2006 until it is embraced by all RHIAs. This was demonstrated in that Vision 2006 was a 10 year plan (AHIMA, 1999). Typically when an idea is proposed, it is implemented in an S-curve. This means that a small number of people adopt it quickly. The numbers of people adopting the idea swell and then fall as the last people adopt it (Rogers, 1995).

The social system “is defined as a set of interrelated units that are engaged in joint problem-solving to accomplish a common goal” (Rogers, 1995, p. 23). In this case the social system is AHIMA, state associations, local associations, and RHIAs. These groups and individuals are working together to move the profession from a paper driven to an information driven profession.
AHIMA believes that RHIAAs will assume the roles mentioned above as the focus of the HIM profession changes. The profession will change from one that focuses on the HIM department to one that focuses on the entire healthcare system. This is a radical change because the HIM department has focused on the paper flow and working with nursing, physicians and others to support the paper record. Now, the RHIA will lead the transition from the paper record to the computerized one. As significant as this change is, it is not the only change in HIM practice. The RHIA will no longer deal with the paper record, but instead with data item definition, data model and other data focused analysis and manipulation. Another change facing the RHIA is the conversion from aggregation and display of data to modeling and electronic manipulations. The traditional forms and records design responsibility will fade away as the RHIA focuses on data flow and reengineering, information systems design and support. The final move from traditional practice to Vision 2006 practice is from confidentiality of the patient record to security of all data (Eichenwald, 1998).

Eichenwald (1998) describes it best:

Vision 2006 is pointing the way to the transformation of HIM practice.
But without individual action, the vision will not bear fruit. Education and professional development are the keys to making the transition to HIM professional’s roles and responsibilities into the next century (p. 42).

This clearly demonstrates the need for each and every RHIA to continue his or her education so that he or she can meet the roles defined by AHIMA’s Vision 2006. Eichenwald (1998) wrote that HIM professionals, which include the RHIA, must “aggressively pursue focused educational goals” (p. 42).

The HIM profession will continue to evolve because of the changes surrounding it. The profession cannot afford to ignore these changes or to hope that they go away. HIM professionals must be ready for the new roles. They cannot return to their comfortable environment of the Medical Record Department. To prepare for these new roles, the RHIA must
take these new roles seriously. The RHIA must evaluate his or her current knowledge and
develop a plan for the future (AHIMA, 1998).

Some RHIA's are already going into nontraditional HIM roles. Some have started their
own businesses, teach, and manage technology, while others work for computer vendors. No
matter what direction they take, they all mention something related to education, career
development or learning from their job (Hogan, 2000).

Continuing Education

The basis of this study is motivation and deterrents to participation of RHIA's in
continuing education. The definition of continuing education selected will have a major impact
on this study. According to the literature, there are a number of definitions for continuing
education. Some of these definitions, like Suter, Green, Grosswald, Lawrence, Walthall, and
Zeleznik’s (1984), are specific to healthcare. They write that continued education is learning to
improve the quality of patient care. Another example of a healthcare based definition of
continuing education is Abbatt and Mejia’s (1988) definition which states that “continuing
education of health workers is defined as all experiences, after initial training, that help health
care personnel to maintain or learn competencies relevant to the provision of health care” (p. 9).
Other definitions of continuing education see continuing education as doing more than
influencing patient care. This philosophy is demonstrated in Tassone and Heck’s (1997)
definition of continuing education which describes continuing education as “learning
experiences that enhance and expand the skills, knowledge, and attitudes of health care
professionals to enable them to remain current and to deliver competent professional services to
clients, their respective profession, and the public” (p. 97). After reviewing a number of
definitions, the one submitted by Green, Grosswald, Suter, and Walthall (1984) was selected for
this study. They define continuing education as:

The means by which health professionals learn about developments in their individual
fields and the surrounding environment. It is the method through which new skills are
learned and changing attitudes identified. Continuing education is the vehicle that assists the health professional in keeping abreast of evolving knowledge (p. 1).

One reason why the definition was selected is its healthcare focus. It was also chosen because the definition not only includes changes in the profession, but changes in the environment in which the professionals operate. The changes in the profession and in the healthcare environment in which they operate are exactly what the RHIA's are facing. The third reason why this definition was chosen was the wide view of continuing education. Their definition will allow formal, nonformal, and informal learning to be included. Formal learning is conducted at learning institutions. Nonformal learning occurs in “organized activities outside of educational institutions” (Merriam & Caffarella, 1999, p. 21). Informal learning occurs each day as we go about our normal activities. This opens up opportunities to learn about the continuing education habits of the HIM professional including, but not limited to: college courses, workshops, mentors, reading journals, Internet searches, discussions with peers, and videos.

**Participation**

There is a wide range of motivations for participation. Participants in adult education frequently do so for career reasons, personal enrichment, a college degree, or to prepare for a job (National Center for Education Statistics, 1993). This study examined the motivation and deterrents of the HIM professional in preparing for Vision 2006 through adult education. There have been many models developed to predict participation in adult education. Many of these models look at social, environmental and individual characteristics (Henry & Basile, 1994).

**Motivation**

Most of the research performed since the 1960s has focused on the individuals who participate in adult education and on their motivation. There are three categories of theories that have resulted from this research. The first category is the Decision Model (Courtney, 1992). The models found in this category focus on the decisions that result in the decision to participate in adult education. Some of the models consider participation, but primarily the models are focused on social and environmental issues. The second category is life cycle theories. This
classification of theories believes that the life cycle stage that a person is in affects their need for new knowledge, and therefore their participation. The third category, motivational theory, is based on the personality or other characteristics of the learner.

The Education Participation Scale, which was created by Boshier (1991), has been widely used in studying participation in adult education. This scale has been validated by other researchers. The scale has seven factors that predict participation. These factors are: “communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation, and cognitive interest” (Merriam & Caffarella, 1999, p. 55).

Morstain and Smart (1974) identified five factors that motivate adults to participate in education. The first factor is social relationships. The social relationship motivation occurs when the learner participates in order to meet people. The next factor is external expectation. This motivation occurs when someone or something is requiring the learner to participate. The next motivation factor is social welfare. This motivation occurs when adults want to better themselves, so that they are better prepared to participate in society. The fourth factor is professional advancement. This motivational factor transpires when the adult desires to improve their occupational status. The fifth is “escape/stimulation” (p. 88). This motivation occurs when the learner participates in adult education to alleviate boredom or because he or she needs to be stimulated. The final factor is cognitive interest. Adults utilized this motivational factor because they want to learn just because of the joy of learning (Cross, 1983).

Many adult education participants do so because of job demands. Houle’s (1961) landmark participation research shows that adult learners can be broken into three categories: goal oriented, activity oriented, and learning oriented. Goal oriented learners have set objectives for their learning. The learning activity is selected to help them meet this goal. Activity learners are not specifically interested in the subject being learned, but instead they are participating for another reason such as boredom or to find spouse. The learning oriented learners just want to learn. Their desire is to grow and to participate in lifelong learning (Cross, 1983).
Another researcher in this area of participation is Tough (1978). His studies show that most of the adult learners participating in adult education have more than one reason for participating (Cross, 1983). Gast and Ried (1999) agree with this. They wrote that this knowledge is important when planning educational opportunities for adults. Tough also found that learners are typically planning to use their new knowledge. Tough’s participation research on adults identified three learning patterns. The first pattern is when the learner is given a task for which they are unprepared. The second pattern occurs when the adult learner becomes curious about a subject, so he or she decides to research it. The third pattern is the decision to learn something and then selecting a topic (Cross, 1983).

Blaxter and Tight (1995) take a different approach to participation in adult education. They researched links between participation in adult education and events happening in the learner’s life. They found three links to participation in adult education. These links are changes in the family, retirement, and preparing for employment. The links to changes in family are demonstrated when mothers go back to school when their children started to school or went to college. People who are retired reported looking for something to do. Other learners were looking for job or for a change in their career. Blaxter and Tight’s research eliminated reasons for participation such as boredom at work, participation by chance and habit as reasons for participation.

After review of the motivators for continuing education, the decision was made to use the motivators described by Morstain and Smart (1974) as the basis for the questionnaire. These motivators are social relationship, external expectations, social welfare, professional advancement, “escape/stimulation” (p. 88), and cognitive interest. These motivators will be discussed further in Chapter Two. The reason for selecting their motivators is that they appear to be comprehensive and the research is based on allied healthcare professionals. They also based the motivators on the research of many adult educator researchers including Houle and Boshier.
Deterrents

Rockhill (1983) asked non-participants why they had not participated in adult education. The most common response is that they never thought about it. Other researchers have come up with many deterrents to participation in adult education.

Darkenwald and Valentine (1985) conducted a study to research deterrents to participation in adult education and found six factors that deter participation. These factors are: a lack of confidence, lack of course relevance, time constraints, low personal priority, cost, and personal problems. Lack of confidence includes low academic self-esteem and a lack of encouragement from families and friends. The second factor, lack of course relevance, was identified because of perceptions that the available opportunities of education did not meet their needs. The time constraint factor was found to be the most significant factor in deterring participation in adult education.

Many people give a low priority to participation in adult education because of its impact on their family and leisure time. As stated earlier, cost was an important issue as well. The participants in one study identified situational deterrents. These situational deterrents included child care, family problems, and health problems (Darkenwald & Valentine, 1985). Situational barriers also included cost and responsibilities at both home and work (Cross, 1983).

Darkenwald (1984) also identified six deterrents. Many of these are essentially the same as listed above, however he does add one deterrent that Darkenwald and Valentine did not include. This additional deterrent is a lack of quality in the programs available to them (Darkenwald, 1984). Some of the situations included in the lack of quality category are included under other categories of deterrents in Darkenwald and Valentine’s (1985) research.

Cross (1983) classifies barriers to participation in three categories: institutional, situational, and dispositional. Situational barriers were discussed above. Institutional barriers include the time required to complete a formal program, inconvenient scheduling, lack of information, and no desire to go to school full time. As you can see from the examples above, this type of barrier results from policies and other situations that are created by educational
institutions. Dispositional barriers are related to the individual. The learner’s perception of himself or herself and attitudes impact motivation to learn. If someone thinks of himself or herself as too old or see education as unimportant, then the adult will not participate (Cross, 1983).

Merriam and Caffarella (1999) report that Johnstone and Rivera (1965) coined the terms: informational and psychosocial barriers. Informational barriers are seen because adults do not know about educational opportunities that are available to them. Many adults do not even know where to begin looking for educational opportunities. This is especially true for disadvantaged adults. Psychosocial barriers are based on the “values, attitudes and experiences associated with differing levels of socioeconomic status” (p. 138, 139). These psychosocial barriers include: that the adult does not see the usefulness of the education, fear of failure and peer pressure (Darkenwald & Merriam, 1982).

Scanlan and Darkenwald’s (1984) research on deterrents to participation identified six factors: disengagement, cost, family constraints, benefit, lack of quality, and work constraints. This research was performed using healthcare professionals as the population. The disengagement deterrent results when the person was not interested in learning. The lack of quality deterrent occurs when the person is unsatisfied with the educational opportunities available. The family constraints deterrents are related to the family. The cost deterrent is the strongest deterrent identified in this research. The lack of benefit deterrent results from the individual not seeing the need for participating. Work constraints result when the job interferes with participation. After reviewing these theories of deterrents to participation in adult education, the decision was made to utilize the Scanlan and Darkenwald for this study. This decision was made because of the healthcare connection.

Statement of the Problem

Traditionally the RHIA has focused attention on managing paper medical records. This record management included many tasks including: filing, retention, destruction, and indexing. Because of the changes facing healthcare, the RHIA is undergoing a career skill revolution.
Healthcare is in the process of transitioning from a paper-based patient record to a computerized patient record and the RHIA profession is central to this process. The computerized patient record is needed because of the increasing demand for information created by managed care, prospective payment, and Health Insurance Portability and Accountability Act of 1996. The RHIA is the logical choice for the management of the computerized patient record. To accomplish this, the RHIA must obtain the computer, data collection, data storage, and data analysis skills necessary to meet the needs of healthcare today and tomorrow. These new skills are described as roles by AHIMA in Vision 2006. The RHIA will need to learn new skills in order to compete in the computerized age. The RHIA who has been in the profession for a few years was not prepared for these new roles in his or her formal education. This RHIA was prepared for roles that were the accepted practice when he or she was in school, but these roles are fast becoming obsolete. These roles focused on the paper record. It has only been in the past few years that the educational standards have been upgraded to include extensive computer skills. Even these new RHIAs must keep up with the constant changes. The need to constantly update knowledge has resulted in many RHIAs who do not have the skills needed to be competitive in the computerized patient record environment.

AHIMA has not mandated the RHIA to participate in continuing education that is focused on the new roles. AHIMA literature has several articles imploring the HIM professional to update their skills to meet the needs of the future, but there is no continuing education or other requirements that forces them to do so.

On the other hand, there is at least one practical reason why RHIAs need to upgrade their skills. The RHIA used to be actively involved in the hospital wide quality assurance program and utilization review. Over the past 15 years or so, these positions have been given to nurses. The HIM profession has lost control of these roles. If the RHIA is not prepared for the new roles, the HIM profession will become obsolete when the computerized patient record is implemented and the traditional HIM functions cease to exist.
At this time, no research has been performed on the participation of the RHIAs in the continuing education necessary to prepare themselves for the new roles needed for the computerized patient record implementation. We do not know what barriers RHIAs face in updating their skills. We do not know what methods of continuing education they utilize. In fact, there has not been any research about implementation of the new roles, nor the RHIA’s attitude toward it. Consequently, there is no evidence that the RHIAs are transitioning their skills to those that will insure their future. A study of the continuing education participation patterns of RHIAs will help us understand how well prepared RHIAs are for meeting the technological challenges to the profession. The only articles in the literature about changes in the profession describes the changes themselves, talks about the need for the skills, and appeals to the HIM professional to prepare themselves for it. There is a strong need to research the preparation of the RHIA for these new roles so that we, as a profession will know how prepared we are for the future.

**Purpose of the Study**

The purpose of this study was to investigate issues surrounding the participation of Registered Health Information Administrators (RHIAs) in continuing education that will prepare them for changes in the Health Information Management (HIM) profession’s roles. The issues surrounding the participation in continuing education include: motivations, deterrents, attitudes to Vision 2006, and selected methods of continuing education. Vision 2006 is a strategy to move the Health Information Management profession into the future (AHIMA, 1999). To study the continuing education habits of the RHIA, the following research questions were used:

1. Are Registered Health Information Administrators aware of the new Health Information Management roles and to what extent do they think each role is important to the future of the profession?
2. What deters and what motivates Registered Health Information Administrators to participate in continuing education on the new roles?
3. How are Registered Health Information Administrators participating in continuing education on the new roles?

**Significance of Study**

This research study was designed to add to adult education theory, specifically in participation in continuing education activities of RHIAs. Specifically the study measured the amount of participation in continuing education on the new HIM roles. This information is needed because of the drastic changes being experienced by healthcare. Existing research on continuing education participation in healthcare has looked at patient care professionals such as nurses. Most of these studies have examined motivation or deterrents, not both. None of the research found looks at professions where the profession itself is undergoing drastic changes. This study will look at how the participants’ view of their profession’s plans for change motivates and deters their participation. This study also looked at whether or not RHIAs are participating in continuing education activities that will prepare them for new roles. There have not been any studies that look at RHIA’s preparation for the new roles, nor has there been any research into their motivation or deterrents to continuing education.

This research study also added to the practice of the HIM profession. A participation research study is critical to the HIM profession because of all of the changes the profession is experiencing due to extensive changes in federal legislation, development of new reimbursement systems, and advances in technology including the computerized patient record. The RHIA must update his or her professional skills in order to develop skills needed to succeed in the future. This study can show whether or not this updating of the professional’s skills is taking place. It can also show what motivates and what deters the RHIA from updating skills. It can also show RHIAs what other RHIAs have found to be effective in updating their skills and what has been found to be ineffective. This study may open continuing education opportunities that the professional had not thought about which a deterrent is in and of itself.

AHIMA and other providers of continuing education can use this information to provide educational opportunities that meet the needs of the RHIA. The data could also be used as
justification to alter the continuing education requirements of the RHIA. This means that the subject matter content of some of the 30 continuing education hours required every two years could be mandated to be in related to the new roles.

**Definition of Terms**

**Motivation**

The continuing education literature talks extensively about the learner’s motivation. The research into motivation appears to have been started by Houle (Darkenwald, 1984). The research findings agree that the reasons why adults learn are complex and influenced by their needs and goals. A formal definition of motivation was not found in the review of the literature conducted. The literature talks extensively about what the motivational factors are, but not about the definition of the term. For the sake of this study, motivation will be defined as the reasons why people chose to participate in formal and informal continuing education activities. And so, we will need to know what these motivational factors are.

**Participation**

Like motivation, there is an extensive discussion in the literature about participation and why people participate. According to Darkenwald and Merriam (1982), some participation studies include self-directed learning while other studies ignore this type of continuing education. Whether or not self-directed learning is included in participation studies plays a significant difference. The researchers spend a lot of time talking about why people participate and their characteristics, but thus far a formal definition of the term has not been identified. For this study, participation is defined as the taking part in formal, nonformal, and informal continuing education by a Registered Health Information Administrator.

**Continuing Education**

Because this study is based in healthcare, a healthcare based definition of continuing education was desired. Green, Grosswald, Suter, and Walthall’s (1984) definition was selected. They define continuing education as:
The means by which health professionals learn about developments in their individual fields and the surrounding environment. It is the method through which new skills are learned and changing attitudes identified. Continuing education is the vehicle that assists the health professional in keeping abreast of evolving knowledge (p. 1).

**Deterrents**

Again the research focuses on naming the deterrents or barriers to participation, not the definition. The two major deterrents identified by the research are the lack of time and the lack of money. This study will define deterrents as obstacles that delay or prevent RHIAs from participating in continuing education activities (Darkenwald & Merriam, 1982).

**Health Information Management**

The phrase Health Information Management refers to the profession in general. When this term is used, it refers to the profession as a whole and includes RHIAs, Registered Health Information Technicians, and other health information specialists.

**Registered Health Information Administrator**

This is the name of a certification sponsored by the American Health Information Management Association. Sitting for the certification exam requires the candidate to have a bachelor’s degree in HIM from an accredited college. The degree may also be called Health Information Administration.

**Registered Health Information Technician**

This is the name of a certification sponsored by the American Health Information Management Association. Sitting for the certification exam requires the candidate to have an associate degree in HIM from an accredited college. The degree may also be called Health Information Technology.
CHAPTER TWO
REVIEW OF THE LITERATURE

Introduction

The purpose of this study was to investigate the issues surrounding the participation of Registered Health Information Administrators (RHIA)s in continuing education that will prepare them for the new Health Information Management (HIM) roles. This chapter provides a foundation in the literature for this study. The review of the literature was conducted in order to show what is already known about the topics under study. The review was also an extremely valuable tool to help refine the research. Five topics were selected for extensive review of the literature including: changes occurring in HIM and healthcare, participation, change, career development, and continuing education.

This chapter will expand on the changes occurring in HIM and healthcare, introduced in Chapter One. The changes discussed will include changes in healthcare delivery, technology, and reimbursement, among others. The review of the participation literature provides an introduction to the general participation literature. From there, the review focuses on the research conducted on motivations and deterrents to participation. The review of the continuing education literature will discuss the importance of continuing education preparing for change. The change literature is reviewed. The focus will be on the theories of change including planned change and diffusion. The final topic reviewed is career development. The focus here will be on the career development theories that are appropriate for this study. The literature review will also include the importance of career development on one’s career.

The literature reviewed was selected from the general adult education journals, general literature, as well as healthcare journals. Exhaustive searches of GALILEO databases were conducted in order to identify references. These databases include, but are not limited to: Professional Development Collection, ERIC, CINAHL: Nursing and Allied Health, Health...
Changes in Healthcare

Brockett and Bauer (1998) recognize the changes that are impacting healthcare and healthcare professionals. They note that these changes result from new laws, advances in technology, and financial situations. Specifically the changes include reimbursement, healthcare delivery, a computerized patient record, technology, managed care, legislation, and telemedicine to name a few (Austin & Boxerman, 1998). These changes impact the skills that a successful HIM professional will need in the future (American Health Information Management Association [AHIMA], 1999). Another impact on the HIM professional is cost containment. The cost of healthcare is rising dramatically. It was projected to reach $1.3 trillion in 2000 in the United States. It continues to grow by $100 billion a year (Moore & Coddington, 1999).

Healthcare Delivery

There are many ways that the healthcare delivery system has been changed over the past few years. One of the major changes in healthcare is the development of the integrated delivery system. An integrated delivery system results when a healthcare facility is comprised of multiple types of healthcare settings such as home health, outpatient surgery, and physician practices. This diversification allows the integrated delivery system to take care of all of the patient’s healthcare needs.

Many healthcare organizations have merged in order to create these integrated delivery systems. These mergers are expected to benefit everyone involved since an integrated delivery system can provide better care or provide the care much cheaper (Jones-Burns, 1997). Mergers are extremely common. Sixty-four major mergers occurred in 1997 alone. These businesses had combined assets of 56 billion dollars (Lorence, 1998). There were 318 healthcare mergers in 2000, which is down 40% from 1999. In spite of the large drop in numbers, mergers still play a critical role in the changes affecting healthcare (Lindsay, 2001).
In addition to the integrated delivery systems, more and more care is being provided in the home or as outpatient treatment, thus reducing the need for inpatient stays. One reason for the movement of services to the outpatient setting is the development of minimally invasive surgery (Towle, 1998).

**Technology**

Technology is changing medicine because of both the conversion to the computerized patient record and advances in medicine such as telemedicine, lasers, and picture archival communications systems (Austin and Boxerman, 1998). The increase in technology is obvious when looking at the increase in spending. The healthcare industry spent approximately $13.6 billion on technology in 1997, and this amount was expected to escalate to $21 billion in 2000. The percentage of overall budget spent on technology is expected to increase significantly as well. These estimated expenses are expected to jump from just under 3% of the budget to 5% or even 6% (Ball & Lillis, 2000).

**Telemedicine.**

Technology is changing the way medicine is practiced. For example, telemedicine has enabled physicians to treat patients even when the patient is not in the same room, same state, or even on the same continent. The term telemedicine has been used for a number of years. Telemedicine includes electronic stethoscopes and vital sign monitors as well as the television, cameras and other equipment (Bauer, 2002). Telemedicine is the exchanging of clinical information between two physical locations via an electronic format. The information is used for treatment and education of patients as well as the education of the healthcare provider. The information exchanged is also used to improve the quality of care provided to the patient (Burns, 1999).

Telehealth is a new term being used to describe telemedicine (Stone, 1999). It may also be called E-health. No matter what name it goes by, it includes everything from websites that provide fundamental health information to consulting with physicians electronically. Some of the methods are geared toward the patient, some for insurance companies, while still others are
geared for healthcare providers. Some e-health formats are used for direct patient care (Choy & Goldman, 2002). Business to business telemedicine allows administrators to utilize just in time inventory and to decrease the cost of managing the many supplies utilized (Joch, 1999).

E-health can be defined as “organizations that collect and display individually identifiable health information via the Internet” (e-Health Taskforce of the AHIMA, 2001, p. 6). These e-health organizations have the responsibility to maintain the confidential patient information in a secure and confidential manner. Because more and more patient information is being placed in electronic format for use in telehealth, the risk of unauthorized release of information increases dramatically. Because of this some states have enacted laws specifically addressing the confidentiality of telehealth information (Stone, 1999). More about confidentiality and privacy will be discussed in the legal issues section.

*Picture archival communications systems.*

Another way that technology is changing healthcare is a picture archival communications system. Picture archival communications systems allow x-rays, computerized axial tomography scans, magnetic resonance imaging and other images to be viewed and read by the radiologist from his or her home or office. It also enables the radiologist to manipulate the images so that he or she is able to get a better picture than with traditional film (Austin & Boxerman, 1998).

The ability to digitize radiological images and to distribute the images reduces the costs associated with radiology. In fact, radiology departments can become entirely filmless. This advance in technology would eliminate the need for film libraries, however many providers are hesitant to do so. Improved access to the electronic images is a major benefit. The improved access improves communications between the radiologist and the physicians. Many healthcare providers have not implemented a picture archival communications system because of the large price tag, $500,000 to $5,000,000 (Gillespie, 1999).

*Computerized patient record.*

One of the biggest technological changes expected is the computerized patient record. In fact, Towle (2000) wrote that computers and networks will be the major change affecting
healthcare in the next 10 years. In 1999, only 11% of the hospitals had a fully functional computerized patient record. This is up from two percent in 1997, and the numbers are expected to continue to escalate (Ball & Lillis, 2000). The computerized patient record is expected to take over the documentation of patient care from the pen and paper. A major benefit of the computerized patient record is that it provides quick and easy access to patient records from everywhere across the country. The conversion to the computerized patient record will not be an easy task because of issues regarding the cost of implementing the system and protecting the patient’s confidentiality (Austin & Boxerman, 1998).

Benefits of electronic records include reduction in staff, increased productivity, improved quality care, improved training, and improved service. Electronic records will also provide a healthcare provider a competitive advantage over providers without the electronic record (Carli, 2002). The electronic records also provide immediate access to confidential patient information. The extensive information that the computerized patient record provides will improve patient care (Austin & Boxerman, 1998). Mildon and Cohen (2001) also identified a number of benefits of computerized patient records. Clinical benefits include higher quality documentation, patient education, reminders and protocols, management of medications, pharmaceutical management, signing medical record entries, as well as callbacks, and telephone triage. There are also administrative benefits to the computerized patient record. These administrative benefits include: decreased chart pulls and filing, reduced lost charts, improved communication, reduced chart requests, and audits. The financial benefits of the computerized patient records include: reduced transcription costs, reduced malpractice insurance, reduced chart and storage expenses, reduced copying services, and labor costs. The revenue benefits include: patient reminders of services to be performed and improved accuracy of coding. Computerized patient records eliminate problems with legibility of handwriting and alerts. It also improves the billing and reimbursement process (Ball & Lillis, 2000).

M. J. Barrett (2000) identifies the components of a computerized patient record as “scheduling, enterprisewide master patient index registration, longitudinal records” (p. 86-87),
and notes that the ultimate computerized patient record will include a clinical data repository, an enterprise network, feeder systems, an interface engine, point of care devices, ancillary systems like lab and radiology, charges, imaging and voice, nursing and other clinical documentation, order entry/results reporting, pathways, patient monitoring devices, rules-based alerts, and a transcription system. The numerous components of a computerized patient record create a complex system.

Implementation of a computerized patient record is costly. Healthcare providers must strive to overcome infrastructure deficiencies. There are also issues to be resolved related to security and confidentiality, resistance to change by the staff, a lack of a standardized nomenclature, and the need for training and support (Ball, 2000). Other barriers to the computerized patient record include lack of a standardized nomenclature, lack of universal protocols, lack of integration, fragmentation of systems into departmental focused, and a lack of consensus on what data should be collected (Barrett, M. J., 2000). Changes needed to implement the computerized patient record will take years and will require the implementation of networks, laws, national databases of health information, and a change in the way people look at health information (Austin & Boxerman, 1998).

Healthcare organizations are developing data warehouses. A data warehouse is a centralized database that allows data to be stored one time instead of repetitively in various systems across the organization. Because the data stored in the data warehouse is used to make decisions, data quality is critical (Breen & Rodrigues, 2001). Tools such as data marts and data mining are used to analyze the data and identify trends that may not be obvious at first glance. The decisions made impact cost, revenue, quality of patient care, and efficiency (Silver, Sakata, Su, Herman, Dolins, & O’Shea, 2001). Another type of database that may be part of the computerized patient record is a clinical data repository. A clinical data repository stores all of the data collected on a patient. There are typically many feeder systems providing the information that is stored in the database. It provides one single place for healthcare providers and others to access patient information (Soule, 2001).
Internet and intranet.

The Internet has created many changes in healthcare. The patients are more informed than ever before because they are able to access health information. They will also be able to access their own patient information such as lab results and treatment plans. Patient care via telemedicine can also be conducted via the Internet. Physicians can easily communicate with each other to discuss patients and access patient information via the Internet. Healthcare organizations can order supplies electronically and can even partner with providers to have group purchasing. The Internet can be used to facilitate insurance eligibility and other managed care tasks. Many healthcare providers are using application services providers to run software instead of purchasing the systems themselves. Internet technologies allow for quick deployment of systems. Training is easy since users already know how to use Internet browsers. Internet skills are needed by information system staff. Before implementation of Internet technologies, one must be sure that you are getting something for your efforts (McCormack, 1999).

A related technology, Intranets improve access to various databases. Intranets use Internet technologies to share information within an organization Austin & Boxerman, 1999). This would allow the facility to monitor patient outcomes, monitor costs, and become more efficient (Baldwin, 1999). This information can be policies and procedures, menus, forms, and other administrative information (Austin & Boxerman, 1999).

Community health information network.

A community health information network is a complicated process because it requires competing healthcare providers and insurers to work together and to share data. One of the biggest obstacles to the community health information network is getting healthcare providers to participate (Noss & Zall, 2002). A community health information network is typically made up of healthcare providers, insurers, governmental agencies, employers and others who agree to share costs and information (Austin & Boxerman, 1998).
Legal issues

There are many legal issues facing healthcare today including fraud, privacy, security, and the Health Insurance Portability and Accessibility Act of 1996. These issues are discussed below.

Fraud is a major problem in the United States healthcare system, and estimated to waste $90 billion dollars a year (Garcia, 2002). Fraud is defined by the National Health Care Anti-Fraud Association as:

intentional deception or misrepresentation that the individual or entity makes knowing that the misrepresentation could result in some unauthorized benefit to the individual, or the entity or to some other party. The most common kind of fraud involves a false statement, misrepresentation or deliberate omission that is critical to the determination of benefits payable (NHCAA, n.d., p. 1).

Examples of fraud include: billing for services not provided, misrepresentation of diagnosis, dates of service, or charges. To combat fraud, insurance companies are using electronic data interchange and other tools to prevent it. Software with data analysis tools looks for patterns, inconsistencies, or other evidence of fraud. Fraud is typically found when the person or persons responsible establish a pattern of fraud. This means that a single incident is typically not identified as fraud. The key to identifying fraud is a amassing a large amount of data and utilizing tools that are able to identify the fraud. This usually means using computers (Garcia, 2002). From 1994 to 1999, the number of healthcare fraud convictions increased by 400% (Curtin, 2001). A related issue is abuse. Abuse is utilizing practices that are not in line with generally accepted rules which impact the healthcare organization’s reimbursement. Examples of abuse include providing services to patient when the service is not medically necessary or billing Medicare more than other insurers are billed (Hanken, 2001).

The newest change to hit healthcare is Health Information Portability and Accountability Act of 1996 (Public Law 104-191). The purposes of Health Insurance Portability and Accessibility Act of 1996 include: eliminating fraud, enforcing standards, ensuring privacy, and
security, and requiring health insurance portability (Hellerstein, 1999). There are three major components of this law that are related to this study. These components are the requirements for administrative simplification, privacy of medical information, and confidentiality of medical information. Administrative simplification includes: electronic billing, verifying insurance eligibility, and electronic remittance advices. The privacy regulations protect patient information from being released without patient consent. The confidentiality regulations limit access to patient information and limit how patient information can be used by the healthcare providers. The law was enacted because confidential medical information is being processed and maintained on computers thus risking the security of the patient information (Scott, 1999). The Health Insurance Portability and Accessibility Act of 1996 is being phased in gradually, and is expected to have a major impact on healthcare because of the costs of implementation and the changes that compliance with the standards will require. Technology will be a major factor in the implementation, but it is not the only factor. In fact, only 20-25% of the rules can be accomplished through technology.

For the sake of this research, Health Insurance Portability and Accessibility Act of 1996 is made up of four areas of regulations. The first is transaction and code sets. Privacy, security and provider identifiers round out the rest. Healthcare organizations must also look at their operations or policies and procedures as well (Krohn, 2002). The government is serious about compliance with these regulations. Penalties for violating Health Insurance Portability and Accessibility Act of 1996 require the healthcare facility to pay triple the overpayment plus up to $10,000 per violation (Hellerstein, 1999).

One of the components of Health Insurance Portability and Accessibility Act of 1996 is identifier rules. The identifier rules mandate a standard number to be assigned for each provider, health plan, employer, and individual. Currently these groups may have a two or more identifying numbers. The goal of the identifier rules is to help standardize data collection, and therefore save time, money and improve efficiency. Healthcare providers who bill electronically are mandated to utilize the new identifiers. The identifier that is most complex is the individual
identifier. This would give all consumers of healthcare in the United States a unique number that would utilized by all healthcare facilities. Because of privacy concerns, this rule has been placed on hold (Kelly, 2002).

Reimbursement and Managed Care.

Many of the changes affecting healthcare have resulted from the dramatically rising costs of healthcare. In 1960, approximately $268 per person was spent on healthcare each year. This figure was expected to swell to $5,712 in 2000 (Burke, 1997). To combat the high cost of healthcare, managed care has emerged. Managed care is a form of healthcare that controls access to medical care and how much is paid for those services (Burke, 1997). To be successful, a managed care organization needs a lot of information, especially in a capitated payment environment (Ray, 2001). One of the major restrictions that a managed care organization places on its members is limiting access to specialists. The patient chooses a primary care provider who controls the access to the specialist (Burke, 1997). Because patients have a primary care physician who controls their access to healthcare, the patient’s healthcare is better integrated (Fabius, 2000). This control reduces the choices that the patient has about his or her healthcare (Mechanic, 1999). In spite of the controls, there is an advantage to managed care. Managed care is known to lower the costs of healthcare, particularly with regard to routine care (Burke, 1997). The reimbursement that a hospital receives from managed care organizations and other purchasers of healthcare services has changed significantly over the past few years. Medicare tends to utilize prospective payment systems which limit the amount of money that a facility can receive for treating the patient (Ray, 2001). This limit on reimbursement has meant that hospitals must manage their costs.

Mechanic (1999) writes that managed care is a “set of approaches, organizational arrangements, and strategies with considerable diversity of practice” (p. 1107). Managed care manages healthcare resources. The consumers prepay for their services so there is little out of pocket expense. One of the strategies utilized by managed care organizations is rationing of
healthcare services. This rationing is needed because healthcare can provide more services that insurers and employers are willing to subsidize.

Twelve changes have occurred in healthcare that can be attributed to managed care. The first is the development of standards and indices of performance. All of these changes work together to ensure quality care being provided to the patients. These standards include utilization management, quality improvement, and medical staff credentialing. The next change is the analysis of physician access patterns. Managed care has also resulted in clinical guidelines which specify accepted methods of treatment for thousands of medical conditions. Physicians must be credentialed and re-credentialed in order to remain in the healthcare plan. This credentialing of physicians ensures that the physicians providing care meet quality standards. Patients are referred to quality healthcare providers. The volumes of patients that result from the referrals allow the insurer to obtain a discount on services. Healthcare providers are also comparing themselves to organizations that are considered the best. Healthcare providers are judged by the outcomes of the care that they provide. Another change caused by managed care is the development of disease management proposals. Disease management is intervening in the treatment of people with a common disease. The outcomes of treatment are monitored in hopes to both help them and measure impact. Managed care has gotten patients involved in the decision making process for treatment. Because patients are involved in the decision making process, they are more compliant with the treatment plan. Technology assessment ensures that patients receive only proven treatment for their condition. Managed care supports the need for maternity care as early as the first trimester which reduces costs and results in a healthier baby. Because managed care has changed the structure of healthcare, patients who are not enrolled in a managed care are affected by these changes (Fabius, 2000).

Additional Changes.

The patients treated today are much better educated on diseases. This increased knowledge will change the traditional physician-patient relationship. The patients are also demanding high quality care by physicians and other healthcare providers (Towle, 2000).
Consumers are judging healthcare providers by their outcomes. Outcomes of healthcare include cost, quality and results of the care provided to patients (Rider & Swirsky, 1997).

Even the patients themselves are changing due to demographics and the patterns of diseases that are being seen. By 2000, the elderly were expected to consume 50% of the healthcare spending. This is up from 33% in 1994. Because of the increased numbers of elderly patients, much of the treatment provided will be for the care of chronic diseases, not preventative care nor definitive treatment (Towle, 2000).

Genetic research allows patients to learn if they have a predisposition for a specific condition. This genetic predisposition does not guarantee that a patient will have the condition but only that he or she has a predisposition. Patients fear that they will be discriminated against based on their genetic make-up. Because of the risk of abuse by employers and insurance companies, privacy of genetic test results is important (Slaughter, 2002).

Changes in the Health Information Management Profession

Changes open many opportunities for those who seek them (Umiker, 1999). No where is this more true than with the RHIA. The RHIA is facing many changes due to changes in technology and the environment such as mergers of healthcare organizations, changes in reimbursement for inpatient and outpatient claims, new technologies such as the computerized patient record. In order to succeed, the RHIA must learn and adapt to the changes (Fuller, 1999). Obtaining the necessary skills to succeed in the new healthcare environment will open many opportunities. Because of the many new opportunities, there will not be enough RHIAs to fill the jobs. In fact, it is predicted that 56% of the HIM jobs will go unfilled. This makes HIM one of the fastest growing professions (Lorence, 1998).

New Health Information Management roles

One of AHIMA’s major reactions to the changes in healthcare was the development of Vision 2006 in 1996. Vision 2006 is a plan for the future of the HIM profession. In Vision 2006, seven new roles for the HIM professional were identified. These roles have been communicated to the RHIAs through books, the Journal of AHIMA, and professionals meetings.
These new roles are health information manager for integrated systems, clinical data specialist, patient information coordinator, data quality manager, information security manager, data resource administrator, and research and decision support specialist. These seven roles create many new roles for the RHIA, and change the basic tenets of the profession itself (AHIMA, 1999).

