

A COMPREHENSIVE GUIDE TO HEALTH INFORMATICS



How You Can Make an Impact
on Patient Outcomes



TABLE OF CONTENTS

- 1 Introduction
- 2 The Impact of Health Informatics on Patient Outcomes
- 3 EHR Systems: Health Informatics Technology That Improves Patient Outcomes
- 4 What Can You Do With a Health Informatics Degree?
- 5 How to Break Into Health Informatics
- 6 Is a Master's in Health Informatics Worth It?
- 7 Take the First Step Toward a Health Informatics Career



1

INTRODUCTION

The healthcare industry is currently undergoing significant technological transformations, which are largely driven by the innovative work of health informatics professionals. Health informatics is a multidisciplinary field that combines the principles of information science, computer science, and healthcare to create cutting-edge solutions that improve patient outcomes and streamline healthcare delivery.

In this career guide, we answer some of the most common questions, including:

- How does health informatics impact patient outcomes?
- What are EHR systems and how do they improve patient outcomes?
- What can I do with a health informatics degree?
- What are some careers I can get in health informatics?
- How can I become a healthcare informatics professional?
- Is a master's in health informatics worth the investment?

Continue reading to have these and other questions answered, and learn the steps you need to take to advance your health informatics career.



THE IMPACT OF HEALTH INFORMATICS ON PATIENT OUTCOMES

Northeastern University
Bouvé College of Health Sciences

In today's rapidly evolving world, the role of technology in improving patient outcomes cannot be overstated. Healthcare informatics—a field that focuses on the efficient and effective use of data to optimize patient care—has transformed the landscape of the medical industry.

According to a study published in the *Journal of the American Medical Informatics Association*, the use of health informatics can reduce inpatient mortality rates by up to 15 percent. In addition, facilities that leverage health informatics tools have experienced a 25 percent decrease in the duration of patient stays, and a 19 percent reduction in the likelihood of readmission within 30 days.

Results of Health Informatics Implementation

Reduction of inpatient mortality rates



15%

Decrease in the duration of patient stays



25%

Reduction in patient readmissions within 30 days



19%

Source: Journal of the American Medical Informatics Association

If you're interested in having an impact on patients' overall health, here's an overview of health informatics' role in healthcare, the many ways it improves patient care, and how you can leverage this knowledge to become an effective leader in the industry.

WHAT IS HEALTH INFORMATICS?

[Health informatics \(HI\)](#) is a discipline that straddles the information technology and healthcare industries. It is considered a subfield of information technology focused primarily on the collection, digitization, storage, and analysis of patient data and records across systems, networks, and devices.

WHAT IS THE ROLE OF INFORMATICS IN HEALTHCARE?

[Health informatics](#) plays a crucial role in healthcare by combining information technology, computer science, clinical knowledge, and management science to improve patient care, enhance efficiency, and reduce overall costs.

“Informatics professionals are responsible for getting health data together, moving it into the right place, and making it accessible to anybody who needs it in the healthcare system.”

- Jay Spitulnik

**Associate Teaching Professor and Director of Health Informatics
Graduate Program at Northeastern's Bouvé College of
Health Sciences**

By distilling complex data into accessible knowledge, health informatics empowers healthcare providers to make well-informed decisions, forge stronger patient connections, and ultimately, create a healthier, happier world.

**Northeastern University
Bouvé College of Health Sciences**

5 WAYS HEALTH INFORMATICS IMPROVES PATIENT CARE

1. REDUCES HEALTH DATA ERRORS

Health informatics plays a critical role in reducing health data errors. By automating data collection and analysis processes, health informatics systems reduce the risk of inaccuracies in various aspects of healthcare that are more susceptible to errors, including:

- Prescription orders
- Health insurance information
- Diagnostics
- Health data entry/transcription

These systems also provide real-time feedback to clinicians, alerting them to potential medical errors or inconsistencies in patient data. Electronic health records (EHRs) provide physicians with quick and easy access to patient medical histories, which can reduce the need for repeated tests, improve diagnosis accuracy, and avoid unnecessary, costly medical procedures.

According to a [report](#) by the Office of the National Coordinator for Health Information Technology, healthcare facilities that adopt EHRs have reported a 27 percent reduction in medication errors and a 30 percent reduction in duplicate testing, which resulted in an estimated \$3.12 billion in savings over the course of three years.



**Estimated savings of
healthcare facilities that
adopt EHRs over the course of
three years**

Source: Office of the National Coordinator for Health Information Technology

Northeastern University
Bouvé College of Health Sciences

2. INCREASES EFFICIENCY AND COORDINATION

One of the biggest benefits of health informatics is the efficiency it provides for administrative tasks—such as appointment scheduling and billing—which frees up more time for effective patient care. While this might seem like a benefit for larger medical facilities, health informatics plays a crucial role in both community clinics' and large university health centers' efficiency and coordination.

