# Information Technology and Health Administration Education

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## Abstract

*Healthcare Administration grew out of the need to have skilled healthcare executives to support nurses, doctors and other healthcare professionals. With the rapid growth in insurance programs and use of health facilities, the healthcare administration profession has remained in demand. Many programs are accredited by the Commission on Education for Health Services Administration and many programs have membership in the Association of University Programs in Health Administration (AUPHA). Recent legislation has expanded health care availability and includes mandates for electronic medical records and other technological advances. Even so, the extent to which information technology is incorporated in healthcare administration programs is not clearly defined. This study aims to review the extent to which information technology is included in AUPHA healthcare administration programs nationwide.*

## Introduction

The term administrator and executive are generally used to refer to top-level management positions. These terms also include hospital (healthcare) administrators. Healthcare administration grew out of the need for more concentrated efforts in healthcare organizations – to support doctors, nurses and other healthcare professionals with ongoing administrative procedures. Over the years, the healthcare administration field has continued to grow. Between 1875 and 1925, the number of hospitals grew from 170 to 7,000, and the number of hospital beds increased from 35,000 to 860,000 (Rosner, 1989).

The first degree granting program in hospital (health) administration was conducted at Marquette University in Wisconsin (Neuhauser, 1983). Since that time many healthcare administration programs have been initiated and continue to flourish. The healthcare administration programs now have opportunities for accreditation with the Commission on Education for Health Services Administration and the opportunity for membership in quality / support organizations such as the Association of University Programs in Health Administration (Haddock, McLean, Chapman, 2002). Membership in the AUPHA has grown from seven members to more than 120 graduate and undergraduate programs in the United States and Canada (AUPHA.org, 2016).

Sample bachelors online programs with their accrediting bodies include:

Online Degree Programs:

| Program Name | University | Accreditation |
|---|---|---|
| B.A. in Healthcare Administration | Ashford University | Higher Learning Commission |
| B.S. Healthcare Management (General) | Walden University | Higher Learning Commission |
| B.S. Healthcare Administration | Saint Leo University | Southern Association of Colleges and Schools |
| Healthcare Management Specialization | Capella University (www.capella.edu) | Southern Association of Colleges and Schools |

Even with massive growth, the extent to which healthcare administration programs are incorporating information technology from stand alone courses, specialization, certificates and degrees is questionable.

With the passage of the Affordable Healthcare Act, healthcare managers will be needed to assist organizations and individuals in navigating the new reforms. Industries affected will include hospitals, nursing homes, insurance companies, and many other business firms. Emphasis will be placed on preventive services, coordinated care, sustainability, cost reduction, technological innovations, and comprehensive and coordinated healthcare services. Experienced healthcare managers should embody the skill set needed to advance healthcare in the United States and around the globe. Other issues emphasizing the need for effective healthcare managers are cost containment, information technology, project management, care management, case management, policy analysis and long term care management.

Nationally, undergraduate healthcare management programs have been structured as BS or BA degree programs. They have been structured in online, traditional and hybrid formats.

Other nationwide Bachelors Healthcare Management Programs are available in the traditional classroom or hybrid settings:

| Program Name | University / Location | Credit Hours / Required GPA | Other Major Features | Sample Courses |
|---|---|---|---|---|
| B.S. in Health Systems Management | University of Baltimore, Baltimore, Maryland | 120 hours, 2.0 minimum GPA | Weekend Format, no residency | Care management, policy epidemiology, care law, planning and evaluation, economics, finance and accounting |
| B.S. Healthcare Administration | Concordia University, Austin, Texas | 128/ 49 hours in healthcare | One night per week, Courses last 4 – 6 weeks; Some courses are online | leadership |
| B. S. in Health Services Management - College of Allied Health Sciences | East Carolina University, Greenville, North Carolina | 126 hours - 2.5 minimum GPA | Internship in last semester; mission expand opportunities for health practitioners; Electives in managed care, long term care, marketing, medical practice management, and health policy | Business with ethics, law, medical science, health systems, leadership, interpersonal skills, reimbursement, quality management, financial accounting, human resource management, management information systems, biomedical research |
| B.S. in Health Systems Management | George Mason University, Fairfax, Virginia | 2.75 minimum GPA | Two track – Health Systems Management and Assisted Living/ Senior Housing Administration | Health Science Undergraduate Program |
| B.S. Healthcare Management | Ithaca College, Ithaca, New York | 2.0 minimum GPA | Six hour internship in long term care or employment | Critical thinking, problem solving; health policy or health promotion with business minor |
| Program Name | University / Location | Credit Hours / Required GPA | Other Major Features | Sample Courses |
| B.S. Health Systems Management | Loyola University Chicago, Illinois | 128 hours; 2.5 minimum GPA | Semester internship; minor 18 hours | Healthcare in America, project management, global healthcare, accounting, economics, finance, workforce environment, managing vulnerable populations, leadership and policy, marketing, legal and regulatory environment, and a capstone course |
| B.S. Healthcare Management | Metropolitan State College, Denver, Colorado | 120 hours | Core online or in-class Minor: nutrition, holistic health, computer information systems, marketing | Supplemental courses: accounting, statistics, marketing, microeconomics; Major courses: health care organizations, management principles in healthcare, |