The new role of Health Information Manager for Integrated Systems typically requires the HIM professional to manage the information for many different facilities. The facilities may be two or more hospitals or a variety of different types of healthcare facilities. The role of the Health Information Manager for Integrated Systems must understand “the entire healthcare continuum, [have] proven managerial skills, and a strong foundation in health information management” (AHIMA, 1999, p. 26). This means that the RHIA must understand physician offices, long term care, hospitals, and other healthcare facilities. This individual must understand legislation, accreditation, reimbursement systems, classification systems, and technology. This professional may work at the facility level or at the corporate level. The Health Information Manager for Integrated Systems role is strongly tied to managing information systems. RHIA would also be responsible for the quality of the work performed in the department, access to confidential records, release of information, data collection, enterprise policies and procedures, privacy, and security. He or she must have many administrative skills including negotiation, meeting management, motivation, networking, change management, leadership skills, the ability to adapt, flexibility, and an appreciation for diversity. Planning and project management skills are also important.

The clinical data specialist “will play an important role in ensuring the availability and relevance of this invaluable resource as well as in converting data into truly useful information” (AHIMA, 1999, p. 43). This invaluable resource is data. The clinical data specialist will use data mining techniques to analyze data for hidden trends. The clinical data specialist is the key person to know what data exists, where it is located and how to interpret it. Critical skills include information management and a proficiency in classification systems. He or she will also
need strong computer skills and an understanding of how data flows within a healthcare organization. The clinical data specialist will be involved in research protocol development and clinical research. Chart audits and registry management will be important tasks as will analysis of utilization and outcomes data.

The patient information coordinator will assist patients by ensuring that their patient information is where it needs to be, to help them manage their medical history, explain access to their information, explain managed care, and show patients how to access information on the computers. Patient information coordinators will need extensive release of information skills, knowledge of confidentiality requirements, good communication skills, excellent writing skills, and an overall understanding of healthcare reimbursement systems. They will also need analytical skills and be good time managers. Additional skills include financial, business, and negotiation. This is a very new role for HIM professionals which will give them direct contact with patients instead of working behind the scenes (AHIMA, 1999).

The patient information coordinator role may also be called a patient advocate. Patient advocates are typically “health professionals who have a background in operational healthcare delivery, insurance, health information, or medical terminology and who understand the business side of healthcare” (Lorence and Rhodes, 1998, p. 56). The advocate can help patients solve problems with their health insurance.

The data quality manager “takes on the specific responsibility of using technical mechanisms as well as interpersonal management skills to monitor compliance with the organization’s policies and procedures and address shortcomings as they are identified” (AHIMA, 1999, p. 61). Specifically the data quality manager will be involved in the information plan and data quality management policies and procedures, monitoring compliance with data quality policies, managing data dictionaries, performing quality activities, and monitoring data warehouses. The data quality manager may conduct training for employees on data quality.

The information security manager is responsible for documenting, implementing, and monitoring security policies. This role is also responsible for the technology that maintains
security and training employees on security issues. He or she is also responsible for risk assessments, disaster recovery planning, as well as business continuity plans.

The final new role, data resource administrator, is responsible for the medical record, confidentiality, access as well as release of information policies and securities. The data resource administrator’s primary role is to work with many departments to maintain data resource polices. He or she is also monitoring compliance with the policies. The data resource administrator would also work with technical staff to develop and operate the data repository and warehouse as well as ensure the quality of the data within the databases. He or she maintains data sets, data dictionary, data standards, and the data model. The data resource administrator will also monitor changes in laws and accreditation that affect data resources and monitoring advancement in technology.

The HIM professional can play an important role in managed care by being involved in data quality, healthcare provider profiling, reporting, auditing claims and medical record, improving reimbursement accuracy, and working in utilization management. These tasks can be broken into data and records management, informatics, decision support, and quality improvement (Valo, Rulon, & Schuller, 2001).

Marketing the HIM profession

AHIMA is working hard to market and improve the image of the HIM profession. In 1997, AHIMA implemented a marketing plan to teach others about the unique skills of the HIM professions. AHIMA knew this marketing was needed because 83% of the respondents recognized the profession, but a large percent of the administrators did not understand HIM skills. In fact, many administrators thought that HIM professionals were file clerks. The marketing plan was also designed to improve recognition of the HIM credentials. The final objective of the plan was to let others know about HIM leadership abilities and knowledge related to health information (Skurka, 2000). AHIMA is still actively marketing the profession. In fact, marketing the profession is part of the Board of Director’s 2002 Strategic Plan (American Health Information Management Association Board of Directors, 2001).
AHIMA cannot market the profession alone. It will take each and every HIM professional teaching healthcare administrators and other healthcare professions about the profession and the wide range of skills in HIM. This marketing, plus updating HIM skills, is the only way that the HIM profession will remain a viable profession throughout the 21st century (Skurka, 2000). The RHIAs can market the profession by hiring credentialed staff, insisting that they are a part of key projects at the job such as implementation of the computerized patient record and data modeling, and educating the public about the profession.

Fraud and abuse

The presence of fraud and abuse has had a direct impact on the HIM profession. Compliance is one of the hottest issues in HIM right now. A properly developed compliance plan “will be effective in preventing and detecting regulatory violations when it has been reasonably designed, implemented, and enforced to do so” (AHIMA 1998, p. 1). A properly implemented plan is critical for the HIM profession because HIM is the “cornerstone of fraud investigations and the evidence of compliance” (p.1). The HIM professional has many skills required for compliance. These skills include a strong knowledge of clinical documentation requirements, coding rules, reimbursement systems, and legal requirements. The HIM professional will monitor compliance with coding rules, policies and procedures, and federal laws by conducting routine audits. During the audits, the HIM professional will look for patterns in coding or billing errors. He or she will also look for evidence that the treatment was not medically necessary or was fraudulently billed. Once a problem is identified, the RHIA must develop an appropriate corrective action plan. Based on the findings, the corrective plan may be additional training, revision of policies and procedures, or enforce the plan.

Confidentiality and security

The HIM professional will take the lead on confidentiality and security of patient information in the world of e-commerce. The HIM professional will also be needed in order to develop new policies for release of information in a computerized environment (McLendon, 2000). This role is not new to the HIM professional. Privacy has been a tenet of the health
information management profession ever since it was established. In fact, it is a part of the AHIMA mission statement (Kloss, 2002).

Summary of Changes in Healthcare and HIM

Both healthcare and the HIM professional are facing extensive changes. Some of the healthcare changes impact the basic structure of healthcare like managed care, integrated delivery systems and a community health information network. Another change in healthcare is the reduction in costs required by the reduction in reimbursement. This is a difficult task when healthcare is purchasing expensive new technology such as the computerized patient record, picture archival communication systems, and those to treat the patient such as lasers and minimally invasive surgery techniques. Legal issues such as privacy and security and fraud and abuse have created situational changes. The RHIA’s skills must adapt to the new changes which includes seven new roles. These new roles are: health information manager for integrated systems, clinical data specialist, patient information coordinator, data quality manager, information security manager, data resource administrator, and research and decision support specialist. Continuing education will prepare the RHIA for these new roles.

Continuing Education

Because of changes occurring in healthcare, the HIM professional, like other professionals, must develop a commitment to lifelong learning. It is through this lifelong learning that the HIM professional’s skills are updated. Professionals with obsolete skills will no longer be able to compete for jobs (Nowlen, 1990). The way to maintain current HIM skills is through continuing education. Careers are undergoing significant change. As a result, professionals and continuing education educators need to foster an environment that encourages professionals to “make commitments, to take risks, and to act creatively and responsibly within their professional organizations” (Loughlin & Mott, 1992, p. 87).

Definition

Over the years, there has been a debate over how to define continuing education (Jarvis, 1995). Green, Grosswald, Suter and Walthall (1984) give an excellent definition of continuing
education which is “the means by which health professionals learn about developments in their individual fields and the surrounding environment” (p. 1). Green et al. wrote that continuing education begins after the learner has completed his or her formal course of study. They do not believe that continuing education will solve all of the problems, but instead they believe that it should be used simultaneously with professional practice. As alluded to earlier, there is not just one definition of continuing education. Jarvis (1995) wrote that continuing education is education after the “initial” (p. 29) training. Queeney, Smutz, and Shuman (1990) agree with the general consensus that continuing education is critical. They support the need for a formal strategy instead of relying on reading professional materials and talking with peers.

Continuing education is usually information provided to the learner, which is not necessarily a learning experience. Continuing education usually focuses on the act of participating, not whether or not the learner’s behavior was changed due to the experience (Miller, 1987). According to Kerka (1994), continuing education should be “accessible, affordable, and of high standards; relevant to individual learning needs, applicable to practice, and designed for different learning styles” (p.1). Hughes (1990) focuses continuing education on “study days, conferences, short courses … and other longer courses leading to academic awards” (p. 428). This is a very different view from other continuing education researchers who include informal learning as part of continuing education.

Continuing education is very different from the education that prepared the RHIA for his or her career. Students must be taught that their education will continue throughout their career. They should understand that the formal professional training is only the beginning of lifelong learning. This education should include teaching the professional what he or she needs in order to manage his or her continuing education (Queeney, et al., 1990). Their formal education is made up of a “learning environment” (Dean, 1996, p. 234) which encourages learning. Instructors direct the students as the students learn their profession. The instructors need to teach the students to use self-directed learning skills that can be used throughout the student’s life. These self-directed learning skills can be used by the students to maintain professional skills.
Transformation is the key to continuing education according to Flagello (1998). This transformation only comes about after the professional learns, accepts, uses his or her new knowledge. Continuing education empowers the learner. This empowerment allows him or her to be a leader in the change. Flagello recognizes that this empowerment scares many professionals, and as a result achievement of goals takes longer.

Continuing education is often a cooperative program between two or more groups. The goals of the organizations involved affect the collaborative continuing education programs offered. This cooperation is a political process and opens up competition for control of the organization’s continuing education. The issues being debated include distribution of funds, control of topics (Cervero, 2000b). Houle (1980) would like for different professions to work together in order to avoid redundancy and to make the continuing education more effective because the groups of professionals can work on similar challenges. He believes this collaboration can work because in spite of differences in knowledge, views, and expertise among professionals. His belief comes from the fact that there are a number of similarities between professions. They all have their “own knowledge based and code of practice; its own lore, terminology, and point of view; its own mysteries and secret process; and a long-standing desire to repel invaders” (p. 14-15).

Continuing education does more than educate professionals. Organizations as well as individuals benefit from the knowledge that is gained for continuing education. These benefits include retaining employees, generating revenues, developing the image of the profession, and supporting the political agendas of the organization (Cervero, 2000b). In order for continuing education to advance, there are some issues that must be addressed. There must be a decision on whether the purpose is to update knowledge or to improve the actions of the professionals. Another issue is how to address the conflict between politics/economics and the learning taking place. The final issue to be resolved is the tendency of groups to compete rather than collaborate. One reason why organizations do not collaborate is the inability to determine who controls the effort (Cervero, 2000c).
Cherry (1987) found that the most common problem identified by organizations that offer continuing education was low participation. Other problems identified by continuing education organizations were problems with meeting space and needed improvements in the programs that they offer. The low participation that the continuing education organizations experienced has been attributed to issues such as cost, when the program is offered, location and other issues. Some organizations have paid participants to attend and used mandatory attendance. The problems identified by Cherry may be critical to the HIM profession because of cost cuts facing healthcare.

Nowlen (1990) supports the belief that the goal of continuing education is to bring the skill of existing professionals to the same level as new college graduates. Another view is that the goals of continuing education can be broken into a number of categories. These categories are: avoiding professional obsolescence, keeping abreast of new developments, repairing deficiencies, maintaining or improving competence, serving society, improving the quality of healthcare, and improving the healthcare delivery system (Kicklighter, 1984).

The powerful framework for continuing education discussed below was established by Brockett and Bauer (1998). They established a seven component framework which includes: professionals must be committed to professional development, professionals must keep up with changes in their profession, professionals should work with colleagues to improve the standards of the profession, prove technical proficiency, all healthcare professionals must continue their education, some professionals will become experts in an area, and professionals may collaborate with others to study their profession.

Umble and Cervero (1996) provide an interesting breakdown of the research on the impact of continuing education on professionals. They divided the research into two batches on the importance of continuing education. These batches are called first wave and second wave. The first wave research was conducted from 1977 to 1991. Umble and Cervero’s review of the literature of this period found that continuing education definitely has an impact on the competence and performance of professionals. Umble and Cervero found that the literature
recommended the need to conduct thorough research to determine whether or not the continuing education is the cause of the change on the competence and performance of the professionals. They also found that the research conducted did not address why some continuing education programs were successful and other programs were not. During the review of the literature, Umble and Cervero recognized that evaluation of the continuing education research is difficult because the design of the studies varied so much.

The second wave review was conducted from 1984 to 1994. The dates of the two waves of impact studies overlap. The reason for overlap is that the two waves look at two different questions. The first wave looks at the question of whether or not continuing education is effective. The second wave evaluates what continuing education methods of effective and why the methods are effective.

Just like the first wave of research, the second wave found that continuing education can improve performance and competence; however this wave of research went further. This research shows that more complicated tasks are not as easily affected by continuing education as are simple tasks. Another of Umble and Cervero’s findings showed that programs which teach the learner enabling factors will have more impact on his or her performance than those offerings who just teach a skill. The research during this second wave strongly recommends the use of needs assessments in order to determine the continuing education needs of the learner. The research showed that longer continuing education programs are more effective than short sessions. The review of the research also shows that participants learned more when studying with people they know. Umble and Cervero’s final finding in their review of continuing education research showed the need to demonstrate causal relationship between learning and knowledge. The review of the literature shows the complexity of the continuing education process.

Umble and Cervero (1996) recommend that continuing education shift from researching whether or not continuing education is effective to evaluating the relationship between continuing education and outcomes. They also recommend improving the research methodology
to be more complete and to include variables such as evaluation design and enabling or reinforcement methods.

Cervero (1990a) wrote that the current understanding of continuing education is based on the premise that professionals are “service-oriented occupations that apply a systematic body of knowledge to problems that are highly relevant to the central values of society” (p. 161). This viewpoint is based on expertise and is known as the functional viewpoint. In the critical viewpoint, the professional’s goal is to validate his or her ideas by solving the problem. The professional uses his or her specialized knowledge for the validation.

**Impact of Continuing Education**

Continuing education is not a solution to all of the problems facing healthcare, but it has become more important to healthcare professionals due to consumers and the government demanding competence and quality healthcare (Donen, 1999). Other reasons why continuing education became more important include the development of professions, accountability, new methods of practice, and the very nature of knowledge (Mott, 2000).

Continuing education is impacted by many societal trends. One is the make-up of the population of the United States. The next factor is the need to have an understanding of the economy of the United States since the economy will control the need for education and the ability to pay for it. The next factor is looking at the changes in technology that will impact the professions. It is important to conduct a study on the influence that the government has on the profession is needed so that one can plan. The final characteristic understands the nature of work and the organizations where people will be working (Fay, McCune, & Begin, 1987).

Many researchers agree that continuing education is typically associated with maintaining professional competence (Boissoneau, 1980; Green et al., 1984). Nowlen (1990) is one of the researchers who agree that continuing education is important to professional competence. Nowlen argues that continuing education does not meet all of the needs of the professional since it does not typically address personal characteristics like motivation and interpersonal skills. Continuing education is also seen as a means of reducing the stress that results from the frequent
changes (Ofosu, 1997). Boissoneau (1980) recognizes that continuing education is not the only part of remaining competence. He also recognizes the importance of physical and mental abilities, and quality continuing education programs.

Queeney et al. (1990) see continuing education as a way to promote competency and to disseminate new knowledge. Continuing education is not a luxury, but is required in order to keep current. Reading and consultations with peers are no longer satisfactory. The professional must make a concerted effort to continue education. Continuing education is not a guarantee of competence, but no one has been able to identify a more appropriate alternative. If continuing education is going to be effective, it must meet the needs of the learner or fill a gap in the profession. The continuing education opportunities that meet the learner’s need “enhances their performance abilities, their application of knowledge and skills to the real-life situations that constitute daily practice” (Queeney, 2000, p. 378). Alsop (2001) wrote that “competence is not static but unfolds and evolves” (p. 130). There are three ways to ensure competency including: lifelong learning (continuing education), specialization, and the emergence of new professions. Specialization provides the professional with skills not obtained during the initial training. Lifelong learning (continuing education) allows the professional to learn without leaving work for long periods of time. The emergence of new professionals ensures competency through defining the roles of occupations (Hoberman & Mailik, 1994).

Not all researchers have a positive view of continuing education. Houle (1980) expresses concerns over the effectiveness of continuing education to help maintain the currency of a professional’s skills. In spite of many suggestions for improvement to the continuing education process, no obvious solutions have been identified. In fact, Houle goes so far as to suggest that no one solution will solve the problems with continuing education. He does not offer any solutions, but challenges professionals to operate at the highest standards of their chosen profession.
Status of Continuing Education

Cervero (2000b) has evaluated the state of continuing education today and found four trends that have impacted continuing education in the 1990s. The first trend is “the amount of continuing education offered at the workplace dwarfs that offered by any other type of provider, and surpasses that of all other providers combined” (p. 5). Cervero’s research shows that organizations spent $60 billion dollars on continuing education in 1996 alone. This figure only includes formal education, not non-formal education that the professionals participate in on the job.

The second trend that Cervero identified is that “universities and professional associations are active and important providers with an increasing number of programs being offered in distance education formats” (p. 6). Universities provide a wide range of continuing education programs and the amount they provide is growing. A number of these colleges are also offering continuing education via distance learning technologies such as on the web and satellite television. This media opens the educational programs to people throughout the world. Professionals associations are also active in the continuing education programs. There are more than 5,000 professional organizations that spend $8.5 billion to offer continuing education.

The third trend that Cervero identified was “there are an increasing number of collaborative arrangements among providers, especially between universities and workplaces” (p. 6). He goes on to write that universities are playing bigger roles in economic development so they have begun to work with business to provide a large piece of the continuing education that they provide. Many of these continuing education opportunities are online.

The fourth trend is “continuing education is being used more frequently to regulate professional’s practice” (p. 7). This includes the use of continuing education by many states as a requirement for relicensure of professionals. As a result of the trends identified above, the continuing education process is much more complicated than ever before. RHIAAs are not licensed by the state licensure so there is no government mandated continuing education. The HIM professional’s mandatory continuing education requirements come from AHIMA.
Views of Continuing Education

Queeney, et al. (1990) recognize a difference between continuing professional education and traditional continuing education, but admit that these differences are slight and that professionals do not agree on the definitions. It is difficult to distinguish the difference between the two terms in the article. They caution against getting bogged down in semantics. They believe that helping practitioners to enhance their professional performance is the key issue. Because of this view, Queeney et al. believe that the knowledge gained by the learner should be applicable to the learner’s role. They believe that the learners should utilize multiple methods of continuing education that include self-directed learning as well as external resources. Queeney et al. recommended that professionals manage their own continuing education. To demonstrate the self-management of continuing education, Queeney et al. (1990) created a model containing seven steps: professional development framework, assessment, integrated professional development plan, professional development activities, integration of learning into practice, and evaluation reassessment. The reason for a model like this is to enhance the effectiveness of the continuing education.

In a very different view of continuing education, Scheneman (1993) regards continuing education as a changing and unique part of education. In fact, Scheneman wrote that the role of continuing education is expanding to include: converting scientific knowledge to practical knowledge, improving performance through increasing knowledge, using of self-directed or collaborative learning and, converting formal instruction into experiential based learning for both personal and professional learning. Scheneman found that the role of continuing education should include: improvement of the entire person, focus on strategic growth of the professional, standardizing ethics and decision-making, and finally changing from institution sponsorship of education to organizations and professionals working together to achieve education.

Need for Change

In a landmark book on continuing education, Houle (1980) wrote that traditional continuing education is not meeting the needs of the professionals and Cervero (2001) agrees
with this assessment. Houle (1980) said that continuing education is very similar between the different professions. In spite of these similarities, Houle believes that you cannot forget that each profession is different. HIM professionals are unique because of the changes the profession is facing. These changes are discussed above.

Abbatt and Mejia (1988) found that continuing education learning is the most effective when the topic is perceived to be relevant to the interests of the professional, when the professional has an active role in the learning, and when the learner has a problem that requires improved knowledge in order to solve. They also found that professionals have many interests that compete for their time. Abbat and Mejia said that professionals frequently do not see the benefits of continuing education so in order for continuing education to be moved to the top of the priorities, the continuing education session must be interesting and valuable. Sometimes the learner feels threatened by continuing education because he or she does not appreciate feeling like they are less than competent. Abbatt and Mejia (1988) also recognize that professionals may not realize that they have a deficit in their knowledge, so may not take the necessary steps in order to correct it. There are no studies as to whether or not this is true for the HIM professional.

Changes Needed in Continuing Education

Daley and Mott (2000) are calling for needed changes in continuing education. The first of the recommended changes is focusing on quality of the outcomes instead of just performing educational sessions. They also promote the fact that continuing education should identify problems and then use education to resolve the problems. They also recommend the development of “Centers for the Advancement of Professional Practice” (p. 82) which would offer educational services to subscribers. The subscribers can be individuals or organizations. The centers would allow the subscribers to select the services that meet their needs. The objectives of the educational sessions would be to improve the quality of the services provided by healthcare professionals. These centers would include new educational methods such as networking and institutes. To ensure the quality of the education provided, follow-up would be conducted. These centers could also evaluate the professionals and provide consultation.
Voluntary Continuing Education

Boisonneau (1980) believes that voluntary continuing education has “failed in the health professions” (p. 143) because many groups do not trust professional associations to ensure that professionals keep their skills current. He defines voluntary continuing education as “individuals assume the responsibility for maintaining a professionally acceptable level of knowledge and skills” (p. 143). He notes that in voluntary continuing education, the professional is obligated to participate in continuing education no matter how difficult it is. People have a tendency to postpone tasks that they are not looking forward to and voluntary continuing education may be one of these tasks for many professionals. Failure to participate in continuing education may cause job performance to suffer. In a changing the environment like HIM, procrastination may be disastrous.

Supporters of voluntary continuing education argue that professionals who do not participate are only hurting themselves because the health professional will lose patients if his or her skills are not current. The opposition believes that most patients do not select healthcare providers through a complete evaluation of their skills and do not actually have the knowledge to make assessments. Another advantage of voluntary continuing education is that dedicated healthcare professionals will keep their skills current because they do not want others telling them what to do. The professionals argue that they are the only ones who understand their professions, so others should not try and establish standards or educational requirements. Boisonneau believes that voluntary continuing education provides the healthcare professional with the most flexibility.

Mandatory Continuing Education

Cross (1983) defines mandated continuing education as “the tendency of states and professional associations to require the members of certain vocations to fulfill educational obligations in order to retain or renew their license to practice” (p. 40). This definition leaves out professionals like RHIA who are credentialed, not licensed. Cross’ conclusions on this mandatory continuing education are threefold. The first is that people who want to learn will
have more current information. The second is that people who are motivated to learn are
typically better informed. She also believes that voluntary continuing education is not perfect,
but it is better than nothing.

Patients and other purchasers of healthcare services are demanding that the healthcare
professionals maintain their competence (Brigley, Young, Littlejohns, & McEwen, 1997). For
many healthcare professions, this demand shows up through state licensure requirements,
professional associations or both. In fact the public’s demand for competent professionals is a
defense of mandatory continuing education. The need for competency is not being debated, but
how to accomplish competency is under discussion. Competency in the healthcare professional
is constantly at risk because of changes in healthcare and the skills needed to accommodate these
changes (Boisseau, 1980). The news media constantly reports errors and frauds performed by
professionals. These stories do not ease the mind of the patients. Continuing education is seen
as one way to alleviate their fears. Professional education sees another reason for continuing
education - justification for the high cost of their services (Young, 1998).

Support for mandatory continuing education.

According to Boissoneau (1980) mandatory continuing education in healthcare has
gained support because the public is demanding quality care by capable healthcare professionals.
No one argues that healthcare professionals must have current skills; the debate is over how the
skills will be obtained. The healthcare professionals do have a say in the matter because they are
represented on state licensure boards that establish many of the mandatory requirements. Most
professionals participate in more than the minimum continuing education hours that are required
(Knox, 1993). Professional associations see mandatory continuing education for all
professionals preferable to punitive actions to those who do not maintain their skills. Boissoneau
(1980) concludes by writing that no relationship between mandatory continuing education and
improved effectiveness in their occupation has been proven. He does not support this claim with
any anecdotes or research.
The development of mandatory continuing education resulted from the fear that licensing boards were not doing enough to guarantee quality care (Sullivan, 1981). When mandatory continuing education was first implemented, there was a lot of confusion and negative feelings. Today the debate over whether or not to utilize mandatory continuing education is moot because today’s new professionals accept continuing education as an extension of their formal education (Legrand, 1992).

**Opposition to mandatory continuing education.**

Arguments against mandatory continuing education include: that there is no evidence proving that continuing education assures learning and therefore competence, adult learners do not get to choose, and finally a negative attitude towards the mandatory continuing education process. Queeney et al. (1990) found that opponents to mandatory continuing education believe that it does not guarantee competence. The authors report that few researchers would say that a majority of professionals would avoid continuing education if it were not mandatory. Queeney et al. also believe that professionals must assume responsibility for their own lifelong learning. They conducted a study on counselors to assess their professional association’s certification process. Queeney et al. speculate several reasons for their findings. One hypothesis is that professionals who are forced to learn may participate less often because they are less excited about learning. They found that approximately 60% of the respondents were “as likely or more likely” (p. 21) to attend programs that met their needs instead of attending only those sessions that were convenient. They also found that most of the counselors utilized traditional continuing education formats.

According to LeGrand (1992), opponents of mandatory continuing education call it “mean-spirited” (p. 95), and use terms like “force” (p. 95). LeGrand believes that current research shows that the arguments against mandatory continuing education are flawed, however she does not give specifics other than to write that you must “reframe the issues” (p. 98). She lists three issues that should be reframed. These are participation, professional’s learning, and competence. LeGrand argues that there is research to support the fact that participation does
improve the professional competence. The second issue is adults and self-direction. She is
against the argument that mandatory continuing education is a violation of a professional’s right
to choose. She believes professional learners waive some of their freedom anyway to conform to
the requirements of the profession, and that most mandatory continuing education requirements
are broad and allow the professional to make choices within the constraints of the guidelines.
The last issue is forced participation. She dismisses the argument that mandatory continuing
education gives the professional a negative attitude toward continuing education because the
claim is not supported by the research.

Boissoneau (1980) also wrote about the role of professional associations in continuing
education and acknowledges that mandatory continuing education requirements established by
the professional associations do not apply to all professionals because membership in the
association is voluntary. The professional association’s mandatory requirements are a very
different process from licensing requirements because the licensing boards are controlled by the
government. The HIM professional is required to participate in continuing education, but not
licensing. Membership in AHIMA is voluntary, but non-members have to pay a continuing
education fee in order to maintain credentials (AHIMA, n.d.f.).

External Influences

The stakeholders of continuing education are “adult and continuing educators, faculty
members across disciplines, professional associations, regulatory agencies, employers of
professionals, private entrepreneurs … public consumers of professional services, and not
insignificantly, professionals themselves” (Queeney, 2000, p. 388). Some of the participants in
continuing education are learning at the urging of their professional associations who requires
continuing education units in hours to maintain their credentials (Green et al., 1984). State
required continuing education requirements vary. Some are entrenched in formal educational
programs, while others allow self-directed learning. Some states are even controlling the content
of the continuing education programs.
Professional associations respond to changes going on about them. They do this by developing standards of practice, continuing education requirements, and even developed licensing and certification (Mott, 2000). Professional associations also control continuing education requirements that they create. Continuing education activities are the second most common activity of professional associations (Fleming, 2000). Membership in a professional association allows the professional to keep skills current. Membership is more than just attending professional meetings. It also includes being able to identify a mentor from the membership, volunteering for roles within the organization, writing articles, and working on committees (Farmer, L. S. J., 1994).

Brockett and Bauer (1998) go so far as to claim that the directive of professional associations is to provide “professional growth in clinical practice, education, and research to its members” (p. 235). Professionals associations take many different approaches to continuing education requirements. This lack of unity demonstrates the problems with accountability found in healthcare (Boissoneau, 1980).

Self-Assessment

Queeney et al. (1990) advocate the need for the professionals to recognize deficiencies in their skills and knowledge to learn from peers and integrate learning with their professional practice. If this is not done, then the professionals believe that their learning time is not used effectively.

Self-assessment is important to needs identification, addressing barriers to adoption of best practice, making a commitment to change, and finally adopting new practices. Studies suggest that self-appraisal by practice reflection generates learning that is more likely to result in commitment to change than formal self-assessment programs (Parboosingh, 1998, p. 218).

Sullivan (1981) supports the need for self-assessment as part of the mandatory continuing education process. The professional association could assist the learner in the planning of his or
her own continuing education process. In a different approach from other authors who support self-assessment, she promotes the use of testing as a means of self-assessment.

*Continuing Education Methods*

Nowlen (1990) and Knowles (1950) agree that continuing education is a lifetime commitment. They believed that the education should be both formal and informal. Knowles defined formal as “established educational institutions, such as universities, high schools, and trade schools” (p. 23). Informal learning opportunities are noncredit and are typically offered at community organizations, although may be at educational institutions.

Eraut (2000) describes informal learning as not fitting into one of the other categories. Formal learning, on the other hand, meets one of the following criteria: set learning framework, organization educational session, presence of an instructor, issuance of continuing education credit, and set outcomes. His article looks at the tacit knowledge in informal learning. Eraut found ways that tacit knowledge could be used including when rapid, intuitive understanding is needed and when the learner is unaware that he or she holds the knowledge. Eraut feels this is important because it improves the quality of the learners’ knowledge, and to share the knowledge with someone else. He also believes that in order for the learner to take responsibility for his or her actions, there must be a link between the learner’s actions and the outcomes. It is difficult to make these determinations because the learner is not always for able to make his or her implicit knowledge definitive.

DiMauro (2000) urged that updating skill allows professionals to excel at their job and enjoy themselves at the same time. DiMauro also recommends that professionals look for opportunities to update skills because one never knows when opportunities will become available. The updating of the professional’s skills may be the learning of a completely new skill or the improvement of an existing skill. The learning should also include the “changing professional criteria, roles, and responsibilities” (p. 62).

Continuing education can be very effective at improving the quality of care and changing behavior of the healthcare practitioner, however much of the continuing education provided
utilizes methods that are known to be ineffective (Anderson, 1999). Research has shown that continuing education works best when it is associated with practical experience or at least a simulation of practical experience (Green et al., 1984).

*Traditional methods.*

DiMauro (2000) recognizes the Internet, personal interactions, professional workshops, and membership in professional associations as continuing education methods. In addition to the traditional continuing education methods, DiMauro believes that if the professional uses imagination, the discovery of many “structured and unstructured” (p. 59) opportunities to develop skills will emerge.

Abbatt and Mejia (1988) identified a comprehensive listing of traditional methods of continuing education that can be used both on and off the job. These methods include courses, meetings, self-assessment, self study, and supervision. Traditional methods can include professional meetings, vendor meetings, teleseminars, formal college credit, approved independent study programs, publications, and speaking at an educational program (AHIMA, n.d.e). Many professionals choose workshops because they offer the most continuing education hours (Sullivan, 1981). Race (1998) identifies continuing education methods as: “face-to-face training and updating programs to the use of resource-based learning, spanning open, flexible and computer-assisted learning processes, and using computer-mediated communication, group-based learning and independent learning as appropriate” (p. 267). According to DiMauro (2000), professionals can get information about changes in their profession from a number of sources. DiMauro reports that the best source is printed materials. The printed materials include “newspapers, magazines, and journals” (p. 60). From this printed material, the learner can get the most recent information about the profession and changes that influence the profession.

Another method of continuing education is “interpersonal networks” (p. 61). This type of continuing education is often ignored because people do not realize that they are learning from talking to peers. In actuality, the professional is learning from the other person’s experience and knowledge that he or she may not be able to get from other sources. The next source is
“professional workshops and seminars” (p. 62). These sources of continuing education include self-directed learning because it gives the learner opportunities to interact with other professionals. These can be local, state, national meetings and may be meetings outside their specialty as well as within their profession. The next source is “professional organizations” (p. 62). This type of continuing education allows professionals to work with peers on special assignments like newsletters, boards, committees, and journals. To do this, professionals need new skills such as learning to use computers. They also need to learn about their profession and the skills that they need to meet the demands of the profession. DiMauro wrote that the professionals also need to keep their objectives in mind so that they can obtain their goal. Jennett and Swanson (1994) believe that consulting with a peer is a valid form of continuing education as is being involved with a research project or conducting a chart audit. No matter what method you choose, the objective remains the same: to update your skills.

**Mentors.**

A mentor is defined as “someone who takes a special interest in helping another person develop into a successful professional. Descriptive terms used in describing a mentor include experienced advisor, guide, teacher, tutor and coach” (Gordon, 2000, p. 30). Mentoring is a valuable career development method. The mentor will provide support and help development professional competence. The mentor must have extensive experience in the area and must be willing to make a commitment to the mentoring process (Nelsen, 2000). The mentor takes the role of teacher and counselor. The mentor also helps to develop the protégé. The mentoring relationship moves through three stages including recognition and development, emerging protégé independence, and letting go. In the recognition and development stage, the relationship is cemented and developed. In the emerging and independence stage, they work together to educate the protégé. In the final stage, the relationship changes as the protégé learn until there is no need for the relationship and the protégé and mentor break their relationship (Gordon, 2000).
Publishing.

Another method of career development is publishing. The reason that publishing is a way to update skills is that it helps the professional become recognized for his or her skills and therefore it helps advance his or her career. There are other benefits that results such as recognizing the professional as an expert, getting the professional’s name out among his or her peers, adding to the professional’s resume, creating speaking opportunities, and even changing the course of the professional’s career (Tonges, 2000). Opportunities for the HIM professional to publish include: *Journal of AHIMA, Advance for HIM, For the Record, Topics in Health Information Management*, and professional books.

Innovations in continuing education.

Cervero (1992) notes there are very few innovative approaches to continuing education available. Most professionals feel that they learn more by doing, rather than by formal means of education. Because of this view, Cervero identified three things that should be done to improve the quality of the formal education. The first is that “the goal of professional practice is wise action” (p. 92). This means that the professional make the best decision possible given the conditions facing them and their values. The second is “knowledge acquired from practice is necessary to achieve this goal” (p. 92) which means that the professional learns by doing. The third is “a model of learning from practice should become the centerpiece” for continuing education (p. 92). Cervero reports that the purpose of continuing education is to assist the professional in selecting the appropriate action to take.

Technology.

Schleyer and Pham (1999) recognize that educational programs on the Internet are in their infancy stages, but they see the Internet as important to the future of continuing education. The Internet is not the only method of distance learning; however it is expected to be the favored method in the future. Their research demonstrates that Internet courses are not without problems, but that it has the potential to be an effective means of continuing education. Online
continuing education allows for collaboration between professions (Anderson, T. & Kanuka, 1997).

Hanson-Harding (2000) agrees that the Internet is becoming an important source of education. The flexibility of the educational experience is a key draw to the technology. Peterson (1999) expresses concerns about the use of the Internet for education because it is uncontrolled. In spite of this concern, he sees the Internet as a way for professionals to access continuing educational opportunities that are interesting, and accessible from home. Another format used in continuing education is teleconferencing. Ribble (1986) defines teleconferencing as using computer networks to link three or more people together at two or more physical locations. This can use several formats: audio, computer, audiographics, and videoconferencing. In order for computerized instruction to be effective, careful planning is critical.

There are several databases available to healthcare professions. An example of one database is MEDLINE. The database has not replaced traditional continuing education methods, but does seem to be gaining momentum. Access to these databases is usually through the Internet (Manning & DeBakey, 2001).

The evolving world is requiring changes in continuing education methods. What the favored methods in the future will become is still unclear. Professions are experimenting with various methodologies, but these are still in the early stages of development (Cervero, 2000). Other innovative methods of continuing education include CD-ROMs, videotapes, and the Internet (Fox & Miner, 1999). CD-ROMs are able to utilize multi-media to deliver a quality interactive education program (Alves, 1995).

Portfolio.

Another form of continuing education is the transitional portfolio. The transitional portfolio is very appropriate for the RHIA because it “demonstrates competence and professional development for emerging roles and functions. This application “reduces the discrepancy between what one has accomplished and what the current situation demands” (Crist, Wilcox, &
McCarron, 1998, p. 731). Going through the process of developing a portfolio forces the professional to review his or her past accomplishments, evaluate current skills, and determine what skills are needed for the future. A portfolio is accomplished by collecting work that demonstrates past accomplishments like articles written, a resume, and other work documents. These documents plus critical reflection will help the HIM professional look toward the future.

Mathers, Challis, Howe, and Field (1999) also recognize portfolios as a viable education method. In their qualitative study, Mathers, et al. compared the learning of traditional continuing education with portfolios. They found that portfolios allowed the learner to be proactive in the learning instead of reactive. They also found that portfolios allowed the individual to develop a learning plan, unlike traditional methods. Portfolios also provide control over learning of relevant issues.

Another type of portfolio is the professional portfolio. It provides documentation of accomplishments and skills. The portfolio should include job description, performance appraisal, peer evaluation, competency checklists, self assessment, continuing education hours, national certifications, transcripts and other documents that provide proof of skills and knowledge (Brooks & Madda, 1999). Donen (1998) supports conducting a self-audit by creating a portfolio so that the professional’s learning can be documented as well as the effects of the learning. The portfolio would require the professionals to reflect on their knowledge. The portfolios could be used by licensing agencies for monitoring.

Self-appraisal is supported by Donen (1999) as a means of improving knowledge while utilizing adult education learning principles. He wrote that the self-appraisal should enhance the traditional continuing education hour requirements. A portfolio can be utilized as the self-appraisal tool. The portfolio is a proven educational tool. As such, it should document the learning experienced, the changes that result from the learning and the educational outcome. A portfolio provides a method of developing a plan to update skills and documenting that the learning took place (Alsop, 2001).
Self-directed learning.

Self-directed learning is learning on one’s own (Caffarella & Merriam, 2000). Self-direction plays a major role in continuing education. Professionals know what they need and select opportunities that meet needs. For example, the professional selects the journal that contains the types of articles that will provide the information that needed (Knowles, 1984).