By implementing health informatics-supported systems—such as EHRs and other health information technology (HIT)—community clinics can enhance their ability to:

- Track patient health histories
- Monitor treatment plans
- Communicate with other healthcare providers

“A local community hospital is not likely to have interdisciplinary interaction as large as a university medical center,” says Spitulnik. “So given the proliferation of electronic records, it becomes easier for community hospital practitioners to access large amounts of important health information that can greatly influence a patient’s diagnosis and treatment.”



Northeastern University
Bouvé College of Health Sciences

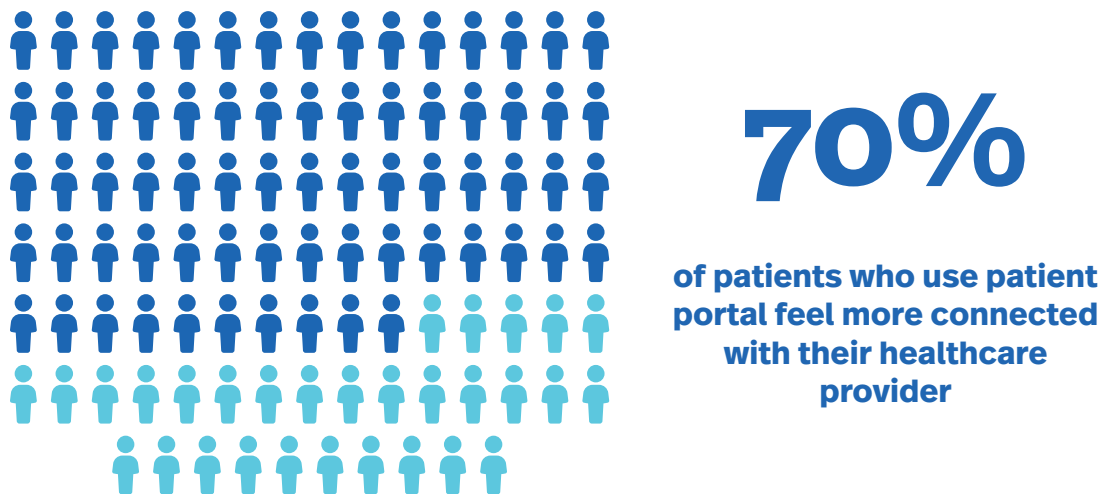
3. BOOSTS PATIENT ENGAGEMENT

While practitioners play a huge role in patient outcomes, health informatics has revealed the patient's role in this process as well. "There's a lot of research that shows that higher levels of patient engagement result in better patient outcomes," says Spitulnik. "And one of the things that informatics does is enhance the patient's ability to get involved in their health through patient portals."

Some examples of important information patient portals track include:

- Medical records
- Test results
- Family medical history
- Appointment notes

This readily available data can help promote transparency in healthcare and empower patients to take a more active role in their overall health. According to a [survey](#) conducted by the Office of the National Coordinator for Health Information Technology, 70 percent of patients who use a patient portal feel more connected with their healthcare provider.



Source: Office of the National Coordinator for Health Information Technology

Additionally, patients can use patient portals to schedule appointments, request prescription refills, and send secure messages to their healthcare provider, which can improve communication and overall satisfaction with their care. With the growing trend toward patient-centered care, patient portals are a valuable health informatics tool that increases patient engagement and improves outcomes.

Northeastern University
Bouvé College of Health Sciences

4. IMPROVES DECISION-MAKING

Healthcare decision-making is a complex process that involves a range of challenges, including interpreting and analyzing the large amounts of data available to practitioners today. “There are billions of bytes of information that are available—that includes information about you as an individual as well as everybody else out there in the world,” says Spitulnik.

“For example, informatics provides the tools healthcare providers need to access diagnosis and treatment data of anyone who has the same or similar conditions to aid in their clinical decision-making around a patient’s treatment,” Spitulnik continues.

Health informatics also provides real-time data analysis and predictive modeling, which can also aid in administrative decision-making in a healthcare facility. “Informatics doesn’t just provide clinical data, it also provides demographic information,” says Spitulnik.

According to Spitulnik, this kind of information often helps high-level leadership determine:

- What kind of people is the facility serving?
- What kind of people should the facility be serving that they aren’t?
- What can the facility do to make healthcare more equitable?

“In the end, one of the biggest things informatics offers health professionals at any level is the support they need to make realistic, legitimate decisions about how to treat patients more effectively and equitably,” Spitulnik concludes.



Northeastern University
Bouvé College of Health Sciences

5. EXPANDS ACCESS TO CARE

Health informatics has greatly increased access to healthcare through telehealth services—the delivery of healthcare services through telecommunication technologies such as video conferencing, remote monitoring, and mobile health apps. “Health informatics has had a major impact on the ability to access your providers and access information from them,” says Spitulnik.

By enabling the secure transfer of medical data and patient information through EHRs, health informatics ensures telehealth services are delivered with the same level of care and confidentiality as traditional in-person appointments. These services are particularly beneficial for patient outcomes in rural or underserved areas that have limited access to healthcare facilities or specialists.