| Program Name | University / Location | Credit Hours / Required GPA | Other Major Features | Sample Courses |
|---|---|---|---|---|
| | | | | jurisprudence, healthcare economics, healthcare research, health information systems, human resources management in healthcare, financial management in health care, strategic management, healthcare management practicum, and pre-practicum |
| B. S. Healthcare Administration | University of Nevada- Las Vegas | 124 hours, 2.5 minimum GPA | | Healthcare industry, epidemiology, management in healthcare organizations, marketing, financial management, quantitative methods |
| Bachelor of Health Administration | University of North Florida, Jacksonville, Florida | 132 hours | Can select LTC management course and internship to take Florida Nursing Home Administration Exam; Electives: aging, nutrition, substance abuse, urban planning, ethics, older adult, international groups | Policy, epidemiology, ethics, administration in healthcare, human resources, finance, accounting, managerial accounting, microeconomics, statistics, computer applications in business, intro to foundations of managed care, consumer issues, marketing in healthcare, health information systems, long term care |
| Bachelor in Healthcare Administration | Pennsylvania State University University Park, Pennsylvania | 120 hours | 10-week internship; Specialty areas: management information systems, gerontology, political science, labor and industrial relations. | Economics, sociology, political science, healthcare systems, policy, professional development, finance, human resources, managed care |
| Program Name | University / Location | Credit Hours / Required GPA | Other Major Features | Sample Courses |
| Bachelor in Healthcare Administration | Southern Illinois University – Carbondale Carbondale, Illinois | 2.0 minimum GPA with an associate's degree | Healthcare Management or Healthcare Policy careers | Finance, marketing |
| B. S. in Healthcare Administration and Planning | Tennessee State University Nashville, Tennessee | 120 hours; 2.5 minimum GPA | Internship; Comprehensive exam that covers all major courses | Foundation in healthcare, public health, business, accounting, economics, social science, biological science, humanities, liberal arts |
| Bachelor of Healthcare Administration | Texas State University - San Marcos San Marcos, Texas | 120 hours, 2.75 minimum GPAS | General education and major courses; Comprehensive exam at the end of the didactic and practicum courses | History, political science, natural sciences, international affairs, literary, physical fitness |
| B.S. in Business Administration, Option in Healthcare | Winthrop University, Rock Hill, South Carolina | 124 hours | 400 hour internship in summer; Careers in long-term care administration, hospital billing, consulting, management position in health services organizations | Accounting, finance, economics, management, marketing, information systems, healthcare management, marketing, policy, law and ethics, finance, capstone senior seminar |

The similarities between the national undergraduate healthcare administration programs are immense. All of the programs were in the 120+ credit hour range; and required a minimum grade point average of 2.0 to 2.75. Also, all of the programs combined business and healthcare courses. Some of the programs required internships / practicum, electives and specialization areas.

Health information systems, policy and long term care were common courses or electives in some of healthcare management programs. Hospital billing and finance was also listed in several degree programs.

Georgia Healthcare Administration Programs

| Program Name | University / Location | Other Major Features | Courses |
|---|---|---|---|
| Bachelor of Business Administration with Specialization in Healthcare Management | American Intercontinental University, Atlanta, Georgia | Program also available in South Florida, Houston and online; 30 hours of elective courses: government, politics, gerontology, research, marketing, financial accounting, holistic health, public administration, rural health, long-term care, operations management, oral and technical competency, ambulatory care, managed care, case management | Core: Professional communication, research in health, American health system, healthcare management, quality management, human resources management, healthcare law and ethics, design and management, healthcare financial management, integrative issues |
| B.S. Healthcare Administration | Clayton State University, Morrow, Georgia | 120 credit hours; Internship; Mission: to prepare students for entry and mid-level management positions in a variety of healthcare settings | human resources, technology, epidemiology, long-term care, introduction to healthcare management, health systems management, health care economics, health systems, total quality management, marketing, managed care, long term care, legal issues, ethical issues, internship / practice |
| B.S. Health Services Administration | Macon State University, Macon Georgia | 122 credit hours; provides solid background in organization, finance and delivery of healthcare services | Concentrations: practice/clinical management, long term care and community health |
| B.S. Healthcare Management | South University, Savannah, Georgia | 180 credit hours; Located in the College of Business; 2 years of business + 2 years of health; | 76 required hours in major area: Leadership in healthcare organizations internship Organizational behavior, issues in public health, introduction to healthcare, healthcare delivery and organization, economics of healthcare, ethics and law for administrators, healthcare finance, healthcare marketing and strategy, health information management, risk management in a healthcare setting, research methods in health administration |

**Demand**

Employment of medical and health services managers is expected to grow 16 percent from 2008 to 2018, faster than the average for all occupations. The healthcare industry will continue to expand and diversify, requiring managers to help ensure smooth business operations (Educational Outlook Handbook, 2011).