Coledway (1986) defines self-directed learning as “learning for which the individual learner takes the initiative and the responsibility (with or without help) to assess educational activities, implement those activities, and evaluate the outcomes” (p. 149). To be successful, the self-directed learner must be motivated, have strong self-esteem, be organized and open to learning opportunities and have developed self-directed learning skills at a young age. Self-directed learning may be defined as a learning activity where the learner takes control of the variables impacting their learning. The variables are: identifying learning needs; identifying topics to be learned; defining outcomes; selecting the appropriate learning experience; reference materials; environment and time; pacing progress; selecting an evaluation method; and documenting activities (Knowles, 1984).

Self-directed learning can also be

“defined as that which takes place in a situation where the learner, rather than the CE provider, initiates and manages the educational process….The learner is responsible for diagnosing practice or learning needs, formulating learning goals, identifying human and material resources, choosing and implementing appropriate learning needs, formulating learning goals, identifying learning strategies, and evaluating whether the learning goals have been achieved” (Adelson, Watkins, & Caplan, 1985, p. 5).

Parbooshingh (2000) said that one study showed that physicians and dentists believe that they learn as much through self-directed learning as they do from journals and peers. These same physicians do not see self-directed learning as continuing education due to the continuing education hours awarded by their professional association.
Each professional association would establish rules for its members. AHIMA has very specific guidelines about what counts and what does not count for continuing education. Examples of continuing education include: attending seminar or professional meeting, authoring a book, speaking at a professional meeting, taking a college course and taking quizzes published in the Journal of AHIMA. The following are examples of activities that cannot be utilized for continuing education credit: volunteering for professional association, activities required by job, and teaching a class (AHIMA, n.d.e).

According to Confessore and Confessore (1994), mandatory continuing education has resulted in avoidance of self-directed learning. Most professional association’s continuing education programs are not set up to allow for self-directed learning, only traditional methods. Confessore and Confessore’s research also found than the traditional methods of continuing education brought a significant amount of revenue into the associations. To eliminate the avoidance of self-directed learning, the researchers recommended: changing in continuing education, understanding the past achievements of continuing education, understanding learning, and understanding ways that self-directed learning can be implemented creating change in performance, not satisfaction of continuing education requirements.

Strategies for shifting power from the teacher to the learner are described by Roper and Mayfield (1993). The first strategy is “skills for self-directed learning” (p. 427). The researchers found that while the learners wanted to increase the amount of self-directed learning they were using, they were not taking the necessary steps to take control of their learning. To take charge of their learning, the learners need to understand their interests and learning styles, research career development options, develop a program for learning, and use peers as a learning tool. The next possibility is “organizational learning” (p. 428). This deals with the fact that professionals have to make decisions in unfamiliar circumstances based on their sense of professionalism in order to adapt to the new conditions. Another next possibility is “participation and involvement” (p. 429). Here learners are encouraged to set objectives for themselves instead of relying on instructors to set the objectives. The researchers found that
professionals are constantly facing change and must be able to look at topics or situations differently than their current view.

Jennett and Swanson’s (1994) national research study, with a large sample size of 700, identified the use of practice-linked experiential self-directed learning. They felt that combining the self-directed learning with traditional methods would broaden the professional learning. They recommend that physicians practice the skills needed to utilize this type of learning. They also wrote that physicians need to expand their understanding of what self-directed learning includes. The self-directed learning that they identified are: consulting with a colleague, regular journal reading, supervising students, performing literature search, writing a journal article, performing research project, and conducting a chart audit. Their study showed that the practice-linked experiential learning experiences resulted in changing the behavior in the learner.

Tough (1978) reports that adults spend about 100 hours on a learning project. Because the typical adult has five learning opportunities each year, he or she spends 500 hours learning. He defines a learning project as “a highly deliberate effort to gain and retain certain definite knowledge and skill, or to change in some other way” (p. 250). Any educational method can be used. Tough classifies learning into self-planned, classroom, learning, learning guided by other and programmed instructional learning. He also includes non-credit.

Self-directed learning requires careful planning on the part of the professional. It shifts the control from the instructor, employer or other third person to the learner (Mayfield, 1993). Adults like self-directed learning primarily because of the autonomy it provides to them. It also allows them to design their learning based on their personal goals and objectives (Knowles, Holton, III, & Swanson, 1998).

Learning from experience.

It is widely recognized that professionals learn from practicing their profession. In fact, many professionals believe that they learn more from working than they do from continuing education (Cervero, 1990c). Cervero believes that learning from practice should be the cornerstone of continuing education. He wrote that most professionals do not realize the extent
of their knowledge. The professionals must be able to recognize their current knowledge before they can develop new knowledge. Many methods can be used, but all of them assume that the professionals learn through collaboration.

Schön (1983) writes that professionals often perform their functions based on tacit knowledge. Because of this, they may find it difficult to describe how they knew what to do. He calls this knowing-in-action. Schön recommends that professionals think about, or reflect, what they have done in the past and to reflect on current activities. This reflection can help them adjust their thinking or actions in the future. Schön describes this reflection-in-action as a type of professional knowing.

*Reasons behind choice in continuing education methods.*

A learning preference and cognitive style study of personnel practitioners was performed in the United Kingdom by Sadler-Smith, Allinson, and Hayes (2000). They found there are many methods that professionals can use to participate in continuing education. These methods include: working on a new assignment, attending workshops or conferences, and learning informally. Sadler-Smith et al. define learning preferences as an individual’s predilection toward a style of learning. They believe that Curry’s “onion” model which links cognitive style, learning style and learning preferences has a high face-validity. Because of this, the researchers believe that one should be able to predict learning preferences. They report that learner motivation is critical. At times learners will use methods that do not match their preferences so that they can meet their educational objectives.

Loughin and Mott (1992) researched learning styles of women to see how they differed from men and understand the impact that these differences have on continuing education. They recommended that continuing education professionals avoid separating men and women, and instead focus on how the styles impact the continuing education professionals. Loughin and Mott found that continuing education professionals are challenged to get the learner to commit to
the process, learn, and then reflect upon his or her learning. This reflection would be done after
the program in a joint effort between the educator and the learner. During this time, they would
evaluate their “knowing” (p. 87) as defined by the learner. This would help the learner identify
problems and then take the necessary steps to eliminate these issues. Sadler et al. (2000) also
wrote that attributes like gender may also play a role in influencing learning style preferences.

Continuing Education for the HIM Professional

The traditional skills and knowledge of healthcare professionals are becoming obsolete at
a much faster pace than ever before. Healthcare professionals and organizations that control
them are reacting to the increasing change by requiring continuing education (Knowles, 1984).
The professional association’s decision to mandate continuing education was encouraged by
internal and external sources. The internal sources came from members who wanted to keep
skills current. The external sources include government agencies, the public, insurance
companies and others. The strongest demand for continuing education comes from the external
sources. The RHIA and the AHIMA are not exempted from these changes.

AHIMA requires RHIA’s to have 30 continuing education credits every two years. At the
end of the two year cycle, the RHIA must report the number of continuing education hours
earned in the core content areas as well as the number of continuing education hours earned in
other areas (AHIMA, n.d.f.). The core content areas are: technology, management, clinical data
management, performance improvement, external forces, and clinical foundations (Eichenwald,
1994). While the core content areas include technology and other Vision 2006 skills, there is no
requirement for long-term RHIA’s to update their skills in these areas. The RHIA could select
only continuing education opportunities that relate to traditional HIM roles, especially if his or
her current job is a traditional role.

AHIMA has very specific standards on what counts for continuing education hours. The
30 hours of continuing education can include professional meetings, vendor meetings,
teleseminars, formal college credit, approved independent study programs, publications, and
speaking at educational programs. Under certain circumstances, AHIMA even approves independent study programs and self-assessment activities. It does not include teaching a course, attending meetings at work, or performing job related activities (AHIMA, n.d.e). While all of the approved continuing education activities are valuable tools for the HIM professional to maintain skills, these are not the only continuing education methods available. Our continuing education does not have to stop with the AHIMA approved activities, but instead can be almost limitless.

Joining AHIMA is not mandatory, but becoming involved with AHIMA will allow professionals to help each other through networking. It is important to work with other professionals who can help the professional develop new skills. When attending meetings, the professional should take the opportunity to meet and talk to other professionals (Bowman, 1997). The HIM professional may even identify a mentor to assist with continuing education. One HIM professional said that mentors was important to her career. She said that the mentor “recognized, nurtured, and brought [her] along” (Telingator, 1997, p. 70).

Twedt (1988) conducted a study on the medical record professionals’ attitudes toward continuing education. She found that medical record professionals reported discussion with peers, formal seminars, informal job related research, and profession related college courses as the most effective types of continuing education. Part of this study was to see what continuing education methods are being used by RHIA.

This review of HIM literature shows that continuing education is important to the RHIA. The review also shows that the RHIA has many formal, informal and self-directed opportunities for continuing education. There is one obvious gap in the literature--whether or not RHIA are embracing the need for continuing education on the new roles. This study is designed to fill this gap.

AHIMA considered adopting a self-assessment as part of the continuing education program in 1987. Twedt (1988) found that self-assessment influenced learning activities more so than do other factors, such as cost, availability, and
accumulation of credit hours. The factors influencing selection of learning activities were ranked as: (a) new information to stay current, (b) own assessment of strengths and weaknesses, (c) availability, (d) employer subsidy, (e) cost, and (f) clock hours. The findings indicate that program participants are including the self-assessment in their individualized continuing education program design (p. 179).

Summary of Continuing Education Literature

There are many opinions on what continuing education is and what it is not. Continuing education should be a lifelong commitment by professionals because they must maintain competence. Research on continuing education research shows it improves competency. Continuing education may be voluntary or mandatory. In healthcare, continuing education is mandated by state licensing regulations or professional associations. This mandate for continuing education has been affected by public demand for quality healthcare. The professional has many choices of continuing education methods. These choices include formal and informal methods. Formal methods include college course and professional seminars. Informal methods include the Internet, learning from peers, mentors, videos, and reading professional journals. Many of these methods are self-directed. Self-directed learning requires the professional to take control of his or her learning. Participation in continuing education is important to the HIM professional especially in this time of change. That is why it is so important to learn about the continuing education habits of the RHIA.

Participation

One way for the HIM professional to prepare for the future of healthcare is participating in continuing education. Participation is one of the most researched areas in adult education. The participation studies began in 1965 with the ground-breaking national participation study conducted by Johnstone and Rivera (Caffarella & Merriam, 2000), which inspired research on motivations and deterrents to participation. Caffarella and Merriam believe the research began in 1965 which is four years after to when one of the most quoted and respected studies, which was
conducted by Houle, was published in 1961. It may be because of Houle’s study used a small sample size, 22, whereas Johnstone and Rivera’s (1965) study used a large national sample.

Research underlying most of the major theories of participation has been conducted in the general field of adult education, not healthcare. This does not mean that the healthcare profession ignored participation research. In fact, Cervero (1988) observes that there have been many healthcare professions that have studied participation of their professionals and that these healthcare studies have been influenced by the general adult education participation studies. This influence is demonstrated by the fact that same tools are used in both the healthcare and general adult participation studies (Tassone & Heck, 1997). An example of shared tool is the Deterrents to Participation Scale. The general participation studies are also widely quoted in the healthcare studies. In summary, there is a close connection between general participation literature and that specific to healthcare.

**Motivation**

The general adult participation literature was reviewed, as well as healthcare specific motivation and deterrent literature. Some of the studies mentioned in this chapter investigate continuing education specifically, while others look at learning in general.

Knowing what motivates and deters an adult to participate in education is important because most adult learning is voluntary (Darkenwald & Merriam, 1982). Participation research is important because the continuing education providers want to “address individual participant needs and motives for attending, as well as an economic necessity for adult education programs” (Caffarella & Merriam, 2000, p. 57).

**General adult participation research on motivation.**

In a summary of the motivation literature, Caffarella and Merriam (2000) wrote that researchers have identified between three and seven categories of motivations. The research does not stop with the internal and external motivators like “expectations of others, educational preparation, professional advancement, social stimulation, and cognitive interest” (p. 57). Some of the research looked at the demographic characteristics of the learners in order to predict
participation. Over the years, there have been many participation models developed to predict participation in adult education (Henry & Basile, 1994).

Most of the participation research performed since the 1960s has focused on the motivation of individuals who participate in adult education. The participation research can be grouped into three categories of theories. The first category is the Decision Model. The models found in this category of research focus on what decision made by the individual resulted in the participation in adult education. Some of the decision models consider participation, but primarily the models focus on social and environmental issues. The second category is the life cycle theories. This classification of theories views a person’s life cycle stage as affecting his or her need for new knowledge, and therefore participation. The third category of participation model is motivational theories. These theories are based on the personality or other characteristics of the learner (Courtney, 1992).

It is interesting to note that the description of a typical adult participant has not changed much since 1965. The current definition of a typical adult participant is “better educated, younger, have higher incomes, and …most likely to be white and employed full time” (Caffarella & Merriam, 2000, p. 57). The typical participant described above includes only a few of the characteristics found by Johnstone and Rivera in their 1965 study. Their definition is just as applicable now as it was in 1965. The average participant is described the participant as:

just as often a woman as a man, is typically under forty, has completed high school or better, enjoys an above-average income, works full-time and most often in a white-collar occupation, is typically white and Protestant, is married and a parent, lives in an urbanized area…and is found in all parts of the country, but more frequently on the West Coast than would be expected by chance (p. 78).

One of the most often quoted tools used in participation studies is the Education Participation Scale. This tool, created by Boshier in 1971, has been widely used in studying participation in adult education. Through the wide usage of the tool, the scale has been validated by other researchers. Fujita-Stark’s (1996) study found that the Education Participation Scale
was even accurate when working with an undefined diverse sample (Merriam & Caffarella, 1999). The Education Participation Scale has gone through several revisions over the years (Boshier, 1991). The seven participation factors utilized by this scale are: “communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation, and cognitive interest” (Merriam & Caffarella, 1999, p. 55).

The findings of many researchers in the general education motivation to participation field will be discussed in this section. Table 2.1 summarizes the finding described below.

Table 2.1

Summary of Adult Education Motivation Research

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Variables affecting motivation</th>
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<tbody>
<tr>
<td>Morstain and Smart (1974)</td>
<td>Five factors:</td>
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<td>Social relationship motivation</td>
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<td>External expectation</td>
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<td>Professional advancement</td>
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<td>Escape/stimulation</td>
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<td>Houle (1961)</td>
<td>Three categories:</td>
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<td>Goal oriented</td>
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<td>Activity oriented</td>
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<td>Learning oriented</td>
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<td>Boshier and Collins (1985)</td>
<td>Six categories:</td>
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<td>Goal oriented</td>
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<td>Social stimulation</td>
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<td>Social contact</td>
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<td>External expectations</td>
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<td>Community service</td>
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<td>Tough (1978)</td>
<td>Three learning patterns:</td>
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<td>When learner is unprepared for assignment</td>
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<td></td>
<td>To satisfy curiosity</td>
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<td>Decision to learn</td>
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<td>Cross (1983)</td>
<td>Five areas influence motivation:</td>
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<td>Self-evaluation</td>
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<td>Life transitions</td>
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<td>Attitudes about education</td>
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<td>Opportunities and barriers</td>
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<td>Role of participation in meeting goals</td>
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<td>Henry and Bassile (1994)</td>
<td>Studied motivation and deterrents</td>
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<td>Job related motivator are the strongest</td>
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<td>Blaxter and Tight (1995)</td>
<td>Linked participation with:</td>
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<td>Family</td>
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<td>Retirement</td>
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<td>Preparing for employment</td>
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<td>Aslanian and Brickell (1980)</td>
<td>Participation caused by trigger of changes in life events such as:</td>
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</table>
Morstain and Smart’s (1974) highly respected and frequently quoted study identified five factors that motivate adults to participate in education. They found that the social relationship motivation occurs when the learner participates in order to meet people. The next factor is external expectation. This motivation occurs when someone or something is requiring the learner to participate. The next motivational factor is social welfare. This motivation occurs when adults want to better themselves. This betterment will prepare the learner to participate in society. The fourth factor is professional advancement. This motivational factor transpires when the adult desires to improve his or her occupational status. The fifth is “escape/stimulation” (p. 88). This motivation occurs when the learner participates in adult education to alleviate boredom, or because he or she needs to be stimulated. The final factor is cognitive interest. Adults utilized this motivational factor because they want to learn because of the joy of learning.

Houle’s (1961) seminal and often quoted research shows that adult learners can be broken into three categories: goal oriented, activity oriented, and learning oriented. Goal oriented learners have set objectives for their learning. The learning activity is selected to help the learner meet this goal. Activity learners are not specifically interested in the subject being learned, but instead participate for another reason such as boredom or to find spouse. The learning oriented learner just wants to learn. His or her desire is to grow and to participate in lifelong learning (Cross, 1983). It is interesting that Houle’s 1961 research was so influential when it utilized such a small sample size, 22.

In a large study designed to test Houle’s three categories of learners, Boshier and Collins (1985), agreed with two of the categories. They agreed with the goal and learning orientations. They disagreed with Houle’s third category of activity orientation. Boshier and Collins felt that Houle clumped several other motivations together in order to form the activity orientation including: social stimulation, social contact, external expectations and community service. Social stimulation and social contact are very similar. These individuals participate due to boredom or the need for stimulation. The difference is based on whether or not they are correlated with neuroticism scores. External expectations are those who decide to participate at
the suggestion of someone else. Community service is participation because they want help their community.

Another key researcher in participation is Tough (1978). His studies show that most adult learners have more than one reason for participating. He also found that learners are typically planning to use their new knowledge. Tough’s research grouped participation into three learning patterns. The first pattern is when the learner is given a task for which he or she is unprepared. The second pattern occurs when the adult learner becomes curious about a subject, so he or she decides to research it. The third pattern is the decision by an individual to learn something and then he or she selects a topic (Cross, 1983). Tough (1978) wrote that people can learn for “practical reasons” (p. 250) as well as “curiosity, interest, puzzlement and enjoyment” (p. 250).

Cross (1983) attempts to combine many of the characteristics of the other theories in her Chain-of-Response Model. In this model, self-evaluation, life transitions, attitudes about education, opportunities and barriers, and role of participation in meeting goals combine to influence participation. The goal of her model is not to predict participation, but to consolidate theories. This philosophy agrees with Tough’s belief that learners may have more than one reason to learn.

In a significant recent study, Henry and Basile (1994) studied both motivation and deterrents to participation in adult education. They learned that participants in adult education may be motivated, but unable to participate because of logistics and significant life changes. Because Henry and Basile looked at both motivation and deterrents, they learned how complex the decision to participate truly is. They believe that the costs and availability of educational opportunities may be why interest in a topic and wanting to meet people are low motivators. Their study agrees with many others that the strongest motivators are job related.

Blaxter and Tight (1995) took a different approach to participation in adult education. They researched links between participation and events happening in the learner’s life. Blaxter and Tight found three links to participation including: changes in the family, retirement, and
preparing for employment. The links to changes in family are demonstrated when mothers go back to school when their children start to school or go to college. The second link is people who are retired reported looking for something to do. The third link is learners who are looking for job or for a change in careers. Blaxter and Tight’s research eliminated reasons for participation such as boredom at work, participation by chance, and habit as reasons for participation.

Aslanian and Brickell’s (1980) frequently quoted research took an approach similar to Blaxter and Tight. They looked at the motivation of life changes on individuals. They found that 83% of the participants attributed a change in their life as the reason for participation in education. Some of these changes had already happened, some changes were presently occurring, and some changes were anticipated. Life changes included divorce, health problems, birth of a child, and changes in their career. In fact, 56% of the participants said that career transitions were the reason for their participation. The researchers found that career transitions could be grouped into three categories: starting a new job, adjusting to job changes, and climbing the career ladder. Aslanian and Brickell found that triggers of new job, changes impacting profession or job, desire for promotion, promotion, or retirement actually initiated the participation. In fact “adults with professional, managerial and technical jobs are twice as likely to learn” (p. 69) than manual labor jobs. This research is especially appropriate for the RHIA because it specifically identifies changes impacting the profession as a motivation.

People are also motivated to learn through inclusion. This occurs when the learner feels that he or she is in an environment where they are respected and connected to the group. Another influence on motivation to participate is the person’s attitude. Attitudes have a strong affect on behaviors. Attitudes can be impacted by situations, but primarily they are learned. Our experiences with or attitudes to past learning can encourage or discourage future learning (Wlodkowski, 1999).
Healthcare specific participation research on motivation.

Much of the healthcare participation research is based on nurses; however there are a number of studies on other healthcare professions. There are even studies whose sample is made up of two or more professions. Table 2.2 is a summary of the findings described in this section.

Table 2.2
Summary of Healthcare Participation Research

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tassone and Heck (1997)</td>
<td>Knowledge is the major motivator. Demographics are a motivator. Mandatory continuing education is not a motivator</td>
</tr>
<tr>
<td>Fox and Miner (1999)</td>
<td>Determines continuing education needs by comparing their skills to professional standards.</td>
</tr>
<tr>
<td>Dowswell, Bradshaw, and Hewison (2000)</td>
<td>Positive motivators include promotion and improving knowledge Negative motivators include job problems and changes in profession.</td>
</tr>
<tr>
<td>DeSilte (1995)</td>
<td>Primary motivators are maintaining professional competence and learning about changes impacting them.</td>
</tr>
<tr>
<td>Balachandran and Branch (1997)</td>
<td>Maintaining skills was primary motivator. Another motivator was maintaining competence.</td>
</tr>
<tr>
<td>Escovitz and Augsburger (1991)</td>
<td>Primary motivator was keeping skills current. Other motivators were content and location.</td>
</tr>
<tr>
<td>Tassone and Speechley (1997)</td>
<td>Six factors affecting motivation: Timing Quality of the program Cost to work Cost to attend Socialization Content</td>
</tr>
</tbody>
</table>

The following is a summary of some of the research conducted. Much of it is based on the general adult education research.
Knox (1990) observes that healthcare professionals’ participation motivation is impacted by intrinsic and extrinsic factors, and that past experiences with continuing education impact future participation. These past experiences include levels of satisfaction and self-confidence. Knox also found other motivators including: goals, expectations of success, perception of continuing education, and a yearning to enhance skills. He also sees professional role changes and skill deficits as motivators for the healthcare professional. Knox stated:

The goal of most continuing education activities is to enhance proficiency. A proficiency can be thought of as a combination of knowledge, attitude and skill that constitutes the capability of a health professional to perform satisfactorily if given the opportunity. Discrepancies or gaps between current and desired proficiencies that are neither so small as to be trivial nor so large as to be overwhelming can lead to high motivation and active participation (p. 261).

Tassone and Heck’s (1997) review of healthcare participation research shows that knowledge is the major motivation of healthcare professionals. In Tassone and Heck’s review, they found that nurses were not motivated by mandatory continuing education requirements; therefore, they question the need for the mandatory requirements. Tassone and Heck believe that professional associations will continue to require continuing education because of constant changes in their profession and external factors like technology and legislation. These observations appear to be contradictory since they support mandatory continuing education even though their study found that mandatory continuing education did not motivate nurses. Tassone and Heck also believe that healthcare professionals will participate whether their professional association or other group mandates it or not. Their review also found that demographics such as age, advancement, and educational options encourage participation. They document that a good predictor of future continuing education participation is the amount of past formal education that the healthcare professional has completed. Individuals with post-secondary training are six times more likely to participate in continuing education that people without this additional education.
According to Fox and Miner’s (1999) definition, motivation results from a “drive to satisfy an individual’s perceived need” (p. 134). They believe that the healthcare professional determines his or her own continuing education needs by comparing him or herself to a professional standard. Once the professional identifies their “discrepancy” (p. 134), then the professional can make plans to fill the gap. Motivation can be increased through careful self-assessment of performance and competency, as well as through peer observation.

Dowswell, Bradshaw, and Hewison (2000) found that nurses participate because of positive and negative motivations. Positive motivations include: promotion; career change, and improving knowledge. Negative motivations are factors such as job problems or changes in the profession. This research only focused on nurses who were participating in formal continuing education programs, therefore it cannot be generalized for informal or self-directed continuing education, or other healthcare professionals.

DeSilets (1995) conducted a large study of 866 nurses, who participated at one national meeting. She found that the nurses’ primary reason for participating in adult education was maintaining professional competence and learning about changes that affect them.

In a large national sample that had an excellent response rate of 53%, the allied health profession of cytotechnologists was studied. The cytotechnologists also agreed that maintaining their skills is the most important reason to participate in continuing education. Other motivations found were the desire to be more competent in their job and to develop new skills. The least motivating factor was to benefit family and friends. In fact the researchers found that cytotechnologists were willing to make sacrifices in order to keep their skills current (Balachandran & Branch, 1997).

In a large study of 4692 with a good response rate of 40%, Escovitz and Augsburger (1991) examined what motivates healthcare professionals in Ohio to participate in continuing education. They divided the professions into five categories: allied medicine, medicine, nursing, optometry, pharmacy. The professions lumped into allied health included dietetics, medical technology, health information management, radiologic technology, physical therapy, and
occupational therapy. The most common reason for participation was to keep skills current. Other key factors influencing participation include content, date/time, and location. One of the least important motivational factors was travel and cost. One reason given for this is that both allied health professionals and nursing reported that their employer paid for continuing education. Escovitz and Augsburger’s research used a large sample size of 4692, but one limitation of the sample was sampling professionals in one state only. The researchers provided some insight on the differences among the allied health professionals; however it would be interesting to investigate any similarities and differences among the professions.

In another relatively unique study on continuing education for physical therapists, Tassone and Speechley (1997) that timing, quality of the program, cost to work, cost to attend, socialization, and topic to be covered in the program impacted program choice. Content and the quality of the program were found to be the primary motivators.

Summary of motivation literature.

Research on motivation to participate in both general adult education and healthcare tell us much the same thing. The general adult population and healthcare professionals are interested in participating in adult education, and they do so for a wide variety of reasons. These motivations include external pressure and a desire to improve oneself. Probably the most common motivation for both populations is the desire to keep current on career skills. Based on the literature review, the general population appears to be more interested in participation because of the love of learning than participation because of boredom. The focus of the healthcare professional is on improving skills. The similarities found are not surprising since both frequently quote the same research and utilize many of the same tools. Motivation does not equate to participation since there are a number of deterrents to participation.

Deterrents

Valentine and Darkenwald (1990) see deterrents as working with other factors to influence participation. Deterrents are not considered to be a “mirror image” (p. 31) of motivation, but instead work in conjunction with it. Deterrents research looks at situations that
the adults face that are outside of the realm of motivation research. Rockhill (1983) asked non-
participants why they had not participated in adult education. The most common response was
that they never thought about it. Researchers have come up with many other deterrents to
participation in adult education over the years. A summary of the research findings is found in
Table 2.3.

Table 2.3

**Summary of General Adult Education Deterrent Research**

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darkenwald and Valentine (1985)</td>
<td>Six factors deterring participation:</td>
</tr>
<tr>
<td></td>
<td>Lack of confidence</td>
</tr>
<tr>
<td></td>
<td>Lack of course relevance</td>
</tr>
<tr>
<td></td>
<td>Time constraints</td>
</tr>
<tr>
<td></td>
<td>Low personal priority</td>
</tr>
<tr>
<td></td>
<td>Cost</td>
</tr>
<tr>
<td></td>
<td>Personal problems</td>
</tr>
<tr>
<td>Cross (1983)</td>
<td>Types of barriers:</td>
</tr>
<tr>
<td></td>
<td>Institutional</td>
</tr>
<tr>
<td></td>
<td>Situational</td>
</tr>
<tr>
<td></td>
<td>Dispositional</td>
</tr>
<tr>
<td>Johnstone and Rivera (1965)</td>
<td>Types of barriers:</td>
</tr>
<tr>
<td></td>
<td>Informational</td>
</tr>
<tr>
<td></td>
<td>Psychosocial</td>
</tr>
</tbody>
</table>

**General adult education deterrent research.**

Darkenwald and Valentine (1985) conducted a large scholarly study of 2000 households in New Jersey to research deterrents to participation in adult education. Darkenwald and Valentine used a version of the Deterrents to Participation Scale which was originally developed by Boshier in 1971. In their study, they found that: a lack of confidence, lack of course relevance, time constraints, low personal priority, cost, and personal problems deter participation. Lack of confidence includes low academic self-esteem and a lack of encouragement from families and friends. The second factor, lack of course relevance, was identified because of perceptions that the available opportunities of education did not meet their
needs. The time constraint factor was found to be the most significant factor in deterring participation in adult education. Many individuals give a low priority to participation in adult education because of the impact that it has on family and leisure time. The fourth factor is that the individual assigns a low priority to continuing education. The fifth factor is cost. The sixth is situational problems like family responsibility and health. The sample was taken entirely from one state, therefore generalizations cannot be made.

Cross (1983) classifies barriers as institutional, situational, and dispositional. Situational barriers include the cost of the education and responsibilities of the individual at both home and work. Institutional barriers include the time required to complete a formal program, inconvenient scheduling, lack of information, and no desire to go to school full time. Institutional barriers also include policies and other requirements that are created by educational institutions which make it more difficult for the participant to attend. Dispositional barriers are related to the individual such as the learner’s self perception and attitudes. To be specific, if a person thinks that he or she is too old or see education as unimportant, then he or she will not participate.

In a frequently quoted participation study, Johnstone and Rivera (1965) coined the terms informational and psychosocial barriers. Informational barriers are seen when adults do not know about educational opportunities available. Many adults do not even know where to begin looking for educational opportunities. This is especially true for the disadvantaged. Psychosocial barriers are based on the “values, attitudes and experiences” (Merriam & Caffarella, 1999, p. 138). These psychosocial barriers included: that the adult does not see the usefulness of the education, fear of failure, and peer pressure (Darkenwald & Merriam, 1982).

*Healthcare specific deterrent research.*

As with the motivation literature, much of the healthcare research has been conducted on nurses. Again, there are studies using other healthcare professions as the sample. Much of the research is based on general adult participation research. Table 2.4 summarizes the deterrent research conducted on healthcare professionals discussed in this section.
### Table 2.4

**Summary of Healthcare Specific Deterrents**

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scanlan and Darkenwald (1984)</td>
<td>Six factors:</td>
</tr>
<tr>
<td></td>
<td>Disengagement</td>
</tr>
<tr>
<td></td>
<td>Cost</td>
</tr>
<tr>
<td></td>
<td>Family constraints</td>
</tr>
<tr>
<td></td>
<td>Benefit</td>
</tr>
<tr>
<td></td>
<td>Lack of quality</td>
</tr>
<tr>
<td></td>
<td>Work constraints</td>
</tr>
<tr>
<td>Dowswell, Bradshaw, and Hewison (2000)</td>
<td>Continuing education negatively impacted family and relationships.</td>
</tr>
<tr>
<td>Parochka (1985)</td>
<td>Deterrents found:</td>
</tr>
<tr>
<td></td>
<td>Money</td>
</tr>
<tr>
<td></td>
<td>Time</td>
</tr>
<tr>
<td></td>
<td>Job constraints</td>
</tr>
<tr>
<td></td>
<td>Family responsibilities</td>
</tr>
<tr>
<td></td>
<td>Medical conditions</td>
</tr>
<tr>
<td></td>
<td>Transportation issues</td>
</tr>
<tr>
<td></td>
<td>Family responsibilities</td>
</tr>
<tr>
<td></td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td>Weather</td>
</tr>
<tr>
<td></td>
<td>Deaths</td>
</tr>
<tr>
<td></td>
<td>Lack of interest</td>
</tr>
<tr>
<td>Cullen (1998)</td>
<td>Strong deterrent was apathy towards continuing education</td>
</tr>
<tr>
<td></td>
<td>Other deterrents were cost and poor quality</td>
</tr>
<tr>
<td>Blais, Duquette, and Painchaud (1989)</td>
<td>Five categories of deterrents:</td>
</tr>
<tr>
<td></td>
<td>Incidental costs</td>
</tr>
<tr>
<td></td>
<td>Low priority</td>
</tr>
<tr>
<td></td>
<td>No external incentives</td>
</tr>
<tr>
<td></td>
<td>No perceived need of additional education</td>
</tr>
<tr>
<td></td>
<td>Lack of information and support</td>
</tr>
<tr>
<td>Boissoneau (1980)</td>
<td>Deterrents found:</td>
</tr>
<tr>
<td></td>
<td>Distance</td>
</tr>
<tr>
<td></td>
<td>Cost</td>
</tr>
<tr>
<td></td>
<td>Lack of time off</td>
</tr>
<tr>
<td></td>
<td>Not interested in topic</td>
</tr>
<tr>
<td></td>
<td>Untimely notice about program</td>
</tr>
<tr>
<td></td>
<td>Lack of program</td>
</tr>
<tr>
<td>Jackowski and Ackroyd (2001)</td>
<td>Deterrents:</td>
</tr>
<tr>
<td></td>
<td>Cost</td>
</tr>
<tr>
<td></td>
<td>Work constraints</td>
</tr>
<tr>
<td></td>
<td>Lack of quality</td>
</tr>
<tr>
<td></td>
<td>Lack of benefit</td>
</tr>
<tr>
<td></td>
<td>Family constraints</td>
</tr>
<tr>
<td></td>
<td>Disengagement</td>
</tr>
<tr>
<td>Karp (1992)</td>
<td>Deterrents:</td>
</tr>
<tr>
<td></td>
<td>Cost</td>
</tr>
<tr>
<td></td>
<td>Using vacation time</td>
</tr>
<tr>
<td></td>
<td>Interference with family</td>
</tr>
</tbody>
</table>

Scanlan and Darkenwald (1984) conducted a study on deterrents to participation using healthcare professions as the sample. This study showed the same deterrents as the general adult education studies. An excellent example of this is a study performed using physical therapists,
medical technologists, and respiratory therapists as the sample. The tool that Scanlan and
Darkenwald used for data collection is the well documented and respected Deterrents to
Participation Scale (Merriam & Caffarella, 1999). Scanlan and Darkenwald (1984) identified six
deterrents to participation factors: disengagement, cost, family constraints, benefit, lack of
quality, and work constraints. The disengagement deterrent results when the person is not
interested in learning. The lack of quality deterrent occurs when the person is unsatisfied with
the educational opportunities available. The family constraints deterrents are responsibilities to
spouse, children, and other family members. The cost deterrent is the strongest deterrent
identified in this research. The lack of benefit deterrent results from the individual not seeing the
need for participating. Work constraints result when the job interferes with participation.

Dowswell, et al. (2000) researched nursing participation with regard to child care
responsibility. They found that the nurses participated in continuing education in spite of the fact
that it impacted their lives. They found that 55% of the nurses surveyed said participation in
continuing education negatively impacted their family and relationships. Sixty-nine percent said
the participation reduced the quality of their housekeeping at home. The nurses without children
reported a decrease in the amount of time that they had for leisure activities. In spite of the
obstacles, the nurses participated for reasons including updating skills, demands of job,
deficiency in skill and a gap in qualifications.

In another study on nurses, Parochka (1985) found that nurses did not participate in
continuing education for many reasons including money, time, job constraints, family
responsibilities, medical conditions, transportation issues, family responsibilities, location of the
continuing education session, weather, death, and the desire not to attend the session. The top
two reasons for nonparticipation were money and time. These are also top reasons for
nonparticipation in the general participation research described above. Parochka’s study was
limited to 23 nurses in Indiana. The quality of the study may be impacted by the small sample
size and by the sample being drawn from one state.
Cullen (1998) also studied barriers to participation in adult education. She found that the strongest deterrent was apathy towards continuing education. She recommends educating nurses on the importance of continuing education. She also found that cost and poor quality programs were deterrents. Dispositional, institutional and situational barriers to participation were identified. The most prevalent deterrents were institutional barriers such as cost, scheduling and location. The nurses felt that other responsibilities were more important than continuing education. Cullen’s research is firmly grounded in the general adult education participation research. She used the Deterrents to Participation Scale as her data collection tool. Cullen stated that her findings agree with Cross’s “multidimensional framework” (p. 232). She also states that her findings agree with Scanlan’s findings. As with many of the studies in this paper, one must be cautious when generalizing the findings. In this case, it is because the population of nurses was all from one state – Delaware.

Five categories of deterrents were identified in a study on women’s participation in adult education by Blais, Duquette, and Painchaud (1989). These categories were incidental costs, low priority, no external incentives, no perceived need of additional education, and lack of information and support. The participants in the study were female nurses. An adaptation of the Deterrent to Participation Scale, developed by Scanlan, was used as the data collection tool. As shown in other studies, time constraints, and the time that the continuing education activities take away from other activities were key deterrents. Cost is identified as a key deterrent also. The study appears to use good research methods and the sample size was large enough, at 479, to make assumptions about the rest of the population of female nurse nonparticipants in Quebec.

Boissoneau (1980) quotes a study performed on a number of healthcare professionals. This study shows that they did not participate due to: distance, cost, lack of time off, not interested in topic, untimely notice about program, and inability of program. In this study, 96% of the respondents were interested in continuing education, but only 61% actually participated. He also wrote that many healthcare professions must pay for any continuing education that they participate in and that it frequently takes them away from their patients and therefore revenue
production. One would assume that the healthcare professionals whose revenue is impacted are physicians and other healthcare providers who charge for their services. This assumption is based on a study conducted by Escovitz and Augsberger (1991) who found that employers paid the expenses of allied health professionals and nurses.

Jackowski and Akroyd (2001) conducted a study to learn the deterrents to participation in continuing education for radiologic technology. They found that the leading deterrents to participation were cost, and work constraints. Other deterrents identified were lack of quality, lack of benefit, family constraints and disengagement. They did not find any statistical differences in deterrents between the different specialties of radiographers. Jackowski and Akroyd also found that as the number of hours worked increased, so did the strength of the deterrents. The study was grounded in adult education and used the Deterrents to Participation Scale. This research supports the similarities between general adult education research and the healthcare professions.

Physical therapists report that incurring cost, using vacation time, and interfering with family are barriers to participation in continuing education. Probably the most important barrier to physical therapists in Georgia was the lack of relevant continuing education courses (Karp, 1992). The sample size appeared to be a respectable size, 284 out of 1600 licensed physical therapists in Georgia. Since all of the physical therapists were located in Georgia, the use of the findings is limited.