This innovation was particularly important during the early stages of the global pandemic. According to a [McKinsey report](#), the adoption of telehealth services increased from 11 percent of U.S. consumers in 2019 to 46 percent in 2020. With social distancing measures and lockdowns in place, many patients were unable to receive in-person medical care. As a result, health informatics provided the necessary infrastructure for telehealth services.

One of the primary factors of telehealth accessibility is the advancement of EHR systems. These systems have done a tremendous amount to improve patient outcomes, and are fundamental to health informatics career paths. If you’re interested in working in health informatics, it’s important to become familiar with these systems and their benefits.

Below is an overview of EHR systems, and how they improve patient outcomes.



Northeastern University
Bouvé College of Health Sciences



3

EHR SYSTEMS: HEALTH INFORMATICS TECHNOLOGY THAT IMPROVES PATIENT OUTCOMES

Northeastern University
Bouvé College of Health Sciences

In recent years, the medical industry has adopted technology to improve patient care and maximize efficiency. One such technology that's gained widespread acceptance throughout healthcare is electronic health record systems. These systems have become integral to the medical industry, and have increased the accessibility of health information to both patients and providers.

Here's an overview of EHR systems, the seven key benefits they provide, and how they're revolutionizing the healthcare industry.



Northeastern University
Bouvé College of Health Sciences

WHAT ARE EHR SYSTEMS?

EHR systems are [comprehensive records of a patient's medical history](#), including details such as demographics, test results, and prescribed medications. These records help healthcare providers make informed decisions about patient care and ensure that all necessary information is readily available.

"The briefest definition is that it's the digital version of a patient's paper chart and medical history," explains Spitulnik. "EHR systems are the foundation of everything that you do in the informatics world."

According to Spitulnik, these systems have three key functions:

1. **Identify and maintain a patient record:** Unlike the traditional method of keeping records in written format, EHRs offer a digitized platform that's more efficient, convenient, and secure.
2. **Manage patient demographics:** By providing a centralized location for patient demographic information, EHRs allow doctors to quickly access valuable patient information.
3. **Manage problem lists:** EHR systems allow healthcare providers to manage problem lists—documents outlining health concerns—for individual patients, as well as broader systems within a specialty or health system.

EHR adoption wasn't widespread until the [HITECH Act](#), which was enacted in 2009 to boost the acceptance and advancement of health information technology. In 2016, the [21st Century Cures Act](#) took things a step further.

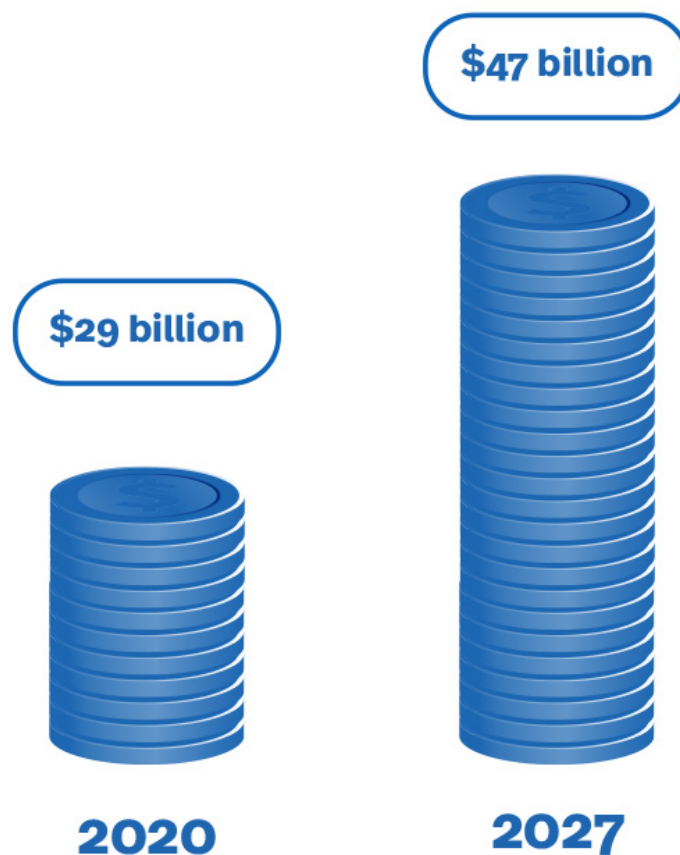


Northeastern University
Bouvé College of Health Sciences

“The 21st Century Cures Act established an expected norm of sharing electronic health information,” explains Spitulnik. “This eliminated information blocking—interference with the access, exchange, or use of health information—and required transparency to patients and caregivers.”

These policies, plus overall recognition of EHR systems’ benefits, have resulted in nearly [90 percent](#) of office-based physicians using EHR or electronic medical record (EMR) systems. As a result, there’s a growing demand for individuals who are comfortable working with these systems. In fact, the global EHR market is expected to increase to [\\$47 billion by 2027](#), up from \$29 billion in 2020. For this reason, prospective health informatics professionals should ensure they’re familiar with EHR systems and their benefits.

