



# 2012

## Occupational Gap Analysis Report

### Medical Coders and Related Occupations

Produced by the Regional Employment  
Board of Hampden County on behalf of the  
Healthcare Workforce Partnership of  
Western MA

Microsoft  
10/1/2012



## Table of Contents

<b>Overview</b> .....	<b>3</b>
<b>Gap Analysis Methodology</b> .....	<b>4</b>
<b>Industry Factors</b> .....	<b>4</b>
<b>Occupational Overview</b> .....	<b>5</b>
Table 1: Occupational Data, US Bureau of Labor Statics .....	<b>5</b>
Table 2: Occupational Employment and Wage Statics .....	<b>6</b>
Figure 1: Example of available job postings in Hampden County.....	<b>7</b>
<b>Supply of Medical Coders and Related Occupations</b> .....	<b>8</b>
Table 3: Regional Education and Training Programs .....	<b>8</b>
<b>Demand for Medical Coders</b> .....	<b>9</b>
<b>Medical Coder Competency Gaps</b> .....	<b>11</b>
<b>Recommendations</b> .....	<b>15</b>
Table 4: A possible career pathway model .....	<b>15</b>
<b>Next Steps</b> .....	<b>17</b>
<b>References</b> .....	<b>17</b>
<b>Appendix A: Healthcare Workforce Partnership of Western Massachusetts</b>	
<b>Appendix B: Healthcare Partnership of Western Mass – Medical Coding Survey</b>	
<b>Appendix C: Medical Coder Competency Review Results, Training and Workforce Options (TWO)</b>	
<b>Appendix D: Example of available job postings in Franklin and Hampshire Counties</b>	

# Occupational Gap Analysis Report

---

## ***Medical Coders and Related Occupations***

### Overview

The Healthcare Workforce Partnership of Western Massachusetts is a collaboration between employers, workforce development, training and education providers who are dedicated to building a skilled healthcare workforce to deliver quality patient care. The Partnership responds to the workforce needs of employers and ensures that workers have access to the education and training needed to prepare them for lifelong careers in a rapidly changing industry. A complete list of partner organizations can be found in Appendix A.

In March 2012, employers identified several priority occupations for future research and career pathway development. They selected medical coding as a priority occupation due to changing industry requirements that impact the current and future workforce as well as identified gaps between the supply and demand of qualified coders.

*Occupational Definition* - Medical coders capture patient health information and use electronic medical records (EMR) technology to input, store, update, and retrieve information in a manner consistent with the healthcare industry's numerical coding system. The medical coder ensures a healthcare organization receives proper payment for services provided to patients.

The partnership's research and career pathway development process started with a formal gap analysis to better understand the medical coding occupation and to help define common career pathway elements linked with related occupations such as medical billing, medical office administration and health information technology.

Specifically the report highlights:

- Industry factors causing a dynamic shift in medical coding and other related occupations
- Regional supply and demand for current and future medical coders
- Identified skill and competency gaps existing in the current and future workforce
- Recommendations and next steps for regional career pathway development

This report summarizes the results of the gap analysis process and makes recommendations for next steps. The Partnership is using the US Department of Labor's *Career Pathway's Toolkit: Six Steps to Success* to guide the process. For more information about this resource please visit:

<https://learnwork.workforce3one.org/view/2001135442016073646>

This report was produced by the Regional Employment Board of Hampden County on behalf of the Healthcare Workforce Partnership of Western Massachusetts. For more information about the partnership or the report please contact: Kelly Aiken, Director of Healthcare Workforce Initiatives, [kaiken@rebhc.org](mailto:kaiken@rebhc.org) or 413.755.1369

## Gap Analysis Methodology

The Partnership used a variety of methods to collect data, including:

- Partnership meetings with employer, education and workforce development representatives
- An online employer survey with 30 healthcare employers within the region responding
- Review of medical coding competencies provided by US Department of Labor and the American Health Information Management Association (AHIMA)
- Review of career pathway promising practices
- Review of real time job postings
- Review of three community college and limited proprietary graduation data from medical billing and coding and medical office assistant certificate and associate degree programs

## Industry Factors

State and federal healthcare reform efforts focus on improving the quality of patient care, reducing costs and improving overall population health. These efforts impact all aspects of the healthcare industry in western MA and create a changing landscape that makes future workforce planning necessary but also challenging as occupations evolve rapidly. Employers are increasingly aware of skill deficiencies and performance improvement opportunities for incumbent medical coders as well as new hires. Education and training providers do their best to stay ahead of the curve to create programs that develop newly required competencies so that individuals are adequately prepared to enter and remain in the workforce.

Industry factors impacting medical coding and related occupations include:

- Rollout of ICD-10, the current international classification of disease coding system, scheduled for rollout in October of 2014
- Changes in payment regulations that require an increased focus and scrutiny of medical coding functions
- An opportunity to increase and/or re-capture revenue by improving medical coding success
- Need for specialty coding expertise to meet the needs of different service settings and to maximize reimbursements
- Changing focus of medical coders from data entry to audit/review and complete integration with electronic medical records (EMR)
- Increasing opportunities for experienced coders to work remotely for Boston-based or national firms

In addition, the broad, less-defined area of health informatics continues to evolve as the industry demands more sophisticated analysis of patient data and better understands the occupations and competencies needed to do this work. Medical coding and related occupations are increasingly categorized as health informatics jobs<sup>1</sup>.

---

<sup>1</sup> Jobs for the Future (2012), *A Growing Jobs Sector: Health Informatics*. Available on the JFF website: [http://www.jff.org/sites/default/files/CTW\\_burning\\_glass\\_publication\\_052912.pdf](http://www.jff.org/sites/default/files/CTW_burning_glass_publication_052912.pdf)

## Occupational Overview

To begin the gap analysis process, the partnership reviewed the US Bureau of Labor Statistics to identify relevant job titles. The partnership quickly identified multiple job titles that include medical coding and related occupations that could be part of a structured career ladder. The partnership also recognized that current occupational titles and descriptions are not reflective of the current workplace. The following occupations were reviewed:

- Medical records and health information technicians
- Billing, cost and rate clerks
- Medical secretaries
- Medical transcriptionists
- Medical and Health Services managers

Table 1 provides an overview of available occupational data provided by the US Bureau of Labor Statistics. The highlighted occupations were deemed most relevant and identified for future discussion. It was noted that *Medical Records and Health Information Technicians* was most descriptive of a medical coder but did not adequately represented the work of a health information technician.

*Table 1: Occupational Data, US Bureau of Labor Statistics, June 2012*

Career and Occupational Information	Job Title (s)	Description
<b>Medical Records and Health Information Technicians</b> SOC 29-2071.00 <i>Education:</i> Associates/certificate (some college) <i>Certification:</i> Multiple, including Certified Coding Associate, Certified Coding Specialist (AHIMA) <i>Outlook:</i> No outlook on O*Net	<b>Sample of job titles:</b>  Medical Records Clerk, Health Information Clerk, Medical Records Technician, Office Manager, File Clerk, Medical Records Coordinator, Medical Records Analyst, Medical Records Director, Receptionist, Coder	Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. Process, maintain, compile, and report patient information for health requirements and standards in a manner consistent with the healthcare industry's numerical coding system
<b>Billing, Cost, and Rate Clerks</b> SOC 43-3021.02 <i>Education:</i> Certificate (some college) <i>Certification:</i> <i>Outlook:</i> Bright	<b>Sample of job titles:</b>  Billing Clerk, Accountant, Accounts Payable Clerk, Billing Coordinator, Office Manager, Accounts Receivable Clerk, Administrative Assistant, Accounting Assistant, Billing Specialist, Contract Administrator	Compile data, compute fees and charges, and prepare invoices for billing purposes. Duties include computing costs and calculating rates for goods, services, and shipment of goods; posting data; and keeping other relevant records. May involve use of computer or typewriter, calculator, and adding and bookkeeping machines.

Career and Occupational Information	Job Title (s)	Description
<b>Medical Secretaries</b> SOC 43-6013.00  <i>Education:</i> Certificate (some college)  <i>Certification:</i> National Health Career Association's Medical Administrative Assistant Certification (CMAA)  <i>Outlook:</i> Bright	<b>Sample of job titles:</b>  Medical Secretary, Receptionist, Unit Support Representative, Office Manager, Medical Receptionist, Patient Relations Representative (PRR), Front Office Manager, Health Unit Coordinator, Medical Office Specialist, Patient Coordinator	Perform secretarial duties using specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties may include scheduling appointments, billing patients, and compiling and recording medical charts, reports, and correspondence.
<b>Medical Transcriptionists</b> SOC 31-9094.00  <i>Education:</i> Certificate (some college) <i>Certification:</i> varies <i>Outlook:</i> None provided on O*Net	<b>Sample of job titles:</b>  Medical Transcriptionist, Transcriptionist, Radiology Transcriptionist, Medical Transcriber, Medical Language Specialist, Pathology Transcriptionist, Documentation Specialist, Medical Transcription Supervisor	Transcribe medical reports recorded by physicians and other healthcare practitioners using various electronic devices, covering office visits, emergency room visits, diagnostic imaging studies, operations, chart reviews, and final summaries. Transcribe dictated reports and translate abbreviations into fully understandable form. Edit as necessary and return reports in either printed or electronic form for review and signature, or correction.
<b>Medical and Health Services Mgrs</b> SOC 11-9111.00  <i>Education:</i> Bachelors/Masters <i>Certification:</i> varies <i>Outlook:</i> Bright	<b>Sample of job titles:</b>  Office Manager, Nurse Manager, Health and Social Service Manager, Program Manager, Clinical Director, Director of Nursing, Medical Records Manager, Mental Health Program Manager, Nutrition Services Manager, Practice Administrator	Plan, direct, or coordinate medical and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.