Summary of deterrent research.

Researchers agree that there are many reasons why people do not participate in continuing education. The most common reasons include time and money. Other deterrents include family responsibilities, lack of quality programs, and distance. The findings in healthcare specific research are consistent with the general deterrent research.

Summary of Participation Research

There has been an extensive amount of research on participation. The literature supports the need for continuing education professionals to understand motivations and deterrents before
planning continuing education programs. The findings of researchers in the general adult 
education literature and those in the healthcare journals are remarkably similar. They both find 
that professionals are motivated by the desire to update skills, the desire to learn, and because of 
expectations of others. The deterrents include: cost, time, family responsibilities, and a lack of 
quality programs. Deterrents must be addressed if the HIM profession is going to make the 
changes necessary for the future. Before this can be done, we need to know what deters RHIAs.

Change

“Change is difficult. It helps. It hurts. It helps and hurts at the same time” (Tiffany & 
Lutjens, 1998, p. 3). As inescapable as change is in today’s world, we still tend to hope that 
change “will avoid us personally and professionally. Further, when confronted with change 
there is a natural tendency to focus on how to defend ourselves from it instead of on how to use 
and succeed with it” (Hall & Hord, 2001, p. 3). AHIMA obviously has recognized the need to 
defend the HIM profession because they developed Vision 2006 and have called for RHIAs to 
prepare for the new roles that were identified.

Change can be identified by the impact that it has. “The characteristics of change include 
constancy, inevitability, unpredictability, intrusiveness, variation in rate and intensity, and the 
need for adaptation. The change process is a natural, social phenomenon impacting individuals, 
groups, organizations, and society” (Grohar-Murray & DiCroce, 2003, p. 253).

Change affects everyone. In fact, the speed of change facing professionals today is faster 
than it ever has been before. Not everyone likes change. Many people try and avoid change, but 
like it or not, change occurs. The way that individuals react to change determines how they will 
adapt. When a change occurs, the nature of the change should be imparted to those affected and 
a plan must be developed (Freda, Arn, & Gatlin-Watts, 1999). The need to communicate with 
those affected by change is a recurring theme in change theories. Communication includes: 
planning, letting employees know about what is going on, telling why the changes are important, 
and why the employees’ involvement is important (Fine, 1986). Communication is only one 
aspect of change management. Chin & Benne (1989) observed that the “process of introducing
such changes must be based on behavioral knowledge of change and must utilize people
technologies based on such knowledge” (p. 23). This process of introducing change should be
included during planning, implementation, and evaluation. Support for the change by the people
implementing the change is critical.

Not all changes are embraced. In order for a change to result, there must be innovation
and acceptance (Barnett, 1953). Innovation “simply means something new, something different
from the established order or the common pattern” (Martinez-Brawley, 1995, p. 671). Tiffany &
Lutjens (1998) define innovations as “new solutions to problems” (p. 65). The solution does not
have to be newly created, but just new to the one adopting the change.

Acceptance of and Resistance to Change

Rudman (1994) identified five levels of acceptance of change by individuals. The level
one employee is the most resistant to change. The primary reason for the resistance is fear. At
second level of change, acceptance, employees have a nominal positive experience with change.
They also recognize that change is inescapable, even though it is disruptive to their jobs. At the
third level, the employee has experienced positive changes and sees the change as a “natural,
ongoing process” (p. 62). At the fourth level, employees are in the midst of a major change.
They feel threatened and afraid. In the fifth and final level, individuals have been through a
major change or a series of lesser changes. Because of the experience with change, they know
that they will be able to adapt to the change.

People who resist change have similar characteristics as do individuals who embrace
change. Resistors of change see change as upsetting because it is new and uncertain. They also
see change as time consuming and threatening to their control. They believe change forces them
to do what they do not want to do and that by resisting the change, they can keep things they way
they are. Resistance to change is a normal reaction because of fear about the future and of
learning the new skills required by the change (Telles, 1996).

On the opposite end of the spectrum, those who embrace change see it as inevitable.
They also use the change to evaluate assumptions and their goals. Those who embrace change
also have faith in their ability to manage the change to their benefit. They see change as a means for professional and person growth. Change also brings them personal satisfaction (Munz & Kramer, 1994). One must understand motivation for change as well as resistance to change in order to work toward the change. Risk involved with change can motivate, deter or be a bit of both in the movement toward change (Grohar-Murray & DiCroce, 2003).

Definition of Change

Grohar-Murray and DiCroce (2003) define change as a “dynamic process by which an alteration is brought about that makes a distinct difference” (p. 251). Successful change is defined as one that involves staff, is sensitive to staff fears, avoids management forcing change, is not completely based on reason logic, requires attitude change, avoids bureaucracy, empowers people affected, requires reflection on practice, requires education, and needs leadership that takes the previous characteristics of successful change in mind (Ford & Walsh, 1994).

The change theories discussed in this paper will be appropriate for the changes that the RHIA is facing. These changes are discussed earlier in this chapter. Some RHIAs have embraced change and are already employed in the new roles. Other RHIAs are preparing themselves for these new roles, and unfortunately others are ignoring the changes. It is these professionals that need to be reached and convinced to react to the change. These change theories are summarized in Table 2.5.
### Table 2.5

**Summary of Change Research**

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morris and Venkatesh (2000)</td>
<td>Younger workers are more willing to accept new technologies.</td>
</tr>
<tr>
<td>Tiffany and Lutjens (1998)</td>
<td>Four parts to planned change theory: Diagnosing problems, Way to utilize the innovation, Methods of implementation, Evaluation of change. Four characteristics of planned change: Looks at how change will occur, Helps with people management, Look at the change from different perspectives, Help with decision, implementation and evaluation. Two types of change theories: Create change, Observe change.</td>
</tr>
<tr>
<td>Zajc as quoted in Tiffany and Lutjens (1998)</td>
<td>Four categories: Type of ideology, Views of individuals, Views of the nature of people, Scientific methods used.</td>
</tr>
<tr>
<td>Knowles, Holton, III, and Swanson (1998)</td>
<td>Based on belief that peoples views change over time.</td>
</tr>
</tbody>
</table>

**Technological Change**

“The impact of technological change is much greater and often far more traumatic, for persons who find their traditions, customs, skills, and perhaps even their sense of self-esteem is challenged by the change” (Schaller, 1972, p. 36). Maybe this view explains Morris and Venkatesh’s (2000) research which shows that age plays a role in the acceptance of technological change. They studied 118 employees who were learning a new software package. Morris and
Venkatesh found that younger workers were quicker to accept new technology. They found that younger employees more readily accepted technology both when first presented with the change and with long-term usage. This knowledge is important when planning for technological change and trying to encourage acceptance. Part of the reason that change plays a role in the acceptance of technological change is that younger workers are more familiar with technology and the terms surrounding it to begin with.

There are four key factors that impact implementation of computerization. The first is the need for a strategic plan for technology so that the technology implemented will meet the organization’s need. The successful implementation of technology introduces the technology in a way that portrays the change in a positive format. Users must be prepared to adopt the technology because they see benefit and are taught how to use the system. The past history of technology implementation in the organization influences how the organization will perceive and react to the new implementation (Mirvis, Sales, & Hackett, 1991).

*Planned Change*

Planned change is defined as making a decision to improve a system and utilizing a change agent to accomplish the change (Spaulding, 1958). Tiffany & Lutjens (1998) define planned change theory as one that “explains how change occurs” (p. 24). There are four basic components to a planned change theory. These four basic components are: diagnosing problems, means of utilizing an innovation, way to select implementation and evaluation of change.

Planned change typically is used in the case of incremental changes, but it can also be used in dramatic changes. In the case of a dramatic change, the change process is more complicated and takes much longer to complete. Models of planned change are still immature and will need continued research (Cummings & Worley, 2001). Life-span change theories are included in the planned changes because humans go through a typical series of steps throughout life (Knowles, Holton, & Swanson, 1998).

There are four characteristics of planned change. The first is that these theories “picture” (Tiffany & Lutjens, 1998, p. 10) how the change will take place. Planned change theories give
you direction on how to deal with others through the change. The third characteristic is that the theories should look at the change from different aspects. The final characteristic is that they help the planners make the decision, implement the change, and evaluate the effectiveness. Planned change helps ensure that the goals are met instead of allowing for random ineffective change. A key part of planned change is change management. Change management is preparing people who are impacted for the change (Ramirz, 1994). Planned change literature identifies three categories of factors influencing change. The first category is characteristics of the person or object of the change. The next one is the characteristics of the change itself. The final category is the characteristics of the methods designed to implement the changes (Moorman & Uzzi, 1990).

Spauling (1958) identifies six stages of the planned change process. The first stage is the development of a need for change. In this stage, there is an awareness of a problem. There is also a desire for something better - a change. The final component of this stage is the need for help from the outside. This outside help is the change agent. The second phase is the establishment of a change relationship. In this stage, the client becomes comfortable with the skills and characteristics of the change agent. Phase three is the clarification or diagnosis of the client system’s problem. The process of identifying the problem that needs changing can be a very complicated process. A lot of information is needed. There may also be conflict between the change agent and the client in terms of diagnosing the problem. The next phase is the examination of alternative routes and goals; establishing goals, and intentions of action. In this stage, possible solutions to the diagnosed problem are identified. A decision is then made on how to make the desired change. The fifth phase is the transformation of intentions into actual change efforts. It is in this phase that the chosen solution is implemented. The change agent may or may not still be involved. The sixth stage is the generalization and stabilization of change. In this stage, the client determines whether or not the change has been accomplished and will be a permanent part of the organization. The change is more likely to be stable if it has been embraced across a large part of the client. The final stage is the terminal relationship. In
this stage, there is a break between the client and the change agent, if this has not already happened. The ease of this break-up is based on how comfortable the client is at making decisions and how well the client has learned the skills needed to continue.

Porras and Robertson (1992) separate change theories into change process theory and implementation theory. Change process theory looks at the “dynamics” (p. 742) taking place in order to implement change. Under change process theory, the steps used in planned change utilize organizational development interventions to control variables. When one or more variable is changed, other variables are affected. The affect on the variables may continue to affect other variables. Implementation theory’s focus is on the “actions undertaken by change practitioners when effecting planned change” (p. 742). These actions include steps that should be taken and the order the steps should be implemented. Both of these categories of planned change theories are appropriate for the RHIA. The change process theories are appropriate because of the number of changes affecting healthcare, HIM and the RHIA. For example, new technology may result in new laws and new laws may impact the skills required by the RHIA. The implementation theory was demonstrated with the implementation of Vision 2006 because it includes specific steps that the HIM profession must take in order to prepare for the future.

Levels of Change

According to Tiffany and Lutjens (1998), Zajc broke planned change theories into four categories. These categories are “the nature of the main ideology, the ways people perceive reality, viewpoints about human nature, kinds of scientific methods endorsed” (p. 16). Tiffany & Lutjens (1998) breaks change theories into two types. These are theories that create change and ones that observe change. Chin and Benne (1989) classify change differently. They break change into three types. The first theoretical category is empirical-rational that assumes people are rational and people will select the option that is in their self-interest. The change will be adopted when an effective change is proposed that is in the self-interest of the person or group. This type of theory is most appropriate when the only thing needed is knowledge of the change and the person is ready to change. The next category is normative-re-educative. In these
theories, the attitudes and values of individuals impact their adoption. Change will only occur when the change in their values are adopted. The premise of the normative-re-educative theories is that people identify problems, select the appropriate solution and make the change. These theories should be used when permanent change is an alteration in values (Haffer, 1986). The third category is power-coercive. These change theories are based on the fact that people with less power will follow the lead of those with more power (Chin & Benne, 1989). Power-coercive theories support the belief that people with power influence other people to adopt changes. This is most appropriate when an “immediate, short-term change in behavior is needed, and much resistance is expected” (Haffer, 1986, p. 20). Haffer wrote that these classifications are based on:

The different assumptions about what makes people change on alter their behavior. Each will create change, but with varying consequences and with varying degree of each. Each has a different focus or target of change. The appropriateness of using each is dependent on the situation and on the person or personals who knowledge, beliefs, attitudes, values, or behavior patterns need to change (p. 19).

Lorenzi and Riley (2000) categorize change into microchanges and megachanges. Microchanges are incremental changes or minor improvements to existing systems. Megachanges are described as major changes where the new system is extremely different from the one that is being replaced. One person may see a change as a microchange and the other may see it as a megachange.

The Burke-Litwin model of organizational change (Burke and Litwin, 1992) separates changes into two categories. These categories are transactional change and transformation change. Transformational change occurs when the internal and external environment interacts in such a way to require new “behavior sets” (p. 529) from organizational members. Transactional change occurs when the change is a temporary give and take between individuals and groups.
Cognitive development perspectives are based on the premise a person’s way of thinking changes over time. The changes in thinking include: the way that new information is deciphered, changes in readiness for learning, view things differently, changes in differences in how meaningful something is to the individual, differences in the learning tasks utilized (Knowles, Holton, III, & Swanson, 1998).

Models of Change

There have been many views of change over the years. In this section, a review of relevant change models will be conducted. These change models include: planned change models, diffusion change theories and others. Some of the key researchers include: Lewin, Rogers, Bridges, and Lippitt. Summaries of the models discussed are found in Table 2.6.

Table 2.6

Summary of Models of Change

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lewin (1951)</td>
<td>Three stages: Unfreezing, Moving, Freezing</td>
</tr>
<tr>
<td>Bridges (1980)</td>
<td>Change is a transition that has three stages: Endings, Neutral zone, New beginnings</td>
</tr>
<tr>
<td>Quinn, Spreitner and Brown (2000)</td>
<td>Ten principles: Seeks to create emergent system, Recognize hypocrisy and self-deception, Personal change through value clarification and alignment of behaviors, Freedom from external sanctions, Developing vision for common good, Take action to edge of chaos, Encourage others, Model counterintuitive, paradoxical behavior, Change self and system</td>
</tr>
<tr>
<td>Knox (1977)</td>
<td>Five stages: Prestructure, Anticipation, Actual change, Disorganization, Poststructure</td>
</tr>
<tr>
<td>Hyatt (1990)</td>
<td>Three steps: Gathering information, Assessing attitude, Behavior change</td>
</tr>
<tr>
<td>Lionberger (1960)</td>
<td>Adoption concepts: Adoption takes time, People do not adopt at the same rate</td>
</tr>
</tbody>
</table>
Rogers (1986) Four elements:
- Innovation
- Communication through channels
- Time
- Social system

Action Research (began in 1940s) Eight steps:
- Problem identification
- Consultation
- Data gathering and preliminary diagnosis
- Provide feedback
- Joint diagnosis
- Joint action planning
- Action
- Data gathering after action

Murphy (1999) Four stages:
- Resistance to change
- Confusion
- Exploration
- Commitment

Ford and Walsh (1994) Three approaches to change:
- Rational decision making
- Lewin’s force field theory of change
- Bottom-up or normative-re-educative

Lippitt (1973) Seven stages:
- Diagnosis of problem
- Identifying if there is enough support for change
- Assessing change agent
- Identifying objectives
- Determining change agent’s role
- Taking necessary steps to maintain change
- Breaking relationship with change agent

Porras and Robertson (1992) Based on believe that when the work setting changes, the employees behaviors will change also which will in turn improves the organization.

Ewell (1997) Six characteristics of change:
- Commitment to change necessary for success
- Change must be universal
- Relearning tasks is required
- Change must be measurable
- Strong leadership is required
- Evaluation keeps the change going in the desired direction

Carney (2001) Model has five steps:
- Identify critical success factor
- Communication
- Acceptance or resistance to the change
- Change implementation
- Evaluation

Hall and Hord (2001) 12 steps in concerns-based adoption model:
- Change is process, not event
- Implementation and development of change is different
- Individuals must change before the organization changes
- Not all innovations have the same impact
- Steps taken affect whether or not the change is successful
- Top level support critical
- Training, communication and other support is necessary for mandated change
- Organization undergoing change must be involved in change
- Teams should be used
- Appropriate steps make change go easier
- Physical characteristics of the organization and beliefs of people influence change
Riley (1995)  
Six stages:  
Immobilization  
Minimization  
Depression  
Acceptance  
Seeking meaning  
Internalization

Gilly & Maycunich (2000)  
Five stages:  
Identifying assumptions  
Analyzing choices  
Making commitment  
Selecting appropriate action  
Critical reflection

Kilmann (1989)  
Five steps:  
Beginning the program  
Identifying the problems  
Developing the tracks  
Implementing tracks  
Evaluating the effectiveness

Lewin.

The first recognized description of a change process is attributed to Lewin in 1951. This model is made up of three stages: unfreezing, moving, and freezing. Many other change models have been proposed over the years, but his concept is still considered to be the most effective (Gilly & Maycunich, 2000). During the unfreezing stage, steps are taken to reduce the forces attempting to maintain the status quo (Cummings & Worley, 2001). During the unfreezing stage, the individual must become “susceptible to change” (Tiffany & Lutjens, 1998, p. 124), enabling him or her to accept the need to act in a way contrary to his or her normal reactions. Bushy (1992) wrote that the motivation to make the changes occurs when there is a:

stressor, unrest, or conflict within a system...from realizing that something can be done more easily or better, from expectations not being met...from discomfort about some action or lack of action... or from an obstacle being established or removed (p. 198).

The moving stage is when the individual or organization changes. The refreezing stage then stabilizes the organization or individual into a new normal (Cummings & Worley, 2001). There are similarities between the refreezing stage and the five stages of grief. The stages of grief are: denial, anger, bargaining, depression and acceptance (Newlin, 2000). It is in the refreezing stage that the activities become ingrained in the individual (Tiffany & Lutjens, 1998). Before this
refreezing can occur, two opposing forces, the proponent of change and the resistor of change must meet. The one supporting the change must be stronger for the change to become ingrained (Cummings & Worley, 2001). Lewin’s (1951) three step change theory supports the belief that permanency must be one of the objectives of the change. All three steps are required for change to be successful.

Because of the dearth of research on the HIM profession, there is no known scholarly documentation of the conflict of RHIAs who are content in their current roles and the HIM change agents. There is an abundance of anecdotal information that report that many RHIAs are maintaining the status quo and in fact some are abdicating their information technology roles to the information system professionals. Currently HIM workforce research is being conducted. This research may formalize the anecdotal knowledge with scholarly research.

_Bridges._

William Bridges (1980) promotes change as a transition. Bridges defines change as a “shift in the world around us” (p. 194). Significant changes create smaller changes all around it. Transitions are different from changes. Transitions are “experiences” (p. 194) whereas changes are “events and situations” (p. 194). Transitions occur over and over again throughout our lifetime. Bridges wrote that there are three stages of moving through a transition. These stages are: endings, neutral zone, and the new beginnings.

There are four parts to the ending process. In the disengagement process, the individual is separated from his or her normal circumstances whether this is a divorce or a job change or some other transition. Disidentification is releasing what was so that the individual can go forward. Disenchantment is when the professional discovers that some part of his or her life is not reality. The last concept in the stage of endings is disorientation. Here the individual may feel lost and alone, looking for a way to proceed. These four concepts are not sequential and everyone may not go through all four.

The next stage is called the neutral zone. This is a time of transition from the ending of the old reality and the beginning of the new. There may be a sense of loneliness during this
stage. The neutral zone creates a need for reflection on what is truly desired. The neutral zone is also a time of guiding and directing the professional into the future. The final step of the transition is the new beginning stage. This stage is a time of accepting and even embracing the change. It is a time to forget about the past and to proceed into the future (Bridges, 1980).

For the HIM professional, the ending stage is where the profession was prior to Vision 2006. AHIMA realized that the paper-based world of record management was going away and a new computerized world of data management was replacing it. The HIM profession did not know what it was anymore. The profession did not know what the future held and what its role would be in the new world (AHIMA, 1999). Vision 2006 was shared with the RHIA through the *Journal of AHIMA*.

From there, the HIM professional enters the next stage which is called the neutral zone. This is a time of transition from the ending of the old reality and the beginning of the new. There may be a sense of loneliness during this stage. The neutral zone creates a need for reflection on what is truly desired (Bridges, 1980). The neutral zone is also a time of guiding and directing the professional into the future. For the individual HIM professional, this is a time of not having the skills needed to proceed to the next stage. For the HIM profession, it is a time of marketing the skills that the HIM professional uniquely has for the management of data (Borges, 1995). The perceived worth of the AHIMA credentials has been on a roller coaster in the past few years. From 1995 to 1999, there was a dip in the perceived worth, but there has been a resurgence in the value (AHIMA, 2002b).

The HIM profession itself has moved into the new beginnings stage. This is shown by the publication of Vision 2006. It is also shown in the resolution for lifelong learning which was approved by the AHIMA’s governing body, the House of Delegates (AHIMA, 1998). “AHIMA is committed to creating pathways that will allow all members to be viable players in their changing market and/or progress into new capacities and positions” (AHIMA, 1998, insert) and with their marketing campaign. The question remains will the individual professionals follow
AHIMA’s lead. A former AHIMA President, Margaret Stewart has issued this challenge to the HIM professional:

Reassess your current skills and work diligently to learn and add new ones.

Commit to lifelong learning. Motivate yourself and your colleagues to meet the challenge of change in our workplaces and in our lives. Consider change with an open mind and participate in the Association’s decision-making process.

Embrace change as a way to accomplish your personal and professional goals (Stewart, 1998a, p. 8).

In other words, forget about the past; it no longer exists, it has ended. Go through the neutral zone and update your skills as you prepare for and embrace the future (Bridges, 1980).

Adaptation.

Adaptability is “the ability to adjust one’s behavior in response to external conditions or requirements” (Pratzner & Ashley, 1985, p. 13). Motamedi (1989) believes that adaption allows one to survive. When one is talking about adaptability in regard to careers, it means the ability of the individual to adapt to the needs of the career. Many experts believe that adults will have to evaluate their career options and make adjusts five times during their career. Because of the escalating changes, this number may increase (Savickas, 1997).

Advanced Change Theory (Quinn, Spreitner, & Brown, 2000) is a change methodology that is used for adaptive change. It utilizes a change leader and individuals who follow the leader. There are ten basic principles upon which Advanced Change Theory is based. The first principle is seeks to create an emergent system. This means that the individual must be concerned for the system, not his or her own self interest. The leader strives to include everyone in the process, be open, and to minimize bureaucracy. The second principle is the need to recognize hypocrisy and self-deception. Because of the negative impact that hypocrisy and self-deception can have on the success of change, change leaders must adapt their actions to overcome it. The next is personal change through value clarification and alignment of behaviors. This requires the individual to identify gaps in his or her character and take the necessary steps to
change. The fourth principle is to free oneself from the system of external sanctions. This means that the individual must be willing to oppose formal authority in order to make the changes that one believes to be right. Developing a vision for the common good is the next principle. The individual must be able to identify a direction that would meet the needs of all, not just the individual. The sixth principle takes action to the edge of chaos. The individual has to be scared in order to leave the safe environment he or she is currently in and implement the established vision. The seventh principle is to maintain reverence for the others involved in the change. The individual does not force the others to comply with the new vision, but instead influences them to adapt. In the next stage, individuals should encourage others to take the risks needed to implement change. The ninth principle is that the individual should model counterintuitive, paradoxical behavior. The individual’s thinking cannot be stale routine ideas, but instead must be new and exciting. The final principle are changes self and system. If one is willing to change, the individual change can influence and alter his or her environment.

Knox (1977) recognizes five stages to the change adaptation process. The first is prestructure. This is a time of stability when there is no sight of the change approaching. The anticipation period is when the individual becomes aware of the change. This change may be self-imposed or as a result of uncontrolled activities. The actual change is the third stage. The disorganization period is when the individual tries to get the change under his or her control. The poststructure period is a time a new stability which includes the change. The adaptation cannot begin until the individual makes some type of first attempt at accepting the change.

Hyatt (1990) classifies adapting to change into three steps. The first is gathering information about yourself and the environment in which you work. This allows you to select how you will react. The second step is to modify your attitude about an issue so that you are able to make the necessary change. The third step is the actual behavioral change. The changes do not happen overnight, but instead must be repeated.
Adoption.

Lionberger (1960) defines adoption as “the full-scale integration of the practice into the on-going operation” (p. 4). He identifies a number of key concepts in the adoption process. Some of these concepts are identified below. The first is that adoption takes time. There are five stages of the decision to adopt. The first is awareness which is when one first learns about the change. The interest stage is when one learns as much as he or she can about the proposed change. The evaluation stage is when the individual reviews what he or she has learned. Trial is when one tests the change. Finally the individual decides to adopt the change. The second concept is that all people do not adopt at the same rate. The rate of adoption begins with the first people to adopt and ends with some people who never adopt. The decision to adopt does not mean that the individual will integrate the change permanently. The individuals use different sources of information about the change based on the individual change stage. People utilize existing decision making skills to determine whether or not they will adopt.

Rogers’ Diffusion Theory.

Fine (1986) observes that diffusion theories like Rogers “are coming into their own as technology begins to affect more and more organizations and virtually every profession” (p. 102). Rogers (1995) defines diffusion as “the process by which an innovation is communicated through certain channels over time among the members of a social system” (p. 5). There are four elements to diffusion: innovation, communication through channels, time, and social system. Innovation is whatever is new to a person or group. Once the person learns about the innovation, he or she must decide how to react to the change. Since innovations are something new to an individual or group, one must first identify the change(s). Innovation is defined as what is changed (Hall & Hord, 2001). Roger’s (1995) Diffusion of Innovations theory posits that it takes time for innovations to become widely accepted and implemented. Motivation plays an important role in completing a successful change. Bushy and Kamphuis (1989) note that Rogers’ adoption of innovation model is a good tool to help assess attitudes toward change.
Understanding an individual’s attitude to change helps determine whether or not a change is being accepted or rejected.

The changes in healthcare described in the previous sections are the innovation in this case. These changes encompass everything from sweeping legislation to the computerized patient record. AHIMA has recognized the changes that the profession is facing. The Association knew that they must take immediate steps to assess the impact on the profession, the professional, and the career development needs of the group. Margaret Stewart (1998b), a former President of AHIMA wrote

to me, the word, “innovation” conjures up positive, exciting action. Innovation describes a way of looking at things differently and breaking out of tradition in our thinking. We often get so caught up in the “way things have always been done” that we fail to grow or change (p. 6).

AHIMA recognized that changing the HIM profession would not happen overnight. They knew that it would take many years from the development of Vision 2006 until it was embraced by all RHIA's. This is demonstrated in that Vision 2006 was a ten year plan (AHIMA, 1999).

The second element is communication through channels. It is in this stage that the innovation is shared with others. Obviously if people do not know about it, they cannot adopt. Once a person learns about a change, he or she must form an opinion about the change. Based on this opinion, he or she decides to adopt or not adopt (Roger, 1995). The communication through channels is being coordinated through AHIMA. The AHIMA Board of Directors studied what the changes meant to the HIM profession. They immediately took action. One of AHIMA’s major reactions to the changes in healthcare is the development of Vision 2006. This was published in 1996. Vision 2006 identified seven roles that the HIM professional will play in the future of healthcare. The new roles are: the health information manager for integrated systems, clinical data specialist, patient information coordinator, data quality manager
organization, information security manager, data resource administrator, research and decision support specialist (AHIMA, 1999).

AHIMA went on a marketing blitz to publicize Vision 2006. They have communicated these roles to the RHIA through books, the Journal of AHIMA, and professional meetings. An example of the Vision 2006 marketing was the article “Concentric Circles: How Laws, Economics, and the Healthcare Environment Have Changed HIM” in the Journal of AHIMA (Borges, 2000). Vision 2006 has even been the topic of the President’s Message (Stewart, 1998a).

The third element of diffusion is time. People adapt to changes differently. Typically, when an idea is proposed, it is implemented in an S-curve. This means that a small number of people adopt it quickly. The numbers of people adopting the idea swell and then fall as the last people adopt it. The range of adopters included: innovators, early adopters, early majority, late majority and laggards. Innovators are fascinated with new ideas. They play an important role in the diffusion process because they start the usage of the new innovation. The early adopters are role models by the potential adopters. Their role is important because they expedite the diffusion since people respect their opinion. The early majority adopters adopt the innovation just before it becomes commonplace. The late majority adopters wait until after most people have embraced the diffusion. The laggards are the last people to adopt the innovation. They like to focus on the past and are suspicious of anything new (Rogers, 1995). There is no known research on the diffusion of Vision 2006 roles among the RHIA.

The last stage, social system, “is defined as a set of interrelated units that are engaged in joint problem-solving to accomplish a common goal” (Rogers, 1995, p. 23). The adoption is affected by the social system and its structure, norms, leadership, and change agents. In the case of HIM, the social system is broadly defined as: AHIMA, state associations, local associations, and RHIA. These groups and individuals are working together toward their common goal - to move the profession from a paper driven to information driven profession. Hogan (2000) interviewed several HIM professionals who work in non-traditional roles. Most, if not all, of
them talk about the importance of education, career development or both. AHIMA has also published articles on the need for career development, including self-assessment. An example of this is the article “Career Management, Not Transition” which was published in the *Journal of AHIMA* (Barrett, J. P., 2000). In these articles, they ask the HIM professionals to evaluate themselves and to come up with a career strategy.

Roger’s (1995) innovation-decision process, which is part of his diffusion innovation process, is made up for five steps. The first is knowledge. This is when the individual learns about the change and begins to understand more about it. The persuasion stage occurs when the individual compares what is learned to what is already known and forms an opinion. The decision phase is whether the individual decides to accept or the change or not. The implementation is when the individual becomes involved in the change. In the confirmation stage, the individual looks for verification that the right decision was made (Hilz, 2000). These steps are not necessarily linear according to Bushy (1992) who wrote that Rogers’ model allows for reversal of change. To help reduce the risk of reversal after acceptance, face-to-face communication should be utilized to maintain change.

*Action research.*

The Action Research Model which has its roots in the 1940s views planned change as a recurring process. There are eight steps in this process. The first stage is problem identification, when someone with power realizes that there is a problem. The consultation with a behavioral science expert stage is when the consultant and client meet for the first time in order to determine how the process will be handled. The third stage is data gathering and preliminary diagnosis. The next step is to provide feedback to the key client or group. It is here that strengths and weaknesses are identified. The joint diagnosis stage is when both the consultant and the client work together to identify the problem. Joint action planning identifies the steps to be taken to make the necessary change. The action stage is doing whatever is necessary in order to move through the transition and make the changes. The final stage is data gathering after action. With
this stage, evaluation is performed to determine if rediagnosis and more actions are necessary (Cummins & Worley, 2001).

Action research is being used in new environments and purposes. Because of the new usage, alterations were needed to the theory. In this new adaptation, the consultant and client are seen as equals, since both have certain expertise. Part of the action research process is the researcher listening to determine what is important to the client. Involvement of the client is critical. The client’s involvement can be anything including data collection and analysis (Cummings & Worley, 2001). Action research is more powerful than other change models since it was designed to overcome limitation with existing models (Balfour & Clarke, 2001).

The cyclical nature of this model is what makes it appropriate for the HIM professional. Vision 2006 is actually the second plan for the future. In 1991, AHIMA announced Vision 2000 which presented the view of the future as it existed at that time. This plan had one serious flaw. It is did not identify what a health information manager did (AHIMA, 1999). Vision 2006 filled the gap. AHIMA is currently rewriting the Standards and Guidelines for HIM Education and so the process begins anew (Commission on Accreditation of Allied Health Education Programs, 2002). Another reason this theory is appropriate for HIM is the involvement of both AHIMA professional staff and the volunteer AHIMA Board of Directors which is made up of elected HIM professionals (AHIMA, n.d.a.).

Action learning requires the change to occur in reality instead of a simulation. The activity must also include other people. Action learning requires learning in addition to the change taking place. There are three elements to action learning: the learner, the action being taken, and the culture of the environment affected (Bunning, 1997).

Other change theories.

Murphy (1999) identifies four stages to the change process. The first is resistance to change. Even good changes result in resistance because of the fear of the unknown. Behaviors identified during this time include sadness, anxiety, apathy, anger, and withdrawal. The second stage is confusion. During this time, people do not know what to do. This is a time of
complaints, of frustration, and many questions. The next stage, exploration, is when the individuals affected begin to feel better about the change and begin to see themselves as competent again. Signs of this stage include acceptance, reduction in anxiety, and confidence. The final stage is commitment. Employees in this stage feel like they are a valuable part of the organization. They are willing to take risk and have high productivity. Employees do not pass through the stages of change at the same rate.

Ford and Walsh (1994) identify three approaches to change. The first is rational decision-making or a linear approach model. This type of changes results from a “major crisis or problem” (p. 62). In this type of change, there is a formal series of interconnected steps that one must go through. This includes development a mission statement, assessment of the problem, diagnosis of problem, identification of alternatives, selection of alternative, planning interventions, and evaluating whether or not change has been made. The interconnectivity means that change may not be successful if there is an error made in even one area because the error continues in the subsequent stages. The next type of change identified by Ford and Walsh is Lewin’s force field theory of change. They describe Lewis’ theory as two opposing forces, one supporting and one opposing change, battling each other. The change only occurs when the forces supporting the change are stronger than the forces opposing the change. The balance can be shifted through a three step model. The first is unfreezing. This is done by identifying problems with the current situation. The next thing is to influence the forces that support the change. The final stage is refreezing the change. This means that you keep the forces that created the change in place. The final type of change identified by Ford and Walsh is the bottom-up view. Some researchers have called this normative-re-educative. The bottom-up view gives the staff enough power to create change. It involves team building, cooperation, and flexibility.

According to Geraci (1977), Lippitt breaks Lewin’s three stages into seven. These are: diagnosis of problem, identifying whether or not there is enough support for the change, assessing the change agent, identifying objectives, determining what role the change agent will
play, taking the necessary steps to maintain the change, and breaking the relationship between the change agent and the one being changed. Lippitt (1973) states that the diagnosis of the problem is critical to the success of the change process. It is only after the diagnosis is identified that the change can be implemented. Assessment of the motivation and capacity for change requires the individual to be motivated to support the change and to actually take action in order to implement the change. Assessment of the change agent’s motivation and resources requires the individual involved in the change to determine if he or she has the necessary skills to be helpful in the change process. Selecting the progressive change objective requires the development of objectives that must be accomplished as the change is implemented. In choosing the appropriate role for the change agent phase, the change agent determines what his or her role will be in the change. The maintenance of change once it has been started requires action to ensure that the change becomes ingrained. The final phase, termination of a helping relationship, is when the relationship between the change agent and the change is broken thus requiring the change must exist on its own.

According to French and Bell (1999), the Porras and Roberton model of change is based on the fact that “OD interventions alter features of the work setting causing changes in individual’s behaviors, which in turn lead to individual and organizational improvements. Organizational change occurs only when the individuals change their behavior” (French & Bell, 1999, p. 79). The four features of the work setting referred to above are: “organizing arrangements, social factors, physical setting, and technology” (p. 80).

Ewell (1997) believes that change can be broken into six characteristics. These characteristics are important to creating change. The first is that change requires a commitment to the change in order for it to be successful. The second is that the change is universal so the change must be supported from administration all the way down the organizational chart. The third characteristic is that professionals must relearn their tasks since the tasks change over time. The fourth characteristic is that change needs direction and support from top leadership because their leadership is critical to the success of the change. The fifth characteristic is that the level of
change must allow progress to be measurable. This monitoring should guide the next stage of
the change, show whether or not you are moving toward the desired change, and keep the
attention on the process until the change is completed. The final characteristic is that there must
be something that jumpstarts the change process. The change may be as a result of
“organizational leadership, the administrative structure, the larger environment, and new
knowledge reported in the literature or other stimuli” (Gelmon, White, Carlson, & Norman,
2000, p. 142).

Carney (2001) reports a change management model with five stages. The first stage is
identifying the critical success factors for change and concentrating on them. The second one is
the communication process. This stage emphasizes the importance of education, working and
communicating with others throughout the entire process. The next stage is acceptance or
resistance to change. This emphasizes the need to enhance the need for change and the expected
outcome from the change in order to obtain support on the change. The change implementation
process depends on tools, a project team, planning, and transition management. The final stage
is the evaluation process. The evaluation is needed periodically during the change. The
feedback from the evaluation is used to point out the steps needed, and to acknowledge
contributions to the process.

According to Hall and Hord (2001), the concerns-based adoption model of change is
based on 12 principles of change. The first is that change is a process, not an event. This means
that changes do not occur with one action, but take time as the individuals gradually learn about
the changes and become able to implement the new changes. The second principle is that
implementation and development of change is very different. Development is all of the steps
required to plan and prepare for the change, whereas implementation is the steps taken to put the
change in place. Principle three is that individuals must change before the organization itself can
change. The next principle is that not all innovations have the same impact since some
innovations are small and some are large. The interventions or steps taken to implement change
impact the success of the change itself. Changes are the most successful when everyone is
important to the change, everyone must do their job and trust is developed. Top level administrative support is critical to the success of the change because their support legitimizes the change. The eighth principal is that mandated changes can be successful when enhanced by training, communication and other support. The ninth principle is that the organization being changed must be a part of the change process. The individuals within the organization will be critical to the change and they may need outside support by consultants or other individuals with specialized skills. The 10th principle is that change should be implemented by a team. This is important because everyone is impacted by the change and is responsible for implementing it. The 11th principle is that change becomes less challenging when the appropriate steps are taken to implement the change. The last principle is that the physical characteristics of the organization and the beliefs and characteristics of people in the organization influence how change proceeds.

Riley (1995) has identified six stages to change. The first is immobilization. During this stage, the individual affected is surprised and does not know what to do. During the minimization stage, the individual tries to belittle the change. The next stage is depression. This is when the reality of the situation sinks in. The acceptance of reality, letting go stage is when the individual begins to accept the change since it is actually going to occur. The fifth stage, seeking meaning, is when the individual works to make something positive of the change. The final stage, internalization, is when the individual sees himself or herself as part of the situation.