Electronic Health Records (EHR) Market Worth Trends



Source: Valuates Reports

7 BENEFITS OF EHR SYSTEMS

While EHR systems' prevalence in the healthcare system is well-established, it's important to note the aid this health informatics tool provides to the industry. Here are the top seven benefits of leveraging EHR systems in healthcare.

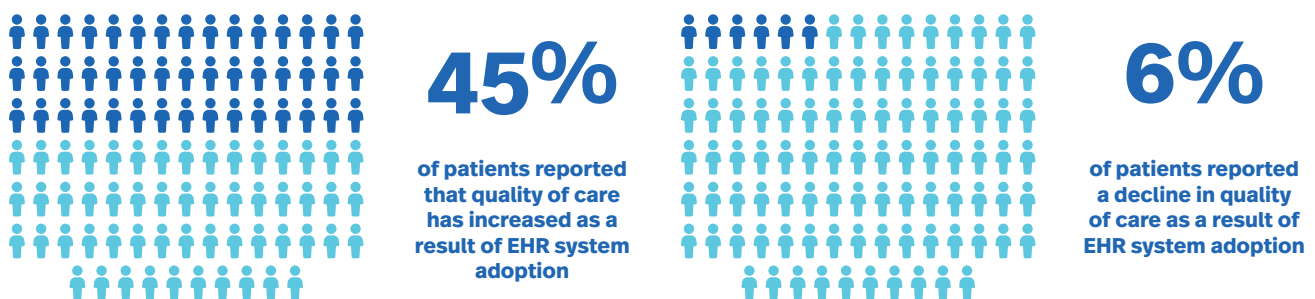
1. IMPROVES QUALITY OF CARE

EHR systems provide quick and easy access to patient information, which can help healthcare providers make better-informed decisions about patient care.

Here are a few ways [EHRs improve patient outcomes](#):

- [Checks for medication conflicts](#): Since EHRs track patients' medications and allergies, it also has the ability to check for potential issues or conflicts with newly prescribed medications.
- [Improves emergency care](#): EHRs provide immediately accessible data pertaining to critical information, such as a life-threatening allergy, to emergency staff. This allows them to provide the right care to their patients—even if they're unconscious.
- [Illuminates safety risks](#): EHRs help healthcare providers avoid potentially serious problems by alerting them to possible safety issues, ultimately leading to improved patient outcomes.

According to the [Kaiser Family Foundation](#), approximately [45 percent](#) of patients have reported that quality of care has increased as a result of EHR system adoption, with only 6 percent reporting a decline in quality of care.



Source: Kaiser Family Foundation

Northeastern University
Bouvé College of Health Sciences

2. INCREASES EFFICIENCY

One of the most notable benefits of EHR systems is their ability to boost organizational efficiency in healthcare. Not only that, there's significant evidence that suggests EHRs have [provided a positive return on investment](#).

Some common administrative processes that EHRs can help streamline include:



- **Appointment scheduling:** By automating the scheduling process, EHRs help prevent common mistakes (e.g., double booking), while offering real-time scheduling updates that allow providers to reschedule appointments or send reminders to patients.



- **Billing:** EHRs can reduce the chances of missed or delayed payments by automatically generating and sending bills to patients, and identifying discrepancies such as duplicate charges or incorrect billing codes.



- **Patient communication:** In addition to allowing patients to access their medical information much more easily, EHRs offer messaging platforms that allow patients to ask their providers questions through a secure and confidential method.

These improvements can help healthcare providers manage their workload efficiently. They also prevent many human errors, such as indecipherable handwriting or misplaced paperwork.

3. BOOSTS PATIENT ENGAGEMENT

EHRs foster a collaborative environment between patients and healthcare providers. By creating more transparency for patients, EHRs have allowed patients to have more of a say in their healthcare. This secure access to health information has encouraged more people to take control of their health and actively engage with their healthcare providers.

“One of the things that research has shown is that the more information you make available to the patients, the more engaged they become,” explains Spitulnik.

This is [particularly true when considering chronic illnesses](#) that require ongoing treatment, which impact approximately [60 percent](#) of American adults. EHR systems improve providers’ ability to form long-term relationships with patients and collaborate with them to find solutions.

4. REDUCES MEDICATION ERRORS

Easy access to patients’ medical history, allergies, and existing medications helps prevent doctors from prescribing medications that could harm patients or conflict with existing prescriptions. This improves patient safety, and ensures that doctors are equipped with the information they need to provide accurate recommendations.

EHR systems also help prevent medication errors by providing medication alerts and reminders to healthcare providers and enabling automatic medication prescribing. Medical errors are expensive to the medical industry, costing approximately [\\$20 billion](#) each year. EHRs can help reduce the costs of these errors, especially since one of the leading causes of medical inaccuracies is communication errors.



Northeastern University
Bouvé College of Health Sciences

5. ENHANCES DATA SECURITY

EHR systems [offer better data security](#) than paper-based systems, as data is stored in secure, encrypted formats that can only be accessed by authorized personnel. Additionally, EHRs facilitate secure sharing of patient data among authorized healthcare providers, allowing for seamless communication between teams and minimizing the risk of data breaches. These systems also conduct regular backups and data recovery measures, which ensures patient information is accessible and protected at all times.