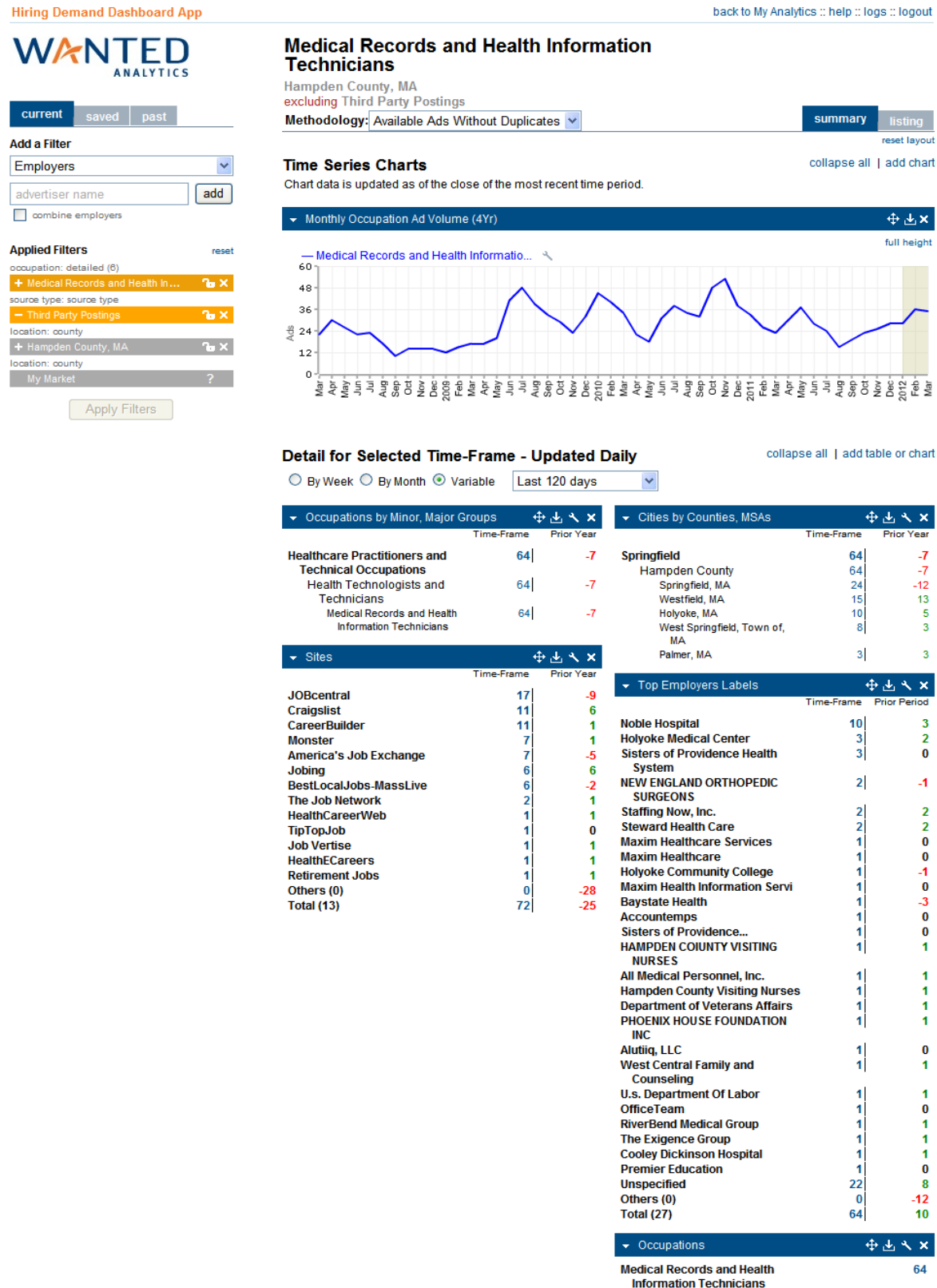
While employers have identified medical coding as a priority occupation, the number of people defined as Medical Coders in Hampden, Franklin and Hampshire County is relatively small. Table 2 provides the available occupational and wage data for the different occupations. It should be noted that Jobs for the Future maintains the occupational employment data provided by the US Bureau of Labor Statistics only includes 60% of jobs involved in capturing, analyzing and managing clinical data and other health information. Thus, the available data likely does not fully represent the number of individuals in these types of jobs.

*Table 2: Occupational Employment and Wage Statistics, Springfield MA-CT Metro NECTA, Massachusetts Department of Labor (May 2011). Downloaded from [www.mass.gov](http://www.mass.gov).*

SOC Code	Occupation Title	Employment	Median	Mean	Entry	Experienced
29-2071	Medical Records and Health Info Techs	380	\$40,530	\$40,620	\$28,010	\$46,920
43-3021	Billing and Rate Clerks	810	\$34,450	\$35,140	\$24,910	\$40,260
43-6013	Medical Secretaries	1,730	\$35,770	\$35,780	\$26,710	\$40,310
31-9092	Medical Assistants	1,350	\$32,200	\$32,460	\$25,010	\$36,190
31-9094	Medical Transcriptionists	120	\$36,010	\$37,040	\$30,910	\$40,110
11-9111	Medical and Health Services Managers	810	\$91,870	\$113,130	\$70,120	\$134,640

In addition, the Franklin Hampshire Regional Employment Board provided the Partnership with a snapshot of real time job postings generated by WANTED Analytics™. Figure 1 provides an example of available job postings in Hampden County on June 26, 2012. This data highlights the types of employers with job postings that fall under the category of Medical Records and Health Info

Figure 1: Example of available job postings in Hampden County (extracted on June 26, 2012)



Technicians. It should be noted that WANTED Analytics™ data has some duplication and errors, but is useful to better understand the current job market. Appendix D provides additional data for Franklin and Hampshire counties.

Specifically, medical coders work in the following types of healthcare organizations:

- Physician offices
- Acute care hospitals
- Home health and visiting nurse agencies
- Staffing agencies
- Third party providers

### Supply of Medical Coders and Related Occupations

As unlicensed positions, those entering into medical coding, billing or medical office administration do not have to adhere to standard education, training or certification requirements. Thus, employers in the region have different requirements for entry-level positions and for career advancement. The American Health Information Management Association (AHIMA) has established standard competencies and program accreditation for medical coding programs. At present, Springfield Technical Community College uses their competencies and is seeking advanced accreditation.

#### *Education Programs*

Education and training providers in Western Massachusetts produce an adequate supply of entry-level medical coders, billers and medical office assistants. Regional education providers often combine medical coding and billing training into one program. Table 3 shows there are a range of credit and noncredit post-secondary certificate programs and one associate degree program.

*Table 3: Regional education and training programs*

<b>Institution</b>	<b>Program</b>	<b>Options</b>	<b>Annual Graduates</b>
Springfield Technical Community College <a href="http://www.stcc.edu/academics/medcoding.aspx">http://www.stcc.edu/academics/medcoding.aspx</a>	Medical Billing and Coding Specialist Program	Post-secondary credit-bearing certificate and AS degree.	Degree – 15-20 graduates Certificate – 15-20 graduates
Holyoke Community College <a href="http://www2.hcc.edu/programs/documents/MedCodingCM049.pdf">http://www2.hcc.edu/programs/documents/MedCodingCM049.pdf</a>	Medical Coding and Billing Program	Post-secondary credit-bearing certificate	Certificate – 15-20 graduates
American Career Institute, Springfield MA <a href="http://www.aci.edu/programs/medical-billing-coding">http://www.aci.edu/programs/medical-billing-coding</a>	Medical Coding and Billing Program	noncredit certificate	TBD
Branford Hall, Springfield MA <a href="http://www.branfordhall.edu/Programs/Medical-Billing-and-Coding-Health-Claims-Specialist/40/">http://www.branfordhall.edu/Programs/Medical-Billing-and-Coding-Health-Claims-Specialist/40/</a>	Medical Billing Program	noncredit certificate	TBD
Greenfield Community College <a href="http://www.gcc.mass.edu/media/docs/catalog/omn.pdf">http://www.gcc.mass.edu/media/docs/catalog/omn.pdf</a>	Office Management program, with a medical office management option	AS degree	None at this time
Springfield Technical Community College	Medical Office Administration Program	AS degree	Degree – 5 graduates



<a href="http://www.stcc.edu/academics/medoff.aspx">http://www.stcc.edu/academics/medoff.aspx</a>			
Massachusetts Institute of Career Development (MCDI)	Medical Office Administration Program	Noncredit certificate	Varies 2011 = 33 graduates

### *Practical Experience*

Most new graduates are required to gain practical experience through an internship or externship. While a valuable experience, the education programs report difficulty in securing placements for their students with regional employers. Some employers cite the additional management time required to supervise interns and patient confidentiality issues. For those with/without the practical experience, new graduates seeking medical coding positions are often unable to secure positions due to lack of experience and depth of knowledge about certain specialty areas. Generally, new graduates find employment in small physician offices or in billing departments and then try to move into medical coding positions after gaining experience.

As part of the competency review process with employers, they were asked about the type of experiential learning strategies that could provide students with the necessary experience to land jobs. Their responses are below:

### **Question: What experiential learning strategies could provide students with the necessary experience to land a job?**

<b>Responses</b>	<b># of Employer Responses</b>
Internship/Co-op	6
Virtual Lab	2
Other	
• General Industry experience (coding exposure)	2
• Access to electronic medical records	2
• Specific training for home health coding	1
• Interactive soft skills	1
• Technical skills	1
• Coding entry exam	1

Through the employer survey, when employers were asked about their willingness to host student interns, 20% said yes, 46% said maybe and 33% said no.

### *Pre-Training Assessment*

There is no universal pre-training assessment tool in use to assist prospective students determine if medical coding and related occupations are of interest or if they have the baseline knowledge, skill and aptitude for the occupation. The partnership reviewed the ACT WorkKeys® tool and has utilized as an assessment tool for other occupations. More information can be found about WorkKeys at <http://www.act.org/products/workforce-act-workkeys/>. Career centers and the community colleges have deemed it a useful tool.

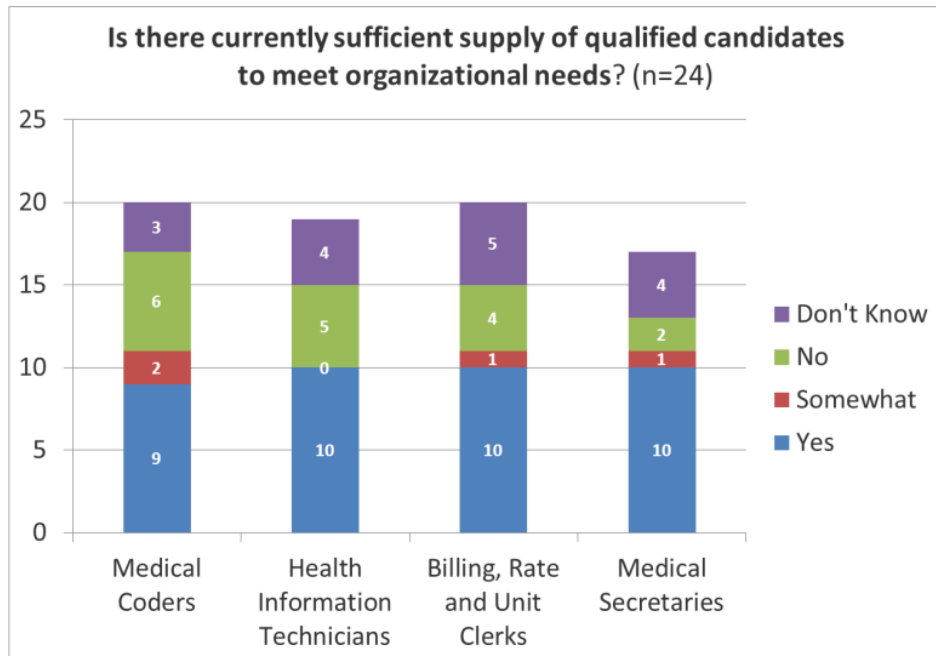
### Demand for Medical Coders and Related Occupations

The Partnership conducted an online employer survey in May-June 2012 to better understand the demand for medical coders and related occupations. Thirty respondents participated in the survey representing a variety of service settings. The survey asked some questions specific to both medical

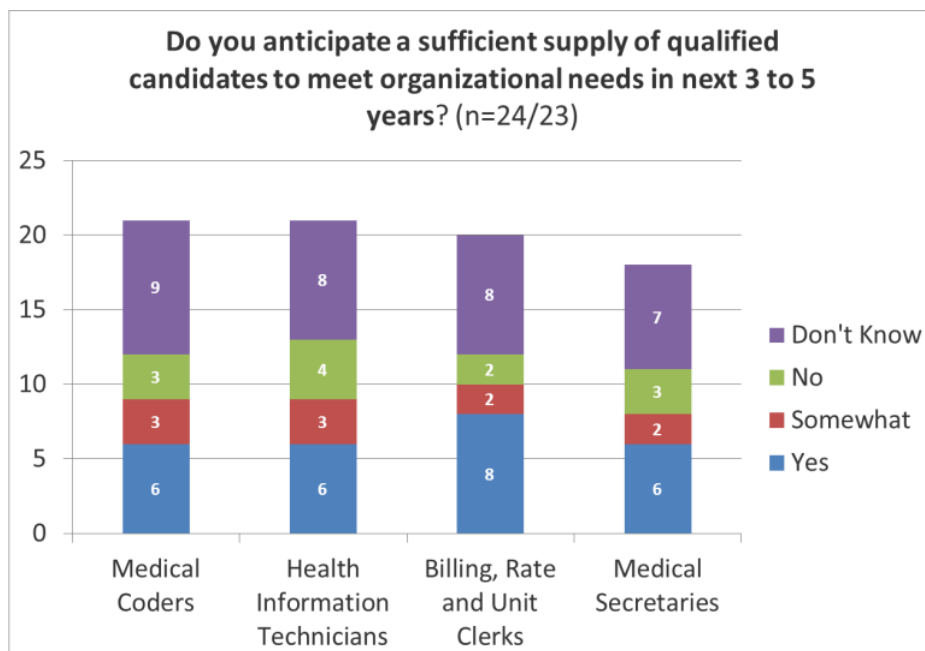
coding and related occupations, but the majority of its findings are focused on medical coding. The complete survey results can be found in Appendix B.