Another change process model has five stages (Gilly & Maycunich, 2000). The first is identifying assumptions. This is critical because decisions are based on assumptions. The next is analyzing choices available to the decisionmakers. The making commitment stage is the dedication of the individuals to the change to be implemented. The selecting appropriate action stage is when the selection choice is actually implementation. The engaging in critical reflective activities stage is important to understanding the decision making process. This is a quality improvement tool that helps with the understanding and embracing of change.
According to French and Bell (1999), Kilmann developed a comprehensive change model. The five steps of this model are beginning the program, identifying the problems, developing the tracks, implementing tracks, and evaluating the effectiveness of change. This process takes one to five years. Tracks are critical points in the change process. These points are culture, management, team-building, strategy-structure and reward. Trust, communication and working together are all part of the culture track. The management-skills track provides new skills to deal with problems. The focus of team-building track is cooperation. Strategy-structure is the development of a new strategic direction. Reward is when people who make the necessary changes are rewarded.

The comprehensive change model described above is appropriate for the HIM profession since the profession is undergoing comprehensive changes. In the case of the HIM profession, the beginning program is the changes controlling the direction of the profession. Identification of the problems occurred during the development of Vision 2006 since it was this vision that recognized the changes facing healthcare would impact the HIM profession. As a result of the study, a plan was developed that identified new roles that would be created. The plan also identified a series of steps that the profession needed to take in order to take control of its future. Some of the steps outlined in Vision 2006 have been implemented and others are slowly being diffused into the profession and into healthcare in general. The HIM profession has not reached the evaluation phase of this comprehensive change. One way that the HIM profession differs from the comprehensive change model is that the changes will take longer than the one to five years reported by Kilmann. This is demonstrated in that Vision 2006 is a 10 year plan and the fact that the changes facing the profession are still occurring. Career development is needed to help the RHIA prepare for these changes.

Career Development

Most career development theories focus on career choice and career satisfaction, not the career development needed because of changes in the profession (Hayes, 2000). Much of the literature also centers on counseling strategies. When most researchers talk about career change
or transitions, they mean changing from one profession to another. Since this paper centers on the changes that the HIM profession is facing, many of the career development theories are not appropriate. Only the theories appropriate for this study will be discussed in this chapter.

**Definition of Career Development**

Career development is defined as “on ongoing process by which individuals progress through a series of stages, each of which is characterized by a relatively unique set of issues, themes, or tasks” (Greenhaus, 1987). This is not the only definition of career development. Ross and Regan (1993) define career development as “changes in understandings, affects and actions that increase effectiveness in a role” (p. 91). Career development is a complicated process that is affected by money, education, health, personality, and many other internal and external factors (Reardon, Lenz, Sampson, & Peterson, 2000).

**Need for Career Development**

There is too much information for anyone to be an expert on everything. The trend is for people to specialize in small pieces of their career. This still keeps them busy learning everything that they need to know to stay current and therefore competent in your chosen profession (Race, 1998). Engels (1995) writes “so great are the magnitude and scope of change today, with exponential increases in information, knowledge, and the ability to produce, that career resilience is a core essential for career development” (p. 1).

Many researchers find that careers “develop in a relatively predictable fashion” (Greenhaus, 1987, p. 9), but there are changes that occur in work environment. Part of career development is predicting changes in our work environment so that we can be ready for the changes (DiMauro, 2000). In fact, Brown (1998) recommends that “career development practices must reflect the employment trends and practices of the workplace and support individuals in their efforts to develop the knowledge, skills, and behaviors that will enable them to be successful” (Brown, 2000, p. 4). For the RHIA, this career development could include continuing education on the new roles.
Many factors affect career development. Older workers are typically not provided the opportunities for career development younger workers receive. Other factors affecting career development are: challenging work, job security in conjunction with a challenging position, interaction with co-workers and management, flexibility to change, support from the organization, rewarding career development, and motivation. Motivation is probably the most important influence on career development (Sterns & Dorsett, 1994).

**Career Development Theories**

There have been many career development theories developed over the years. This section will review the career development theorists and theories that are appropriate for the situation that the HIM professional is facing. Table 2.7 summarizes the theories of each of the theorists described in this study.

**Table 2.7**

**Summary of Career Development Research**

<table>
<thead>
<tr>
<th>Theorist</th>
<th>Summary of Theory</th>
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<tbody>
<tr>
<td>Schlossberg as summarized in Herr and Cramer (1996)</td>
<td>Five stages: Adult behavior based on social, not biological clock. Behavior based on either life stage or age. Gender has more impact than age or life stage. Adults must adapt and reassess themselves. Recurrent themes are identity, intimacy and generativity.</td>
</tr>
<tr>
<td>Super and related researchers (1957)</td>
<td>Five stages: growth, exploration, establishment, maintenance and decline. Allows for recycling through stages. Six stage of renewal added because of changes that careers are going through.</td>
</tr>
<tr>
<td>Krumboltz as summarized in Amatea (1984)</td>
<td>Career decision making based on: Genetic endowment and special abilities Environmental conditions and events Learning experiences Task-approach skills</td>
</tr>
<tr>
<td>Sterns and Dorsett (1994)</td>
<td>Designed for adults and older adults Career development activities are: instruction, renew skills, continuing education and retraining</td>
</tr>
</tbody>
</table>

*Schlossberg.*
In Herr and Cramer’s (1996) summary of Schlossberg’s career development research, five propositions were identified. The first proposition is that adult behavior is based on the social, not biological clock. The next proposition is that behavior for some adults is based on life stage and for others it is based on age. The next is that gender differences have a greater impact on adults than age or life stage. The fourth is that adults must face transitions that require them to adapt and reassess themselves. The last is that the recurrent themes of adulthood are identity, intimacy and generativity. Schlossberg states that adults react to transition differently. The way that the adult reacts depends on whether the transition was “expected, unexpected, never occurring, or chronic” (McDaniels & Gysbers, 1992, p. 52).

**Super and related research.**

Herr and Cramer (1996) wrote that Super’s Developmental Approach is the most influential career development theory thus far. In fact, Super’s theory has probably had the greatest impact of any of the career development theories (Hansen, 2001). Super wrote that there are five life stages: growth, exploration, establishment, maintenance, and decline. Growth is the period of childhood. The exploration stage is one of growing up getting married, selecting an occupation and finding a direction for her or his life. The establishment stage is when the individual launches and builds his or her career. During the maintenance stage, the individual is established in a profession and does not strive to change his or her role. Decline is a reduction in activities which ultimately results in retirement (Super, 1957). In order for an individual to succeed in an environment of change, he or she must be ready for the change. This readiness for change is called career maturity. One of the characteristics of Super’s theory is that career development is ongoing (Herr & Cramer, 1996). Because career development is ongoing, it does not end with the career choice. The life stage that is appropriate for the long-term HIM professional is the maintenance stage. This stage has undergone comparatively little scholarly research compared to other life stages (Williams & Savickas, 1990). The use of life stages in career development has been around a long time. Some of Super’s life stages can be divided up
into substages. Maturity may be based on age or on behavior to see which has a better match for
the individual (Super, 1963).

In 1985, Super wrote that his life stage theory allows an individual to return to a previous
stage in the life cycle. An excellent example of this is returning to the establishment stage after
self-assessment and changes result (Bejian & Salomone, 1995). This return to a previous life
cycle is called “a minicycle” (p. 1). This recycling would be utilized by the professional as he or
she evaluates his or her current skills against those required by the profession. Once the
professional undergoes continuing education, he or she would move from the maintenance stage,
back to the establishment change. The process would be repeated over and over again as the
conditions facing the professional change. This recycling should not be haphazard, but a formal
career planning process should be utilized (Barrett, J. P., 2000). This recycling may explain why
some people decide to update their skills instead of changing careers (Bejian & Salomone, 1995).
Lifespan career development, like Super’s, is based on the fact that “behavior change can occur
at any point in the life course” (Sterns & Dorsett, 1994). This recycling would be utilized by the
HIM professional as he or she evaluates his or her current skills against those required by the
new roles.

Bejian and Salomone (1995) support the addition of a sixth stage to Super’s lifecycle
theory. This stage is renewal. The need for this stage has developed because of all of the
changes that careers are undergoing. Career renewal includes a process of “self-appraisal,
reorganizing personal and career priorities, and reorienting to present and future planning” (p. 8).
This career renewal would prevent obsolescence. Obsolescence is a serious issue. Obsolescence
can be defined as “the degree to which professionals and other workers lack up-to-date
knowledge or skills necessary to maintain effective performance” (Stueart, 1998, p. 248). To
combat obsolescence, career development is critical (Barrett, J. P., 2000).

In a study designed to test Super, Thompson, and Lindeman’s (1988) maintenance tasks
of “holding, updating and innovating” (Williams & Savickas, 1990, p. 166), Williams and
Savickas found six tasks that are part of the maintenance stage, not the three that Super
identified. Three of the six stages identified by Williams and Savickas were essentially the same as Super’s career development stages. Super’s stages are updating, holding, and innovating. One of the new maintenance stages was created by moving it from Super’s disengagement stage. The stage moved was what Super called decelerating. The first of the two new stages identified by Williams and Savickas is continuing education. They see continuing education as a way of “holding, keeping up, or innovating” (p. 173) so that the professional has the skills to maintain the current position. The second is questioning future direction and goals. This refers to the individual conducting an evaluation on the future course of his or her career. There were three reasons for Williams and Savicka’s study. The first was to test the validity of vocation development tasks within the maintenance stage. The next was to investigate the need to add a new stage, renewal to Super’s model. The final reason was to study whether or not the maintenance stages should be based on age. The goals of the study were accomplished.

It is the two new maintenance stages that Williams and Savickas developed that recognize the professional’s need to search for direction and to participate in the necessary continuing education in order to maintain competence. Competence “is neither visible nor tangible” (LaDuca, Engel, & Risley, 1978, p. 151). Even if competence cannot be seen or touched, the individual’s actions show whether or not the professional has the necessary skills to be professionally competent. There are concerns about the Williams and Savicka’s (1990) study because the study was conducted using upper and middle management positions in healthcare organizations as the sample. A limited population always questions the ability to make generalizations from the findings.

RHIAs see the need for the continuing education component of career maintenance promoted by Williams and Savickas. This is demonstrated by a study conducted by Hagus (2000). She found that HIM professionals, who include RHIAs, saw continuing education as important. Her study was disappointing because it did not address the changes that RHIAs are facing and the need for lifelong learning. Also, the study cannot be generalized for all RHIAs.
because the sample only included HIM professionals from Texas. On top of the limitation of the study using only HIM professionals from Texas, the return rate was only 26.3%.

*Benner.*

Benner (2001) supports a five stage model. Benner reports that her model is based on one by Stuart Dreyfus. The first stage is novice. In this stage, the individual does not have any experience in an area. The novice must be given rules to follow as they perform the new task. The next stage is the advanced beginner. This individual can perform the task with some competence since he or she has done this before. The next stage is competent. This stage is when the individual begins to look to the planning for the future. The individual may not be fast and flexible with the task, but feels comfortable with the task. The proficient stage is when the individual can look at the entire situation and begin to expect certain events and make adjustments. The expert does not rely on rules in order to act. The expert is able to use a tremendous amount of intuition to address the task efficiently and effectively. Experts are easy to identify because of their ability to handle difficult situations easily. This model is valuable because it predicted the amount of expertise that an individual has based on his or her experience. Experience is not based on the individual’s tenure in a position, but is based on knowledge about the situations with which he or she is faced. The level at which an individual is at will affect career development needs. There is no mentioning of recycling back to the novice stage when learning a new task or when the individual’s environment changes.

*Krumboltz.*

The Social Learning Theory developed by Krumboltz reports that career choice, skills, and education is based on past and present experiences (Amatea, 1984). In this theory, Krumboltz believes that there are four factors that affect career decision making. The first is genetic endowment and special abilities. This means that a person’s physical characteristics and natural talents affect his or her career decisions. The next factor is called environmental conditions and events. In this factor, external influences outside the individual’s control influence his or her career decisions. The third, learning experiences, takes everything the
individual has already learned and builds upon it and uses the knowledge to influence career decision making. The last factor is task-approach skills. This is when the skills used to perform a task influence the outcomes and as a result the skills are changed. These experiences influence the individual’s handling of the changes that occur as a result of the environment and other conditions (Isaacson, 1986). He also believed that task approach skills work together with self-observation generalizations. Self-observation generalizations are statements that the individual make about themselves that relate to compliance with standards (Borow, 1982).

The reason that the Social Learn Theory is appropriate for the HIM profession is the numerous external factors impacting the profession. The advances in technology and changes in healthcare are definitely outside the control of the HIM professional. Failure to take the necessary steps to learn about the new roles will perpetuate administrator’s view that the HIM professional is limited in his or her skills, and that the professional focuses on tasks instead of administrative responsibilities (Rudman & Kearns, 1995). A word of caution is in order. The sample size for Rudman & Kearns’ study was small, only 100 administrators for a national study. While generalizing from this sample is dangerous, it is supported by statistics quoted by former AHIMA President Margaret Skurka (Rudman & Kearns, 1995; Skurka, 2000).

Sterns and Dorsett (1994) have developed a model of career development for adults and older adults. It supports the notion that many factors impact career behaviors over the years. The activities involved are “training, updating, continuing education, and retraining” (p. 258). Maintaining job competence is important for all ages, but it is more important for the older worker because he or she would have completed formal education a long time ago. The older worker may not receive the same amount of continuing education as younger workers. The individual is ultimately responsible for his or her competence; however Sterns and Dorsett identified many other factors that influence competences including: challenging assignments, job security, flexibility, level of support from the organization, rewards offered, and motivation.
Ball (1999) agrees with the career development activities recommended by Sterns and Dorsett (1994). In fact, these activities are the same career development activities recommended for the HIM professional. Ball (1999) supports the need for RHIA s to supplement their formal education in ways that will provide them with the necessary skills for the future. Before this can happen, the HIM professional must overcome his or her fear of technology. The professional must educate him or herself and then teach others. Education does not have to be formal college courses, but can be informal education such as surfing the Internet. The HIM professional must work with other professions and make a commitment to technology as part of his or her obligation to change.

_Tiedeman and O’Hara._

According to Isaacson (1986), Tiedeman and O’Hara’s career development theory portrays career development as “a process of organizing and identification with work through the interaction of the individual’s personality with society” (p. 57). The theory has two periods: anticipation and implementation/adjustment. There are four stages in anticipation period: exploration, crystallization, choice, and specification. The period of implementation and adjustment is made up of three stages: induction, transition, and maintenance. Exploration is time spent investigating alternatives. The crystallization stage is entered as the choices are evaluated. Choice is when the individual decides on a career direction. Specification is when the individual prepares to implement a chosen career direction. After the decision is made, the individual begins the implementation process. Induction is when the individual begins to find his or her position in the group. In the transition stage, the individual gains confidence in skills and becomes more involved in the group. Maintenance is a time of balance between the group’s goals and that of the individual. This theory allows for the return to a previous stage. In the case of the HIM professional, it is the healthcare environment and the professional is out of balance. There are many changes affecting healthcare and the HIM professional must be ready for them (Borges, 1995). It is critical that the HIM professional become educated on the changes that the profession is facing. The HIM professional must take what is learned and apply it to the career.
Women’s Career Development

Career development for men is better understood than women’s (Farmer, H. S., 1997). There are four initiatives to women’s career development according to McDonald and Hite (1998). These initiatives are mentoring, training, career development, and informal learning. Mentoring provides the opportunities to learn about the culture of the organization and to provide support to the new professional. It also provides career guidance. Training allows the professional woman to develop skills and to network with other professionals. It also opens the door to career advancement because of the new skills. The career planning stage requires the woman to focus on her professional career goals and to prepare for progression. The final initiative is informal learning. Informal learning allows the woman to prove herself. Women’s career development is important to this study since the HIM profession is traditionally a female dominated profession.

According to Gallos (1989), the three approaches for career development for women are sociological, cultural, and psychological. Sociology issues look at how organizations and sociological norms affect men and women differently. Culture career development research look at issues related to how the traditional view of men and women roles affects career development. The psychological view looks at the individual and how she sees herself in her surroundings.

Gallos (1989) explains that women’s career development must take different career patterns into account. The careers patterns of women are often affected by the birth of children, taking care of elderly parents, and other family responsibilities. Traditional career development would predict that these women are less successful in their careers because of competing demands. Women are seen as needing to be patient in reaching their career goals. Reaching these goals may be a lifetime effort. Research into women’s career development has been fragmented and more research is required. The research must take into account “psychological and developmental issues, structural and institutional concerns, and cultural beliefs about the genders” (p. 125).

Deficits with Traditional Theories
Career development theory must meet the needs of all types of jobs and careers. The traditional career development theories are becoming irrelevant to today’s careers (Leach & Chakiris, 1988) because they have typically been linear where the person followed the basic flow of “education-employment-retirement” (Kerka, 1991, p. 1) and they follow a generally upward trajectory. In today’s environment, new ways of studying career development are important. Career development must adapt to other career forms such as free-form careers and mixed-form careers. Free-form careers include volunteer work as well as temporary and part time work. Mixed-form work not only includes temporary and permanent unemployment, but also includes employed people who “are making significant changes in their repertoire of skills, knowledge, an attitude orientations” (Leach & Chakiris, 1988, p. 52) needed for their jobs.

There is a trend to reject the traditional view of career development. The basis for this is suspect because of a dearth of evidence on what is actually learned during the traditional methods of professional development (Wilson & Berne, 1999). Most of the studies have been based on white males. Studies have also included workers who had “continuous, ascending career paths within one occupational field” (Gill, Coppard, & Lowther, 1983, p. 22).

Career Planning

Career planning is establishing the direction of your career (Cummings & Worley, 2001). An important part of career planning is conducting a self-assessment. This is where the professional compares the skills that he or she has to the skills that he or she needs for the desired career. Once deficiencies are identified, then the professional can develop a plan to obtain the necessary skills (Barrett, J. P., 2000).

Integrative life planning was developed by Hansen (2001). It provides a holistic view of career development. Its basis is that is sees “work in relation to other life roles, or work within a life” (p. 265). There are six critical tasks of the integrative life planning process. These are: finding work that needs doing in changing global contexts, weaving our lives into a meaningful whole, connecting family and work, valuing pluralism and inclusivity, managing personal transitions and organizational change, and exploring spirituality, purpose, and meanings.
Humans change as they grow and mature. The attitudes, abilities, interests and relationships change over the course of the individual’s lifetime. Planning continuing education opportunities must take these changes into consideration (Knowles, 1950).

AHIMA can assist the HIM professional in the identification of need for continuing education through a study. AHIMA could ask the HIM professional to conduct a self-assessment which would be analyzed and compared to others. Feedback based on the analysis would identify any skill deficiencies. Possible resources to eliminate the deficiency could also be provided. If the self-assessment is conducted, the skills should be based on national standard of practice (Sullivan, 1981). The HIM professional can then develop a career plan using what was learned during through the self-assessment. The plan can help the HIM professional meet his or her career goals (Barrett, J. P., 2000).

**Impact of Technology on Career Development**

Hayes (2000) supports the belief that:

Career development evolves over your life span as you engage in the process of careering and re-careering. When you experience a transition in your career, you move from a period of relative stability to a period of turmoil or crisis. As we have seen, this shift can be triggered by external factors such as layoffs, reorganizations, the retirement of your boss, the promotion of your rival, or the introduction of new technology (p. 13).

The addition of new technology to this list is different from other transition literature which focuses on job or changes. Hayes goes on to write that if you are in a period of career transition, there is a six step model for career success. These steps are self-assessment, career exploration, decision making, goal setting, acquiring job search skills, and acquiring career success skills. The pace of these steps may be faster than you desire and you may recycle through these steps many times. Everyone will experience times of transition in this time of rapid change due to technology organizational structure and other reasons. Each time that the individual follows the transitional steps, change becomes easier. Career transitions require “deep
soul-searching work and careful planning” (p. 17). In other words, career transitions require critical reflection.

**Critical Reflection**

Critical reflection has two components.

“The first is to understand how considerations of power undergird, frame, and distorted educational processes and interactions. The second is to question assumptions and practices that seem to make … lives easier but actually work against our own best long-term interests (Brookfield, 1995, p. 8).

Reflection means “a process of deep thought, both a looking backwards to the situation being pondered upon and a projecting forward to the future, being a process both of recall and reasoning” (Jarvis, 1987, p. 87). Miller, Bligh, Stanley, and Shehri (1998) write that “the processing of experience in order to gain useful understanding and skills is such a natural phenomenon that much of it goes unrecognized as learning” (p. 1429). Ross and Regan (1993) define reflection as an individual process containing two elements: metacognition (awareness of the strategies, theories, and feelings that underlie one’s professional problem solving) and appraisals (judgments about performance)” (p. 92). They believe the reflection is critical to the constructivist career development models. The constructivist model’s first stage is dissonance. This stage has three steps: self-awareness including beliefs and actions, and dissatisfaction with the way things currently are, and the identification of a desirable option. The next stage, synthesis, is when the individual identifies differences between his or her current knowledge and skills and where he or she wants to be. Experimentation is when the individual attempts his or her desired change. Integration is implementation of additional changes needed in order to meet goals. All of these stages are impacted by the characteristics of the individual learners as well as contextual variables.

In spite of the difficulties of engaging in critical reflection, it is important to professionals. There are six reasons for the importance of critical reflection. The first is that it helps us make “informed actions” (Brookfield, 1995, p. 22). Informed actions are more likely to
be successful. The next reason is that critical reflection allows us to reason for what we are doing. It helps the individual to not be critical of him or herself when things do not work out like planned. It also helps us control our emotions. The next reason is that it improves learning in the classroom. The final reason is that it develops a sense of open trust (Brookfield, 1995).

Professionals can think back on what they did in order to learn why it worked out the way that it did. This is called reflecting on action. This type of reflection does not have any impact on our current activity. If instead, we reflect while we are in the middle of a task, we are able to actually make a difference in what we do. Reflecting in action as the previous statement implies is thinking about what we are doing. This reflection is not something that happens only rarely, but instead if a frequent occurrence by professionals (Schön, 1983).

*Summary of Career Development Literature*

Career development is utilized by individuals to direct the future of their careers. Much of the research is not appropriate for this study because it focuses on career choice, career satisfaction, and career changes. Another focus of the career development research is based on the individual’s life cycle. Very little research looks specifically at the career development needs of individuals who are in professions undergoing significant change. Research has documented a lot about career development. Some of the issues learned are identified below. Research shows that the career development needs of women are different from men. This difference is important to the HIM profession because it is traditionally female dominated. One of the important components of career development is critical reflection which helps identify skill deficiencies that need to be corrected. One finding of the career development research is that younger people adapt to changes utilizing technology much faster than older people. Since the implementation of technology is an important change in the HIM professional’s role, this knowledge is important. No matter what theory is preferred, the focus of career development is competence of the professional.

*Summary of Literature Review*
The literature clearly documents the many changes facing healthcare and the HIM profession. These changes include a wide range of areas including the basic structure of the healthcare system itself, technology, changes in legislation, changes in the way that healthcare providers are reimbursed, e-health, and the computerized patient record. These changes will require the HIM professional to update his or her skills in order to function in the new environment. The future HIM professional will assume new roles which have been created in response to the changes. These new roles are health information manager for integrated systems, clinical data specialist, patient information coordinator, data quality manager, information security manager, data resource administrator, and research and decision support specialist. The HIM professional must learn about these new roles. Participation is important to this learning.

Participation of adults in learning has been widely researched over the years. Researchers have looked at participation from two perspectives: motivation of the individuals to participate and deterrents that keep the individuals from participating. The participation research has been very consistent in identifying motivation and deterrents. For example, the research shows that professional’s major reasons for participation in learning are to maintain his or her competence, to improve, and because of external pressures. The major deterrents are consistently time and money. The common motivations and deterrents are true for both general adult education research as well as healthcare specific research.

Change is constant and creates fear in the individuals affected by the change. There are also many different views of change. Some researchers focus on the steps that take place in order to create change. Others focus on the diffusion of an innovation. Still other researchers focus on the how drastic the changes are. Another model focuses on the characteristics that must be in place for change to occur. Another view of change is that it is as a result of transitions. While these models vary greatly, the end result is the same – change.

Review of the career development research was disappointing because most of it focused on the steps in career develop and life cycle development. Even the research on career development and change focused on when an individual changed professions. There was very
little literature on the impact that environmental factors resulting in change of the profession itself has on a person’s career development. Research relevant to this study, like Super’s life cycle model, recognizes the need for adults to update skills. Many of the relevant theories allow the individual to return to an earlier stage where progressing through a career. Research also shows that self-assessment is important to an individual’s career development since must identify skill deficiencies must be identified and corrected. Continuing education can correct these deficiencies.

Continuing education must be a lifelong commitment. Professionals who do not maintain competency may not be able to work in their chosen field. Continuing education may consist of formal learning opportunities such as college courses or seminars. It may also consist of informal methods of learning such as reading, talking with peers and developing a mentoring relationship. There are nontraditional methods of continuing education such as the Internet, teleconferencing, and portfolios. This continuing education may be voluntary or mandated. Mandates for continuing education come from professional associations or state licensing regulations. In the case of the HIM professional, the AHIMA mandates the continuing education. Many people have debated the effectiveness of continuing education, but research has shown that it is effective and therefore can be used to adapt to change.
CHAPTER THREE
METHODOLOGY

Introduction

The purpose of this study was to investigate the issues surrounding the participation of Registered Health Information Administrators (RHIAs) in continuing education that will prepare them for the new Health Information Management (HIM) roles. This chapter describes the study conducted. The description includes conceptual framework, instrument development, instrument testing, reliability and the validity of study. This chapter also describes the questionnaire, sample, and the RHIAs who responded.

Research Questions

The following research questions were used for the proposed study:

1. Are Registered Health Information Administrators aware of the new Health Information Management roles and to what extent do they think each role is important to the future of the profession?
2. What deters and what motivates Registered Health Information Administrators to participate in continuing education on the new roles?
3. How are Registered Health Information Administrators participating in continuing education on the new roles?

Conceptual Framework

This research study was intended to provide practical information to RHIAs and the American Health Information Management Association (AHIMA). Because of the practical nature of the study, the emphasis was placed on the professional development of RHIAs. This was accomplished by investigating the RHIA’s acceptance of the new roles and how they are acting upon the new roles. There were four independent variables used in this study. These independent variables are: awareness of new roles, deterrents to participation,
motivations to participate, and the perceived importance of new roles. There is one dependent variable – amount of participation in hours. The amount of participation is expressed in the number of hours devoted to continuing education on the new roles. The continuing education includes both formal and informal education. RHIAs are mandated by AHIMA to participate in a minimum of 30 continuing education hours every two years (Eichenwald, 2001). This mandated continuing education is not addressed separately in the model; however it is included in one of the motivations to participate. The linkage of these variables can be depicted graphically as shown in Figure 1.

Independent Variables

![Diagram of conceptual framework]

Figure 1. Drawing representing conceptual framework: This shows the connection of awareness, deterrents, motivation, and perceived importance of the new roles to the amount of participation in continuing education on the new roles.

Description of Sample

In order to collect the appropriate data to answer the research questions above, careful sample selection was critical to the success of this study. There were three critical criteria required for appropriate sample selection. These criteria are discussed below.
**Criterion One: Certified by AHIMA as a RHIA**

It was decided that the most appropriate participant for this study were individuals who were certified by AHIMA as a RHIA. In order to sit for the RHIA certification exam, the candidate must graduate from an accredited college with a bachelor degree in Health Information Management (may also be called Health Information Administration). In order to maintain certification, RHIAs must participate in 30 hours of continuing education every two years. These RHIAs work anywhere that healthcare data is collected, analyzed, or disseminated. The reason that the RHIA was selected instead of, or in conjunction with, the Registered Health Information Technician is that the RHIA’s career is significantly more impacted by the changing roles identified in Vision 2006. Simply defined, Vision 2006 describes the skills identified by AHIMA, after a comprehensive study, which will be required of the HIM professional, including the RHIA, to meet the needs of the changing healthcare environment (AHIMA, 1999). The changes facing the HIM profession include drastic restructuring of the healthcare system itself, the development of a computerized patient record, managed care, and other major issues. These changes are so drastic that AHIMA has identified seven new roles for the RHIA. These new roles are: health information manager for integrated systems, clinical data specialist, patient information coordinator, data quality manager, information security manager, data resource administrator, and research specialist (AHIMA, 1999).

The more significant impact on the RHIA mentioned above can be validated by comparing the RHIA Certification Examination Content Outline and the Registered Health Information Technician Certification Examination Content Outline to the Vision 2006 roles and their respective tasks. The RHIA and Registered Health Information Technician Certification Examination Content Outlines are the educational standards that HIM educational programs must meet in order for graduates of the program to sit for the appropriate registration examination. These content outlines list all of the subject areas that entry level RHIAs and Registered Health Information Technicians must know. A review of both Certification
Examination Content Outlines shows that the RHIA’s standards are much more in line with the Vision 2006 tasks (AHIMA, n.d.c.; AHIMA, n.d.d).

Criterion Two: Active Member of AHIMA

The participants in this study were active members of AHIMA. According to the AHIMA website, there are four membership categories including: active, associate, senior, and student. The active member category contains credentialed HIM professionals, which includes RHIA. The associate membership category contains people from other professions who have an interest in HIM. The senior members are individuals who are active or associate members, but who are currently 65 years old or older. The student members are currently enrolled in an accredited HIM program (AHIMA, n.d.b.).

The reason for the selection of the active membership category was because it contains the RHIA. The active members for the most part are actively working in the HIM field and therefore have a reason to participate in continuing education centered on the new roles. People in other professions, or who have retired, would not have a reason to become proficient in the new roles. Another reason for selecting active members of AHIMA was that they receive the Journal of AHIMA. In this periodical, there have been numerous articles regarding Vision 2006, the future of the HIM profession, and the need for professional development. Possession of the Journal of AHIMA should ensure that they are informed, or at least have the opportunity to be exposed, to the new roles. Because of the possibility that the RHIA was not familiar with the seven new roles, a definition of the roles were provided on the research questionnaire.

Criterion Three: Employed in a Traditional or Nontraditional HIM Role

The final criterion is that the RHIA must be employed in either a traditional or non-traditional HIM role. This employment status should ensure that the RHIA has a need to update his or her skills. If the professional had maintained his or her credentials and his or her active membership in AHIMA, but currently works in a non-HIM field like banking, then he or she would not be affected by the changes in healthcare. Traditional versus non-traditional roles are easily identified by the job title. Traditional HIM roles have job titles such as director, assistant
director, or supervisor of HIM. Non-traditional roles have job titles like: systems analyst, database manager, peer reviewer, and contract researcher (Brant, 1995).

Additional Comments

In summary, the participants in the study were RHIAs, who are currently employed in a traditional or non-traditional HIM role, and who are active members of AHIMA. These three criteria ensured that only appropriate participants are chosen.

Candidates for inclusion in the study were identified by AHIMA, who provided me with the names and addresses of individuals who met the criteria described above. The names and addresses of the RHIAs provided to me were identified through a random selection process. The entire database of RHIA active members of AHIMA was used to draw the random selection. The sample included RHIAs from across the country.

According to the AHIMA website, they have over 40,000 members. Approximately 40% of these members are RHIAs (AHIMA, n.d.h.). The total population of active members from which the sample was drawn was 12,967. Because of the size of the estimated population and the desire for a 95% confidence level, the desired sample size was approximately 400 (Kingery, Bryant, Palmer, & Araghi, 1989). A 50% return rate was assumed, resulting in a mailing of 800 questionnaires to obtain the desired sample size.

The population from which the sample was drawn included all credentialed RHIAs. AHIMA does not require RHIAs to be a member of the organization. This means that there are more RHIAs than the number of active members of 12,967 indicates. In fact, there are 17,471 RHIAs. The sampling frame was all of the RHIAs who were active members of AHIMA at the time of the study. The sample was the number of RHIAs responding to the questionnaire. This structure may have resulted in response bias. The reason for this possible response bias was that RHIAs who are not interested in the future of the profession and the new roles may not be active members of AHIMA or they may be less likely to complete the questionnaire. This could lead to non-interested RHIAs being under represented in this study.
**Instrumentation**

This quantitative study used a self-administered, mailed questionnaire. Because this study focused on the RHIA and the new roles facing the profession, there was no existing instrument available; therefore one had to be constructed. This instrument can be found in Appendix A. On this questionnaire, there were four constructs. These constructs are depicted in Figure 1 as: awareness of new roles, deterrents to participation, motivation to participate, and perceived importance of new roles. All of these constructs were needed in order to answer the research questions.

A review of the literature was conducted to help identify the questions that should be on the questionnaire (Niewswiadomy, 1998). Some of the questions were written in the forced-choice format in order to facilitate data collection and data analysis. The use of this type of question was why the review of the literature was so important. The literature identified all of the possible motivations and deterrents to participation, methods of continuing education, and other responses that were listed in the forced-choice responses.

A need for open-ended questions such as age, number of continuing education hours reported to AHIMA, number of continuing education hours on the new roles, and year that the participants earned his or her RHIA certification were identified. These open ended questions had to be worded in such a way that the data could be easily collected, calculated, and analyzed. The wording of the open ended questions also had to foster the types of response needed to answer the research questions. The examples given above were suitable for open ended questions because the appropriate responses are numbers or a year which could be easily used in data analysis. Other open ended questions included race/ethnicity, work setting, and job title. I categorized the responses received to the race/ethnicity, work setting, and job title open ended questions.

The use of expert panels was important to the development of the instrument. The purpose of the expert panels was to ensure that the questionnaire was complete and appropriate. The use of expert panels also ensured good design and ease of use. The first expert panel was
made up of a group of research experts. The focus of the research expert panel was the quality of the questionnaire with regard to need for questions, wording of questions, scales used, and formatting of the questionnaire itself. The members of this panel were active researchers from the University of Georgia Adult Education Program. The second expert panel was made up of content experts. This expert panel was made up of a group of RHIAs who met the criteria for inclusion in the study. Two of them had earned doctorates, two had masters and all were in the education field. All of the content experts had research experience. All questions included in the questionnaire were based on the five constructs identified above. Superfluous questions were eliminated through these expert panels’ review (Dillman, 2000). Both types of expert review were needed to ensure good research and appropriateness for the RHIAs to be studied.

Contents of Instrument

Validity is a critical part of any research. It can be defined as ensuring the quality of the interpretations drawn from the data that have been collected (Vogt, 1999). A rigorous process was used to ensure validity including using the literature to determine what questions should be on the questionnaire. Validity was built into the questionnaire through the identification of traceable sources to justify each item on the questionnaire. The literature was also used to identify the available options for selection for continuing education methods, deterrents, and motivations. In this section, an item by item walk through of the instrument describes the references used in the development of the questionnaire. As stated above, careful review of the instrument by two teams of experts was conducted. Changes were made to the instrument as a result of the input of the expert teams. The questionnaire provided to the content experts is in Appendix B.

Reliability is about collecting consistent and stable data (Nieswiadomy, 1998). Because of the nature of this survey, one item measures were taken. Because of the one item measures, reliability cannot be ascertained. To combat this problem, additive scales were calculated for two of the independent variables: deterrents to participation and motivation to participation. For each of these additive scales, the coefficient alpha helped determine reliability. Coefficient alpha
is “a measure of internal reliability” (Vogt, 1999, p. 64). Coefficient alpha was also used to measure the reliability of perceived importance of role. This measurement is useful when Likert type scales are used. The end result of the expert panels was the pilot instrument which appears in Appendix C. The steps taken to ensure reliability and validity are summarized in Table 3.1.

The questionnaire used in this study had five sections. These sections are Status on New Roles, Importance of Roles, Learning about the New Roles, and Continuing Education Experiences, and Background Information. On the next few pages, the questionnaire is described on a question by question basis. The final questionnaire can be found in Appendix A.

Section I: Status on New Roles

Item 1. How familiar are you with the roles proposed by Vision 2006?

The responses from which the respondents selected their answer were based on Hall and Hord’s (1987) Stages of Concern model. This model was appropriate because it shows a progressive acceptance of an innovation. The RHIA is facing innovation because of the advent of technology and other changes affecting the professional. This item was seen as an ordinal independent variable. This question was needed to answer research question 1.

Section II: Perceived Importance of Role

AHIMA (1999) identified seven new HIM roles facing the RHIA. The summary of the new roles documented on the questionnaire were paraphrased from the AHIMA definitions of the roles. Table 3.2 shows the congruence of the AHIMA definition and the summary utilized on the questionnaire. The addition of this information to the questionnaire was important just in case the respondent was not familiar with the new HIM roles. These respondents would need this information to be able to answer some of the questions on the questionnaire.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of Items</th>
<th>Reliability Evidence</th>
<th>Validity Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of new roles</td>
<td>1</td>
<td>Not applicable.</td>
<td>1. Based on Hord and Hall’s Stages of Concern theory.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Prepilot and pre-expert panel review of questionnaire by RHIAs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Items on questionnaire reviewed by two expert panels.</td>
</tr>
<tr>
<td>Deterrents</td>
<td>6</td>
<td>Calculation of coefficient alpha.</td>
<td>1. Review of literature.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Prepilot and pre-expert panel review of questionnaire by RHIAs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Items on questionnaire reviewed by two expert panels (adult educators and RHIAs).</td>
</tr>
<tr>
<td>Motivation</td>
<td>6</td>
<td>Calculation of coefficient alpha.</td>
<td>1. Review of literature.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Prepilot and pre-expert panel review of questionnaire by RHIAs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Items on questionnaire reviewed by two expert panels (adult educators and RHIAs).</td>
</tr>
<tr>
<td>Perceived importance of roles</td>
<td>7</td>
<td>Calculation of coefficient alpha.</td>
<td>1. Review of literature.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Prepilot and pre-expert panel review of questionnaire by RHIAs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Items on questionnaire reviewed by two expert panels (adult educators and RHIAs).</td>
</tr>
<tr>
<td>Amount of participation (in hours)</td>
<td>7</td>
<td>Not applicable other than adding up the total amount of participation</td>
<td>1. Review of literature.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Prepilot and pre-expert panel review of questionnaire by RHIAs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Items on questionnaire reviewed by two expert panels (adult educators and RHIAs).</td>
</tr>
</tbody>
</table>
The questions in Section II of the questionnaire asked the participants how important they believed the new HIM roles to be. Items 2 – 8 were prefaced with the following statement:

“Registered Health Information Administrators have a variety of roles to choose from. Whether you are familiar with Vision 2006 or not, please read the description for each of the seven new roles identified by Vision 2006 and indicate the extent to which you believe it is an important role for the Registered Health Information Administrator. (This question is not asking if you currently perform these roles, but instead how important you think the roles are to the profession.)”