Managers in all settings will be needed to improve quality and efficiency of healthcare, while controlling costs, as insurance companies and Medicare demand higher levels of accountability. Managers also will be needed to oversee the computerization of patient records and to ensure their security as required by law.

Additional demand for managers will stem from the need to recruit workers and increase employee retention, to comply with changing regulations, to implement new technology, and to help improve the health of their communities by emphasizing preventive care (Educational Outlook Handbook, 2011).

According to the Occupational Outlook Handbook, 2010 -2011, a master's degree in health services administration is the standard credential for most generalist positions in this field. However, a bachelor's degree is adequate for some entry-level positions in smaller facilities, at the departmental level within healthcare organizations, and in health information management. Physicians' offices and some other facilities also hire those with on-the-job experience instead of formal education.

Onetonline.org (2011) conducted a survey on which respondents stated that 52% health care managers required a Bachelor's degree; 41% Master's and 3% Associate's degree.

**Theoretical Framework – Field Learning Theory**

Kurt Lewin stated that behavior was determined by the totality of an individual's situation. In his field theory, a field is defined as the totality of co-existing facts which are conceived as mutually interdependent. The whole life space had to be viewed to understand behavior (Neill, 2016).

Information technology helps individuals, and businesses research, process and manage information through computerization (Shelton and Williams, 2015). Information technology can be learned and includes the totality of co-existing facts that can be accessed or generated at record speeds. The incorporation of such learning, processes and procedures into the health administration field lends itself to the optimal integration of knowledge for both the individual and the healthcare organization.

**Research Question:**

To what extent is information technology incorporated into AUPHA health administration programs?

**Research Hypothesis:**

Most AUPHA health administration programs have information technology incorporated into their degree program(s).

**Independent Variable:**

AUPHA Healthcare Administration Program

**Dependent Variable:**

Incorporation of Information Technology in Program

**Methods:**

The AUPHA (Association of University Programs In Health Administration) website was used to secure information on more than 120 member healthcare administration programs (colleges and universities). Although programs from Canada were allowed for membership, only programs in the United States were included in the review. An electronic search was conducted to determine the number of healthcare administration programs with IT offerings. The types of colleges and universities included: doctoral, executive, graduate, and undergraduate. The total number of programs reviewed was 202. Selected queries were conducted to determine types of IT offerings by category: standalone course, specialization, certificate or built into other courses.

**Results:**

Results from a review of all 202 programs (at all levels) revealed that information technology offerings did not occur in all of the programs. About one-third of the programs had IT offerings:

Standalone course (14%); Built into other courses (7%); Certificates (2%), and Degree (1%). See diagram:

## IT in US Healthcare Administration Programs

- Built in 7%
- Certificates 2%
- Degree 1%
- Stand alone 14%
- All - Total 76%
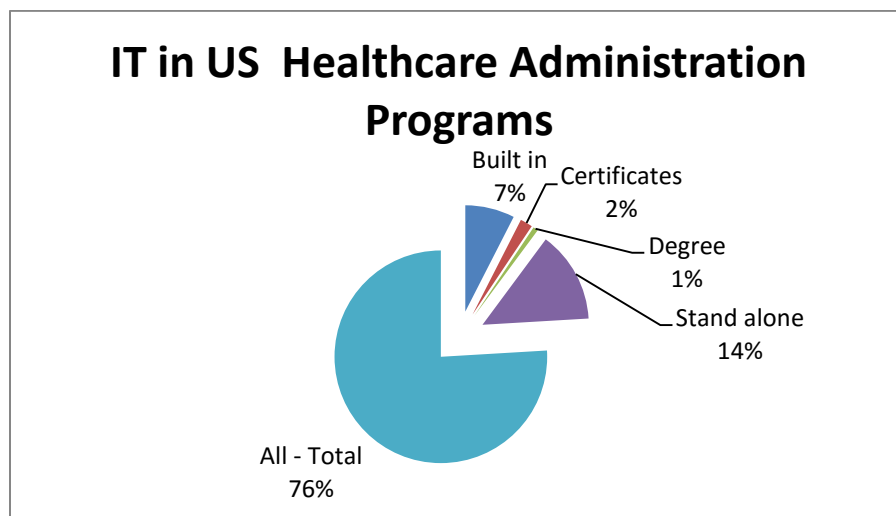
**Discussion:**

Since the passage of the Affordable Care Act – with mandates for electronic medical records and other technological advances, healthcare administrators need to be increasingly trained in information technology. Healthcare administration programs generally offer managerial courses and practicum / internship training; yet information technology offerings have not been included in the curriculum as much as expected. By incorporating clinical information systems in the education curriculum as a teaching platform, the University of Kansas, teaches nurses and other health professional students how to assess, plan, document, and manage care in an electronic medium that develops healthcare informatics competencies (Connors, Warren, and Weaver, 2007).

Linberg, 2012, discussed the need to fill the skills gaps by expanding healthcare IT education offerings. He stated that educational programs need to help out in the balancing act between industry, the speed of changes in healthcare and the ability to further everyone's careers if we are able to fill jobs and close the skills gaps in health IT and administration.

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