### Hiring Projections

- The majority of employers anticipate little to no hiring of medical coders over the next 12 months, with the exception of Fazzi Associates, a home health coding company which projects hiring more than 25 medical coders over the next 12 months.



- Employers are mixed in their responses when asked whether they think there is currently an available pool of qualified candidates. They show a similar pattern when asked if they anticipate a sufficient supply of qualified candidates to meet organizational needs over the next 1-3 years.



- 68% of survey respondents do not foresee a large portion of Medical Coders retiring over the next 5-years. However, some anticipate retirements once ICD-10 is rolled out due to new training requirements.
- The majority of employers do not outsource coding or billing. The region has a home health coding company that provides third party services to healthcare organizations in the region and across the country.

### *Hiring Practices*

- When hiring new coders, employers place a great deal of emphasis on demonstrated skill set, employment references and the interview.
- One employer uses a pre-hire assessment tool to measure skills and knowledge.
- Some employers hire registered nurses (RNs) who have coding knowledge and experience. RNs typically command a higher hourly rate than coders than graduates from coding programs who do not have clinical experience.
- Employers generally prefer to hire community college graduates because of the higher quality. However, some employers will also consider graduates from proprietary programs.
- Job titles and task functions vary by employer and the setting.
- Educational requirements are increasing as the job is becoming more complex, although there is no standard entry into practice requirements among employers
- Employers identified seven (7) different certifications for medical coders. Some employers require a certification in order to be hired while others require certification after one year on the job.
- Employers note that further development of soft skills is imperative to the overall performance and productivity of all employees involved in coding activities.
- New hires require a long orientation timeline (6 to 12 months) as they have significant mastery skill gaps compared to current employee skill mastery levels (see further discussion about competency gaps below)

### *Career Ladder*

- 40% of employers either have a career pathway in place or “somewhat” of a career ladder in place for medical coders and related occupations. 60% of employers do not have a formal career ladder.

### *ICD-10 Preparations*

- New ICD-10 coding language will have a large impact on new and incumbent medical coders.
- The majority of employers do not have or have only a limited plan in place to deal with ICD-10 adoption and anticipated impacts.

### Medical Coder Competency Gaps

Training and Workforce Options (TWO), a collaboration between Holyoke Community College and Springfield Technical Community College, conducted a competency review session with representatives from five (5) employers using information provided by AHIMA and US Dept of Labor. AHIMA provides a detailed list of medical coding competencies organized into four (4) domains: life sciences, information technology, health information management, and clinical

classification systems. Employers validated the relevancy of the AHIMA competencies to the current workplace requirements for new hires and current employees. They also identified competency gaps. The areas with the most significant gaps are starred\* below with the full results of the competency review exercises are located in Appendix C.

AHIMA Competency Domains	
Domain : Life Sciences	
1	Anatomy and Physiology
2	Medical Terminology
3	Pathophysiology
4	Pharmacotherapy & Laboratory Findings
Domain : Information Technology	
5	Introduction to Desktop Applications
6*	<b>Computer Software Applications in Healthcare</b>
Domain : Health Information Management	
7*	<b>Introduction to Health Information Management &amp; Healthcare Data Content and Structure</b>
8*	<b>Healthcare Delivery Systems</b>
Domain : Clinical Classification Systems	
9/10	Basic Diagnosis and Procedure Coding Systems
11/12	Intermediate (or Advanced) Diagnosis and Procedure Coding
13*	<b>Reimbursement Methodologies</b>
14	Professional Practice Experience/Practicum/Internship

Specific technical knowledge and skill gaps identified by employers include:

- Consistently working with electronic medical records (EMR) and within multiple systems.
- Conducting qualitative analysis to assure that documentation in the health record supports the diagnosis and reflects the progress, clinical findings and discharge status of the patient
- Accessing and evaluating a Personal Health Record
- Demonstrating an understanding of the following: Health Information Management (HIM), Health Information Exchange, Health Information Organization
- Assist in using coded data for reporting
- Protect data integrity and validity using software or hardware technology

Employers also responded to a series of competency review questions regarding medical coders that give insights into different employer requirements for new and incumbent workers. Seven respondents representing 5 different employers answered the following questions:

1. What are your organizations 3-5 measures of medical coding employee success?
2. What are the top 3-5 attributes of your best medical coding employee?
3. What are the top 3-5 tasks that new employees have the most difficulty consistently performing?
4. What are 3 workplace/soft skill weaknesses you see in recently hired medical coders?

*Note: The column entitled Frequency in the below tables refers to the number of employers that reported a particular competency as important based on how each question pertains to their specific organization. For example, in Question #1, 6 out of 7 participants (86%) stated "Quality, error rate" is a measure of success for medical coding in their organization.*

**#1: What are your organizations 3-5 measures of medical coding employee success?**

Rank	Responses	Frequency	Percent
1	Quality, error rate	6	86%
2	Productivity, number of accounts coded/day	6	86%
3	General knowledge of diagnostic and procedure codes	4	57%
4	Medical terminology	2	29%
5	Anatomy and physiology	2	29%
6	Soft skills	2	29%
7	Computer skills, software application skills	2	29%
8	Analytical thought process	1	14%
9	Type of accounts coded	1	14%
10	Advancement on career ladder	1	14%
11	Ability to work independently	1	14%
12	Exceptional written and verbal communication skills	1	14%
13	Skills testing	1	14%
14	Client feedback	1	14%
15	Ability to retain	1	14%
16	Ability to respond to denials	1	14%

**#2: What are the top 3-5 attributes of your best medical coding employees? (n=**

Rank	Responses	Frequency	Percent
1	Communications skills, writing	5	71%
2	Expert knowledge of codes and coding guidelines	3	43%
3	Confidence interacting with physicians	2	29%
4	Medical terminology	1	14%
5	Detail orientation	1	14%
6	Focus	1	14%
7	Speed	1	14%
8	Reliability	1	14%
9	Patience and confidence	1	14%
10	Quality	1	14%
11	Ability to comprehend and translate operating notes	1	14%
12	Attitude	1	14%
13	Acceptance of errors	1	14%
14	Ability to teach others	1	14%
15	Advanced education, RHIT	1	14%

**#3: What are the top 3-5 tasks your new medical coding employees have the most difficulty consistently performing?**

Rank	Responses	Frequency	Percent
1	Working with EMR, working within multiple systems	4	67%
2	Learning our systems, understanding interaction between coding and OASIS; SMC, CIS, Quictrac	3	17%
3	Inpatient coding	1	17%
4	Using an encoder	1	17%
5	Communication	1	17%
6	CPT coding	1	17%
7	Multispecialty coding	1	17%
8	Keyboarding skills	1	17%
9	DRGs	1	17%
10	Productivity	1	17%
11	Navigating health information technology	1	17%
12	Focusing on single task for extended periods	1	17%
13	Admitting to knowledge gaps	1	17%

**#4: What are the three greatest workplace or soft skill weaknesses you see in your recently hired medical coding employees?**

Rank	Responses	Frequency	Percent
1	Communications skills, written and oral; ability to rebut coding denials	5	83%
2	Ability to interact well with others, interpersonal skills, relationship building	4	67%
3	Professionalism (dress/actions); workplace etiquette	3	50%
4	Communicator able to speak with physicians/leadership	1	17%
5	Receptiveness to feedback	1	17%
6	Data entry (accuracy and speed)	1	17%
7	Ability to focus	1	17%
8	Ability to work independently	1	17%
9	Reliability	1	17%

Finally, through open-ended discussion, most employers expressed frustration with work-readiness and workplace etiquette of prospective employees or new hires. They cited issues with professional attire, social media awareness and appropriate workplace behavior with technology. Soft skill deficiencies were discussed in the following areas:

- Communication skills – written and oral
- Problem solving and critical thinking skills
- Professionalism and work ethic
- Time management

## Recommendations and Next Steps

While employers actively participated in the gap analysis process, additional employer input will further validate the gap analysis findings and strengthen the following recommendations. Below are suggested recommendations and next steps.

### *Align Existing Program Curriculum to Fill Gaps*

- All regional training and education programs should review their existing curricula and make appropriate adjustments based on the competency review results and further input from employers.
- All regional training and education program should pay greater attention to enhancing the communication skills of new graduates to enable them to succeed in the workplace, including writing and interpersonal skills.

### *Develop a Regional Career Pathway*

The region has an opportunity to develop and adopt a career pathway model that provides a clear sequence of coursework among current training/education providers and employers that aligns with employer-validated work readiness standards and occupational competencies.

- At a minimum, the career pathway model should align existing community college and quality proprietary school programs in medical coding, medical billing and medical office assistant programs. These programs should align and “stack” with each other. Credit for previous experience gained through noncredit programs and work experience should be considered.
- New health informatics programs at the associates and bachelor degree levels should be developed based on additional employer input. The academic programs should collaborate during development so that the programs clearly articulate and stack with the regional career pathway. The new AHIMA health information career map should be referenced in the development of new programs <http://www.hicareers.com/CareerMap/%20> as well as other promising practices.

Table 4: A possible career pathway model

Occupation: Medical Coder	Employability Skills	Soft Skills	Industry Sector and Career Knowledge	Core Coding Skills	Occupation Knowledge	Additional Coding Skill Mastery Level 1	Additional Coding Skill Mastery Level 2 or More
Occupation: Medical Billing Clerk	Employability Skills	Soft Skills	Industry Sector and Career Knowledge	Core Coding Skills	Occupation Knowledge	Additional Coding Skill Mastery Level 1	
Occupation: Medical Office Assistant	Employability Skills	Soft Skills	Industry Sector and Career Knowledge	Core Coding Skills	Occupation Knowledge		
Occupation: Healthcare Career Readiness Employability	Employability Skills	Soft Skills	Industry Sector and Career Knowledge				

- Programs should build on their strengths and continue to validate new program ideas with employers. Suggestions include:
  - HCC can consider a focus on medical billing only and stacking directly to STCC's associate degree in medical coding program.
  - STCC to pursue a AHIMA accreditation for their Associate's Degree program in Health Information and Informatics Management (HIM). This would create a stackable pathway from the existing Certificate in Medical Coding and Billing to the Associates Degree in Medical Coding and Billing to the Associates Degree in HIM, which would then prepare students for AHIMA's Registered Health Information Technician (RHIT) exam.
  - STCC can review their medical office assistant associate degree program to determine if a two year program meets employer needs.
  - STCC can give further consideration to the replacing of the medical coding certificate program with an Associate's (AS) degree program. While AHIMA suggests that an AS degree will become the standard entry into the occupation, further discussions with regional employers should occur.
- Using the standard curriculum being developed through the statewide Transformation Project community colleges should link the pathway with contextualized developmental education offered on each campus.