For each of the seven roles, the participants answered the question by selecting one response from a six category Likert type scale with only the endpoints numbered. The scale ranged from not important to very important. For each item, responses were summed to produce a dependent variable. These items were necessary to answer research question 1.

Section III. Learning about the New Roles

Two of the study’s constructs were answered by the questions that made up this section of the questionnaire. The first construct was motivation to participate in continuing education on the new HIM roles. The second construct was deterrents to participation in continuing education on the new HIM roles. These two categories were grouped together on the questionnaire because the categories are both related to RHIA’s participation in continuing education on the new HIM roles described in Section II of the questionnaire.

Items 9-20 were prefaced by the following statement:

“The American Health Information Management Association has encouraged its members to learn the skills needed to assume the new roles. Learning new skills can be challenging for busy working professionals. For each item, circle the number that indicates whether you agree or disagree with the motivations for learning.”
### Table 3.2

**Comparison of AHIMA Definition* and Questionnaire Items**

<table>
<thead>
<tr>
<th>Role</th>
<th>AHIMA Definition</th>
<th>Questionnaire Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Information Manager for Integrated Systems</td>
<td>The health information manager for integrated systems is responsible for the organizationwide direction of health information management functions. The role may be a line or staff management position. It includes working with the chief information executive and information system users to advance systems, methods, and applications support and to improve data quality, access, confidentiality, security, and usability.</td>
<td>Responsibilities include directing health information management throughout the organization.</td>
</tr>
<tr>
<td>Clinical Data Specialist</td>
<td>The clinical data specialist concentrates on data management functions in a variety of applications including clinical coding, outcomes management, specialty registries, and research databases.</td>
<td>Responsibilities include managing data from a variety of sources.</td>
</tr>
<tr>
<td>Patient Information Coordinator</td>
<td>The patient information coordinator is a new service role that helps consumers manage their personal health information; it also helps them to understand managed care services and access to health information resources.</td>
<td>Responsibilities include assisting consumers with managing their health information and navigating the healthcare system.</td>
</tr>
<tr>
<td>Data Quality Manager</td>
<td>The data quality manager is responsible for data management functions that involve formalized continuous quality improvement activities for data integrity throughout the organization, beginning with the data dictionary and policy development, as well as data quality monitoring and audits.</td>
<td>Responsibilities include ensuring the quality of data and managing policies.</td>
</tr>
<tr>
<td>Information Security Manager</td>
<td>The information security manager is responsible for managing the security of electronically maintained information, including promulgation of security requirements, policies and privilege systems, and performance auditing.</td>
<td>Responsibilities include protecting the confidentiality of computerized data.</td>
</tr>
<tr>
<td>Data Resource Administrator</td>
<td>The role of data resource administrator represents the next generation of records and data management and uses technological tools such as the computer-based patient record, data repositories, and data warehouse to meet current and future care needs across the continuum, provide access to the needed information, and ensure long-term integrity and access.</td>
<td>Responsibilities include using data warehouses and data repositories to ensure the information needed is available.</td>
</tr>
<tr>
<td>Research Specialist</td>
<td>The research specialist ensures the quality of data and information generated through clinical investigations and other research projects. The decision support specialist provides clinicians and senior managers with information for decision making and strategy development. Both specialists use a variety of analytical tools.</td>
<td>Responsibilities include assisting in research by ensuring the quality of data.</td>
</tr>
</tbody>
</table>

*(AHIMA, 1999)*
The descriptions of Items 9-20 were combined since they were related. The items are:

Item 9. Learning about the new roles is enjoyable.
Item 10. Learning about the new roles is expected of me by others.
Item 11. Learning about the new roles will allow me to help others.
Item 12. Learning about the new roles will allow me to meet new people.
Item 13. Learning about the new roles will enable me to update my skills.
Item 14. Learning about the new roles will enable me to make a change in my job.
Item 15. I do not have enough time to learn about the new roles.
Item 16. It costs too much to learn about the new roles.
Item 17. I cannot find any quality programs on the new roles.
Item 18. I have too many family responsibilities to learn about the new roles.
Item 19. I am not interested in the new roles.
Item 20. I have too many job commitments to allow me to learn about the new roles.

In Items 9-20, the respondents were asked to tell whether they agreed or disagreed with the specific motivator or deterrent to participation in continuing education on the new roles. The respondents did this by selecting one response from a six category Likert type scale. Items 9-14 are motivations to participate. The motivators were identified through a thorough review of the literature. After an exhaustive review of motivators in the literature, it was decided to adapt the motivators identified in Tassone and Heck’s (1997) research. Their research was chosen because it appears to be comprehensive and was conducted on allied health professionals.

Item numbers 15-20 are deterrents to participation. All of the deterrents on the questionnaire were identified through a thorough review of the literature. After review of the literature, the deterrents chosen were adapted from Scanlan and Darkenwald’s (1984) research. Their research was selected because of its comprehensiveness. Also, their respondents were predominantly women, like the RHIA population. Items 9-20 were important to answer research question 2.
Section IV. Continuing Education Experiences

The purpose of this section was to gather information on the continuing education experiences of the RHIA. This included the types of continuing education methods and the number of hours of continuing education that the RHIA participated in. Items 21-29 are prefaced by the following statement:

“Over the past two years, approximately how many hours have you participated in each of the following types of continuing education in order to learn about the new roles? If you did not participate in the type of continuing education, please enter zero (0).”

A description of the questions regarding the continuing education experiences is below. Items 21-27 are open ended questions that were used to collect data on the respondents continuing education methods used over the past two years. The methods included were based on the literature; however it was not based on a specific article or researcher. These items were required to answer research question 3.

Item 28. How many continuing education hours earned for your last AHIMA CE report were related to the new Health Information Management roles?

The RHIA must report his or her continuing education hours every two years (AHIMA, n.d.f.). This question asked the RHIA to record the number of hours from that report that related to the new roles. This requires an open ended question. This information was important in answering research question 3.

Item 29. How many total continuing education hours did you report on your last AHIMA CE report.

As stated above, the RHIA must report his or her continuing education hours every two years (AHIMA, n.d.f.). This question asks the RHIA to record the total number of hours reported on the CE report. This requires an open ended question. This information was important to be able to answer research question 3.
Section V. Background Information

The following questions were used to describe the sample and to conduct some additional research. These questions enabled us to determine if specific characteristics of the individual affected the level of participation in continuing education on the new roles.

Item 30. What year were you born?

The respondent’s age was considered to be an important demographic factor because it was assumed that a mature RHIA would be less likely to participate in continuing education on the new roles than younger RHIAs. An open ended question was used to ask the respondent for the year he or she was born. I calculated the respondent’s age by using SPSS’s mathematical capabilities. The information was used to describe the respondent and to conduct additional research.

Item 31. What is your gender?

The respondent’s gender was considered to be an important demographic factor. This data was collected with the plans to compare the responses of men to women to see if there were any differences. An open ended question was used to collect the data. The information was used to describe the respondent and to conduct additional research.

Item 32. What is your race/ethnicity?

The respondent’s race/ethnicity was considered to be an important demographic factor. This data was collected with the intention to compare the responses of the different race/ethnicities to determine if there were any differences. An open ended question was used in order to collect data to be used for the anticipated data analysis. The information was used to describe the respondent and to conduct additional research.

Item 33. What year do you expect to retire?

The number of years that the respondent is away from retirement was considered to be an important demographic factor. It was assumed that that an RHIA nearing retirement would be less likely to participate in continuing education on the new roles. An open ended question was used to ask the respondent what year he or she planned to retire. I used SPSS’s mathematical
capabilities to calculate the number of years until retirement based on the date provided by the respondent. The information was used to describe the respondent and to conduct additional research.

*Item 34. Do you have minor children under the age of 18 living in your home?*

Whether or not the respondent had children under the age of 18 was considered to an important demographic factor. This question was deemed important since the responsibility of children could limit the participation of the RHIA in continuing education activities. This was especially important because the HIM profession is predominantly female. Respondents circled “yes” or “no” to respond. The information was used to describe the respondent and to conduct additional research.

*Item 35. How would you classify where you live?*

The type of environment in which the respondent lived was considered to an important demographic factor. The reason for this was that the majority of traditional continuing education opportunities are provided in urban areas so it would be easier to participate if one lived in the city. The respondents chose between the classifications of rural, suburban, and urban. The information was used to describe the respondent and to conduct additional research.

*Item 36. Is there a four year college or university within an one hour drive of where you live?*

Whether or not there is a four year college or university within a one hour drive of where the respondent lived was considered to an important demographic factor. The reason for the selection of an hour was that it was a reasonable amount of commuting time in order to further one’s education. Respondents checked “yes” or “no” in order to respond. The information was used to describe the respondent and to conduct additional research.

*Item 37. What year did you receive your RHIA certification?*

The year that the RHIA received his or her credentials indicates whether or not the new roles were taught in the formal education. This was an open ended question that was used to capture the year that the RHIA certification was awarded. SPSS was used to calculate the
number of years ago that the certification was earned based on the year provided by the respondent. The information was used to describe the respondent and to conduct additional research.

**Item 38. What is your job title?**

The job title confirms whether or not the RHIA is working in traditional nontraditional HIM role. In this open ended question, the respondent wrote in his or her job title. I categorized the job titles for data analysis. This item proved to be an invaluable tool to confirm eligibility for inclusion in the study. A number of returned questionnaires were thrown out since some of the respondents no longer worked in HIM related roles. The information was used to describe the respondent and to conduct additional research.

**Item 39. How many years have you worked in Health Information Management?**

The number of years that the RHIA worked in the HIM profession was considered to be an important demographic factor. This was due to the fact that a RHIA with extensive experience was probably was not trained in the new roles in his or her formal education and therefore would need to update his or her skills. In this open ended question, the respondents wrote in the number of years. SPSS was used to calculate the number of years using the year provided by the respondent. The number of years experience in HIM could be significantly different than the number of years that the respondent was a RHIA since the respondent could have worked in HIM prior to earning the RHIA credentials. The information was used to describe the respondent and to conduct additional research.

**Item 40. How would you describe the setting in which you work (e.g. hospital, long term care)?**

The question asking what type of setting in which the RHIA works helped confirm that the respondent is working in a traditional or nontraditional HIM role. The respondents wrote in their response. Examples were given to ensure that the respondent knew how to respond. The information was used to describe the respondent and to conduct additional research.
Item 41. Is maintaining your RHIA certification a requirement of your job?

This question helped determine the motivation to participate in continuing education activities. The respondents checked “yes” or “no”. The information was used to describe the respondent and to conduct additional research.

Pre-testing the Instrument

Pretesting the questionnaire and the packet of information to be utilized in the study was critical. The pretesting was conducted in four stages. These stages are listed in Table 3.3 and described further in this section.

The first two stages identified in Table 3.3 were conducted prior to the prospectus defense. The last two stages were performed afterwards. The first stage of the pretest was a review of the questionnaire by research experts. The purpose of the review was to determine if all needed questions were contained on the questionnaire, if there were superfluous questions, if there were poorly worded questions, and if there were questions that not everyone can answer (Dillman, 2000). A panel of research experts was assembled and asked to provide feedback on the questionnaire and cover letter. Active researchers in the University of Georgia Adult Education Department were invited to participate in a review of the document. As a result of the input of these research experts, questions were reworded and a scale was changed. The result of this meeting with research experts was the prototype instrument.

Table 3.3

Instrument Pretesting Process

<table>
<thead>
<tr>
<th>Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Review of prototype instrument by research experts.</td>
</tr>
<tr>
<td>2. Prepilot review of prototype instrument by content experts.</td>
</tr>
<tr>
<td>3. Review by the dissertation committee.</td>
</tr>
<tr>
<td>4. Study using pilot instrument on a sample of RHIAs.</td>
</tr>
</tbody>
</table>
The second stage of the pretesting was a prepilot review of the prototype instrument, which can be found in Appendix B. A panel of content experts was contacted to review the questionnaire and cover letter. The prepilot review was used to determine if the questions and the questionnaire were understood by everyone in the same way. Validity cannot exist if people can interpret the questions in more than one way. The participants in the prepilot review were individuals who met the criteria for inclusion in the study. The panel reviewers helped ensure that the words used on the questionnaires are common words that would be understood by all of the participants. The content experts were asked about the format of the questionnaire, and the packet that was sent to the participants. The content expert reviewers were asked if they could identify characteristics that would deter participants from completing the questionnaire (Dillman, 2000). Minor changes in wording resulted from the prepilot review. No other changes were identified. Again the expert panels had research experience, as well as content expertise.

The third stage of the pretesting is a review by the dissertation committee at the prospectus defense. This review resulted in a new question being added to the questionnaire. The added question was Item 41: “Is maintaining your RHIA certification a requirement of your job?”

The fourth stage of the pretest was the pilot study. The purpose of the pilot study was to assess the quality of the prototype instrument, test the data collection process, and to test the technical aspects of the study. In the pilot study, the questionnaires were to be provided to 30 to 50 individuals who met criteria for inclusion in the full study. The actual number of participants in the pilot study was 33. The results helped determine if the questionnaire provided the data needed to answer the research questions. It also helped determine if there is a problem with one or more questions, or with the design of the questionnaire itself. The phrase “If you did not participate in the type of continuing education, please enter zero (0)” was added to the instructions to Section IV. This sentence was needed because a number of people in the pilot study left these questions blank. I did not know whether or not they did not want to respond to
the question or whether they had not participated in this type of continuing education. No other problems with the questionnaire were identified.

Data Collection Process

The questionnaire used in this study was mailed to 800 RHIAs. AHIMA identified the 800 RHIAs through a random sampling process. This was possible since AHIMA’s membership database had the capability to generate a random sample based on the criteria that I provided to the association. This format was the most appropriate for the desired national study of RHIAs. It was only through a comprehensive national study that the results could be generalized throughout the entire RHIA population. The questionnaire was designed to be as short as possible, while still gathering the data necessary to completely answer the research questions. The questionnaire was presented in a professional appearing booklet format in order to give a strong positive first impression. It was also designed to be user friendly in order to facilitate completion and therefore enhance the return rate (Dillman, 2000).

Process Utilized

The survey process consisted of three contacts with the participants. This process was designed to help get an acceptable response rate. These three contacts are described below.

Contact 1: Questionnaire.

The questionnaire was mailed on March 16, 2003 to the participants along with a cover letter explaining the purpose of the study and why their participation was so important. The questionnaire packet included a self-addressed, stamped envelope in order to facilitate participation (Dillman, 2000). In Appendix C, the pilot instrument can be found. Appendix D contains the cover letter that was sent in the packet. Appendix E contains the required Institutional Review Board letter was included in the packet.

Participants who returned a complete questionnaire were entered into a drawing for $100.00. I requested an endorsement letter from the Executive Director of AHIMA, Linda Kloss. She graciously complied. A copy of the letter obtained and mailed to the participants is in Appendix F. The purpose of this letter was to give the research project credibility and show
the participants the importance of the study. Hopefully the addition of the endorsement increased the return rate.

Prior to mailing, the questionnaires were numbered in order to track who had returned the questionnaire and who had not. If the participant did not return the questionnaire within 20 days, a postcard was sent (Dillman, 2000). This postcard will be discussed in the next section.

Throughout the process the participants were assured that their responses would be confidential and that their participation was voluntary. The participants were provided with the purpose of the study. The participants were also notified that only aggregate data would be used. The participants were informed that the results of the study would be used for the dissertation, and the findings would be submitted to the *Journal of AHIMA* for publication.

Every effort was made to make the contacts with the participants as personal as possible. This personalization may have helped improve the return rate of the questionnaire. Personalization included a letter addressed individually to the participant and an original signature in blue ink. The letter included a phone number that the participants could call in order to ask questions or to verify the authenticity of the study (Dillman, 2000). Personalization was appropriate for this survey because the participants were peers of mine. In fact, I met all criteria for inclusion in the study. The fact that an RHIA was conducting the study may have encouraged other RHIA’s to complete the questionnaire.

The choice of data collection method described above was appropriate for a national sample of a prescribed population. It is also a commonly used format for self-administered, mailed questionnaires. This type of study enabled me to reach a large number of RHIA’s across the nation. It also allowed a sample large enough so that conclusions could be drawn if the return rate was large enough. There was no way that a qualitative study or a study of RHIA’s in Georgia could generate the data needed to make generalizations about the RHIA’s preparation for the new roles. The rigorous pretesting also helps ensure the validity and reliability of the study. Anything other than high research standards was unacceptable.
Contact 2: Postcard.

A postcard was mailed on April 7, 2003 to RHIA s who had not returned the questionnaire within 20 days. This reminder did not have an accusatory tone, but one that encouraged completion of the questionnaire. An example of this postcard is found in Appendix G.

Contact 3: Second questionnaire.

If no response was received from the postcard in 20 days, a second copy of the questionnaire was mailed out on April 30, 2003. A new cover letter accompanied the questionnaire. The Institutional Review Board letter and the AHIMA cover letter were also sent. An example of the new cover letter is found in Appendix H.

Return Statistics

There were 800 questionnaires mailed to participants randomly selected by AHIMA. This was possible because AHIMA conducts a large amount of research and has a database with the capability to randomly select participants. The return rate from the mailings described above is described below. There were a total of 332 questionnaires returned. Of these, 287 were usable. A total of 42 of the returned questionnaires were not usable. Most of these were unusable because the participant did not meet the criterion for inclusion in the study. The reason that the RHIA did not meet criterion was that he or she was no longer employed in the HIM profession. Three were returned because of invalid addresses. The raw return rate was 41.5%. The usable return rate was 36.0%. Questionnaires received by June 6, 2003 were used in the study. Table 3.4 displays the return statistics. In the United States today, it is difficult to get a high return rate. People are just not taking the time to complete and return questionnaires. The usable return rate of 36% obtained for this study was not high enough to make generalized in the purest sense. In fact, the return rate raises the concern of a systematic response bias. RHIA s who are not concerned with the future of the profession, who are not familiar with the new roles, or who are not interested in the new roles, may not have completed the questionnaire. Systematic response bias could have impacted the findings.
Table 3.4

Return Statistics

<table>
<thead>
<tr>
<th>Return statistics</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total returned</td>
<td>332</td>
</tr>
<tr>
<td>Usable questionnaires returned</td>
<td>287</td>
</tr>
<tr>
<td>Returned for invalid addresses</td>
<td>3</td>
</tr>
<tr>
<td>Unusable questionnaires returned</td>
<td>42</td>
</tr>
<tr>
<td>Raw return rate</td>
<td>41.5%</td>
</tr>
<tr>
<td>Usable response rate</td>
<td>36.0%</td>
</tr>
</tbody>
</table>

Data Preparation

In this section, the data preparation process used for each of the research questions is described. SPSS reports were run on the frequencies of the items. The frequency reports were reviewed to look for problems with data entry and with the data itself. As a result of the review, some data entry errors were corrected. Item numbers 21, 22, and 29 were found to have at least one response that was significantly larger than all of the other responses. Because of the desire to prevent outliers from affecting the distribution of the statistics, the decision was made to cap the responses for Items 21, 22, and 29 at 200. This meant that three responses were capped for Item 21. The original responses were reduced from 410, 960, and 2000 to 200. For Item number 22, two responses were capped at 200. These two outlier responses were reduced from 480 and 2000 to 200. Item 29 required the reduction of one response to meet the cap of 200. This meant that the one outlier response was reduced from 372 to 200.

Two additive scales were created for use during data analysis. The additive scales were created for the independent variables motivation to participate and deterrents to participation. These additive scales were important to the reliability of the findings.

Coefficient alpha was calculated for motivations, deterrents and perceived importance of the new roles. The motivation coefficient alpha was 0.82 which indicates that reliability exists.
The deterrent coefficient alpha was 0.82 which also indicates that reliability exists. Reliability was also demonstrated for the perceived importance of the new roles due to a coefficient alpha score of 0.81. The coefficient alpha could not be calculated for awareness of the new roles since it was a one item measure. Table 3.5 shows the distribution of items on the questionnaire and the reliability used on each independent and dependent variables.

Table 3.5

*Item Distribution and Reliability of Independent and Dependent Variables*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of Items</th>
<th>Mean</th>
<th>SD</th>
<th>Coefficient Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of new roles</td>
<td>1</td>
<td>5.04</td>
<td>0.71</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Motivation to participate</td>
<td>6</td>
<td>27.55</td>
<td>5.51</td>
<td>0.82</td>
</tr>
<tr>
<td>Deterrents to participation</td>
<td>6</td>
<td>19.48</td>
<td>6.53</td>
<td>0.82</td>
</tr>
<tr>
<td>Perceived importance of new roles</td>
<td>7</td>
<td>35.32</td>
<td>4.99</td>
<td>0.81</td>
</tr>
</tbody>
</table>

A number of other data preparation steps were taken before the data analysis could be conducted. Calculations on the number of years that the respondent was a RHIA, number of years to retirement, and the age of the respondent was completed. The six categories of awareness of the new role were reduced to three categories. Since the job setting and job title fields on the questionnaires were open ended questions, the responses had to be grouped into a small number of categories. All job titles were also grouped by management and non-management as well as traditional and non-traditional roles. Most of these actions will be discussed further in Chapter Four. After completion of data preparation, the data analysis was conducted. The data preparation conducted is outlined in Table 3.6.
Table 3.6

Data Preparation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Data Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of the new roles</td>
<td>Six responses reduced into three categories.</td>
</tr>
<tr>
<td>Motivation</td>
<td>The sum of the responses to Items 9 through 14 was calculated. This score was used</td>
</tr>
<tr>
<td></td>
<td>to calculate the coefficient alpha which helps ensure reliability.</td>
</tr>
<tr>
<td>Deterrents</td>
<td>The sum of the responses to Items 15 through 20 was calculated. This score was used</td>
</tr>
<tr>
<td></td>
<td>to calculate the coefficient alpha which helped ensure reliability.</td>
</tr>
<tr>
<td>Perceived importance of the new roles</td>
<td>The sum of the responses to Items 2-8 was calculated. This score was used to</td>
</tr>
<tr>
<td></td>
<td>calculate the coefficient alpha which helped ensure reliability.</td>
</tr>
<tr>
<td>Amount of participation (in hours)</td>
<td>This dependent variable was created from the independent variables.</td>
</tr>
<tr>
<td>Continuing education methods</td>
<td>Responses considered to be outliers were capped.</td>
</tr>
<tr>
<td>Number of years as RHIA</td>
<td>This was calculated using date provided by respondent.</td>
</tr>
<tr>
<td>Age</td>
<td>This was calculated using date provided by respondent.</td>
</tr>
<tr>
<td>Number of years working in HIM</td>
<td>This was calculated using date provided by respondent.</td>
</tr>
<tr>
<td>Job titles</td>
<td>Grouped into small number of categories.</td>
</tr>
<tr>
<td>Work settings</td>
<td>Grouped into small number of categories.</td>
</tr>
<tr>
<td>Management vs. Non-management</td>
<td>Job titles were classified as management or non-management</td>
</tr>
<tr>
<td>Traditional vs. Non-traditional</td>
<td>Job titles were classified as traditional or non-traditional HIM roles.</td>
</tr>
</tbody>
</table>
Data Analysis

SPSS Graduate Pack 11.0 was used to analyze the data. Data were entered and the appropriate statistical methods were utilized. In this section, the data analysis process used for each of the research questions is identified. The data analysis process is summarized in Table 3.7. The statistical methods used in the data analysis for each research question and the conceptual framework are as follows:

1. Are Registered Health Information Administrators aware of the new Health Information Management roles and do they think these roles are important to the future of the profession? The first part of this question was answered by using frequencies of responses to Item 1 on the questionnaire. The perceived importance of role was answered by calculating the means and standard deviations of each of the roles.

2. What deters and what motivates Registered Health Information Administrators to participate in continuing education on the new roles? This question was answered by using the mean and standard deviation of each motivation and deterrent identified on the questionnaire. Motivations were identified on the instrument as Items 9 through 14. Deterrents were identified on the instrument as Items 15 through 20. To support reliability, an additive score was calculated for motivations and deterrents.

3. How are Registered Health Information Administrators participating in continuing education on the new roles? This question was answered by calculating the mean, and standard deviation of the hours spent on participating in continuing education on the new roles. The methods used to learn about the new roles are identified in Items 21 through 27.

4. Conceptual framework. Multiple regression using the four independent variables: awareness of new roles, deterrents to participate, motivation to participate, and perceived important of new roles was calculated. The dependent variable was the amount of participation in hours. Items 1-20 were used in the calculations.
Table 3.7

*Statistical Methods*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Statistical Methods Used</th>
<th>Item Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>Frequencies, mean, and standard deviation</td>
<td>1-8</td>
</tr>
<tr>
<td>Question 2</td>
<td>Mean, standard deviation, and additive scale</td>
<td>9-20</td>
</tr>
<tr>
<td>Question 3</td>
<td>Mean and standard deviation</td>
<td>21-27</td>
</tr>
<tr>
<td>Conceptual framework</td>
<td>Multiple regression</td>
<td>1-20</td>
</tr>
</tbody>
</table>

*Respondents*

The demographic information obtained from the completed questionnaires provides information about the respondents. Specifically it shows that the respondents ranged in age from 23 to 65 with the mean age being 44.4. The statistics also show that there were 26 males and 260 females responding to the questionnaire. The racial breakdown of the respondents was: 228 white, 25 African American, 11 Hispanic, 10 Asian, with 3 not indicated. The percentage of respondents with children under the age of 18 in their home was 50.3. The percentage of those without children under the age of 18 was 49.7. The respondents reported that 94.8% of them had a college within one hour of their home. Only 4.8% did not have a college within one hour of their home. 64.1% of the respondents were required to maintain the RHIA credential to maintain their job and 35.9% were not.

Job titles were grouped into traditional HIM role and non-traditional HIM role. 50.3% of the respondents worked in a traditional HIM role, while 47.6% worked in a non-traditional role. The mean number of years until retirement was 17.68. 53.5% of the respondents lived in the suburbs. The rural and urban classifications were virtually even at 22.7% and 23.8%. The mean number of continuing education hours performed on the new roles was 7.91 over the past two years. The mean number of continuing education hours reported on the last continuing education report was 42.35. Continuing education is reported every two years.
were in management roles (56.9%), than non-management (42.1%). All of this demographic information is outlined in Table 3.8.

Table 3.8

*Description of Respondents*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td>286</td>
</tr>
<tr>
<td>Male</td>
<td>26 (9.0%)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>256 (89.7%)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>Mean = 44.41; sd = 9.25; minimum = 23;</td>
<td>277</td>
</tr>
<tr>
<td></td>
<td>maximum = 65</td>
<td></td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td>277</td>
</tr>
<tr>
<td>White</td>
<td>228 (82.3%)</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>25 (9.0%)</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>11 (4.0%)</td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>10 (3.6%)</td>
<td></td>
</tr>
<tr>
<td>Children under the age of 18 in home?</td>
<td></td>
<td>288</td>
</tr>
<tr>
<td>Yes</td>
<td>145 (50.3%)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>139 (49.7%)</td>
<td></td>
</tr>
<tr>
<td>College within 1 hour of home?</td>
<td></td>
<td>289</td>
</tr>
<tr>
<td>Yes</td>
<td>271 (94.8%)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>14 (4.8%)</td>
<td></td>
</tr>
<tr>
<td>Maintain RHIA certification required?</td>
<td></td>
<td>290</td>
</tr>
<tr>
<td>Yes</td>
<td>183 (64.1%)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>103 (35.9%)</td>
<td></td>
</tr>
<tr>
<td>Number of years until retirement</td>
<td>mean = 17.68; sd = 9.23</td>
<td>206</td>
</tr>
<tr>
<td>Location Classified</td>
<td></td>
<td>286</td>
</tr>
<tr>
<td>Rural</td>
<td>65 (22.7%)</td>
<td></td>
</tr>
<tr>
<td>Suburban</td>
<td>153 (53.5%)</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>68 (23.8%)</td>
<td></td>
</tr>
<tr>
<td>Number of continuing education hours on the new</td>
<td>mean = 7.91; sd = 12.14; minimum = 0;</td>
<td>257</td>
</tr>
<tr>
<td>roles over the past two years</td>
<td>maximum = 75</td>
<td></td>
</tr>
<tr>
<td>Number of CE reported on the last CE report</td>
<td>mean = 42.35; sd = 24.54; minimum = 0;</td>
<td>265</td>
</tr>
<tr>
<td></td>
<td>maximum = 200</td>
<td></td>
</tr>
<tr>
<td>RHIA in management roles compared to those in</td>
<td></td>
<td>283</td>
</tr>
<tr>
<td>non-management roles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>161 (56.9%)</td>
<td></td>
</tr>
<tr>
<td>Non-management</td>
<td>122 (42.1%)</td>
<td></td>
</tr>
</tbody>
</table>
There were many different job titles listed by the respondents. The job titles were organized into the following categories: Director, HIM; HIM Coordinator, Assistant Director, HIM; Supervisor, HIM; Consultant; Coder; Informatics; Educator; Data Coordinator; Manager; and Other. The categories used are listed in Table 3.9. A list of the all job titles reported is provided in Appendix I.

Table 3.9

<table>
<thead>
<tr>
<th>Job Titles</th>
<th>Frequency (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director, HIM</td>
<td>61 (21.8%)</td>
</tr>
<tr>
<td>HIM Coordinator</td>
<td>7 (2.5%)</td>
</tr>
<tr>
<td>Assistant Director, HIM</td>
<td>8 (2.9%)</td>
</tr>
<tr>
<td>Supervisor, HIM</td>
<td>23 (8.2%)</td>
</tr>
<tr>
<td>Consultant</td>
<td>17 (6.1%)</td>
</tr>
<tr>
<td>Coder</td>
<td>29 (10.4%)</td>
</tr>
<tr>
<td>Informatics</td>
<td>12 (4.3%)</td>
</tr>
<tr>
<td>Educator</td>
<td>12 (4.3%)</td>
</tr>
<tr>
<td>Data Coordinator</td>
<td>21 (7.5%)</td>
</tr>
<tr>
<td>Manager</td>
<td>37 (13.2%)</td>
</tr>
<tr>
<td>Other</td>
<td>53 (18.9%)</td>
</tr>
</tbody>
</table>

The settings in which the respondents worked were also categorized. The categories that I used are: hospital, consulting, long term care, government, vendor, college, ambulatory care, corporate, and other. A listing of all work settings reported can be found in Appendix J. The categories used are also listed in Table 3.10.
### Table 3.10

**Work Settings Categorized**

<table>
<thead>
<tr>
<th>Work Settings</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>190</td>
<td>66.9%</td>
</tr>
<tr>
<td>Consulting</td>
<td>5</td>
<td>1.8%</td>
</tr>
<tr>
<td>Long Term Care</td>
<td>8</td>
<td>2.8%</td>
</tr>
<tr>
<td>Government</td>
<td>3</td>
<td>1.1%</td>
</tr>
<tr>
<td>Vendor</td>
<td>16</td>
<td>5.6%</td>
</tr>
<tr>
<td>College</td>
<td>15</td>
<td>5.3%</td>
</tr>
<tr>
<td>Ambulatory Care</td>
<td>14</td>
<td>4.9%</td>
</tr>
<tr>
<td>Corporate</td>
<td>5</td>
<td>1.8%</td>
</tr>
<tr>
<td>Other</td>
<td>28</td>
<td>9.9%</td>
</tr>
</tbody>
</table>

### Assumptions, Limitations, and Bias

The information provided by the respondents on the questionnaire is assumed to be accurate and not impacted by social desirability (Dillman, 2000). It is possible that the RHIA could report the learning that he or she believes should have been accomplished. The RHIA could be embarrassed at his or her lack of learning and as a result inflate the results.

One limitation is that the study includes only members of AHIMA. This excludes RHIAs who maintain their credentials, but choose not to join AHIMA. Another limitation is that study does not include Registered Health Information Technicians so the findings are limited to only RHIAs instead of addressing all HIM professionals. Another limitation is that the number of hours of continuing education on the new roles reported on the questionnaire is not maintained by the participants and therefore could only be an estimate. The RHIA does not track the number of hours spent on informal continuing education either. RHIAs who are not interested in the new roles, who are not aware of the new roles, or not interested in the new roles, may not have completed the questionnaire, thus resulting in a systemic response bias. This could mean
that even a lower level of awareness exists than is reported in the findings. The final limitation is the high number of RHIA's who have no or limited knowledge of Vision 2006. This may have made it difficult for them to respond to some of the questions even though a brief description of the new roles was provided on the questionnaire.

My bias is that I believe the RHIA must prepare for the future of the HIM profession. In order to prepare for the changes facing the profession, I believe that all RHIA's should be making a concerted effort to continually update their skills to prepare for the computerized patient record. I also believe that this requires a lot of effort on the part of the RHIA and may mean going back to school to learn about medical informatics or other related topics. Updating ones skills may also mean attending extensive continuing education sessions. These steps may be very time consuming and expensive, but I believe they will be well worth it in the long run, both for the individual and for the profession.
CHAPTER FOUR

FINDINGS

Introduction

The purpose of this study was to investigate issues surrounding the participation of Registered Health Information Administrators (RHIs) in continuing education that will prepare them for changes in the Health Information Management (HIM) profession’s roles. The statistical methods used to generate the findings were discussed extensively in Chapter Three. The findings of this study are discussed in this chapter. Chapter Four is divided into sections by research question and conceptual framework. In each section, the results of the data analysis are presented in both table and narrative formats. Interpretation of the results outlined in this chapter will be presented in Chapter Five.

Findings for Research Question 1

Research question 1 was: “Are Registered Health Information Administrators aware of the new Health Information Management roles and to what extent do they think each role is important to the future of the profession?” The results of the research show that more than 65% of the respondents have little or no knowledge of Vision 2006. In fact more than 27% of the respondents have never heard of it. The largest percentage of respondents had heard of Vision 2006, but had little knowledge about it. The smallest percentage, 4.8%, was the respondents who knew about Vision 2006 and were working with others to implement the new roles. This information is displayed in Table 4.1.
Table 4.1

Awareness of New Roles (n=281)

<table>
<thead>
<tr>
<th>Level of Awareness</th>
<th>Frequency (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have never heard of Vision 2006.</td>
<td>79 (28.1%)</td>
</tr>
<tr>
<td>I know that the new roles exist, but not much else.</td>
<td>95 (33.8%)</td>
</tr>
<tr>
<td>I have a basic understanding of the new roles, but do not think they impact me.</td>
<td>20 (7.1%)</td>
</tr>
<tr>
<td>I have a basic understanding of the new roles, but I do not know how they will impact me.</td>
<td>33 (11.7%)</td>
</tr>
<tr>
<td>I am trying to decide how to implement the new roles in my job.</td>
<td>18 (6.4%)</td>
</tr>
<tr>
<td>I am implementing the new roles in my job.</td>
<td>22 (7.8%)</td>
</tr>
<tr>
<td>I am working with others to implement the new roles.</td>
<td>14 (5.0%)</td>
</tr>
</tbody>
</table>

The seven levels of awareness listed in Table 4.1 were divided into three categories: no knowledge of Vision 2006, limited knowledge of Vision 2006, and extensive knowledge of Vision 2006 roles. Data entered into the no knowledge of Vision 2006 roles category were identified from a response to Item 1 of “I have never heard of Vision 2006.” This showed a total of 79 RHIAs who had not heard of Vision 2006 (28.1%). The limited knowledge of Vision 2006 received its data from three responses on Item 1 of the questionnaire. These responses were “I know that the roles exist, but not much else,” “I have a basic understanding of the new roles, but do not think they impact me,” and “I have a basic understanding of the new roles, but I do not know how they will impact me”. A total of 148 RHIAs fell into this category (52.7%). The extensive knowledge of Vision 2006 was collected from three responses on Item 1 on the questionnaire. These responses were “I am trying to decide how to implement the new roles in my job.” “I am implementing the new roles in my job,” and “I am working with others to implement the new roles.” There was a total of 54 RHIAs that fell into this category (19.2%). These findings are displayed in Table 4.2.
Table 4.2

Awareness of New Roles Categorized (n = 281)

<table>
<thead>
<tr>
<th>Level of Awareness</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No awareness (response of 1)</td>
<td>79</td>
<td>28.1%</td>
</tr>
<tr>
<td>Minimal awareness (response of 2, 3, or 4)</td>
<td>148</td>
<td>52.7%</td>
</tr>
<tr>
<td>Significant awareness (response of 5, 6, or 7)</td>
<td>54</td>
<td>19.2%</td>
</tr>
</tbody>
</table>

Part of this study was to look at how important RHIAs thought each of the seven new roles were. This information was collected by the respondent selecting one score on a 6 point Likert type scale. Only the endpoints were labeled on the scale. A score of 1 meant not important and a score of 6 meant very important. The role with the highest frequency of a score of 6 was Role #1: Health Information Manager for Integrated Systems with a percentage of 62.3%. The least important role based on the frequency of a score of 6 was Role #7: Research Specialist with a percentage of 26.5%. The highest score on the not important end of the scale was Role #6: Data Resource Administrator with 2.1% of the RHIAs reporting that it was not important. The lowest score was Role #4: Data Quality Manager with 0.0% of the RHIAs reporting that it was not important.