6. ENHANCES DATA ACCESSIBILITY

The accessibility of EHR systems is one of the primary reasons for their widespread adoption. They enhance accessibility for both healthcare providers and patients, allowing them to easily access medical records from any authorized device.

While both groups benefit from this enhanced data accessibility, the amount of information that's available to them differs.



Healthcare Providers

EHR systems allow healthcare providers to access patient data from anywhere with an internet connection, making it easier to provide care to patients in different locations.



Patients

Due to the [HITECH Act](#), patients now have the right to access their healthcare information via a digital copy of their health data through a secure and confidential EHR system.

As a result, the accessibility of EHR systems gives patients more control over their healthcare. “When done right, [EHR systems] make information more accessible to patients,” says Spitulnik. “It allows patients and their caregivers to be directly involved in the decision-making about their care.”

Northeastern University
Bouvé College of Health Sciences

7. SAVES MONEY

The cost-savings benefit of EHR systems is debated, since EHR systems are fairly expensive to maintain. However, there are several aspects of EHR systems that save money long-term.

“Let’s say that you’ve been in a facility where you’ve had all kinds of diagnostic imaging done, such as CAT scans, x-rays, and MRIs,” says Spitulnik. “It’s a lot less expensive to store and transmit electronically than having all kinds of CDs and DVDs in your office that you then have to copy to transmit to another provider.”

Other ways EHR systems can save healthcare providers money include:

- Reducing the need for paper-based systems
- Decreasing time spent on administrative tasks
- Minimizing medical errors and inefficiencies

“One of the biggest cost saving pieces is that everything is much more shareable than hard copies,” explains Spitulnik.

Obtaining familiarity with EHR systems is key to a variety of health informatics careers. Below is an overview of some of the top health informatics career paths, and their average salaries.



Northeastern University
Bouvé College of Health Sciences



4

WHAT CAN YOU DO WITH A HEALTH INFORMATICS DEGREE?

Northeastern University
Bouvé College of Health Sciences

As health informatics is a relatively new field, there is currently a shortage of professionals who have the experience and expertise to step into many health informatics roles. Luckily for aspiring professionals, this means that most health informatics careers come with a competitive salary and significant job security.

Below, we explore some of the top job titles held by those in the field.

Top 6 Careers in Health Informatics

Job Title	Median Salary
1 Clinical Informatics Specialists	\$61.8K
2 Clinical Data Analysts	\$81.3K
3 Clinical Informatics Managers/Directors	\$120.1K
4 Testing Analysts	\$100.2K
5 Bioinformatics Scientists	\$109.8K
6 Biostatisticians	\$95.1K

Source: Lightcast™ Analyst 2023

Below is an overview of these common job titles in the health informatics industry, including their responsibilities, relationship to others on the informatics team, and salary information, where available.

1. HEALTH/CLINICAL INFORMATICS SPECIALIST

Average annual salary: \$61,800 per year

A [health informatics specialist](#) works with patient records and data in a healthcare setting. They are often employed by healthcare providers such as hospitals and clinics, medical device manufacturers, pharmaceutical companies, commercial insurance companies, and governmental or other policy-focused institutions.

Because the term is something of a catch-all, it can mean different things to different employers. However, professionals in this role are typically responsible for:

- Collecting and analyzing healthcare data to answer organizational questions or solve related problems
- Managing and storing data so it's easily accessible and understandable
- Running data reports to discover trends and share findings with others

Health informatics specialists can work in analytical, project management, consulting, or support capacities depending on an organization's needs. This title is often held by individuals early in their career before moving into more specialized roles.

Northeastern University
Bouvé College of Health Sciences

2. CLINICAL INFORMATICS ANALYST

Average annual salary: \$81,300 per year

Clinical informatics analysts are vital healthcare professionals who typically hold the following responsibilities:

- Compiling health data
- Analyzing the previously collected data
- Using analysis to adjust organizational practices, processes, and workflows

For example, a hospital that has seen an increase in post-op readmission rates might turn to a clinical informatics analyst to identify methods for reducing that rate, which might be as simple as educating patients on proper wound care to reduce infections.

“The hottest health informatics jobs right now are related to analytics,” says Spitulnik. “The main reason for that is because of the growth in electronic health record utilization over the past few years. Because of that, there are billions and billions of pieces of data that are available now. And now that we have it, we have to ask, ‘What can we do with it to help improve patient outcomes?’”

3. CLINICAL INFORMATICS MANAGER/DIRECTOR

Average annual salary: \$120,100 per year

[Clinical informatics managers](#) and [directors](#) are essential leaders in the healthcare industry who are responsible for overseeing data analysis and management to improve patient outcomes.

The key responsibilities of clinical informatics managers and directors include:

- Managing health informatics specialists and other professionals on their team
- Overseeing health data analysis and data performance to ensure optimal patient care
- Monitoring technology to keep processes efficient

Managers typically report to higher managers or department heads, whereas directors often report to top management.