#### *Specialty Coding Needs*

- It is understood that regional education programs do not train new graduates to be proficient in any particular specialty coding area. However, there is significant regional growth in demand for medical coders with home care expertise and knowledge.
- Students should be made aware of these job opportunities early on in their educational experience so that they can consider the requirements for these positions.
- Experiential learning opportunities such as internships, co-ops or a virtual learning lab that focuses on home health coding could also be developed to give students a better understanding of this area of demand.

#### *Communicate Credential Standards*

- Employers should discuss standard credential requirements for entry and advanced positions. If standards can be identified and agreed upon, employers should communicate them to education providers and career counselors

#### *Develop Alternative Approaches to Provide New Graduates with Practical Experience*

- Alternative approaches to providing new graduates with practical experiences should be considered by education providers and employers. This includes addressing challenges in staffing to oversee interns and identifying those tasks that interns can legally and realistically take on.
- Educational programs should consider purchasing access to the AHIMA virtual learning lab for their students. The lab multiple software platforms, include the Cerner EMR system to provide students with hands-on medical coding experience. More information can be found at <http://www.ahima.org/schools/vlab/default.aspx>.



- Employers should utilize existing on-the-job training funding to support new graduates and offset the cost and associated risk of hiring individuals who lack experience.
- Employers should explore the feasibility of establishing a regional training center for new and incumbent workers to gain experience and receive ICD-10 training.

#### *Utilize a Pre-Training Assessment Tool*

- To ensure individuals select medical coding and related occupations with a greater awareness of occupational tasks and expectations, it is recommended that the One Stop Career Centers and the Community Colleges use the ACT WorkKeys Assessment tools.
- To further support occupational awareness and increase retention in medical coding educational programs, schools and employers should consider developing a simulated event that exposes interested students to the realities of medical coding. This could be modeled on STCC's "One Day Medical Encounter" recently deployed for those interested in becoming a certified nursing assistant and sterile processing technician.

#### *Establish a Regional Approach to ICD-10 Training*

- The partners should consider developing a regional approach to ICD-10 training for incumbent workers and integration into education/training programs. Although data indicates a lack of regional hiring over the next 12 months and a delay in the implementation of ICD-10 until 2014, there is sufficient time to plan and further refine implementation strategies.

#### *Conduct Additional Research on Diversity of Medical Coding Workforce*

- The gap analysis process did not explore the diversity of the medical coding workforce and the accessibility of existing programs to the diverse members of our community. Additional research should be conducted to determine the diversity of the existing workforce and the barriers that may exist for diverse community member to enter and succeed in medical coding and related occupations.

#### Next Steps

It is imperative that employers, education, workforce development systems, and community based organizations continue to work together:

- Develop a regional vision for a medical coder and related occupations career pathway
- Define roles and responsibilities of each key player and their next steps
- Identify a target audience for the career pathway and the different entry points
- Establish clear connections with Massachusetts Community Colleges Workforce Development Transformation Agenda.

#### References

Jobs for the Future (2012), *A Growing Jobs Sector: Health Informatics*

U.S. Department of Labor by Social Policy Research Association (2011), *Career Pathways Toolkit: Six Key Elements for Success*

*Appendix A*

**Healthcare Workforce Partnership of Western Massachusetts**


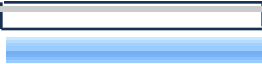



American International College	Irene E. & George A. Davis Foundation
Baycare Health Partners, Inc.	Jewish Geriatric Services
Baystate Health	Kindred Hospital Park View
Berkshire Health	Life Care Center of Wilbraham
CareerPoint One Stop Career Center	Loomis Communities
Caring Health Center	MA Senior Care Association
Chicopee Visiting Nurses Association, Inc.	MA Senior Care Foundation
Commonwealth Care Alliance	MCDI, Inc.
Community Education Project	Noble Hospital
Cooley Dickinson Hospital	Pioneer Valley Area Health Education Center
Cooley Dickinson Visiting Nurses Association	Regional Employment Board Hampden County, Inc.
Elms College	Shriners Hospital for Children
Fazzi Associates	Sisters of Providence Health System
Franklin Hampshire Regional Employment Board	Springfield College
FutureWorks One Stop Career Center	Springfield Technical Community College
Genesis Healthcare/Heritage Hall	Holyoke Visiting Nurses Association, Inc.
Greenfield Community College	United Way of Pioneer Valley
Holyoke Community College	University of Massachusetts, Amherst
Holyoke Health Center	Westfield State University
Holyoke Medical Center	Work Source Partners
Holyoke Works	

## Healthcare Partnership of Western Mass - Medical Coding Survey

### June 2012

The Healthcare Workforce Partnership of Western Mass conducted an online employer survey in May-June 2012 to better understand the demand for medical coders and related health information occupations. Thirty respondents started the survey. Twenty four respondents completed the survey, but varying number of responses for each question.

#### 2. Please indicate your organization's primary type of service?

		Response Percent	Response Count
Acute Care		14.3%	4
<b>Primary Care</b>		<b>39.3%</b>	<b>11</b>
Longterm Care/Skilled Nursing		3.6%	1
Home Care		3.6%	1
<b>Other</b>		<b>39.3%</b>	<b>11</b>




Other (please specify)

1	Specialist
2	Specialist
3	Pediatrics
4	Gynecological Medical Services only
5	pediatrics
6	OBGYN
7	OB/GYN (primary care)
8	Urology Private Practice
9	Dermatologist
10	Pediatrics
11	long term acute/chronic hospital
12	Outsourced services for home care industry
13	Outsourced coding for home health agencies.

### 3. How many employees does your organization currently employ in each of the following occupations?

	0	1-3	4-6	7-10	11-15	16-25	26 or more	Response Count
Medical Coders	29.2% (7)	<b>50.0%</b> <b>(12)</b>	8.3% (2)	4.2% (1)	0.0% (0)	0.0% (0)	8.3% (2)	24
Health Information Technicians	<b>65.2%</b> <b>(15)</b>	21.7% (5)	0.0% (0)	8.7% (2)	0.0% (0)	0.0% (0)	4.3% (1)	23
Billing, Cost, and Rate Clerks	<b>42.3%</b> <b>(11)</b>	30.8% (8)	11.5% (3)	3.8% (1)	3.8% (1)	0.0% (0)	7.7% (2)	26
Medical Secretaries	<b>42.3%</b> <b>(11)</b>	26.9% (7)	15.4% (4)	3.8% (1)	3.8% (1)	3.8% (1)	3.8% (1)	26
Medical Transcriptionists	<b>72.0%</b> <b>(18)</b>	24.0% (6)	4.0% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	25
Medical and Health Services Managers	26.9% (7)	<b>50.0%</b> <b>(13)</b>	15.4% (4)	3.8% (1)	0.0% (0)	0.0% (0)	3.8% (1)	26
answered question								28
skipped question								2




#### 4. Does your organization have a formal career pathway/ career progression for medical coding and billing occupations?

		Response Percent	Response Count
Yes		14.3%	4
Somewhat		25.0%	7
No		60.7%	17
Don't Know		0.0%	0

Other (please specify) 3

answered question	28
skipped question	2



#### 5. Does your organization currently outsource medical coding?

		Response Percent	Response Count
No		85.2%	23
Yes to an outsourced provider in the region		11.1%	3
Yes to an outsourced provider outside of the region		3.7%	1

Other (please specify) 3

answered question	27
skipped question	3

## 6. Does your organization currently outsource medical billing?

		Response Percent	Response Count
No		74.1%	20
Yes to an outsourced provider in the region		25.9%	7
Yes to an outsourced provider outside of the region		0.0%	0

Other (please specify)

**answered question** **27**

**skipped question** **3**

## 7. What are the top three medical coding and billing related challenges your organization is currently facing?

- |    |  |                       |
|----|--|-----------------------|
| 1  | Coding requirements for multiple procedures on same day during office visit<br>Modifier usage by insurance company Time for follow up on denied charges  |                       |
| 2  | Secondary Billing Issues. Adjustments that go back 2-3 yrs Communication with 1-2 Payers is more difficult   | Jun 7, 2012 12:42 AM  |
| 3  | Pre Pay audits Payer rule changes Provider education   | Jun 6, 2012 2:02 PM   |
| 4  | 1.Patient Collections  | Jun 6, 2012 1:02 PM   |
| 5  | Dealing with all MassMedicaid products in trying to confirm eligibility and determine which MassMedicaid plan patients are on as it changes frequently and getting responses from MassHealth on problems Personal Collections Trying to keep track of all the mandates from all the different insurance companies; we'll pay for this but not that, we'll pay for that but not this, code this way for this insurance but that way for that insurance, we only accept electronic submission, this insurance covers this but not that, etc. | Jun 6, 2012 9:49 AM   |
| 6  | Robotics staying on top of the current changes with ICD 10 around the corner keeping the physician's up-to-date with coding  | Jun 6, 2012 8:01 AM   |
| 7  | 25 Modifiers CPT not having accurate dx for medical conditions 51 59 modifier issues   | Jun 5, 2012 3:42 PM   |
| 8  | Medicare Coding Getting paid for multiple services provided. Keeping up with the day to day challenge of change.   | Jun 5, 2012 3:42 PM   |
| 9  | Reimbursement of codes Bundling order of codes when submitted  | Jun 5, 2012 3:29 PM   |
| 10 | 1. additional training for the current coder 2. adapting system to ICD10 - which will be done in the Boston office 3. training medical staff of the differences coming in ICD10  | Jun 4, 2012 9:53 AM   |
| 11 | ICD 10 Implementation  | May 31, 2012 1:42 PM  |
| 12 | Finding qualified coders to fill demand for outsourced coding.   | May 29, 2012 10:16 AM |
| 13 | Finding qualified candidates for vacancies   | May 23, 2012 8:22 AM  |
| 14 | Recruiting qualified candidates, training the candidates to our standards, absorbing the financial cost of the training period.<br><br>Adequate supply of certified coders System trainings Ongoing education of coders  | May 11, 2012 1:06 PM  |

## 8. Is there currently a sufficient supply of qualified candidates to meet your organization's needs?

	Yes	Somewhat	No	Don't Know	N/A	Response Count
Medical Coders	<b>37.5% (9)</b>	8.3% (2)	25.0% (6)	12.5% (3)	16.7% (4)	24
Health Information Technicians	<b>41.7% (10)</b>	0.0% (0)	20.8% (5)	16.7% (4)	20.8% (5)	24
Billing, Rate and Unit Clerks	<b>41.7% (10)</b>	4.2% (1)	16.7% (4)	20.8% (5)	16.7% (4)	24
Medical Secretaries	<b>41.7% (10)</b>	4.2% (1)	8.3% (2)	16.7% (4)	29.2% (7)	24
Medical Transcriptionists	29.2% (7)	0.0% (0)	12.5% (3)	12.5% (3)	<b>45.8% (11)</b>	24
Health Services Managers	<b>33.3% (8)</b>	12.5% (3)	12.5% (3)	16.7% (4)	25.0% (6)	24
answered question						<b>24</b>
skipped question						<b>6</b>

## 9. Do you anticipate there will be a sufficient supply of qualified candidates to meet your organization's needs over the next 1 -3 years