None of the seven roles received a mean lower than 4.6. The data were obtained through the respondent selecting one response from a six point Likert style scale. On this scale only the endpoints were labeled. A response of 1 indicated that the respondent did not see the role as important. A response of 6 indicated that the respondent was the role as very important. Based on the mean, the respondents reported that the least important role was Role #7: Research Specialist with a mean of 4.58. The most important role was Role #1: Health Information Manager for Integrated Systems with a mean of 5.45. See Table 4.3 for complete findings.
Table 4.3

*Perceived Importance of Role (n=289)*

<table>
<thead>
<tr>
<th>Role</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role #1: Health Information Manager for Integrated Systems</td>
<td>5.45</td>
<td>0.89</td>
<td>2 (0.7)</td>
<td>3 (1.0)</td>
<td>5 (1.7)</td>
<td>24 (8.3)</td>
<td>75 (26.0)</td>
<td>180 (62.3)</td>
</tr>
<tr>
<td>Role #2 Clinical Data Specialist</td>
<td>5.21</td>
<td>0.93</td>
<td>1 (0.3)</td>
<td>2 (0.7)</td>
<td>11 (3.8)</td>
<td>45 (157)</td>
<td>91 (31.7)</td>
<td>136 (47.6)</td>
</tr>
<tr>
<td>Role #3: Patient Information Coordinator</td>
<td>4.61</td>
<td>1.22</td>
<td>5 (1.7)</td>
<td>10 (3.5)</td>
<td>37 (12.8)</td>
<td>69 (24.0)</td>
<td>86 (29.9)</td>
<td>81 (28.1)</td>
</tr>
<tr>
<td>Role #4: Data Quality Manager</td>
<td>5.30</td>
<td>0.93</td>
<td>0 (0.0)</td>
<td>4 (1.4)</td>
<td>11 (3.9)</td>
<td>34 (12.0)</td>
<td>83 (29.2)</td>
<td>152 (53.5)</td>
</tr>
<tr>
<td>Role #5: Information Security Manager</td>
<td>5.29</td>
<td>1.08</td>
<td>5 (1.7)</td>
<td>3 (1.0)</td>
<td>12 (4.2)</td>
<td>33 (11.5)</td>
<td>65 (22.6)</td>
<td>170 (59.0)</td>
</tr>
<tr>
<td>Role #6: Data Resource Administrator</td>
<td>4.87</td>
<td>1.15</td>
<td>6 (2.1)</td>
<td>5 (1.7)</td>
<td>19 (6.6)</td>
<td>64 (22.1)</td>
<td>92 (31.8)</td>
<td>103 (35.6)</td>
</tr>
<tr>
<td>Role #7: Research Specialist</td>
<td>4.58</td>
<td>1.17</td>
<td>3 (1.1)</td>
<td>7 (2.5)</td>
<td>43 (15.2)</td>
<td>74 (26.1)</td>
<td>81 (28.6)</td>
<td>75 (26.5)</td>
</tr>
</tbody>
</table>

*n may vary slightly due to missing data
Finding for Research Question 2

Research question 2 is: “What deters and what motivates Registered Health Information Administrators to participate in continuing education on the new roles?” The Likert type scale used in on the questionnaire to collect the data used a six point score with only the endpoints labeled. A response of 1 indicated that the person disagreed that they were encouraged to participate by the motivator and 6 was that they agreed with the motivator. As you can see from the results shown in Table 15, most of the respondents reported that they were motivated to participate in continuing education on the new roles by the six motivators provided on the questionnaire. Based on a response of 6, the motivator that had the highest percentage of agreement (45.6%) was that the respondent wanted to update skills. The motivation with the lowest agreement percentage rate was that learning the new roles was expected by others (18.1%). On the other end of the scale, the highest percentage of disagreement with motivation based on a score of 1 was that others expected the learning (5.6%). The lowest percentage of disagreement with motivation also based on a score of 1 was the updating skills motivator (1.0%). The full findings can be seen in Table 4.4.

When you look at the mean of the motivators, the motivator with the highest and lowest levels of agreement and disagreement remains the same. This means that to update skills had the highest mean (5.16) and others expect the learning had the lowest (4.1). None of the motivators have a mean lower than 4.1 which indicate that the respondent has some level of agreement with the motivator. There is not a large degree of variation in the mean of the motivators since they range from 5.16 to 4.11. See Table 4.4 for all findings.
Table 4.4.

*Individual Motivators (n=288)*

<table>
<thead>
<tr>
<th>Motivation item</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning about the new roles is enjoyable. (n=288)</td>
<td>4.56</td>
<td>1.15</td>
<td>4 (1.4)</td>
<td>10 (3.5)</td>
<td>29 (10.1)</td>
<td>93 (32.3)</td>
<td>82 (28.5)</td>
<td>70 (24.3)</td>
</tr>
<tr>
<td>Learning about the new roles is expected of me by others. (n=288)</td>
<td>4.11</td>
<td>1.41</td>
<td>16 (5.6)</td>
<td>28 (9.7)</td>
<td>40 (13.9)</td>
<td>80 (27.8)</td>
<td>72 (25.0)</td>
<td>52 (18.1)</td>
</tr>
<tr>
<td>Learning about the new roles will allow me to help others. (n=285)</td>
<td>4.76</td>
<td>1.15</td>
<td>4 (1.4)</td>
<td>8 (2.8)</td>
<td>28 (9.8)</td>
<td>58 (20.4)</td>
<td>102 (35.8)</td>
<td>85 (29.8)</td>
</tr>
<tr>
<td>Learning about the new roles will allow me to make a change in my job. (n=285)</td>
<td>4.5</td>
<td>1.22</td>
<td>5 (1.8)</td>
<td>13 (4.6)</td>
<td>38 (13.3)</td>
<td>77 (27.0)</td>
<td>82 (28.8)</td>
<td>70 (24.6)</td>
</tr>
<tr>
<td>Learning about the new roles will enable me to update my skills. (n=287)</td>
<td>5.16</td>
<td>1.02</td>
<td>3 (1.0)</td>
<td>5 (1.7)</td>
<td>11 (3.8)</td>
<td>35 (12.2)</td>
<td>102 (35.5)</td>
<td>131 (45.6)</td>
</tr>
<tr>
<td>Learning about the new roles will enable me to make a change in my job. (n=285)</td>
<td>4.61</td>
<td>1.30</td>
<td>10 (3.5)</td>
<td>13 (4.6)</td>
<td>23 (8.1)</td>
<td>72 (25.3)</td>
<td>80 (28.1)</td>
<td>87 (30.5)</td>
</tr>
</tbody>
</table>

* n may vary due to missing data
Like the motivators, the level of agreement or disagreement with the deterrents was reported by the participants on a 6 point Likert type score with only the endpoints labeled. A score of 1 indicated disagreement and 6 indicated agreement. Based on a score of 6, the highest percentage of agreement was that the participants did not have time to participate in continuing education on the new roles created by Vision 2006 (12.5%). Again, based on a score of 6, the lowest agreement was that the participants were not interested in the new roles created by Vision 2006 (4.2%). At the other end of the scale, the highest percentage of a score of 1 was the not interested in the new roles deterrent (37.8%). The lowest percentage on a score of 1 reported was that the RHIA could not find quality programs (9.0%).

When the mean is calculated for each deterrent, the deterrent with the highest mean is that the respondent could not find a quality program (3.53). The lowest mean is too many family responsibilities to learn about the new roles (1.28). None of the deterrents have a mean less than 2.4. The mean of 2.45 indicates only minimal disagreement. None of the deterrents had a strong agreement since 3.53 on a possible 6 point scale was the highest. In fact since all but one of the means ranged between 3.18 and 3.54, the deterrents were essentially between 3 disagree and 4 agree. See Table 4.5 for all findings.

Findings for Research Question 3

Research question 3 is: “How are Registered Health Information Administrators participating in continuing education on the new roles?” The findings show that RHIAs predominantly utilized journals (11.46 hours) and seminars (11.29 hours) to learn about the new roles over the past two years. The least utilized method of continuing education is college courses (3.87 hours). It is interesting to note that the RHIAs only utilized the Internet an average of 5.22 hours over the past two years to learn about the new roles. All findings are presented in Table 4.6.
Table 4.5

*Individual Deterrents Results (n= 286)*

<table>
<thead>
<tr>
<th>Deterrent items</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>I do not have enough time to learn about the new roles.</td>
<td>3.49</td>
<td>1.55</td>
<td>39 (13.7)</td>
<td>40 (14.1)</td>
<td>58 (20.4)</td>
<td>71 (25.0)</td>
<td>41 (14.4)</td>
<td>35 (12.3)</td>
</tr>
<tr>
<td>It costs too much to learn about the new roles.</td>
<td>3.15</td>
<td>1.43</td>
<td>42 (15.0)</td>
<td>49 (17.5)</td>
<td>83 (29.6)</td>
<td>61 (21.8)</td>
<td>22 (7.9)</td>
<td>23 (8.2)</td>
</tr>
<tr>
<td>I cannot find any quality programs on the new roles.</td>
<td>3.53</td>
<td>1.35</td>
<td>25 (9.0)</td>
<td>38 (13.6)</td>
<td>68 (24.4)</td>
<td>81 (29.0)</td>
<td>47 (16.8)</td>
<td>20 (7.2)</td>
</tr>
<tr>
<td>I have too many family responsibilities to learn about the new roles.</td>
<td>1.28</td>
<td>1.58</td>
<td>57 (19.9)</td>
<td>49 (17.1)</td>
<td>55 (19.2)</td>
<td>60 (21.0)</td>
<td>41 (14.3)</td>
<td>24 (8.4)</td>
</tr>
<tr>
<td>I am not interested in the new roles.</td>
<td>2.45</td>
<td>1.48</td>
<td>108 (37.8)</td>
<td>56 (19.6)</td>
<td>49 (17.1)</td>
<td>43 (15.0)</td>
<td>18 (6.3)</td>
<td>12 (4.2)</td>
</tr>
<tr>
<td>I have too many job commitments to learn about the new roles.</td>
<td>3.34</td>
<td>1.49</td>
<td>42 (14.7)</td>
<td>48 (16.8)</td>
<td>57(19.9)</td>
<td>72 (25.2)</td>
<td>45 (15.7)</td>
<td>22 (7.7)</td>
</tr>
</tbody>
</table>

*n may vary slightly due to missing data*
Table 4.6

*Continuing Education Methods Used (in hours)*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean hours</th>
<th>SD</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>I taught myself about the new roles by watching others.</td>
<td>9.30</td>
<td>31.31</td>
<td>271</td>
</tr>
<tr>
<td>I learned about the new roles by talking to others.</td>
<td>9.11</td>
<td>26.08</td>
<td>270</td>
</tr>
<tr>
<td>I learned about the new roles by reading about the new roles in professional journals.</td>
<td>11.46</td>
<td>28.58</td>
<td>273</td>
</tr>
<tr>
<td>I read about the new roles in books.</td>
<td>4.83</td>
<td>21.94</td>
<td>272</td>
</tr>
<tr>
<td>I read about the new roles on the Internet.</td>
<td>5.22</td>
<td>16.06</td>
<td>274</td>
</tr>
<tr>
<td>I attended college courses related to the new roles.</td>
<td>3.87</td>
<td>23.22</td>
<td>275</td>
</tr>
<tr>
<td>I attended seminars or other professional meetings to learn about the new roles.</td>
<td>11.29</td>
<td>20.96</td>
<td>273</td>
</tr>
</tbody>
</table>

*Findings for Conceptual Framework*

Multiple regression was conducted to determine the influence of the four independent variables, awareness of new roles, deterrents to participation, motivation to participate, and perceived importance of new roles on the dependent variable of amount of participation. Motivation to participate and deterrents to participation were found to be significant at 0.044 and 0.002 respectively. Status on the new role was close to being significant at 0.067, but perceived importance had no impact on the amount participation at 0.958. The decision was made to rerun the multiple regression analysis without the perceived importance of the new role variable. The re-analysis found that all three independent variables were significant to the amount of participation. The significance for motivation to participate was 0.022, deterrents to motivation at 0.002, and status on the new role at 0.035. The significance for motivation to participate and status on the new role had a positive impact on the amount of participation. The deterrents to participation had a negative impact.
### Conceptual Framework Analysis*

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>b</th>
<th>Beta</th>
<th>Statistical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivations to participate</td>
<td>21.5</td>
<td>.15</td>
<td>.02</td>
</tr>
<tr>
<td>Deterrents to participation</td>
<td>-24.4</td>
<td>-.20</td>
<td>.002</td>
</tr>
<tr>
<td>Awareness of the new roles</td>
<td>9.5</td>
<td>.14</td>
<td>.04</td>
</tr>
</tbody>
</table>

*\( R^2 = .13; F = 12.0; p = .001 \)

### Additional Findings

Additional data analysis was conducted to learn if any personal characteristics predicted participation. The decision was made to not use gender and race/ethnicity in the analysis due to the homogeneity of the respondents. The reason for this decision was that there was not enough variability in the distribution to be a predictor of participation. Almost 90% of the respondents were female. Similarly, almost 89% of the respondents were white. This demographic is in line with the RHIA membership of AHIMA. 93.1% of all RHIA are female. 88% of all RHIA are white. The specific percentage of RHIA who are white is unavailable. The seven new roles also were not used in the analysis because it would have resulted in multiple significance testing. This could have caused a problem with the results of the analysis.

The predictor variables used in this additional analysis were: motivation to participate, deterrents to participation, and amount of participation. The motivation to participate and deterrents to participation additive scales created to answer research question 2 were used in this additional analysis. The amount of participation predictor variable was calculated from the data obtained from the individual continuing education methods items. The statistical methods used to compare the personal characteristics variables to the predictor variables of motivation to participate, deterrents to participation, and amount of participation is discussed below.

There were three types of personal characteristic variables. These are dichotomous, interval, and categorical. The dichotomous personal characteristics variables utilized were children under the age of 18 in the home, management vs. non-management, hospital vs. non-
hospital, traditional vs. non-traditional role, and required to maintain RHIA credentials. The
dichotomous personal characteristics variables were compared to the predictor variables using T-
tests. The only categorical personal characteristics variable used was where the RHIA lives.
Analysis of the categorical personal characteristics variable to the outcome variables was
performed by using ANOVA. The interval personal characteristics variables utilized were age,
years to retirement, years as a RHIA, and the amount of experience in HIM. The interval
personal characteristics variables were compared to the predictor variables utilizing Pearson
Correlation.

The dichotomous and categorical personal characteristics variables were compared to the
ordinal predictor variable, awareness of the new roles, using Chi Square. The interval personal
characteristics variables were compared to the ordinal predictor variable by using Spearman
Correlation.

The appropriate statistical measures were utilized to compare the predictor variables to
the personal characteristics variables. The results of these tests yielded only seven statistically
significant findings at the 0.05 confidence level out of the 44 relationships analyzed. These
seven statistically significant relationships are:

- Children under the age of 18 in the home which had a statistically significant higher rate
  of deterrents than those without (t = 2.45, df = 267, p = 0.015). The mean of the
  responses was 1.5.

- RHIAs whose job required them to maintain the certification had a statistically significant
  higher rate of motivation (t = 3.34, df = 275, p = 0.001). The mean of the responses was
  1.36.

- Years of experience in HIM is compared to the interval predictor variable amount of
  participation on the new roles. The findings show a significant, but weak, positive
  relationship. This means that the more experience a RHIA has, the more time he or she
  spends on participation in continuing education on the new roles (r = 0.131, p = 0.031).
  maintaining the RHIA credential is required by job with awareness of new roles,
• Whether or not an RHIA must maintain the RHIA certification as a requirement of his or her job was the only significant finding when comparing the ordinal outcome variable using Chi Square. This finding means that those RHIA's whose job requires him or her to maintain the RHIA certification have a higher level of awareness than those who are not required to maintain the certification. Age with awareness of new roles (Chi Square = 7.05, df = 2, p = 0.03).

• The awareness of the new roles and the number of years that the individual has been an RHIA was found to be statistically significant ($r_s = 0.122$, $p = 0.047$). The longer an individual has been a RHIA, the more aware he or she is of the new roles.

• Experience in HIM was compared with awareness of the new roles. This significant finding means that more experienced HIM professionals were more aware of the new roles ($r_s = 0.203$, $p = 0.001$).

• Age was compared to awareness of the new roles. The significant finding of this relationship means that the older that a RHIA is, the more aware he or she is of the new roles ($r_s = 0.252$, $p = 0.000$).
CHAPTER FIVE
DISCUSSION AND IMPLICATIONS

Introduction

The purpose of this study was to investigate issues surrounding the participation of Registered Health Information Administrators (RHIA) in continuing education that will prepare them for changes in the Health Information Management (HIM) profession’s roles. This chapter discusses the findings outlined in Chapter Four and their implications for the HIM profession, RHIA, American Health Information Management Association (AHIMA), providers of continuing education (adult educators) and changing professions. It also provides recommendations for additional research.

Summary of Findings

There are a large numbers of RHIA who do not know about the new roles outlined in Vision 2006. Many of the RHIA surveyed did not know about the new roles and many others knew little more about them than their existence. This lack of awareness makes participating in continuing education on the new roles difficult. This lack of awareness on the new roles is the key finding of this research. It is impossible for RHIA to be motivated to participate or deterred from participation if they do not know about the roles.

The study found that RHIA are primarily motivated to participate in continuing education to maintain their skills. They are least likely to be motivated by others who expect them to participate. The strongest deterrent, based on the mean, was the quality of the continuing education programs available, with time ranked closely behind. The weakest deterrent, based on the mean, was too many family responsibilities to learn about the roles.

The RHIA felt that all of the seven new roles were important. Most of the roles had strong levels of agreement. The highest level of agreement, based on the mean was Health Information Manager for Integrated Systems and the lowest was Research Specialist.
The most widely used methods of continuing education were traditional methods of continuing education. The most commonly used was reading journals. Seminars were also widely used. College courses and books were the least used.

According to the conceptual framework, awareness of the new role, motivation to participate and deterrents to participation impacted the amount of participation in continuing education. The perceived importance of the new role had no impact on the amount of participation.

Discussion of Findings

Awareness of the New Roles

In spite of a widely marketed campaign to educate RHIA on Vision 2006, a surprising 27% of the respondents reported that they had never heard of it. Evidently the Vision 2006 marketing plan, which included publication of information in the Journal of AHIMA, was not as effective as hoped because 64 RHIA indicated they did not know about the roles. This is distressing since the most widely means of continuing education reported by the RHIA was reading professional journals and this was the method used to disseminate information on the new roles. This finding was also distressing because of the negative impact that lack of awareness of the new roles can have on the HIM profession. The questionnaire did not ask what professional journals the respondents read so it is possible that they were reading other ones. I would expect the RHIA to read the Journal of AHIMA since it is the premiere journal for the HIM profession. Many of the recent articles published in the Journal of AHIMA, while not mentioning Vision 2006; do address the new roles specifically. Also, many of the published activities of AHIMA are also related to the new roles. Some of these activities are participating on national committees and lobbying Congress. It is impossible for RHIA to participate in continuing education on the new roles if they do not know that the new roles exist. Because of possible systematic response bias, this level of awareness could be even lower than identified by this study. This lack of awareness of the new roles does not bode well for the future of the
profession. This is the bad news identified by the study; however the study also identified some good news.

**Perceived Importance of the New Roles**

In spite of reporting that they did not know about Vision 2006, the respondents reported agreement with all of the seven new roles as defined on the questionnaire. This was very good news. The RHIAs especially agreed with Health Information Manager for Integrated System role. This finding showed that the new roles are on the right track for the future. In other words, the respondents support the vision of the American Health Information Management Association (AHIMA) in defining the new roles. Even the role with the lowest mean, Research Specialist, was still seen as important. Since the respondents view the roles as important to the future of the profession, the problem now becomes how to motivate the individual RHIA to embrace and implement the roles in his or her job. Possibilities include: job requirements, AHIMA mandates, and education on the importance of the new roles on the RHIA and the HIM profession. The news that there is strong agreement with the news roles could mean that there is hope for interest and involvement in the new roles now that the respondents are aware of the new roles.

**Motivation to Participate**

It is no surprise that updating one’s skills was the strongest motivator for the RHIA. This confirms Tassone and Heck’s (1997) article that states “knowledge is what motivates health care professionals to participate in CE” (p. 104). They also wrote “whether CE is mandated or voluntary, health care professionals will continue to seek CE opportunities in order to keep abreast of the rapid technological, social, political, and professional changes” (p. 104). Many researchers, like Balachandran and Branch (1997) and DiSilets (1995), agree that updating skills is the most important motivation for healthcare professionals. Again, this study on RHIAs agrees with their findings since updating skills was the strongest motivator identified. The findings show that the RHIA is participating in continuing education, in fact most reported more than the required 30 continuing education hours. The continuing education efforts are just not addressing the new roles.
The second highest motivator was intriguing since it is “Learning about the new roles will allow me to help others.” What makes this finding intriguing is that this learning motivation is essentially a service role and the HIM profession has always been considered a service profession since it supports healthcare providers in the care of patients and administration’s management of the healthcare facility.

The third highest motivator is frightening since it is “Learning about the new roles will enable me to make a change in my job.” This desire to change jobs may be symptomatic of all of the changes facing the HIM profession and healthcare in general. The type of job change for which the RHIA wants to prepare is unknown. This could mean many things including the desire to: advance, to change professions, or to change jobs because of dissatisfaction with the current position. A mass exodus of RHIAs from the profession due to the constant change or other reasons would be detrimental to the HIM profession and to healthcare since it would leave a gap in the healthcare team. No other profession is currently taught quality improvement, data management, and healthcare information system as part of the formal education program. This knowledge makes the RHIA a valuable part of the healthcare team.

The lowest motivator is “Learning about the new roles is expected of me by others.” This may indicate that administration does not expect the RHIA to be a leader in the skills required by the new roles. Skurka (2000) reports that a large percentage of hospital administrators do not understand the role of the HIM profession. In fact, many administrators view the RHIAs as glorified file clerks instead of technologically astute data managers. This lack of understanding and support may discourage, or at least not motivate, RHIAs preparation for the new roles. This finding could be interpreted that the RHIAs were not motivated to participate because AHIMA mandates continuing education for the RHIA and monitors compliance. The lack of motivation coming from others is opposite to what Morstain and Smart’s (1974) research found. They found external expectations to be one of their key motivators. This study agrees with Tassone and Heck’s (1997) review, where they found that
mandatory continuing education was not a motivator. Boissoneau (1980) reports that mandatory continuing education is controversial since it does not guarantee competence.

Educating the RHIAs on the new roles does not happen overnight. This is especially true since many of the facilities that RHIAs work in are still paper based which would not motivate the RHIAs to participate in continuing education on the new roles since they are still bogged down in the traditional roles and in paper records. Of course this is not true for all RHIAs since there are a lot of RHIAs already working in a non-traditional roles based on the new roles. The problem that must be overcome is how to get the RHIAs to learn about the new roles, to embrace them, and to implement the appropriate one(s) in their career. This is addressed in the Implications for RHIAs section of this chapter.

*Deterrents to Participation*

The findings of this study are different from other research on deterrents to participation. In Scanlan and Darkenwald’s study on deterrents, cost was the strongest deterrent. Parochka’s (1985) study identified time and cost as the top two deterrents. In this study, time is the second highest deterrent, but cost is next to last. While not specifically asked about who pays for continuing education, this study seems to parallel with Escovitz and Augsburger’s (1991) research which found that continuing education for healthcare professionals is frequently paid by the employer. It is assumed that cost would probably be ranked higher as a deterrent if the money was coming out of the RHIA’s pocket.

The highest deterrent in this study was quality of the program. This is different from the studies described in the review of the literature because none of the studies identified found quality of the program as the primary deterrent. HIM continuing education providers need to learn what the RHIA expects out of the continuing education experience and what make them see the sessions as poor quality. This study does not ask who conducted the poor quality programs, how poor quality is defined, or what should be done to improve them. The identification of continuing education opportunities as poor quality is traditionally true (Green, et

I found it amazing that the weakest deterrent was too many family responsibilities to learn about the new roles. The literature often quotes family as a deterrent, especially for women. Researchers who include family responsibilities as deterrents include: Boshier (1991); Blaxter and Tight (1995); and Darkenwald and Valentine (1990). Dowswell, et al. (2000) researched nursing participation with regard to child care responsibility. They found that the nurses participated in continuing education in spite of the fact that it impacted their lives. They found that 55% of the nurses surveyed said participation in continuing education negatively impacted their family and relationships. Since nursing and HIM are both female dominated professions, I would expect the findings to be similar. Maybe this is why the HIM professionals listed this deterrent so low, they participated in spite of the hardship participation caused.

Continuing Education Methods

It was not surprising that RHIA s utilize traditional continuing education methods, like journals and seminars, to learn about the new roles since the RHIA earns continuing education hours for many of these methods. The findings show that books, Internet, and college courses were underutilized when it came to learning about the new roles. College courses do provide continuing education hours, however it takes more time and money than many of the other methods. Books and the Internet research typically do not offer continuing educational opportunities to RHIA s.

Over 67% of the RHIA s report spending 10 hours or less over the past two years reading articles in professional journals on the new roles. Even with this low number of hours, this was the top continuing education method based on in time spent. The additional research conducted showed that there was no statistical significance between respondents who were in management and non-management roles nor those in traditional and non-traditional roles.

While many RHIA s reported many formal and informal continuing education hours on the new roles, 46 reported that they did not spend any time on the new roles. I suspect that even
though the definition of the new roles were provided to the respondents, they did not realize that much of the continuing education that they were participating in was on the new roles. For example, coding would be included in the Clinical Data Specialist role and the new Health Insurance Portability and Accessibility Act of 1996 (Public Law 104-191) would be included in the Information Security Manager role. Many tasks included in the new roles identified are not new. Other tasks have a different twist to the traditional roles. While still other tasks identified are completely new. An example of traditional roles within the new roles is that RHIA’s have always been involved in the coding process which is now under the Clinical Data Specialist role. The RHIA has always been responsible for the release of patient information. Now the RHIA has taken this process a step further and becoming involved in the security and risk assessment functions. This is an example of how a traditional responsibility of the RHIA has evolved into new roles. Assisting patients through the complex maze of the healthcare process, as promoted by the Patient Information Coordinator, is a completely new role for the RHIA (AHIMA, 1999).

The focus on formal continuing education is understandable since AHIMA’s continuing education requirements do not recognize information continuing education like learning from peers and Internet research. Because of the focus on obtaining continuing education hours, the RHIA may not even realize that he or she is participating in continuing education by watching others and other informal methods. If the RHIA kept track of this time, he or she would probably be surprised at the amount of time actually spent on continuing education. While Merriam and Caffarella (1999) do not specifically address the number of hours that learners spend on participation in continuing education, they wrote that many adults do not recognize informal and self-direct learning as true learning. Tough’s (1978) research found that a typical self-directed learning activity takes 100 hours to complete.

The importance of professional journals to the RHIA confirms the importance of printed materials reported by Dimauro (2000). Tassone and Speechley (1997) report that while physical therapists prefer conferences, one of their top learning methods was “written materials” (p. 16). The preferred continuing education method of physical therapists in Georgia is seminars (Karp,
Queeney et al.’s (1990) research also report seminars as the preferred method. Darkenwald and Merriam (1982) report lectures or classes as the preferred method for learning.

**Conceptual Framework**

The research showed that the level of motivation to participate, deterrents to participation, and the status on the new roles were found to be statistically significant in affecting the amount of continuing education participated on the new roles. The independent variables motivation to participate and status on the new role had a positive impact on the amount of participation. The independent variable deterrents to participation had a negative impact. This means that the stronger the individual’s motivation to participate and the higher his or her status of the new roles, the more he or she participates in continuing education on the new role. The higher the deterrents to participation, the individual participates in fewer hours of continuing education on the new roles.

While Henry and Basile (1994) do not specifically address continuing education hours, they found that the decision to participate is not solely based on motivations, but “convenience related deterrents or stage in the life cycle, can influence whether a motivated person chooses to participate” (p. 80). They also found that motivations can be weak or strong. This would impact the amount of participation.

**Additional Findings**

The decision was made to compare demographic and other personal characteristics data collected to four predictor variables. The purpose of this analysis was to determine if any personal characteristics like age, type of setting in which the RHIA works, and others impacted the amount of participation in the new roles. There were seven significant findings identified during the analysis. Each of these significant findings will be discussed in this section and will be linked to the literature, when appropriate.

During the additional research, I found that RHIAs who had children under the age of 18 in the home were deterred from participation in continuing education on the new roles. This contradicted the findings of Research Question 2 which showed that family responsibilities were
not a strong deterrent. When answering Research Question 3, I learned that the Internet is underused. If we combine these two findings, RHIAs with children were deterred from participation and the Internet is underused, we learn that if the RHIAs learned about and implemented the educational opportunities on the Internet such as the Communities of Practice, Specialty Advancement programs, audio seminars and other web-based training, then they could take advantage of continuing education in such a way that would have minimal impact on their family. This includes studying after the children are in bed and not having to travel long distances. It is not surprising that children impact the continuing education opportunities of RHIAs since this is a female dominated profession and traditionally females provide more of the childrearing duties. Raising a family consumes a lot of time which can make it difficult to participate in continuing education. Deterrents caused by family responsibilities are an example of the situational deterrents described by Darkenwald and Valentine (1985).

Another significant finding in the Additional Research was that RHIAs who are required by their jobs to maintain their credentials are more motivated to participate in continuing education on the new roles. This was contradictory to what was learned on the survey. On the survey, the RHIAs reported that the motivation to participate expected by others was low. The RHIAs who are not required to maintain their credentials need to be educated on the importance of staying current. Some already realize this. Several RHIAs made a note on the questionnaire that even though the RHIA credential was not required for their job; they wanted to keep the credential.

Currently the RHIA is not always recognized as a valuable credential. It is important to educate employers on how important the RHIA credential truly is and the benefit that the employer can obtain from hiring RHIAs. If the employers see the importance of the credential, then the employer is more likely to require employees to have the RHIA credential and to insist on maintaining competency. Ways to market the profession include becoming involved in other professional organizations such as the American Medical Association, American Hospital Association, and the Health Information Management Systems Society. This involvement could
take the form of speaking at meetings or writing a journal article. Other marketing possibilities include educating the Chief Executive Officer and others wherever the RHIA works.  

There is an ongoing need to market the HIM profession and specifically the RHIA credential to employers since many of them believe that the RHIA is a paper pushing profession. The Chief Executive Officer and other top administrators need to realize that the RHIA has much more to offer and can be a leader in the computerization and data management efforts of the facility.

Another significant finding is also related to the personal characteristic variable on whether or not the job requires the retention of RHIA credentials. This time it is related to the predictor variable, awareness of new roles. The research shows that the RHIA whose job requires the retention of the RHIA credentials is more aware of the role. Possibly this is the result of the emphasis placed on the RHIA and his or her knowledge. This finding goes together nicely with the relationship to participation described above. These two relationships together say that if one is required to maintain the RHIA, you participate in more continuing education, thus you are more aware of changes in the profession.

The research shows that the more years of experience that the RHIA had in HIM, the more he or she participated in continuing education on the new roles. This makes sense since these RHIAAs would not have received training on the new roles in their formal training. They would also be in more advanced positions that perhaps require them to perform some of the skills required by the new roles. The positive relationship shows that the more experience the RHIA has, the more he or she participates in continuing education on the new roles.

In another related significant finding, the number of years that one is a RHIA is related to the awareness of the new roles. This finding could also be related to the fact that the experienced RHIAAs are in advanced positions that require them to know the new roles. The positive relationship shows that the longer an individual is an RHIA, the more he or she knows about the new roles.
The relationship between age and awareness of the new roles was also statistically significant. While not all older RHIArs received their credentials many years ago, most did. This positive relationship shows that the older an RHIA is, the more aware he or she is of the new roles. Since most of these RHIArs received their credentials years ago, they would not have been trained on the new roles in their formal training. Also, they are probably in an advanced position requiring them to use the skills required in the new roles. I was surprised to see age so key to awareness of the new roles and the amount of participation since I had assumed that older RHIArs may be more content with the status quo and therefore participate less.

My assumption was based on other research which found that participation decreases as one ages. Darkenwald, Kim and Stowe (1998) found that adults under 25 and over 56 participate less than other adults. RHIArs, who are traditional students, would be close to 25 years before his or her first continuing education cycle must be reported. Even though approximately 10% of the respondents in this study were over 56 years old and age still was found to be a statistically significant predictor of participation. Darkenwald and Merriam (1982) also report that age is one of the two most important demographic characteristics affecting participation. The other important demographic characteristic is the amount of formal schooling.

The relationship between the amount of experience in HIM and awareness of the new roles again is likely due to age. Again, it is logical that RHIArs who have been in the field for a long time would understand the need to maintain their skills because what was learned in college would be obsolete. Sterns and Dorsett (1994) wrote that age does make maintaining job competence more important because the older worker would have completed formal education a long time ago. According to Nowlen, (1990) continuing education is how the professional maintains professional competence.

Implications

Implications for the HIM Profession

Based on the findings of the study, the future of the HIM profession in a technological world is not assured. The findings clearly show that most RHIArs (61.9%) do not know about the
future direction of their chosen profession as described in Vision 2006. Learning about the new roles is difficult when the RHIA does not even know the new roles exist, or if the knowledge is very limited.

French and Bell (1999) believe that people are the cornerstone of any organization. I say this is true for professions as well. The stronger the people, the stronger the organization or profession can become. The key to make the people stronger is to get them to “function better” (p. 1). One way of accomplishing this goal is career planning. Cummings and Worley (2001) wrote that career planning includes “assessing one’s interests, capabilities, values, and goals; examining alternative careers; making decisions that may affect the current job and planning how to progress in the desired direction” (p. 414). Career planning helps make decisions about the future of their career.

Failure to have strong individual RHIAs gives others a poor perception of the HIM profession. If the profession is to advance and to even continue to exist in the future, the HIM profession must improve its image as something more than a profession of file clerks. Many people see the HIM profession as outdated and if something is not done, this view will not only persist but become stronger and become more widespread. This risk of this happening will increase as the computerized patient record and other technologies are implemented throughout the healthcare industry. Currently there are many healthcare facilities, especially small rural ones, who have not implemented the computerized patient record. As they begin the process, there will be a demand for more and more HIM professionals, including RHIAs, with the necessary skills to lead the transition.

*Implications for RHIAs*

The RHIA needs to take a more active part in the new roles, both as participants and as champions for the HIM profession’s place as a leader in implementing the changes demanded by
the transformation facing healthcare. Examples of an active role include: learning about the new roles, asking to be involved in projects that would require learning about the new roles, implementing changes in his or her job that would utilize the new skills, and educating others on the RHIA’s skills. The RHIA needs to get beyond the HIM field into healthcare informatics, healthcare administration, and other arenas in order to market the profession. The recruitment of new individuals into the HIM profession is also important because they will be taught the new skills in their formal education. These future RHIAs can also be taught the importance of lifelong learning so that as the profession changes, they will be willing to change with it.

For the RHIA to assume the leadership of the new roles, significant marketing will be required. This marketing needs to be performed with Chief Information Officers, Chief Executive Officers, and other leaders in healthcare. The marketing must take place at the national, state, and local levels. The national marketing could take many forms including: speaking to national associations like the American Medical Association, American Hospital Association, and the Health Information Management Systems Society; educating state and federal legislators; and publishing in key professional journals. The local marketing could be speaking at local meetings, being a mentor, and educating individuals that the RHIA comes into contact with in the course of the job.

RHIAs are relying to journals and seminars to prepare them for the new roles. Because of the complexity of the skills required by the new roles, journals and seminars may not be enough. They may need to attend college courses whether they go back for a degree or just take a few courses. These college courses will be more detailed and thorough than any seminar or journal article can be. The advent of online college courses may eventually remove some of the barriers and thus encourage RHIAs to enroll.

The RHIAs may need to change their continuing education practices since continuing education is more than the formal methods that are approved for continuing education hours required to maintain credentials. Continuing education also includes reading professional journals, speaking with others, and surfing the Internet. Once the RHIA realizes all of the
continuing education opportunities that are available, then he or she will have more options to prepare him or her for the future.

The question then becomes how the RHIA can be motivated to learn about the new roles. One way is to remove the deterrents to participation in continuing education. Possible ways to do this is discussed elsewhere in this chapter. Another way to motivate RHIAs is for AHIMA, state associations, local associations, and the individual RHIA to continue encouraging the need to learn about the new roles. Mentors could be used to help encourage RHIAs who have not updated their skills. Mentoring is a valuable career development method. The mentor’s role will be to provide support and help develop the RHIAs skills on the new roles. The mentor must have extensive experience in the area and must be willing to make a commitment to the mentoring process (Nelsen, 2000). A third method would be for AHIMA to mandate continuing education hours in the new roles. Additional specialty certifications, like the Certified in Healthcare Privacy credentials, could be developed on the new roles. The desire for these specialty certifications may encourage the RHIA to participate in continuing education on the new roles. Finally, the RHIA could be motivated by management demanding more involvement in the future of the healthcare organization.

Each individual RHIA should undergo career planning to ensure that he or she is prepared for the changes facing the profession. There are three things that an individual can discover during career planning according to Lyon and Kirby (2002). These things are: what the individual wants to be, where the individual is now, and how the individual can reach his or her goal. The development of a plan to help the individual fill the gap between where he or she is and where he or she wants to go is critical (Lyons & Kirby, 2002).

The RHIA should conduct a self-assessment of his or her skills to learn to determine strengths and weaknesses. An individualized career development plan can then be developed based on the findings. Bowman (1997) wrote that
professional development is the process of developing and carrying out a plan for acquiring the new knowledge and skills necessary to effectively perform in a professional role. It has paramount importance in the health information management profession at this time because of the rapid changes in health care in general and in health information management in profession (p. 22).

Career development is not the same for everyone. The stage in life that a person is in controls his or her choice of educational methods and controls the amount of education that he or she undertakes. In order to participate, the individual must also find career development interesting. The professional must also see how career development can be merged with his or her personal life. A career development plan should contain objectives for learning and provide a guide for implementing the plan (Bowman, 1997).

How can the RHIA meet the needs of the profession? Eichenwald (1998) believes that it takes education. She advocates that HIM professionals should use the new educational standards as a guide to evaluate themselves. She also refers the RHIA to the AHIMA mission statement to see what is expected from a qualified HIM professional. The expectations of a RHIA can be described as a strong basis in “leadership abilities, systems thinking, ethical values, commitment to lifelong learning and being a self-directed learner. These are all key elements to adapting one’s career in a changing environment” (Eichenwald, 1998, p. 44). To accomplish this, the RHIA must generate a career development plan that will provide him or her with the skills necessary to meet the emerging roles of the HIM profession. Implementing this career plan may require the RHIA to go back to school in order to take a class or two or to even earn a degree. Seminars may also be used.
Rudman and Kerns (1995) believe that if HIM professionals are to succeed in the future, they must take advantage of available educational opportunities. There are a number of career opportunities available to the HIM professional, if he or she has the necessary education to provide them with the skills needed. In fact Rudman & Kerns wrote, “planning, collecting, analyzing, and documenting information are core elements of a market-driven and information-dependent health care organization. For health information professionals who are prepared for these new challenges, leadership opportunities seem limitless” (p. 9). The future of the RHIA is up to the individual and how he or she handles and addresses the changes affecting the HIM profession.