Northeastern University
Bouvé College of Health Sciences

4. TESTING ANALYST

Average annual salary: \$100,200 per year

As technology continues to advance in the healthcare industry, there's an increased need for skilled professionals to test these products before they hit the market.

[Testing analysts](#) play a vital role in ensuring the seamless and secure operation of digital health tools. They accomplish this by performing the following tasks:

- Designing and executing tests to identify potential problems early
- Analyzing data from tests to identify bugs
- Maintaining quality and safety standards to guarantee an excellent user experience

Testing analysts must possess excellent analytical and problem-solving skills, an eye for detail, and strong communication abilities to be effective in their roles. It's essential for individuals in this role to stay up to date with industry standards and best practices. In addition, they should have a strong understanding of healthcare technology and patient information systems, as well as the ability to interpret patient health data.

5. BIOINFORMATICS SCIENTIST

Average annual salary: \$109,800 per year

A [bioinformatics scientist](#) primarily works on developing software applications and databases that help in [analyzing biological data](#). In industries beyond biology and biotech, this role is most commonly linked to that of a data scientist.

Key responsibilities of a bioinformatics scientist include:

- Coordinating and collaborating with other professionals in the organization
- Collecting, processing, and analyzing biological data
- Keeping accurate records of analyses to inform future research endeavors

Responsibilities of day-to-day work may differ based on industry or company. Regardless of where bioinformatics scientists work, however, a thorough knowledge of healthcare informatics is critical to achieving success.

Northeastern University
Bouvé College of Health Sciences

6. BIOSTATISTICIAN

Average annual salary: \$95,100 per year

[Biostatisticians](#) are responsible for statistical design and analysis to achieve medical research breakthroughs. They work in a variety of settings, such as hospitals or research labs.

Responsibilities may include:

- Analyzing statistical data derived from research studies related to biology
- Using findings to draw conclusions and make predictions based on statistical analysis
- Creating reports that offer a concise summary of the analysis, and presenting them to team members, clients, or stakeholders

Biostatisticians tend to focus on specific areas, such as epidemiology, ecology, or genetics. The role is typically part of a larger research team, so interpersonal management and collaboration are also valuable skills.

JUMPSTARTING YOUR CAREER IN HEALTH INFORMATICS

Strictly speaking, it may be possible to earn an entry-level health informatics position without earning a degree in health informatics. Individuals who have earned an undergraduate information technology degree, for example, are often qualified to work in such a capacity.

To truly excel and advance within the industry, however, an advanced degree in health informatics is often required. This is especially true for many of the more senior positions on an informatics team.

While there are several in-demand roles in the health informatics industry, a variety of additional careers benefit from in-demand skills a healthcare informatics master's degree can equip you with.

A person wearing a white lab coat is pointing at a tablet held by another person. The tablet screen displays a heart icon, a red heart icon, a bar chart, and a donut chart. The background is a blurred laboratory setting with various equipment and a red-lidded container.

Northeastern University
Bouvé College of Health Sciences

According to our analysis of job postings and profile data, master's-level graduates who list health informatics skills on their professional profiles most commonly have the following job titles:

1. Executive positions: Executive-level positions, such as Chief Executive Officer (CEO) or Chief Medical Information Officer (CMIO) often require healthcare informatics skills.
2. Health informatics analysts: Health informatics analysts need the ability to interpret and leverage this data to enhance patient outcomes.
3. Project managers: Since the management of healthcare databases is a critical task that often falls under the purview of project managers, health informatics skills are essential.
4. Software engineers and developers: In healthcare, software engineers and developers have the opportunity to work on software that captures and interprets healthcare data.
5. Implementation consultants: Health informatics consultants are typically contracted for project-based work and help clients optimize the management of health data systems.

“Earning an MS in informatics is perfect for anyone who has been working in informatics, who has a healthcare (or IT) background, and who wants to advance their career,” Spitulnik says. “We see a lot of people who are already out there doing the work, but they’re getting their master’s degree to help position them higher on the ladder of consideration when applying for a higher-level position.”

If you’re ready to start mapping out your entry into the health informatics field, continue on to see how you can become an informatics professional.



Northeastern University
Bouvé College of Health Sciences



5

HOW TO BREAK INTO HEALTH INFORMATICS

Northeastern University
Bouvé College of Health Sciences

Do you want to find a position in this exciting and in-demand field of healthcare? The steps to work in healthcare informatics are fairly straightforward. According to Spitulnik, there are three key steps prospective informatics professionals should take.

3 ESSENTIAL STEPS TO BECOMING A HEALTH INFORMATICS PROFESSIONAL

1. NETWORK WITH CURRENT PROFESSIONALS

Networking is an important part of finding any career—health informatics is no exception. Selecting a program that provides networking opportunities can make it easier to find a position following graduation.

“To break into health informatics—and this is something that I say over and over and over again—is [all about] networking, networking, networking,” says Spitulnik. “And we provide tons of networking opportunities [at Northeastern] that can help you break into your career.”

2. BECOME FAMILIAR WORKING WITH TECHNICAL SYSTEMS

While not a requirement, Spitulnik recommends that prospective healthcare informatics professionals become familiar with technical systems or coding languages like Python.