	Yes	Somewhat	No	Don't Know	N/A	Response Count
Medical Coders	25.0% (6)	12.5% (3)	12.5% (3)	<b>37.5% (9)</b>	12.5% (3)	24
Health Information Technicians	25.0% (6)	12.5% (3)	16.7% (4)	<b>33.3% (8)</b>	12.5% (3)	24
Billing, Rate and Unit Clerks	<b>33.3% (8)</b>	8.3% (2)	8.3% (2)	<b>33.3% (8)</b>	16.7% (4)	24
Medical Secretaries	25.0% (6)	8.3% (2)	12.5% (3)	<b>29.2% (7)</b>	25.0% (6)	24
Medical Transcriptionists	20.8% (5)	0.0% (0)	8.3% (2)	29.2% (7)	<b>41.7% (10)</b>	24
Health Services Managers	<b>26.1% (6)</b>	13.0% (3)	17.4% (4)	<b>26.1% (6)</b>	17.4% (4)	23
answered question						<b>24</b>
skipped question						<b>6</b>



**10. How many employees does your organization anticipate hiring in the next 12 months in the following occupations?**

	<b>0</b>	<b>1-3</b>	<b>4-6</b>	<b>7-10</b>	<b>11-15</b>	<b>16-25</b>	<b>26 or more</b>	<b>Don't Know</b>	<b>Response Count</b>
Medical Coders	<b>69.6%</b> <b>(16)</b>	17.4% (4)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	4.3% (1)	8.7% (2)	23
Health Information Technicians	<b>78.3%</b> <b>(18)</b>	13.0% (3)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	8.7% (2)	23
Billing, Cost, and Rate Clerks	<b>76.9%</b> <b>(20)</b>	3.8% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	19.2% (5)	26
Medical Secretaries	<b>69.2%</b> <b>(18)</b>	11.5% (3)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	19.2% (5)	26
Medical Transcriptionists	<b>76.9%</b> <b>(20)</b>	3.8% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	19.2% (5)	26
Medical and Health Services Managers	<b>69.2%</b> <b>(18)</b>	11.5% (3)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	19.2% (5)	26

Other (please specify)

4

**answered question**

**26**

**skipped question**

**4**






## 11. What types of medical coding certification are most important to your organization in the recruitment of employees?

Response  
Count

18

1	CCS-P CPC	Jun 12, 2012 8:57 AM
2	cpc	Jun 7, 2012 5:11 PM
3	CPC	Jun 6, 2012 2:03 PM
4	Certificate Program	Jun 6, 2012 1:11 PM
5	Not particularly crucial to have certification. Experience is much more accepted here. If I was to hire someone, experience first, then certification.	Jun 6, 2012 10:02 AM
6	experience	Jun 6, 2012 9:50 AM
7	CPC degree in coding	Jun 6, 2012 8:02 AM
8	Unsure - certified coder we do not have.	Jun 5, 2012 3:44 PM
9	none at this time	Jun 5, 2012 3:43 PM
10	AAPC	Jun 5, 2012 3:30 PM
11	N/A	Jun 5, 2012 3:30 PM
12	CCA, CCS, or RHIT and Associate Degree	Jun 4, 2012 9:54 AM
13	CCS, AHIMA CPC, AAPC RHIT RHIA	May 31, 2012 1:45 PM
14	CCS	May 29, 2012 11:28 AM
15	HCS-D or other home health coding certification	May 29, 2012 10:17 AM
16	AHIMA	May 23, 2012 8:27 AM
17	HCS-D--we find that candidates who have passed the CCA are better prepared for our training, but we do not require it.	
18	HCS-D CPC	




**12. What percentage of your current medical coding employees do you project will retire within the next 5 years?**

		Response Percent	Response Count
0%		63.0%	17
1-10%		25.9%	7
11-25%		3.7%	1
26-50%		0.0%	0
51-75%		3.7%	1
76-100%		3.7%	1
answered question			27
skipped question			3

**13. Does your organization hire new graduates for medical coding occupations from the following institutions?**

	Yes	No	Don't Know	Response Count
High Schools	9.1% (2)	77.3% (17)	13.6% (3)	22
Career Centers	30.4% (7)	47.8% (11)	21.7% (5)	23
Proprietary Career Institutions	34.8% (8)	43.5% (10)	21.7% (5)	23
Community Colleges	58.3% (14)	20.8% (5)	20.8% (5)	24
4 yr. Colleges and Universities	31.8% (7)	31.8% (7)	36.4% (8)	22
Other (please specify)				5
answered question				24
skipped question				6

#### 14. Would your organization be willing to accept interns for medical billing and coding?

		Response Percent	Response Count
Yes		20.8%	5
No		33.3%	8
Maybe		45.8%	11
answered question			24
skipped question			6

**15. Which methods and with what level of frequency does your organization utilize the following to recruit medical coders?**

	None	Low	Medium	High	Don't Know	Response Count
Newspaper Advertising	27.3% (6)	<b>36.4% (8)</b>	13.6% (3)	13.6% (3)	9.1% (2)	22
Internet Advertising	<b>33.3% (7)</b>	19.0% (4)	14.3% (3)	23.8% (5)	9.5% (2)	21
High School Recruitment	<b>90.5% (19)</b>	0.0% (0)	0.0% (0)	0.0% (0)	9.5% (2)	21
Career Center Recruitment	<b>59.1% (13)</b>	4.5% (1)	18.2% (4)	9.1% (2)	9.1% (2)	22
Proprietary Career Institutions Recruitment	<b>61.9% (13)</b>	4.8% (1)	4.8% (1)	19.0% (4)	9.5% (2)	21
Community College Recruitment	<b>47.6% (10)</b>	9.5% (2)	4.8% (1)	28.6% (6)	9.5% (2)	21
Colleges and Universities Recruitment	<b>71.4% (15)</b>	9.5% (2)	0.0% (0)	9.5% (2)	9.5% (2)	21
Prior internship participants	<b>52.6% (10)</b>	10.5% (2)	21.1% (4)	5.3% (1)	10.5% (2)	19
Internal training and promotion	<b>38.1% (8)</b>	19.0% (4)	19.0% (4)	14.3% (3)	9.5% (2)	21
Recruitment Agency	<b>76.2% (16)</b>	9.5% (2)	4.8% (1)	0.0% (0)	9.5% (2)	21
Internet Recruitment Sites	<b>61.9% (13)</b>	4.8% (1)	4.8% (1)	19.0% (4)	9.5% (2)	21
Social Networking	<b>47.6% (10)</b>	28.6% (6)	9.5% (2)	4.8% (1)	9.5% (2)	21

Other (please specify)

3

**answered question**

**23**

**skipped question**

**7**

**16. What level of importance does your organization place on each of the following in the hiring process for employees in the medical coder occupation?**




	None	Low	Medium	High	Don't Know	Response Count
Experience	4.8% (1)	19.0% (4)	33.3% (7)	<b>38.1% (8)</b>	4.8% (1)	21
Certification	9.5% (2)	19.0% (4)	23.8% (5)	<b>42.9% (9)</b>	4.8% (1)	21
Demonstrated skill set	9.5% (2)	4.8% (1)	14.3% (3)	<b>66.7% (14)</b>	4.8% (1)	21
Education attainment level	9.5% (2)	9.5% (2)	<b>61.9% (13)</b>	14.3% (3)	4.8% (1)	21
Interview	4.8% (1)	4.8% (1)	23.8% (5)	<b>61.9% (13)</b>	4.8% (1)	21
Pre-employment assessment tool (s)/exams	<b>33.3% (7)</b>	9.5% (2)	28.6% (6)	23.8% (5)	4.8% (1)	21
Knowledge of anatomy and physiology	15.0% (3)	10.0% (2)	20.0% (4)	<b>50.0% (10)</b>	5.0% (1)	20
General medical terminology	9.5% (2)	0.0% (0)	33.3% (7)	<b>52.4% (11)</b>	4.8% (1)	21
Employment references	4.8% (1)	4.8% (1)	28.6% (6)	<b>52.4% (11)</b>	9.5% (2)	21

Other (please specify)


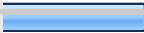


3

<b>answered question</b>	<b>21</b>
<b>skipped question</b>	<b>9</b>

**17. Does your organization anticipate a decrease in productivity with the implementation of ICD-10 in October 2014?**

		Response Percent	Response Count
Yes		39.1%	9
No		30.4%	7
Do Not Know		30.4%	7
answered question			23
skipped question			7

**18. If yes, how does your organization plan to handle the decrease in coding productivity?**

		Response Percent	Response Count
Implement computer aided coding		33.3%	3
Outsourcing		22.2%	2
Increase hiring		11.1%	1
Extensive training of in-house staff		77.8%	7
Other		0.0%	0

Other (please specify) 1

answered question	9
skipped question	21

## 19. What do you anticipate will be your organization's top three challenges in the transition from ICD-9 to ICD-10?

Response  
Count

21

1	Not sure, are vendor is doing the transition	Jun 12, 2012 2:59 PM
2	Working with our EMR company to make it a smooth transition over. As well as making sure payors are prepared to accept ICD-10.	Jun 12, 2012 9:17 AM
3	Don't know	Jun 11, 2012 12:01 PM
4	Training Disruption to work flow communication	Jun 7, 2012 5:14 PM
5	Slow payments	Jun 7, 2012 12:45 AM
6	Provider Education System Implementation Billing delays	Jun 6, 2012 2:05 PM
7	The challenges will be the same as with any change. I have been here long enough to educate myself, my staff and we work forward with the tools we are given. This is not the first change nor will it be the last.	Jun 6, 2012 10:04 AM
8	Gaining the knowledge Training staff including physicians Finding the time to do the above	Jun 6, 2012 9:51 AM
9	education time skill set	Jun 6, 2012 8:05 AM
10	unsure. Will need training.	Jun 5, 2012 3:53 PM
11	getting encounter forms reorganized, changing old habits and rejections from insurance companies	Jun 5, 2012 3:46 PM
12	Learning Curve Medicare Being ready for the transition of use	Jun 5, 2012 3:46 PM
13	1. Familiarizing ourselves with the new codes	Jun 5, 2012 3:31 PM
14	1. keeping duplicate records for the first 18 months 2. training of back-up personnel 3. having IT in place in a timely manner	Jun 4, 2012 9:59 AM
15	Productivity decrease Educating of Staff Finding knowledgeable candidates in ICD 10	May 31, 2012 1:50 PM
16	Physician documentation Budgets Education	May 29, 2012 11:31 AM
17	Hiring coders to meet increased demand for outsourced coding.	May 29, 2012 10:19 AM
18	Back log of work Physician training	May 23, 2012 8:30 AM
19	Recruiting enough coders to meet the increased demand for outsourced coding.	May 11, 2012 1:11 PM
20	Loss of productivity when we transition The speed in which coders can learn and make the transition Adequate number of coders to hire and train	May 10, 2012 8:56 AM





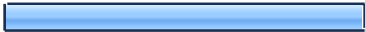

## 20. Does your organization have a formal ICD-10 adoption plan and timeline in place?

		Response Percent	Response Count
Yes	<input type="text"/>	20.8%	5
<b>Somewhat</b>	<input type="text"/>	<b>41.7%</b>	<b>10</b>
No	<input type="text"/>	37.5%	9
Don't Know		0.0%	0
	Other (please specify)		1
answered question			<b>24</b>
skipped question			<b>6</b>

## 21. Does your organization have an ICD-10 training plan for each of the following medical coding occupations?

	Yes	Somewhat	No	Don't Know	Don't Employ	Response Count
Medical Coders	13.6% (3)	18.2% (4)	<b>50.0% (11)</b>	4.5% (1)	13.6% (3)	22
Health Information Technicians	9.1% (2)	13.6% (3)	<b>40.9% (9)</b>	4.5% (1)	31.8% (7)	22
Billing, Cost, and Rate Clerks	20.0% (5)	8.0% (2)	<b>36.0% (9)</b>	12.0% (3)	24.0% (6)	25
Medical Secretaries	8.0% (2)	16.0% (4)	28.0% (7)	8.0% (2)	<b>40.0% (10)</b>	25
Medical Transcriptionists	8.0% (2)	4.0% (1)	32.0% (8)	8.0% (2)	<b>48.0% (12)</b>	25
Medical and Health Services Managers	20.0% (5)	12.0% (3)	<b>32.0% (8)</b>	16.0% (4)	20.0% (5)	25
answered question						25
skipped question						5

## 22. Does your organization have an ICD-10 training plan to support non-medical coding occupation employees' adoption of ICD-10?