An article outlining the findings of this study will be submitted to the *Journal of AHIMA*. It is hoped that as the findings of this study are disseminated to the RHIA, they will become aware of the problem and be motivated to take an active role in the implementation of the new roles. At least those RHIA who participated in the study and had never heard of the study have now been exposed to them. The key is to take the awareness of the new roles further so that they roles are embraced and adopted, otherwise the RHIA credentials could become obsolete.

*Implications for AHIMA*

In light of the findings, AHIMA needs to consider other means of publicizing Vision 2006 and subsequent vision statements. Analysis of the other continuing education methods does not indicate a better way of marketing the new roles since reading professional journals was the most popular means of education on the new roles by the RHIA and this was one of the communication methods used by AHIMA. The next most popular continuing education method for learning about the new roles is seminars. AHIMA updates can continue to be offered at state and local professional meetings in order to educate those in attendance. Other possible means of communications include the AHIMA Communities of Practice, email to all members, and a
special mailing. I recommend determining the RHIA’s preferred method of communication from AHIMA.

AHIMA should continue to support career development for its members. The AHIMA Executive Vice President and Chief Executive Officer, Linda Kloss, strongly supports career development. In fact she said, “career development is a fundamental tenet of professionalism and is an evolving process as our personal and work lives and values change during adulthood” (Kloss, 1997, p. 20). She goes on to write that “professional development includes, but is more than, skill and knowledge mastery. It is also about learning to be a lifelong learner, including learning more about oneself as a professional” (Kloss, 1997, p. 20). People who learn how to be lifelong learners are able to meet the challenges resulting from the changes in healthcare and technology (Jennett & Swanson, 1994).

AHIMA should also investigate their continuing education model to look for ways to reduce the impact of deterrents. Many possibilities for revisions exist. One possibility to consider is the use of informal methods of continuing education for continuing education credits. The problem then becomes monitoring compliance since informal means of continuing education do not have the same tracking abilities. Another possibility is the requirement of a self-appraisal and the development and implementation of a career development plan based on the findings of a self-appraisal. AHIMA could also require some of the RHIA’s 30 continuing education hours to be on the new roles.

Implications for Continuing Education Providers (Adult Education)

RHIAs are not motivated to participate in continuing education if they feel that the opportunities are poor quality. The study provides a clear message that continuing education providers for the HIM profession need to improve the quality of the programs provided or at least the perception that the continuing education programs are lacking.
Garst and Ried (1999), as well as Tassone and Heck (1997), report that it is important for the educators to understand the adult’s motivation in order to plan continuing education opportunities. Boshier and Collins (1985) believe that the basis of motivation research is to match marketing of continuing with the needs of the prospective participants. This attention to motivation may increase participation in non-mandatory continuing education sessions. Because of the need to consider motivations for participating in continuing education, AHIMA, state, local professional associations, and other healthcare continuing education providers need to learn what motivates and deters RHIA's and use this knowledge when planning seminars, journal articles, and other continuing education opportunities.

The continuing education providers need to educate the RHIA's that there are a lot of continuing education resources available on the Internet such as the AHIMA HIM Body of Knowledge on the Communities of Practice. The Communities of Practice is an Internet based resource for AHIMA members. The Community of Practice allows RHIA's with common interests to communicate and share information. It also contains articles from the *Journal of AHIMA*. There are other resources for which continuing education providers can provide continuing education hours too. For example, AHIMA does a good job in distributing information via emails and the Communities of Practice. There are non-AHIMA traditional and non-traditional continuing education opportunities available as well.

*Implications for Career Development*

Career development is critical to the RHIA and to the HIM profession. The need for self assessment, career planning, and mentoring has already been discussed in this chapter. The traditional career development theories are no longer appropriate (Leach & Chakiris, 1988). There are few, if any, models addressing the career development needs of professionals in careers that are facing drastic changes. Most of the research has been based on white males who have remained in the same career and continuing up the career path (Gill et al., 1983).

Bejian and Salomone (1995) recognized the need for career renewal in order to prevent obsolescence. This stage is made up of the need for the individual to conduct a self-assessment,
establish priorities, and prepare for the future. Research on this career development stage is critical to not only the HIM profession but others undergoing major changes.

Implications for Professions Facing Change

DiMauro (2000) proposes that professionals cannot wait until the changes in healthcare occur, but should be proactive and develop a professional development plan. When developing and implementing his or her professional development plan, the professional should be creative in identifying methods of meeting his or her educational needs. Professionals should begin with a self-assessment in order to identify their needs. The method of self-assessment can be anything from printed materials, Internet, networking either in person or online, professional seminars, and professional associations. This learning cannot be solely new skills. The professional must also learn about how his or her profession has changed.

Now more than ever the professional must participate in lifelong learning. According to Jennett and Swanson (1994), the professionals who have “acquired the skills of lifelong learning are able to optimally apply them in practice are the most successful” (p. 69). The professional must maintain competence in spite of changes in technology, laws, and other areas that impact the profession. Professions are doubling their knowledge at least every three to 10 years. According to Duyff (1999), without lifelong learning, the professional will not be able to cope with the changes and implement them in his or her job. No longer are we guaranteed a job for life. The only way that we will continue to be employed is to “acquire skills and knowledge… and flexibility to adjust to the evolving needs of” (p. 542) the profession. These constant changes are stressful and could cause professionals to leave the field. If a lot of people leave the field, then shortages of the professionals could exist. Those who choose to remain in the field need to develop coping skills in order to handle the changes.
Conclusions

Many RHIA did not even know that Vision 2006, or the encompassing new roles existed. AHIMA needs to investigate alternative methods of communicating the vision to the membership. This will not be easy since AHIMA is already using the number one method of continuing education, professional journals, to share news. Assuming that the data collected on the number of hours that the RHIA participating in the various continuing education methods is correct, the findings show that overall RHIA are not spending a lot of time learning about the new roles in spite of the fact that the RHIA agree with the roles. While this is good news, there is much more to be done. RHIA need to realize how important these new roles are to the future of the profession, and how to implement them into their job. This will become more and more important as more healthcare organizations increase the amount of technology used. The RHIA need to take an active leadership role in the organizations where they work to ensure the needs of the facility are met and the future of the profession is ensured. This is not an easy task. RHIA are being asked to do more with less as reimbursement decreases and demands or their time increases. It is easy to focus on the short term and not spend money on continuing education or to earmark the limited funds on current job related topics. Several things could happen if the RHIA does not prepare for the future. For example, individuals may lose their job like in the scenario depicted in Chapter One. The RHIA could be forced by the employer to update skills or demote the individuals into entry level positions. If we do not change, then healthcare could change without us because someone else will step into these new roles leaving the RHIA out of a job. This has already happened with the utilization review and quality improvement functions. These roles which were once part of the HIM domain are now dominated by nurses. The HIM profession and the RHIA could vanish into history along with the dodo bird if steps are not taken to step into the new roles.

The findings show that RHIA, in spite of the technological flavor of the profession and the exposure to change, are still using traditional methods of continuing education to learn about the new roles. It also shows that older, more experienced RHIA participate more in continuing
education on the new roles and are more aware of Vision 2006. These older and wiser RHIA's
should share the need to maintain competency with the younger RHIA's.

As feared when deciding to undertake this study, the future of the HIM profession could
be in danger from the RHIA’s failure to prepare for the future of the profession. AHIMA can
only do so much. After that, it is up to the individual RHIA's to take on the battle. The future is
in our hands. We can make the HIM profession and the RHIA key leaders in healthcare or we
can sit back and watch others take the lead. The choice is ours.

Recommendations for Additional Research

Upon reflection, I have several recommendations for additional research. The first is that
this study could be redone using Registered Health Information Technicians as the sample. The
findings of the two studies could then be compared to see if their responses were the same or
different.

Since one of the findings of this study is that the RHIA reports there is a lack of quality
programs, research on what the RHIA wants out of continuing education programs. The study
should also address more specifics on what they view as poor and good quality continuing
education and how existing programs can be improved. This research should also identify what
good quality opportunities are available to the RHIA, and to identify ways, like online, to ensure
that everyone has access to the quality programs.

Another study would be to ask RHIA's what continuing education methods they prefer
that would reduce the barriers reported in the study. This could look at traditional and non-
traditional continuing education methods and include technological methods of delivery. It
should also include both formal and informal methods of continuing education.

One of the findings indicated that a high motivator was that the RHIA wanted to learn in
order to prepare for a job change. I would recommend studying why the RHIA wants a job
change. Possible reasons could include the desire to become involved in the new roles, the level
of stress and the desire to get out of the profession altogether. The findings could help in
planning continuing education, could identify a deficit in the number of RHIA's practicing in

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HIM, or could show that the RHIA wants a non-traditional job using the skills required by the new roles.

The next recommendation for research would be to investigate how the RHIA would like AHIMA to communicate major issues like Vision 2006 to them. Some of the available options include email, Communities of Practice, *Journal of AHIMA*, and the mail.

As AHIMA’s new model for the future, e-Health is distributed and implemented, it would be interesting to see if changes in communication by AHIMA that have already been implemented would improve the findings if this study was redone based on the e-Health standards. The diffusion of e-Health throughout the HIM professionals should be monitored to determine if the marketing plan is effective and if the tenets of the plan are being accepted.
REFERENCES


Baldwin, G. (1999). Intranets are the key to new database strategies. Health Data Management, 7(11), 56-58, 60, 62.


Retrieved February 26, 2002, from the Professional Development Collection database.


*Adult Learning, 4*(6). 6.


APPENDIX A

Final Questionnaire
Preparing for New Roles in Health Information Management

The purpose of this survey is to determine whether or not Registered Health Information Administrators are participating in continuing education activities that will prepare them for the new Health Information Management roles.

Section I: Status on New Roles

1. Choose the answer that best describes status on Vision 2006.

- □ I have never heard of Vision 2006
- □ I know that the new roles exist, but not much else
- □ I have a basic understanding of the new roles, but do not think they impact me
- □ I have a basic understanding of the new roles, but I do not know how they will impact me
- □ I am trying to decide how to implement the new roles in my job
- □ I am implementing the new roles in my job
- □ I am working with others to implement the new roles

Section II: Importance of Roles

Registered Health Information Administrators have a variety of roles to choose from. Whether you are familiar with Vision 2006 or not, please read the description for each of the seven new roles identified by Vision 2006 and indicate the extent to which you believe it is an important role for the Registered Health Information Administrator. (This question is not asking if you currently perform these roles, but instead how important you think the roles are to the profession.)

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<tr>
<th>Role #1: Health Information Manager for Integrated Systems</th>
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<tbody>
<tr>
<td>Responsibilities include directing health information management throughout the organization.</td>
</tr>
<tr>
<td>How important is each of these roles? Not important Very important</td>
</tr>
<tr>
<td>1 2 3 4 5 6</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Role #2: Clinical Data Specialist</th>
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</thead>
<tbody>
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<td>Responsibilities include managing data from a variety of sources.</td>
</tr>
<tr>
<td>How important is each of these roles? Not important Very important</td>
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<th>Role #3: Patient Information Coordinator</th>
</tr>
</thead>
<tbody>
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<td>Responsibilities include assisting consumers with managing their health information and navigating the healthcare system.</td>
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<tr>
<td>How important is each of these roles? Not important Very important</td>
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</tr>
</tbody>
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<th>Role #4: Data Quality Manager</th>
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</thead>
<tbody>
<tr>
<td>Responsibilities include ensuring the quality of the data and managing policies.</td>
</tr>
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<td>How important is each of these roles? Not important Very important</td>
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</tr>
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</table>
Section III. Learning About the New Roles

The American Health Information Management Association has encouraged its members to learn the skills needed to assume the new roles. Learning new skills can be challenging for working professionals. For each item, circle the number that indicates whether you agree or disagree with the motivations for learning.

| 9. Learning about the new roles is enjoyable. | 1 2 3 4 5 6 |
| 10. Learning about the new roles is expected of me by others | 1 2 3 4 5 6 |
| 11. Learning about the new roles will allow me to help others | 1 2 3 4 5 6 |
| 12. Learning about the new roles will allow me to meet new people | 1 2 3 4 5 6 |
| 13. Learning about the new roles will enable me to update my skills | 1 2 3 4 5 6 |
| 14. Learning about the new roles will enable me to make a change in my job | 1 2 3 4 5 6 |
| 15. I do not have enough time to learn about the new roles | 1 2 3 4 5 6 |
| 16. It costs too much to learn about the new roles | 1 2 3 4 5 6 |
| 17. I cannot find any quality programs on the new roles | 1 2 3 4 5 6 |
| 18. I have too many family responsibilities to learn about the new roles | 1 2 3 4 5 6 |
| 19. I am not interested in the new roles | 1 2 3 4 5 6 |
| 20. I have too many job commitments to allow me to learn about the new roles | 1 2 3 4 5 6 |
Section IV. Continuing Education Experiences

Over the past two years, approximately how many hours have you participated in each of the following types of continuing education in order to learn about the new roles? If you did not participate in the type of continuing education, please enter zero (0).

<table>
<thead>
<tr>
<th>Number of Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>21. I taught myself about the new roles by watching others</td>
<td></td>
</tr>
<tr>
<td>22. I learned about the new roles by talking to others</td>
<td></td>
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<td>23. I learned about the new roles by reading about the new roles in professional journals</td>
<td></td>
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<tr>
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<tr>
<td>25. I read about the new roles on the Internet</td>
<td></td>
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<tr>
<td>26. I attended college courses related to the new roles</td>
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</tr>
<tr>
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</table>

28. How many continuing education hours earned for your last AHIMA CE report were related to the new Health Information Management roles? _____________

29. How many total continuing education hours did you report on your last AHIMA CE report? _____________

Section V. Background Information

30. What year were you born? __________________

31. What is your gender? __________________

32. What is your race/ethnicity? __________________

33. What year do you expect to retire? _____________

34. Do you have children under the age of 18 living in your home?
   □ Yes
   □ No

35. How would you classify where you live?
   □ Rural
   □ Suburban
   □ Urban

36. Is there a four year college or university within a one hour drive of where you live?
   □ Yes
   □ No
37. What year did you receive your RHIA certification? ______________________

38. What is your job title? ________________________________________________________________________________

39. How many years have you worked in Health Information Management? ______________________

40. How would you describe the setting in which you work (i.e. hospital, long term care, physician office)?
______________________________________________________________________________

41. Is maintaining your RHIA certification a requirement of your job?
   □ Yes
   □ No
APPENDIX B

Pilot Study Instrument
Preparing for New Roles in Health Information Management

The purpose of this survey is to determine whether or not Registered Health Information Administrators are participating in continuing education activities that will prepare them for the new Health Information Management roles.

Section I: Status on New Roles

1. Choose the answer that best describes status on Vision 2006.

   □ I have never heard of Vision 2006
   □ I know that the new roles exist, but not much else
   □ I have a basic understanding of the new roles, but do not think they impact me
   □ I have a basic understanding of the new roles, but I do not know how they will impact me
   □ I am trying to decide how to implement the new roles in my job
   □ I am implementing the new roles in my job
   □ I am working with others to implement the new roles

Section II: Importance of Roles

Registered Health Information Administrators have a variety of roles to choose from. Whether you are familiar with Vision 2006 or not, please read the description for each of the seven new roles identified by Vision 2006 and indicate the extent to which you believe it is an important role for the Registered Health Information Administrator. (This question is not asking if you currently perform these roles, but instead how important you think the roles are to the profession.)

How important is each of these roles?  

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<td>Responsibilities include directing health information management throughout the organization.</td>
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<td>1 2 3 4 5 6</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Role #2: Clinical Data Specialist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities include managing data from a variety of sources.</td>
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<td>1 2 3 4 5 6</td>
</tr>
</tbody>
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<tr>
<th>Role #3: Patient Information Coordinator</th>
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<tbody>
<tr>
<td>Responsibilities include assisting consumers with managing their health information and navigating the healthcare system.</td>
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</tr>
</tbody>
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<table>
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<tr>
<th>Role #4: Data Quality Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities include ensuring the quality of the data and managing policies.</td>
</tr>
<tr>
<td>1 2 3 4 5 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Role #5: Information Security Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities include protecting the confidentiality of computerized data.</td>
</tr>
<tr>
<td>1 2 3 4 5 6</td>
</tr>
</tbody>
</table>
7. **Role #6: Data Resource Administrator**
Responsibilities include using data warehouses and data repositories to ensure the information needed is available.

8. **Role #7: Research Specialist**
Responsibilities include assisting in research by ensuring the quality of data.

### Section III. Learning About the New Roles

The American Health Information Management Association has encouraged its members to learn the skills needed to assume the new roles. Learning new skills can be challenging for working professionals. For each item, circle the number that indicates whether you agree or disagree with the motivations for learning.

<table>
<thead>
<tr>
<th>9. Learning about the new roles is enjoyable.</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10. Learning about the new roles is expected of me by others</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11. Learning about the new roles will allow me to help others</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12. Learning about the new roles will allow me to meet new people</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13. Learning about the new roles will enable me to update my skills</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14. Learning about the new roles will enable me to make a change in my job</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>15. I do not have enough time to learn about the new roles</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16. It costs too much to learn about the new roles</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>17. I cannot find any quality programs on the new roles</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>18. I have too many family responsibilities to learn about the new roles</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>19. I am not interested in the new roles</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
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</tbody>
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<table>
<thead>
<tr>
<th>20. I have too many job commitments to allow me to learn about the new roles</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section IV. Continuing Education Experiences

Over the past two years, approximately how many hours have you participated in each of the following types of continuing education in order to learn about the new roles?

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29. How many total continuing education hours did you report on your last AHIMA CE report? _____________

Section V. Background Information

30. What year were you born? __________________

31. What is your gender? __________________

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33. What year do you expect to retire? _____________

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36. How would you classify where you live?
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37. Is there a four year college or university within a one hour drive of where you live?
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38. What year did you receive your RHIA certification? ________________

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40. How many years have you worked in Health Information Management?

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41. How would you describe the setting in which you work (i.e. hospital, long term care, physician office)?

____________________________________________________________________

42. Is maintaining your RHIA certification a requirement of your job?
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APPENDIX C

Pre-Pilot Questionnaire
Preparing for New Roles in Health Information Management

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☐ I have a basic understanding of the new roles, but I do not know how they will impact me
☐ I am trying to decide how to implement the new roles in my job
☐ I am implementing the new roles in my job
☐ I am working with others to implement the new roles
☐ I believe the new roles need to be expanded

Section II: Importance of Roles

Registered Health Information Administrators have a variety of roles to choose from. Whether you are familiar with Vision 2006 or not, please read the description for each of the seven new roles identified by Vision 2006 and indicate the extent to which you believe it is an important role for the Registered Health Information Administrator. (This question is not asking if you currently perform these roles, but instead how important the roles are to the profession.)

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- 9. Learning about the new roles is enjoyable.
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- 12. Learning about the new roles will allow me to meet new people
- 13. Learning about the new roles will enable me to update my skills
- 14. Learning about the new roles will enable me to make a change in my job
- 15. I do not have enough time to learn about the new roles
- 16. It costs too much to learn about the new roles
- 17. I cannot find any quality programs on the new roles
- 18. I have too many family responsibilities to learn about the new roles
- 19. I am not interested in the new roles
- 20. I have too many job commitments to allow me to learn about the new roles

### Section IV. Continuing Education Experiences

Over the past two years, approximately how many hours have you participated in each of the following types of continuing education in order to learn about the new roles?

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36. Is there a four year college or university within a one hour drive of where you live?
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   □ No

37. What year did you receive your RHIA certification? ________________

38. What is your job title? __________________________________________________________

39. How many years have you worked in Health Information Management? ________________

40. How would you describe the setting in which you work (i.e. hospital, long term care, physician office)?
January 2, 2003

Dear Fellow RHIA:

I know that you are as concerned about the future of our profession as I am. The more we know about ourselves the more likely we are to be successful when navigating the changes that our profession is facing. As a RHIA and a member of the American Health Information Management Association, I want the future of the HIM profession to be secured.

My concern over the future of the profession has led me to conduct research on the preparation of RHIA on the new HIM roles. The American Health Information Management Association has done an excellent job promoting the need for Health Information Management professionals to update their skills in order to compete for Vision 2006 roles. My research will determine whether or not Registered Health Information Administrators are updating their skills as requested by the American Health Information Management Association.

Please complete the enclosed questionnaire and return it to me in the self-addressed stamped envelope provided. It should only take about five to ten minutes to complete the questionnaire. Your participation in this study is voluntary and your responses will be used solely for my research. I will only report aggregate data so your responses will be kept confidential. I plan to submit the results of my research, Preparing for New Roles in Health Information Management, to the *Journal of AHIMA* for possible publication.

I will contact you two more times to remind you to submit the survey. If I still do not receive a response from you I will understand that you are declining participation. To show my appreciation, participants who return a completed questionnaire will be entered into a drawing for $100.00.

I have enclosed a research information sheet for your review. If you have any questions about my research, please contact me or my co-researcher at:

Nanette B. Sayles  
Survey Coordinator  
203 Dogwood Court  
Lizella, Georgia 31052  
(478) 471-2788  
nbsayles@aol.com

Dr. Laura Bierema  
Assistant Professor  
University of Georgia  
School of Lifelong Learning  
405 River’s Crossing  
Athens, Georgia 30602-4811  
lbierema@coe.uga.edu

Thank you in advance for your participation.

Sincerely,

Nanette B. Sayles, MSHIM, MPA, RHIA, CCS
APPENDIX E

Institutional Review Board Letter
Preparing for New Roles in Health Information Management

We are currently conducting a study entitled, “Preparing for New Roles in Health Information Management.” This questionnaire-based study is designed to increase our understanding of whether or not Registered Health Information Management Administrators are participating in continuing education activities that will prepare them for the new Health Information Management roles.

The study is being conducted by myself under the guidance of Dr. Laura Bierema of the Department of Adult Education. We will use the information you provide for scholarly publications and for various other formal and informal reports.

Your participation in this study is strictly voluntary. If you agree to participate, you are asked to complete a questionnaire which should take less than fifteen minutes to complete.

Your participation in this study will be treated with strict confidentiality. Each questionnaire contains a code number on the back for the sole purpose of tracking responses so that we can send up to two reminders to participants who have not returned the questionnaire. As soon as the data collection is complete, we will destroy our mailing list so that no one will be able to determine the names of people who completed surveys. When we publish our findings, we will report our findings based on groups, not on individuals.

We hope that you will complete the questionnaire and return it in the enclosed envelope. However, if you choose not to participate in this study, simply discard the questionnaire or return a blank questionnaire. If you return a blank questionnaire, we will remove your name from our mailing list and you will not receive any future mailings related to this project.

We do not foresee this study causing you any harm or discomfort. However, should you be uncomfortable about completing the questionnaire, simply discard it or return a blank questionnaire.

If you have any questions about this research—now or in the future—please contact me via telephone (478-471-2788) or by email at nbsayles@aol.com. Dr. Bierema can be contacted at the Department of Adult Education, 407 River’s Crossing, The University of Georgia, Athens, Georgia 30602 or by email at lbierema@coe.uga.edu.

Please note: Completion and return of this questionnaire implies that you have read this information and consent to participate in the research.

Thank you for your help with this important research.

For questions or problems that may arise during this study, please call or write: Human Subjects Office, The University of Georgia, 606A Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone No. (706) 542-6514; E-Mail Address: IRB@uga.edu.
APPENDIX F

Letter from Linda Kloss
March 4, 2003

Nanette B. Sayles, RHIA, CCS
HIT/HIM Program Director
Macon State College
100 College Station Drive
Macon, GA 31206-5100

Dear Nanette,

AHIMA is pleased to lend its support to your research study investigating issues surrounding the participation of Registered Health Information Administrators (RHIAs) in continuing education to prepare for new roles in health information management.

We are committed both to supporting applied research conducted by members such as yourself, and to increasing knowledge about the continuing education needs of our members. As HIM practice continues to change dramatically with advances in information and communication technologies, the importance of the role of the HIM professional is all the more apparent - and successful preparation for our roles in leading the transition to new ways of managing patient information is critical.

On behalf of AHIMA, I applaud your contribution to our knowledge base through this survey and support our members participation in your efforts.

Sincerely,

Linda L. Kloss, RHIA, CAE
Executive Director
APPENDIX G
Post Card
SURVEY REMINDER

January 22, 2003

Dear Fellow RHIA:

Your input on our Preparing for New Roles in Health Information Management is important to the future of the Health Information Management profession. If at all possible, please complete the questionnaire that was recently mailed to you and return it in the stamped self-addressed envelope. Your participation is greatly appreciated.

Sincerely,

Nanette B. Sayles, MSHIM, MPA, RHIA, CCS
APPENDIX H

Third Mailing Cover Letter
February 11, 2003

Dear Fellow RHIA:

I know from personal experience that Health Information Management professionals have many demands on their time. I hope that you can find a few minutes in your busy day to complete the enclosed survey. In order for this research to be successful, your input is important. Please return the questionnaire in the stamped self-addressed envelope. When the questionnaire is returned, you will be entered in a drawing for a $100 check. Thank you.

Sincerely,

Nanette B. Sayles, MSHIM, MPA, RHIA, CCS
APPENDIX I

Listing of Job Titles Reported
<table>
<thead>
<tr>
<th>Job Title</th>
<th>Department</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accredited Coder</td>
<td>Data Specialist</td>
<td>Health Information Manager</td>
</tr>
<tr>
<td>Administrative Director, Medical Park Services</td>
<td>Dean of Health Sciences</td>
<td>Health Manager</td>
</tr>
<tr>
<td>Analyst, System Integration</td>
<td>Decision Support Analyst</td>
<td>HIM</td>
</tr>
<tr>
<td>Area Vice President</td>
<td>Decision Support Senior Systems Analyst</td>
<td>HIM Administrator</td>
</tr>
<tr>
<td>Assistant Chief, Business Management</td>
<td>Department Head</td>
<td>HIM Analyst (Clerk)</td>
</tr>
<tr>
<td>Assistant Director</td>
<td>Director</td>
<td>HIM Consultant</td>
</tr>
<tr>
<td>Assistant Director of HIM Systems</td>
<td>Director Health Information Management Systems</td>
<td>HIM Director/FPO</td>
</tr>
<tr>
<td>Assistant Director of Reimbursement</td>
<td>Director HIM - Multiple Facilities</td>
<td>HIM Site Manager</td>
</tr>
<tr>
<td>Assistant Director, Medical Records</td>
<td>Director HIT Program</td>
<td>HIM Technician</td>
</tr>
<tr>
<td>Assistant Manager</td>
<td>Director Information Management/Quality Systems</td>
<td>HIMS Coordinator</td>
</tr>
<tr>
<td>Assistant Vice President Revenue Cycle Management</td>
<td>Birth Certificate Coordinator</td>
<td>HIPAA Assistant</td>
</tr>
<tr>
<td>Associate Director - HIM</td>
<td>Director Medical Staff Office</td>
<td>Hospital Consultant</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>Director of Client Programs</td>
<td>Independent Coding Consultant</td>
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<tr>
<td>Attorney</td>
<td>Director of Health Information Management Services</td>
<td>Independent Coding Contractor</td>
</tr>
<tr>
<td>Business Office Supervisor</td>
<td>Director of Medical Records and Alternate</td>
<td>Independent Consultant</td>
</tr>
<tr>
<td>Business Partner Manager</td>
<td>Privacy Officer</td>
<td>Inpatient Coder</td>
</tr>
<tr>
<td>Business Support Analyst</td>
<td>Director of Quality Management</td>
<td>Inpatient Coding Coordinator</td>
</tr>
<tr>
<td>Business System Analyst</td>
<td>Director of Quality Services</td>
<td>Instructor</td>
</tr>
<tr>
<td>Cancer Registrar</td>
<td>Director of Quality/Case Management</td>
<td>Lead Coder</td>
</tr>
<tr>
<td>CEO</td>
<td>Director, Appeals Management</td>
<td>Library Manager</td>
</tr>
<tr>
<td>Clinical Analyst - IS Department</td>
<td>Director, Clinical Research Management</td>
<td>Manager</td>
</tr>
<tr>
<td>Clinical Data Coordinator II</td>
<td>Director, Health Information Services</td>
<td>Manager Cancer Registry</td>
</tr>
<tr>
<td>Clinical Data Manager</td>
<td>Medical Staff Services and Privacy Officer</td>
<td>Manager Medical Transcription</td>
</tr>
<tr>
<td>Clinical Data Specialist (Coder)</td>
<td>Director, HIM Lahey Clinic</td>
<td>Manager of HIM</td>
</tr>
<tr>
<td>Clinical Information Manager</td>
<td>Director, HIM/IT</td>
<td>Manager of Medical Records</td>
</tr>
<tr>
<td>Clinical Research Assistant</td>
<td>Director, Managed Care</td>
<td>Manager, Coding Quality</td>
</tr>
<tr>
<td>Clinical Research Nurse Coordinator</td>
<td>Director, Medical Records Department</td>
<td>Manager, Coding Compliance and Data Quality</td>
</tr>
<tr>
<td>Coder</td>
<td>Director, Medical Records, Medical Staff</td>
<td>Manager, Data Quality</td>
</tr>
<tr>
<td>Coder III</td>
<td>Director, Medical Records, Privacy Officer</td>
<td>Manager, Health Record Services</td>
</tr>
<tr>
<td>Coder/Utilization Review Coordinator</td>
<td>Director, Quality Management</td>
<td>Manager, HIS</td>
</tr>
<tr>
<td>Coding Analyst</td>
<td>Director, Regional Health Information Management</td>
<td>Manager, Information Services</td>
</tr>
<tr>
<td>Coding Consultant</td>
<td>Division Chair Allied Health, Department Head, HIT</td>
<td>Manager, Managed Care Reporting (Contract Modeling)</td>
</tr>
<tr>
<td>Coding Consultant (traveling)</td>
<td>Division Director</td>
<td>Medical Archivist</td>
</tr>
<tr>
<td>Coding Specialist</td>
<td>DRG Coder</td>
<td>Medical Programs Administrator</td>
</tr>
<tr>
<td>Coding Supervisor</td>
<td>DRG Specialist</td>
<td>Medical Record Administrator</td>
</tr>
<tr>
<td>College Health and Safety Officer</td>
<td>DRG/Coding Manager</td>
<td>Medical Records Supervisor</td>
</tr>
<tr>
<td>Community Medical Specialist</td>
<td>EDI/HIPAA Business Analyst</td>
<td>Medical Records Coder</td>
</tr>
<tr>
<td>Compliance Consultant</td>
<td>Educator, Coding Certificate Program</td>
<td>Medical Records Coordinator</td>
</tr>
<tr>
<td>Compliance Resource Specialist - HIPAA</td>
<td>Emergency Services Coder/Analyst</td>
<td>Medical Records Coordinator/Privacy</td>
</tr>
<tr>
<td>Coordinator</td>
<td>Epidemiologist</td>
<td>Officer/Bookkeeper</td>
</tr>
<tr>
<td>Computerized Data Specialist</td>
<td>Health Care Consultant</td>
<td>Office Manager</td>
</tr>
<tr>
<td>Consultant</td>
<td>Health Information Applications Coordinator</td>
<td>Oncology Data Coordinator</td>
</tr>
<tr>
<td>Contract Coding Consultant</td>
<td>Health Information Consultant</td>
<td>Operations Manager</td>
</tr>
<tr>
<td>Corporate Compliance Officer/Risk Manager</td>
<td>Health Information Management</td>
<td>Outpatient Coder</td>
</tr>
<tr>
<td>Corporate Director, HIM</td>
<td>Administration</td>
<td>Patient Research Coordinator</td>
</tr>
<tr>
<td>Data Manager</td>
<td>Administrator</td>
<td>Payment Specialist</td>
</tr>
<tr>
<td>Data Quality Administrator</td>
<td>Health Information Management Specialist</td>
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</tbody>
</table>
Pharmacy Operations - Insurance
Physician Reimbursement Coordinator
Practice Manager
Privacy Coordinator
Product Lead
Program Coordinator
Program Director, Coding/Transcription
Program Director, HIT Program
Program Director, Master of Health Administration
Program Manager for Coding and Documentation
Outcomes
Program Manager II
Project Coordinator
Project Director/Assistant Director, HIM
Proprietor
Public Health Program Coordinator
Quality Assurance and Compliance
Radiology Support Services Manager
Records Manager
Region II LA State Manager
Reimbursement Analyst
Reimbursement and Regulatory Review Analyst
Sales Account Executive
Sales Executive
Sales Manager
Section Head, Record Management Section
Senior Associate Health Information
Senior Clinical Data Coordinator
Senior Configuration Specialist
Senior Consultant
Senior Data Analyst
Senior Director HIS
Senior Management Analyst (System Analyst)
Senior Research Analyst
Senior Vice President
Statewide Medical Records Director
Supervisor
Supervisor of Medical Records and Billing
Supervisor, HIM Department
Supervisor, Medical Records Administration Specialist
Supervisor, OB-GYN Health Information
Supervisor, Quality Enhancement
Support Analyst, Software Vendor
Surgical Pricer/Coder
Systems Analyst
Team Leader of Medical Records
Team Leader, Quality Management and Discharge Planning
Transcription and Oncology Registry Supervisor
Utilization Review Coordinator
Utilization Review Specialist
Vice President
Vice President- HIM Services
Vice President, Healthcare
Vice President, Patient Management
VP Planning & Quality
VP, Government Division
APPENDIX J

Work Settings Reported
### Table A.2
#### Listing of Work Settings Reported

<table>
<thead>
<tr>
<th>Academic</th>
<th>Home (Consultant)</th>
<th>Pharmaceutical Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Health Center</td>
<td>Home Based Practice Manager</td>
<td>Pharmaceutical Research Contract</td>
</tr>
<tr>
<td>Acute Care Facilities</td>
<td>Home Based Sales Rep for Computer</td>
<td>Organization</td>
</tr>
<tr>
<td>Acute Care Hospital</td>
<td>Software Solution Company</td>
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</tr>
<tr>
<td>Acute Care Hospital - University Medical Center</td>
<td>Hospital</td>
<td>Physician Clinic</td>
</tr>
<tr>
<td>Acute Rehabilitation Hospital</td>
<td>Hospital and Long Term</td>
<td>Physician Office</td>
</tr>
<tr>
<td>Ambulatory Survey Centers and Nursing Homes (Consult)</td>
<td>Hospital - Clinical Trials Unit</td>
<td>Physician Practice Plan - University</td>
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<tr>
<td>At Home Coder</td>
<td>Hospital Medical Education</td>
<td>Post Secondary Two Year School</td>
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<tr>
<td>Behavioral Health - Residential Care and Outpatient Counseling</td>
<td>Hospital System</td>
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<tr>
<td>Behavioral Health Hospital</td>
<td>Hospital/Physician Office</td>
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<tr>
<td>Business Office (for 22 facilities)</td>
<td>Info Company</td>
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</tr>
<tr>
<td>Business Vendor</td>
<td>Information Products for Pharmaceutical Companies</td>
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<tr>
<td>Cancer Clinic</td>
<td>Information System Vendor</td>
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<tr>
<td>Children's Hospital</td>
<td>Information Systems Consulting</td>
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<tr>
<td>Clin and Hospital Organization</td>
<td>Insurance</td>
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<tr>
<td>Clinic</td>
<td>Insurance Agency for Health Insurance</td>
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<tr>
<td>Clinic/Hospital</td>
<td>Integrated Delivery System</td>
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<tr>
<td>Clinical Research Organization (Pharmaceutical Research)</td>
<td>Integrated Health Delivery System</td>
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<tr>
<td>College</td>
<td>Regional Office</td>
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<td>College - Educational</td>
<td>IT Outsourcing</td>
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<tr>
<td>Combined Clinic and Hospital</td>
<td>Law Firm</td>
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<tr>
<td>Community College</td>
<td>Level I Trauma Center/Hospital</td>
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<tr>
<td>Community Mental Health</td>
<td>Long Term Acute Care</td>
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<tr>
<td>Consulting Company</td>
<td>Long Term Acute Care Hospital</td>
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<td>Consulting Firm</td>
<td>Long Term Care</td>
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<td>Continuing Care Retirement Community</td>
<td>Long term care (SNF)</td>
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<td>Contract Research Organization</td>
<td>Long Term Care and Rehab Center</td>
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<td>Corporate - Health Care Consulting</td>
<td>Long Term Care Management</td>
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<td>Corporate Release of Information Company</td>
<td>Long Term Care/Sub-acute</td>
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<tr>
<td>Corporate Research Organization</td>
<td>Medical College Physician Group</td>
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<tr>
<td>Correctional Facility</td>
<td>Medical Review Company</td>
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<td>Correctional Setting</td>
<td>Medical School &amp; Residency Program</td>
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<td>County-run Health Center</td>
<td>Mental Health</td>
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<tr>
<td>Education</td>
<td>Military Research/Teaching Facility</td>
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<tr>
<td>Educational Institutional</td>
<td>Multi-hospital System</td>
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<tr>
<td>Epidemiologist</td>
<td>Multiple Hospital Corp</td>
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<tr>
<td>Federal Research Hospital</td>
<td>Multiple Settings</td>
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<tr>
<td>Health Care System (Multi-entity)</td>
<td>Multispeciality Medical Center (Clinic)</td>
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<tr>
<td>Health Information Systems Vendor</td>
<td>Multispecialty Physician Clinic</td>
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<tr>
<td>Health System - includes the following acute care, LTC, physician's office as part of hospital</td>
<td>Non-Trad</td>
<td></td>
</tr>
<tr>
<td>Health System of Hospital and Multiple Clinics</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>HMO</td>
<td>Outpatient Diagnostic and Treatment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Center</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pediatric Hospital</td>
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</table>