“Have some comfort working with the technical systems,” Spitulnik advises. “Even though you’re not necessarily going to be doing the manipulation of the technical systems, you have to be comfortable enough working with it.”

If you don’t have this experience, don’t worry—programs like Northeastern’s are intended to catch you up regardless of your background. “Our program is set up to take people from the most basic levels and turn them into functional health informatics professionals,” says Spitulnik. “We have coursework that will help you learn basic healthcare technology and language.”



Northeastern University
Bouvé College of Health Sciences

3. OBTAIN A RELEVANT MASTER'S DEGREE

A master's in health informatics is the most important credential individuals need to find a career in health informatics. While some programs require a related professional or undergraduate background to apply, [Northeastern's MS in Health Informatics](#) is open to any professional hoping to break into the field.

“Our degree is set up with a high level of flexibility so that people can come in with any kind of background. They don’t have to have any kind of technical or healthcare background.”

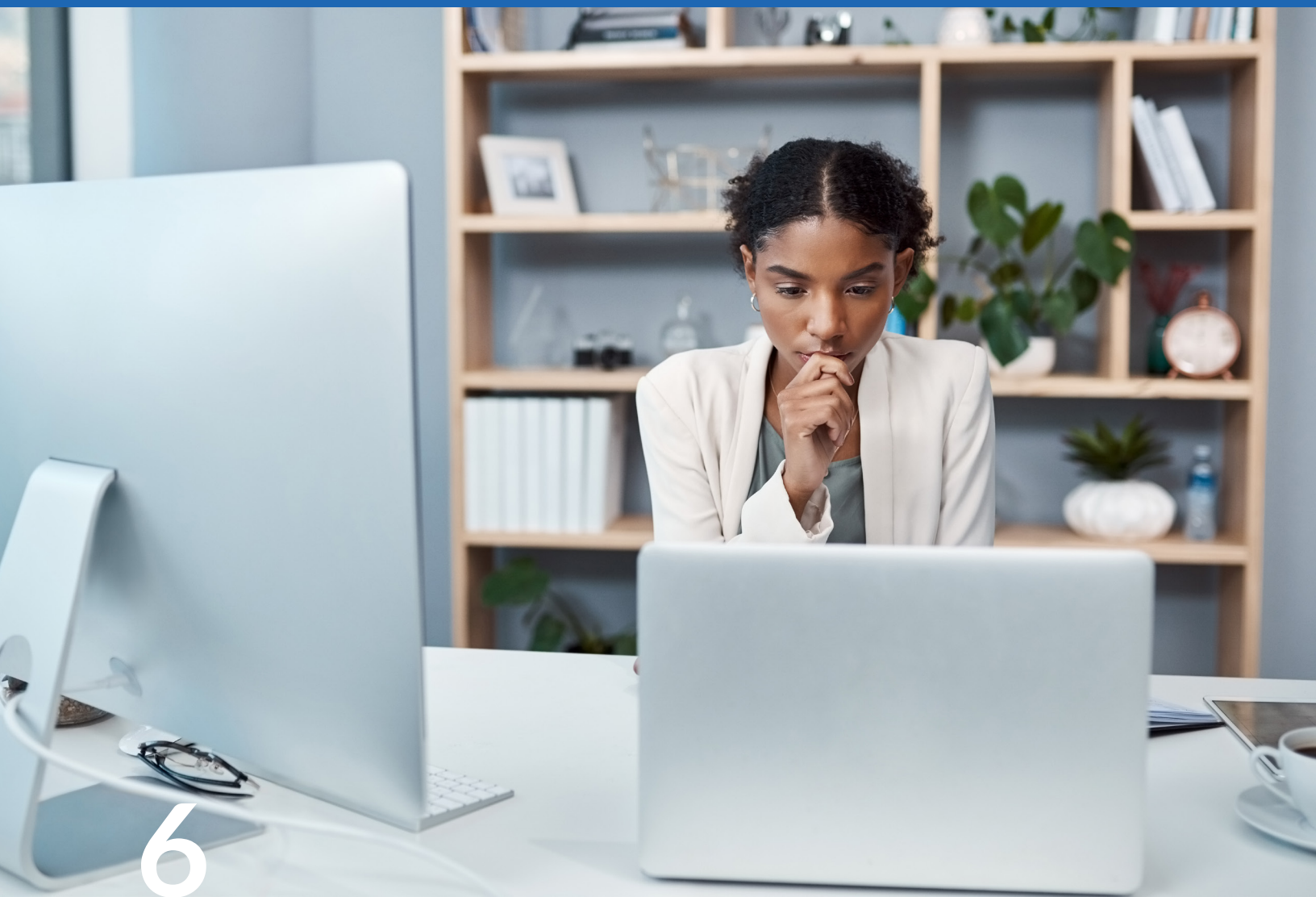
- Jay Spitulnik

**Associate Teaching Professor and Director of Health Informatics
Graduate Program at Northeastern's Bouvé College of
Health Sciences.**

Below, we explore the value of a master's in health informatics and whether it's worth the investment.