		Response Percent	Response Count
Yes		8.3%	2
Somewhat		25.0%	6
No		<b>54.2%</b>	<b>13</b>
Don't Know		12.5%	3
Other (please specify)			1
answered question			24
skipped question			6

**23. Are there other issues the Healthcare Workforce Partnership of Western Mass should be aware of as it considers regional strategies to help employers grow your business and prepare for ICD-10?**

**Response  
Count**

7

- |   |  |                       |
|---|--|-----------------------|
| 1 | When HIPAA was implemented, many organizations (Baycare, insurance companies, etc) had HIPAA trainings available. It would be most helpful if local organizations could help with training and sharing of information.   | Jun 6, 2012 9:51 AM   |
| 2 | I think many practices are implementing EHR systems currently and don't have the time to concentrate on ICD-10. I would like to see some type of advisory committee formed to start planning for the ICD-10.   | Jun 6, 2012 8:07 AM   |
| 3 | none that I am aware of. Thank you.  | Jun 5, 2012 3:47 PM   |
| 4 | Small practice - not sure.   | Jun 5, 2012 3:47 PM   |
| 5 | Much of the planning stages are developed by the 4 state facilities and dependent on the Commonwealth's IT system plans  | Jun 4, 2012 10:01 AM  |
| 6 | There should be more Associate programs for RHITs.   | May 29, 2012 11:32 AM |
| 7 | This looks like it will provide some helpful information about the area. I know that our organization is somewhat outside the scope of the other companies that will be participating because of the nature of our business, but I will be very interested to see what the results look like. Thank you! |                       |

## *Appendix C*

### ***Medical Coder Competency Review Results, Training and Workforce Options (TWO), June 2012***

Partnership members concluded that additional data was needed to better understand the medical coding workforce in the region beyond that developed through an earlier survey. The earlier survey generated 30 respondents who provided important information on the range of occupations involved in the medical coding field, the number of people currently employed in each of those occupations, and employers' expectations regarding future demand for medical coders and employees in the related occupations.

The group now focused specifically on the tasks coders perform, and the knowledge, skills and abilities that medical coders need to perform those tasks at levels meeting or exceeding employer expectations. Eight (8) persons representing five (5) organizations participated in a forum to confirm the tasks in the occupation, to identify the mastery level required to perform the job well, and to assess the mastery level of their new hire employees (6 months or less in the position) and their current employees (more than 6 months in the job).

Participants completed worksheets containing tasks, knowledge, skills and abilities detail from two sources. One source was AHIMA, a prominent national association that provides testing and certification for medical coders. Springfield Technical Community College aligns the curriculum of its medical coding program with AHIMA's Domains and Competencies as one way to prepare its graduates to pass the AHIMA certification test. The second source of tasks, knowledge, skills and abilities detail is O\*NET OnLine. O\*NET OnLine is created for the U.S. Department of Labor, Employment & Training Administration, by the National Center for O\*NET Development. The responses were entered into worksheets formulated to derive the average of the responses for each of the elements within each group of tasks, knowledge, skills and abilities for Mastery Level Required, New Hire Ability and Current Employee Ability. Both tables and charts were then developed identifying key gaps for both employee groups.

# Medical Coder Skill Mastery / Skill Gap - ONET

Scale of 0 to 5 (highest level) 0 = not applicable

Item #	Workplace Skill/Ability to Master	Workplace Skill/Ability Description	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
1	Reading Comprehension	Understanding written sentences and paragraphs in work related documents.	5.0	4.7	0.3	4.7	0.3	0.0
2	Time Management	Managing one's own time and the time of others.	5.0	4.1	0.9	4.2	0.8	0.1
3	Complex Problem Solving	Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.	5.0	3.1	1.9	3.7	1.3	0.6
4	Judgment and Decision Making	Considering the relative costs and benefits of potential actions to choose the most appropriate one.	5.0	3.3	1.7	4.1	0.9	0.8
5	Instructing	Teaching others how to do something.	5.0	1.5	3.5	2.4	2.6	0.9
6	Active Learning	Understanding the implications of new information for both current and future problem-solving and decision-making.	5.0	3.6	1.4	4.1	0.9	0.5
7	Learning Strategies	Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.	5.0	3.3	1.7	3.6	1.4	0.3
8	Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.	5.0	4.8	0.2	5.0	0.0	0.2
9	Oral Expression	The ability to communicate information and ideas in speaking so others will understand.	5.0	4.7	0.3	4.6	0.4	-0.1

# Medical Coder Skill Mastery / Skill Gap - ONET

Scale of 0 to 5 (highest level) 0 = not applicable

Item #	Workplace Skill/Ability to Master	Workplace Skill/Ability Description	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
10	Written Comprehension	The ability to read and understand information and ideas presented in writing.	5.0	4.8	0.2	5.0	0.0	0.2
11	Information Ordering	The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).	5.0	4.2	0.8	5.0	0.0	0.8
12	Written Expression	The ability to communicate information and ideas in writing so others will understand.	5.0	4.7	0.3	5.0	0.0	0.3
13	Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.	5.0	3.7	1.3	4.2	0.8	0.5
14	Deductive Reasoning	The ability to apply general rules to specific problems to produce answers that make sense.	5.0	4.1	0.9	4.7	0.3	0.6
15	Inductive Reasoning	The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).	5.0	4.2	0.8	5.0	0.0	0.8
16	Selective Attention	The ability to concentrate on a task over a period of time without being distracted.	5.0	4.5	0.5	5.0	0.0	0.5

## Medical Coder Skill Mastery / Skill Gap - ONET

Scale of 0 to 5 (highest level) 0 = not applicable

Item #	Workplace Skill/Ability to Master	Workplace Skill/Ability Description	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
17	Perceptual Speed	The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after the other. This ability also includes comparing a presented object with a remembered object.	5.0	4.0	1.0	4.6	0.4	0.6
18	Time Sharing	The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).	5.0	4.0	1.0	4.8	0.3	0.8
19	Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.	4.8	4.3	0.6	4.6	0.2	0.4
20	Monitoring	Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.	4.8	1.8	3.0	3.5	1.3	1.7
21	Memorization	The ability to remember information such as words, numbers, pictures, and procedures.	4.7	4.2	0.5	4.4	0.3	0.2
22	Speed of Closure	The ability to quickly make sense of, combine, and organize information into meaningful patterns.	4.7	3.6	1.1	4.5	0.2	0.9

# Medical Coder Skill Mastery / Skill Gap - ONET

Scale of 0 to 5 (highest level) 0 = not applicable

Item #	Workplace Skill/Ability to Master	Workplace Skill/Ability Description	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
23	Quality Control Analysis	Conducting tests and inspections of products, services, or processes to evaluate quality or performance.	4.5	2.2	2.3	2.8	1.8	0.6
24	Speech Recognition	The ability to identify and understand the speech of another person.	4.5	4.5	0.0	4.4	0.1	-0.1
25	Category Flexibility	The ability to generate or use different sets of rules for combining or grouping things in different ways.	4.5	4.0	0.5	4.4	0.1	0.4
26	Systems Evaluation	Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.	4.4	2.3	2.2	3.7	0.7	1.5
27	Systems Analysis	Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.	4.3	2.3	2.0	3.3	1.0	1.1
28	Social Perceptiveness	Being aware of others' reactions and understanding why they react as they do.	4.2	3.0	1.2	3.3	0.9	0.3
29	Near Vision	The ability to see details at close range (within a few feet of the observer).	4.0	3.9	0.1	3.7	0.3	-0.2
30	Fluency of Ideas	The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).	4.0	3.6	0.4	3.5	0.5	-0.1
31	Service Orientation	Actively looking for ways to help people.	3.8	2.4	1.4	2.8	1.0	0.4

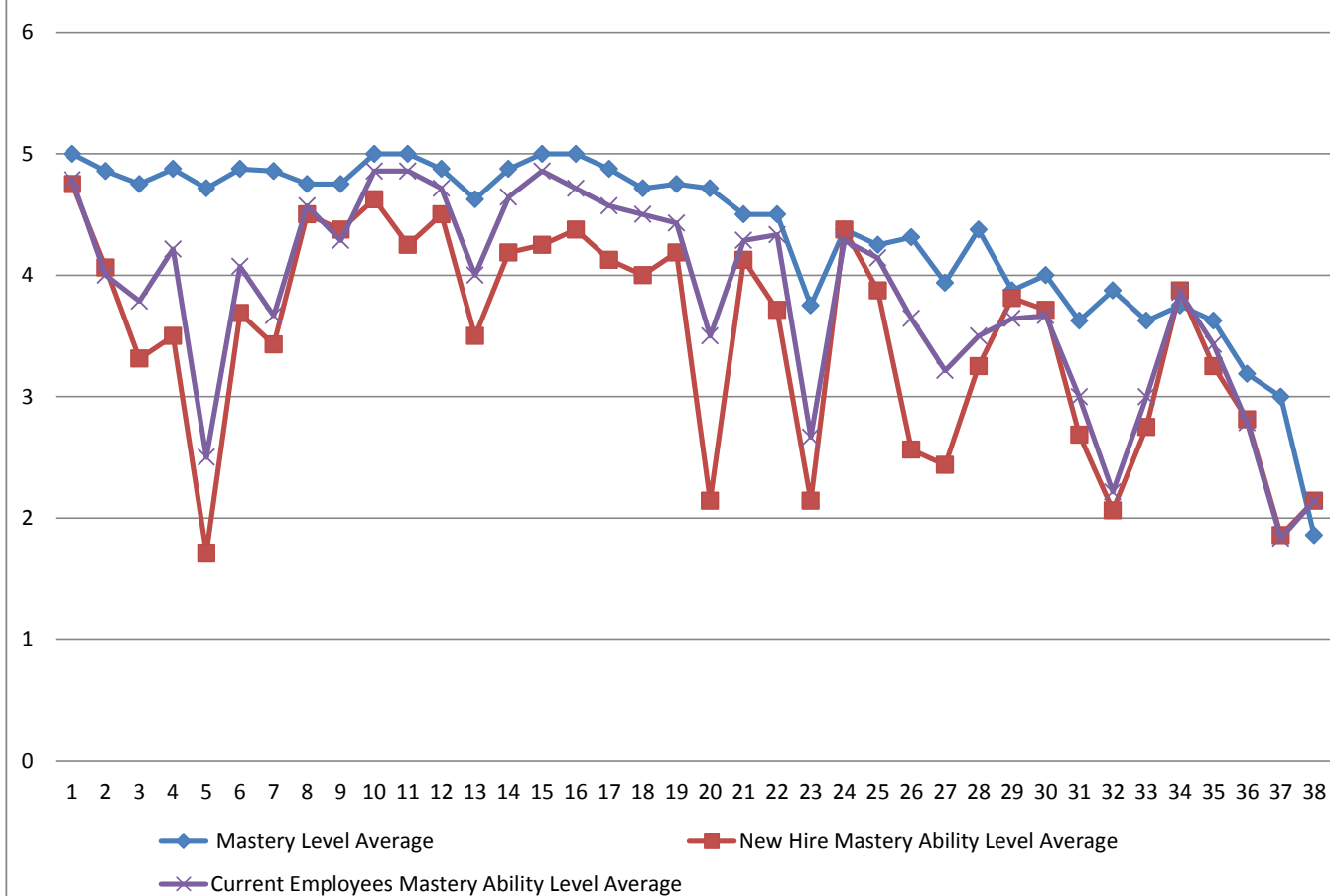


## Medical Coder Skill Mastery / Skill Gap - ONET

Scale of 0 to 5 (highest level) 0 = not applicable

Item #	Workplace Skill/Ability to Master	Workplace Skill/Ability Description	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
32	Negotiation	Bringing others together and trying to reconcile differences.	3.8	1.8	2.1	1.7	2.1	-0.1
33	Coordination	Adjusting actions in relation to others' actions.	3.7	2.5	1.2	2.8	0.9	0.3
34	Finger Dexterity	The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.	3.7	3.5	0.2	3.4	0.3	-0.1
35	Flexibility of Closure	The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.	3.7	3.2	0.5	3.4	0.3	0.2
36	Science	Using scientific rules and methods to solve problems.	3.4	2.8	0.7	2.7	0.7	0.0
37	Persuasion	Persuading others to change their minds or behavior.	3.0	1.7	1.3	1.6	1.4	-0.1
38	Mathematics	Using mathematics to solve problems.	2.0	1.8	0.2	1.8	0.2	0.0

Medical Coder Skill Mastery/ Skill Gap - ONET



## AHIMA Domains: Medical Coders - ACCP Curriculum/Syllabus Integration Checklist

Domain	Item #	Domain Item	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
Domain: Life Sciences	1	<b>Anatomy and Physiology:</b> Study of the structure and function of the human body - full body systems Emphasis on anatomical orientation Anatomical online lookup (Adam, etc.) Anatomical plate work	5.00	4.58	0.42	4.90	0.10	0.32
	2	<b>Medical Terminology:</b> Spell, define, and pronounce (through supplemental CD tools), medical terms as well as understanding the concepts of root/suffix/prefix word builds. Common medical terms of major disease processes, diagnostic procedures, laboratory tests, abbreviations, drugs, and treatment modalities.	5.00	4.50	0.50	5.00	0.00	0.50
	3	<b>Pathophysiology:</b> <i>Specific disease processes</i> <i>By human body system</i> For each disease, identify: Cause, diagnosis, and treatment	5.00	4.25	0.75	4.70	0.30	0.45
	4	<b>Pharmacotherapy &amp; Laboratory Findings</b> Emphasis is placed on the understanding of the action of drugs such as: absorption, distribution, metabolism and excretion of drugs by the body. Drug classifications Most commonly prescribed drugs What is a formulary Matching drugs to common conditions Matching drugs to lab findings	4.58	3.72	0.87	4.10	0.48	0.38

## AHIMA Domains: Medical Coders - ACCP Curriculum/Syllabus Integration Checklist

Domain	Item #	Domain Item	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
Domain: Information Technology	5	<b>Introduction to Desktop Applications</b> Keyboard, web access skills Concepts related to hardware and software Demonstrate knowledge of Microsoft Office Suite applications	4.83	4.08	0.75	4.60	0.23	0.52
	6	<b>Computer Software Applications in Healthcare</b> Introduction to commonly used software in healthcare: Public reporting of disease and disease trends How acute care organizations store and retrieve electronic health records Analysis of different types of encoder software Analysis on online coding tools (coding reference tools) Evaluation of CACs Identify the issues involving the migration from a paper-based HIM to an electronic HIM The student should be aware of the major acute care environment vendors and their system strengths. Evaluation of the EHR Evaluation of the PHR	5.00	4.25	0.75	4.80	0.20	0.55

## AHIMA Domains: Medical Coders - ACCP Curriculum/Syllabus Integration Checklist

Domain	Item #	Domain Item	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
Domain: Health Information Management	7	<b>Introduction to Health Information Management &amp; Healthcare Data Content and Structure</b> Emphasis is placed on content and components of the health record including: Content of the health record Documentation requirements Patient Identity Management (MPI) Abstracting Filing Systems (TD) Registries (Cancer, Trauma, etc) Primary vs. secondary records Legal/ethics issues Legal EHR Privacy, confidentiality and computer security HIPAA requirements Release of information Code of Ethics of the AHIMA Standards of Ethical Coding of the AHIMA	5.00	3.25	1.75	3.90	1.10	0.65
	8	<b>Healthcare Delivery Systems</b> A thorough understanding of the types and levels of Healthcare Delivery Systems in the U.S., and of the governing bodies that regulate the HIM processes, an understanding how eHIM will change this environment: Organization of healthcare delivery Accreditation standards Licensure/regulatory agencies RAC process	5.00	3.17	1.83	4.00	1.00	0.83

## AHIMA Domains: Medical Coders - ACCP Curriculum/Syllabus Integration Checklist

Domain	Item #	Domain Item	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
Domain: Clinical Classification Systems	9	<b>Basic Diagnosis Coding Systems</b>  Student will learn about the International Classification of Diseases ICD-9-CM, how to code, and guidelines for usage for: Volume I Volume II Volume III	5.00	4.08	0.92	5.00	0.00	0.92
	10	<b>Basic Procedure Coding Systems</b>  Student will focus on Basic HCPCS coding, with a focus on CPT-4 coding for: Anesthesia, E&M,Surgical, Pathology/Laboratory, Radiology, Medicine HCPS II codes	4.90	4.40	0.50	4.88	0.03	0.48

## AHIMA Domains: Medical Coders - ACCP Curriculum/Syllabus Integration Checklist

Domain	Item #	Domain Item	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
Domain: Clinical Classification Systems (continued)	11	<b>Intermediate (or Advanced) Diagnosis Coding Intermediate (or Advanced) Diagnosis Coding</b> Complex Case Studies: advancing coding skills through the use of complex case studies using more complex code assignments to determine the correct diagnoses. Authentic Coding : using actual medical records from a variety of patient types Students should be exposed to medical records and learn how to interpret actual charts. Student should be introduced to diagnostic based prospective payment groupers: DRG, APR-DRG, & RUGS. An introduction to International Classification of Diseases "ICD-10-CM, including compare and contrast assignments from ICD-9 to ICD-10 and other diagnosis coding systems (DSM-IV, ICD-0)" Introduction to Systematized Nomenclature of Medicine (SNOMED) – Includes a brief overview of its role in the health care delivery system as the basis for an electronic health record	5.00	3.75	1.25	4.80	0.20	1.05
	12	<b>Intermediate (or Advanced) Diagnosis Coding</b> "Using case studies and authentic coding, students should practice more complex procedure code assignments with" ICD-9-CM and CPT-4. Student should be introduced to procedure based payment systems: RBRVS,"E&M codes, and APC assignments and the impact coding and sequencing has on reimbursement."	5.00	3.80	1.20	4.38	0.63	0.58

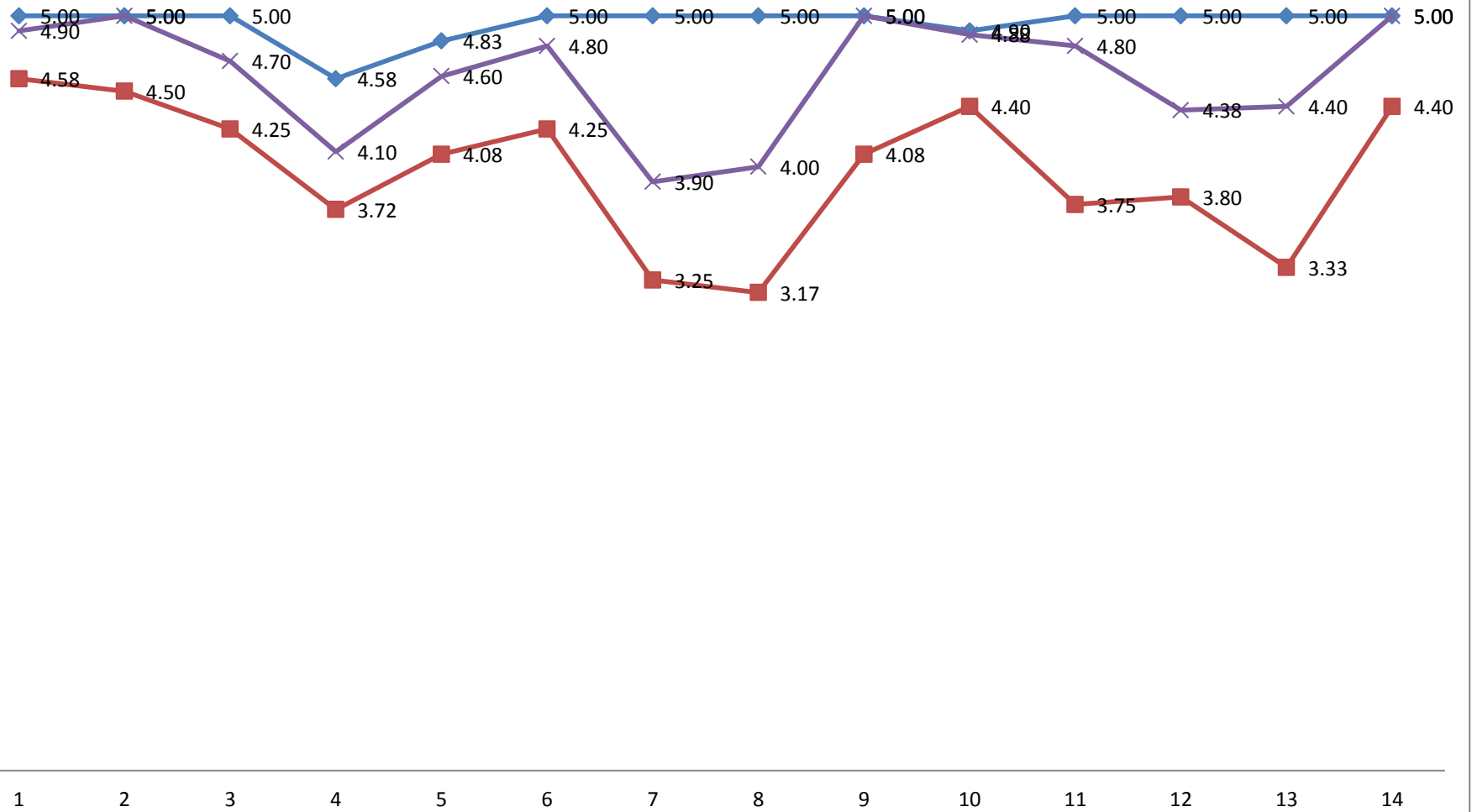
## AHIMA Domains: Medical Coders - ACCP Curriculum/Syllabus Integration Checklist

Domain	Item #	Domain Item	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
Domain: Clinical Classification Systems (continued)	13	<b>Reimbursement Methodologies</b> Prospective payment system Diagnosis Related Groups Ambulatory Payment Classifications ASC Groups Resource Based Relative Value Scale Third party payers Billing and insurance procedures Explanation of benefits Quality Improvement Organizations (QIO) and their role in the payment process Charge master description and maintenance Managed care/capitation Compliance issues Health plan claims processing and coding Billing for healthcare services using codes Auditing and monitoring the coding process for regulatory compliance	5.00	3.33	1.67	4.40	0.60	1.07
	14	<b>Professional Practice Experience/Practicum/Internship</b> <i><b>Field Based PPE :</b> To provide the student with coding practice experiences in a hospital, physician's office, clinic or other healthcare setting with directed projects common to a clinical coding specialist on the job.</i> <i><b>Virtual PPE:</b> Review presentations from coding specialist guest speakers (CCS, CCS-P) either pre-recorded or live. Practicum hours to focus on building speed and accuracy using paper and scanned medical records.</i>	5.00	4.40	0.60	5.00	0.00	0.60