Northeastern University
Bouvé College of Health Sciences



IS A MASTER'S IN HEALTH INFORMATICS WORTH IT?

Northeastern University
Bouvé College of Health Sciences

Earning a [Master of Science in Health Informatics](#) is an excellent way to break into and advance within the health informatics field.

Below is a look at the main benefits that come from earning your MS in Health Informatics.

BENEFITS OF EARNING A MASTER'S IN HEALTH INFORMATICS

1. DEVELOPING INDUSTRY SKILLS

By enrolling in an MS in Health Informatics program, you'll learn what it takes to succeed in the field and become a valuable asset within the healthcare industry, including the skills and expertise employers are looking for in job applicants.

Of course, what you learn will often depend on the curriculum offered by the program you choose, but focus is typically placed on IT management methods and workflows, improving healthcare delivery, and maintaining viable patient health data. To do this, most programs will include classes about:

- Information technology
- The relationship between IT and healthcare
- Healthcare regulations and best practices

Working in health informatics will take more than just hard technical skills, however. Health informatics professionals are often required to work with and train others in their organization, meaning it's essential for them to possess soft skills like:

- Communication
- Leadership
- Teamwork
- Critical Thinking

In evaluating degree options, you should consider how the program will foster soft skills in addition to the more technical ones.

"[Health informatics professionals] need to be good listeners because they need to understand the needs of the end-users of the health information technology," says Spitulnik. "They need to be able to listen well enough to ask the right questions, and then be able to communicate their findings."

Northeastern University
Bouvé College of Health Sciences

2. GROWING DEMAND FOR HEALTH INFORMATICS PROFESSIONALS

Health informatics has gained significant attention in recent years, with positions expected to grow at a rate of 14.1 percent by 2027. Furthermore, graduates of healthcare informatics master's degree programs are experiencing a similar increase in demand. According to our analysis of job postings reports, the number of employers hiring health informatics program graduates is increasing at an annual rate of 6.5 percent.

This is largely due to three main trends:

- Increased adoption of healthcare technology and electronic health records (EHRs) among healthcare providers
- Advanced [Internet of Things \(IoT\)](#), which allows smart devices to collect and transmit data
- Evolved [telemedicine](#), which enables doctors and other healthcare workers to treat patients remotely

These developments have proven beneficial, especially amidst the COVID-19 pandemic that prevented many in-person health visits. However, they also introduced many questions about the security and privacy of health data.

This increased demand is currently outpacing the supply of qualified professionals with the training needed to do the job well. While in the past, it was common for health informatics roles to be filled by individuals with general information technology (IT) experience or background, employers increasingly prefer to hire individuals who have earned a degree specifically in health informatics.

Healthcare Informatics Occupation Growth

Between 2022 and 2027, Healthcare Informatics jobs are expected to grow at a rate of

14.1%



Source: Lightcast™ Analyst 2023

Northeastern University
Bouvé College of Health Sciences

3. COMPETITIVE SALARY

Graduates of health informatics programs have excellent earning potential, with professionals earning a median salary of \$105,000 per year, according to our analysis of job postings data.

This is largely due to the demand for professionals with the skills and knowledge needed to manage and analyze healthcare data, as well as the increasing importance of technology in the healthcare industry.

Median Salary of Health Informatics Programs Graduates



per year

4. WORK WITH ADVANCING TECHNOLOGY

Health informatics professionals have the opportunity to work with the latest technology and [trends in digital informatics](#). They use this technology—such as EHR systems—to interpret data and make it more accessible to physicians and patients in a way that makes sense.

“[Health informatics professionals] translate one group’s language into another group’s,” says Spitulnik. “A physician can go to an informatics professional and say, ‘I’ve got all this data coming from my EHR. I need you to help me access real-time reports that I can use to both make decisions about how I’m going to treat the patient, but also to communicate it to the patient in a way that they’ll understand.’”

Northeastern University
Bouvé College of Health Sciences

5. IMPROVE PATIENT OUTCOMES

One of the most rewarding elements of a health informatics career is the ability to improve others' lives. "[Health informatics professionals] can get a level of satisfaction knowing that they're providing what's needed to ultimately reach the best outcomes," explains Spitulnik. "This is all going to be used to help the patient and their caregivers get more directly involved with the decisions that are being made and with the treatment that they're getting."



Northeastern University
Bouvé College of Health Sciences

TAKE THE FIRST STEP TOWARD A HEALTH INFORMATICS CAREER

Health informatics offers a dynamic and promising career path with an abundance of opportunities. To excel in this field, it's crucial to focus on developing your skill set.

Some of these essential competencies include:

- Computer science
- Agile methodology
- SQL and Java (programming languages)
- Software engineering and development
- And more

A great way to obtain these skills and advance your career in healthcare informatics is to pursue an advanced education, such as [Northeastern's MS in Health Informatics](#).

Are you ready to learn more about our Master of Science in Health Informatics?

Click below to learn more about our program.

LEARN MORE