## AHIMA Domain Mastery Item Gaps

—◆— Mastery Level Average    —■— New Hire Mastery Ability Level Average    —x— Current Employees Mastery Ability Level Average



## AHIMA Competencies Summary: Medical Coders - ACCP Curriculum/Syllabus Integration Checklist

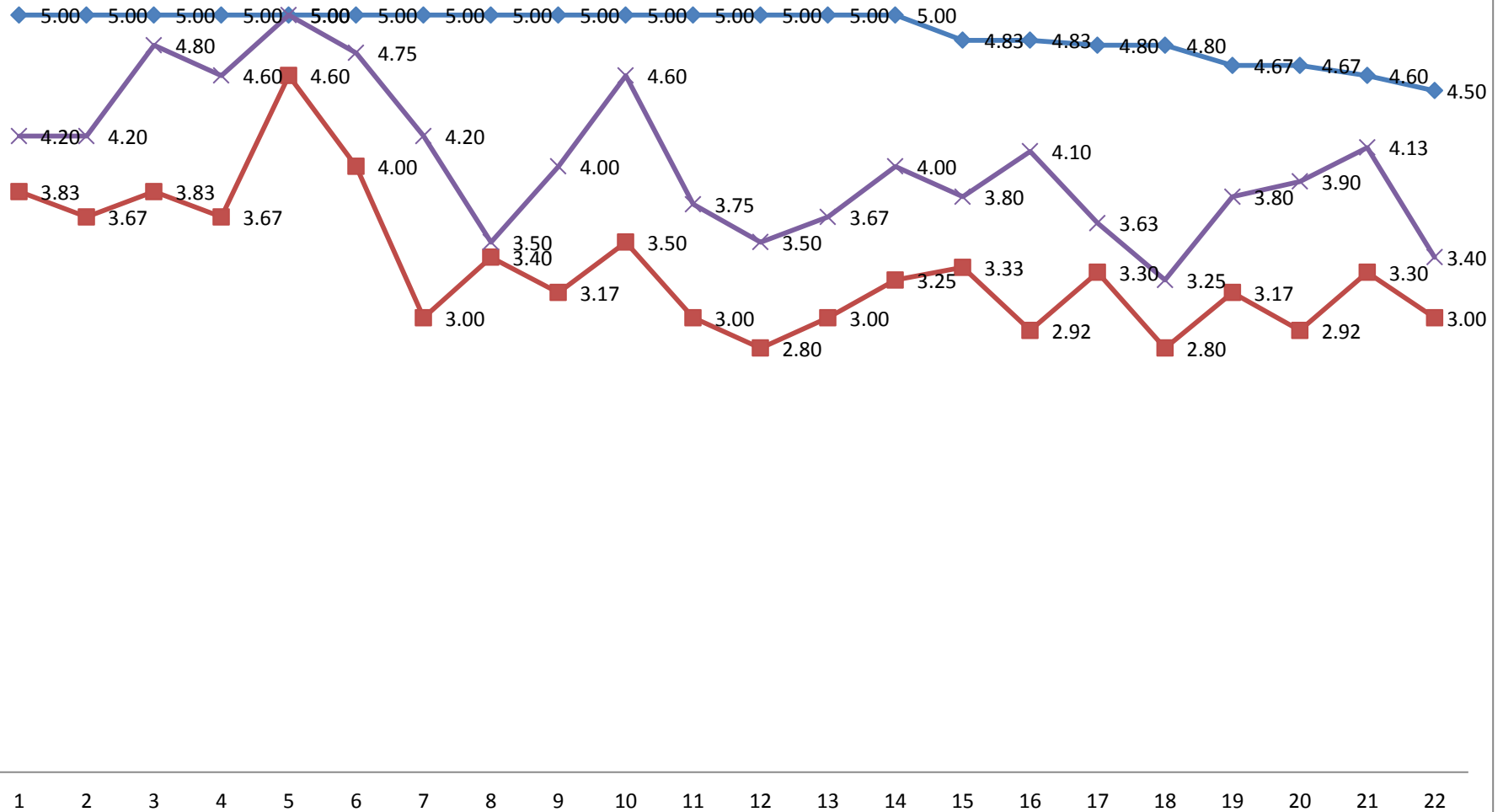
Item #	Competencies: At the conclusion of a coding certificate program, the student should be prepared to demonstrate the following competencies.	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
1	Maintain Health Data Content, Requirements, and Standards. This content area addresses competencies related to the content and use of healthcare data.	5.00	3.83	1.17	4.20	0.80	0.37
2	Be compliant with regulations and standards associated with health information management, which are distributed by private and governmental agencies (e.g., CMS, JCAHO, NCQA)	5.00	3.67	1.33	4.20	0.80	0.53
3	Maintain departmental and facility-wide coding guidelines	5.00	3.83	1.17	4.80	0.20	0.97
4	Collect the data necessary to assign patients to severity of illness categories	5.00	3.67	1.33	4.60	0.40	0.93
5	Assign procedure codes using CPT/HCPCS	5.00	4.60	0.40	5.00	0.00	0.40
6	Assign procedure codes using ICD-9-CM	5.00	4.00	1.00	4.75	0.25	0.75
7	Assign diagnosis and procedure codes using ICD-10-CM/PCS	5.00	3.00	2.00	4.20	0.80	1.20
8	Be familiar with: DSMIII, SNOMED, ICD-O, and other ancillary coding classifications	5.00	3.40	1.60	3.50	1.50	0.10
9	Conduct qualitative analysis to assure that documentation in the health record supports the diagnosis and reflects the progress, clinical findings and discharge status of the patient	5.00	3.17	1.83	4.00	1.00	0.83
10	Access and evaluate the EHR: An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed and consulted by authorized clinicians and staff across more than one health care organization.	5.00	3.50	1.50	4.60	0.40	1.10
11	Access and evaluate the PHR: An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be drawn from multiple sources while being managed and controlled by the individual.	5.00	3.00	2.00	3.75	1.25	0.75
12	Demonstrate an understanding of a Health Information Exchange: The electronic movement of health-related information among organizations according to nationally recognized standards.	5.00	2.80	2.20	3.50	1.50	0.70

## AHIMA Competencies Summary: Medical Coders - ACCP Curriculum/Syllabus Integration Checklist

Item #	Competencies: At the conclusion of a coding certificate program, the student should be prepared to demonstrate the following competencies.	Mastery Level Average	New Hire Mastery Ability Level Average	New Hire Mastery Level Average Skill Gap	Current Employees Mastery Ability Level Average	Current Employee Mastery Ability Level Average Skill Gap	Mastery Level Gap between Current Employees and New Hires
13	Demonstrate an understanding of a Health Information Organization (Regional): A health information organization that brings together health care stakeholders within a defined geographic area and governs health information exchange among them for the purpose of improving health and care in the community.	5.00	3.00	2.00	3.67	1.33	0.67
14	Demonstrate an awareness of emerging technologies in coding: CAC, Voice Recognition, coding from the EHR, reading imaged documents	5.00	3.25	1.75	4.00	1.00	0.75
15	Understand the role of Information Technology as it relates to Healthcare Delivery	4.83	3.33	1.50	3.80	1.03	0.47
16	Protect data integrity and validity using software or hardware technology	4.83	2.92	1.92	4.10	0.73	1.18
17	Investigate health plan payment denials	4.80	3.30	1.50	3.63	1.18	0.33
18	Assist in using coded data for reporting - organization and state reporting levels	4.80	2.80	2.00	3.25	1.55	0.45
19	Understand the role of various providers and disciplines throughout the continuum of healthcare services	4.67	3.17	1.50	3.80	0.87	0.63
20	Use common software packages (e.g., spreadsheets, databases, word processing, graphics, presentation, statistical, e-mail)	4.67	2.92	1.75	3.90	0.77	0.98
21	Assist in the facility's billing process and/or revenue cycle process	4.60	3.30	1.30	4.13	0.48	0.83
22	Understand global issues in healthcare and delivery mechanisms	4.50	3.00	1.50	3.40	1.10	0.40

## AHIMA Competencies Mastery Gaps

—◆— Mastery Level Average    —■— New Hire Mastery Ability Level Average    —×— Current Employees Mastery Ability Level Average



## Appendix D

Example of available job postings in Franklin and Hampshire Counties (extracted on June 26, 2012)

Hiring Demand Dashboard App

[back to My Analytics](#) :: [help](#) :: [logs](#) :: [logout](#)



current saved past

Add a Filter

Employers  
advertiser name  
☐ combine employers

Applied Filters

occupation: detailed (6)

☒ Medical Records and Health In...

source type: source type

☒ Third Party Postings

location: county

☒ Franklin County, MA

location: city

☒ Athol, MA

location: city

☒ Royalston, MA

location: city

☒ Phillipston, MA

location: city

☒ Petersham, MA

location: county

☒ Hampshire County, MA

location: county

☒ My Market

Apply Filters

### Medical Coding - F/H + NQ

Methodology: Available Ads Without Duplicates

summary

listing

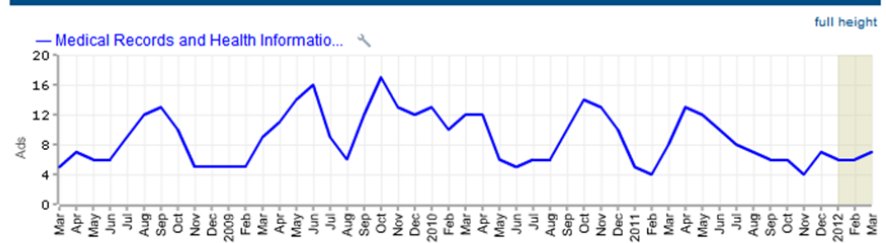
reset layout

#### Time Series Charts

Chart data is updated as of the close of the most recent time period.

collapse all | add chart

##### Monthly Occupation Ad Volume (4Yr)



#### Detail for Selected Time-Frame - Updated Daily

By Week By Month ☒ Variable Last 120 days

collapse all | add table or chart

##### Occupations by Minor, Major Groups

	Time-Frame	Prior Year
Healthcare Practitioners and Technical Occupations	16	-1
Health Technologists and Technicians	16	-1
Medical Records and Health Information Technicians	16	-1

##### Sites

	Time-Frame	Prior Year
America's Job Exchange	4	3
JOBcentral	4	1
BestLocalJobs-MassLive	3	3
Craigslist	3	-3
Monster	2	1
Job Target	1	1
USAJOBS	1	-2
Jobing	1	1
School Spring	1	1
HealthECareers	1	1
Federal Government Jobs	1	1
Others (0)	0	-5
Total (11)	22	3

##### Cities by Counties, MSAs

	Time-Frame	Prior Year
Springfield	15	-2
Hampshire County	13	0
Northampton, MA	11	0
Amherst, MA	2	0
Franklin County	2	-2
Greenfield, MA	2	1
Worcester	1	1
Worcester County	1	1
Athol, MA	1	1
Total (2)	16	-1

##### Top Employers Labels

	Time-Frame	Prior Period
Cooley Dickinson Hospital	4	3
Veterans Affairs, Veterans Health Administration	2	2
University of Massachusetts Amherst	1	0
University of Massachusetts Amherst	1	0
Department of Veterans Affairs	1	0
Collaborative for Educational Services	1	1
Unspecified	6	2
Others (0)	0	-4
Total (7)	16	4

##### Occupations

Medical Records and Health Information Technicians	16
--	----