What's the Right Code?

Print:

The role of written communication in the work of medical coders

Industry Sector: Healthcare
Content Area: Literacy
Core Topic: Written communication

Expand All | Collapse All

Common Core State Standards

W.11-12.2: Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

W.11-12.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

W.11-12.5: Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

L.11-12.1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

L.11-12.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

WHST.11-12.2: Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.

Adult Basic Education Standards

Writing Standard 1: Learners will express themselves through writing for a variety of purposes.

W1.4a Write correctly punctuated and constructed paragraphs describing how to make, build or do something.

W1.4c Write a summary of an article or story.

W1.5b Compose a formal business letter using appropriate tone, style, and organization.

W1.5d Write an analysis of an article from a primary source or professional journal.

Writing Standard 2: Learners will apply knowledge of English vocabulary, language structure, and mechanics when they write.

W2.5a Use correct sentence structure and follow the conventions of Edited American English (EAE) in all formal writing.

W2.5c Proofread and revise an essay to assure correct punctuation, spelling, grammar, cohesiveness, idea development, clarity, and relevant supporting details.

Writing Standard 3: Learners will use a variety of strategies to convey meaning through written English.

W3.5a Observe how other writers express themselves and practice using their techniques.

Industry Overview

Healthcare in America

From neonatal nurses to radiology technologists, medical coders to medical office assistants, health educators to home care aides, the healthcare industry provides a vast and diverse array of services to individuals at every stage of life. Providing nearly 17 million jobs and accounting for an estimated $18 million of the U.S. GDP in 2009, healthcare is the nation's largest industry. In Massachusetts, in particular, healthcare accounts for more than 15% of employment (compared with 12% nationally), accounting for approximately one in six jobs. With an aging baby boomer population that is living longer, there is greater demand for more and higher quality preventative and long-term healthcare across the United States. With eight of the 30 fastest growing occupations, healthcare is predicted to be one of the fastest growing industries both nationwide and in Massachusetts between now and 2020.

Careers in Healthcare

The healthcare industry includes a vast array of jobs related to planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development. This industry includes five career pathways:

- therapeutic services, which includes professionals who work directly with patients to improve their health by providing direct care and treatment for patients (for example, a nurse or a physical therapist assistant);
- diagnostic services, which includes professionals who plan and conduct tests to detect and diagnose diseases and injuries, and use test results to plan treatment (for example, a radiologic technologist or a sonographer, who perform diagnostic imaging examinations, such as X-rays or ultrasounds);
- health informatics, which includes professionals who compile and manage health information and records (for example, a medical records and health information technician, who organizes and manages patient databases; higher-level positions, such as administrators of healthcare facilities or departments, are also included in this pathway);
- support services, which includes professionals who provide assistance to other medical professionals, allowing them to do their jobs in diagnosing and treating patients or supporting therapies (for example, food service workers and nutritionists ensure that patients' meals are healthy and meet dietary guidelines); and
- biotechnology research and development, which include careers that involve bioscience research; while many of these professions require doctoral or medical degrees, some entry-level

opportunities in the field require only an associate degree (for example, food and agricultural science technicians).

Mathematics and Communication Skills Needed in Healthcare

The growing complexity of the healthcare industry, including changing technologies, requires workers to continuously upgrade their skills. In addition to technical skills specific to their job, mathematics and literacy skills are crucial for success in all occupations across the healthcare industry.

Communication: First and foremost, no matter the job, good healthcare practitioners are committed to giving patients the best care available and keeping abreast of health research and developments in the field. All workers need to be able to read medical journals and understand medical terminology and vocabulary, as well as read and write literate emails to co-workers/supervisors. Many healthcare jobs also require the ability to read and interpret charts and access and interpret electronic medical records in order to provide quality care.

Many health careers, especially—but not exclusively—those in therapeutic services—involve interacting with patients and their families, in some cases working with people who may be sick, disabled, or dying. Even support staff in a medical office or hospital require effective oral communication skills as well as compassionate interpersonal skills such as the ability to listen and talk to patients to assess needs. Effective communication with colleagues as well as patients is crucial. Healthcare is increasingly a group activity, in which a patient's recovery depends on how well all members of a healthcare team perform specific function, and how well they communicate and collaborate with one another.

Mathematics: From reading charts to interpreting data to measuring and administering correct medicine, basic mathematics skills are essential for providing quality care across most healthcare occupations. Nurses, for example, use mathematics for calculations in all areas of their duties. They use mathematics to calculate dosages, caloric requirements for individual patients, calibrate equipment, and interpret lab results. Charts and patient data are often presented as decimals or percentages, and a nurse must be able to convert between the two, thus requiring competency in understanding and using ratios, proportions and percentages.

Much of modern medicine is based on statistics, and all workers in the industry should have a basic understanding of how statistics are used to influence medical trends. Nurses, for example, need to be aware of the statistics behind prescribing medications and possible side effects or complications. They might use statistics to counsel patients on diagnoses or prognoses, or in gathering patient histories.

Career Opportunities in Healthcare with Education from Community Colleges

Massachusetts Community Colleges play a crucial role in preparing students for careers in health sciences across all sectors of the industry—therapeutic services, diagnostic services, informatics, and support services. All 15 community colleges offer pathways to nursing careers, the largest occupation in the healthcare industry. Additionally, Massachusetts Community Colleges offers associate degree and certificate programs that prepare students to enter occupations across all sectors of the industry, for example:

- *Therapeutic services:* registered nurse, practical nurse, nursing assistant, certified nurse's aide, massage therapist, fitness trainer and instructor, dental hygienist, dental assistant, pharmacy technician, physical therapist assistant, occupation therapy assistant, respiratory assistant, medical assistant
- *Diagnostic services:* radiologic technologist and technician, radiographer, surgical technologist, sonographer, phlebotomist, paramedic, polysomnographic technologist and technician, medical and clinical laboratory technician, magnetic resonance imaging technologist, nuclear medicine technologist, veterinary technologist
- *Informatics:* Medical record and health information technician, medical coder, medical interpreter, medical biller, medical transcriptionist, health educator

Recent Career Opportunities in Massachusetts

The following is a sample of healthcare job listings in Massachusetts that require an associate's degree or certificate:

- Registered Nurse (RN), AmeriCare At Home, Boston, MA [show]
- Medical Technologist, Emerson Hospital, Concord, MA [show]
- Ultrasound Technologist, Brockton, MA [show]
- Licensed Practical Nurse, Hologic, East Watertown, MA [show]

Employment Outlook for Healthcare

America's aging population is now nearing or entering retirement (opening new jobs), and will continue to require more services and the increased use of innovative medical technology for diagnosis and treatment. As a result, healthcare is one of the fastest growing industries both nationwide and in Massachusetts, where growth is even higher than nationally. For example, in 2010, Baystate Health of Springfield, which employs more than 10,000 across its Western Massachusetts system, said that it would likely need to hire about 15,000 people between 2010 and 2020 to replace retiring workers and meet increased demand.

One important factor in the healthcare industry is the financial pressure on hospitals to focus on efficiency and profitability, which results in discharging patients as soon as possible. These financial pressures, along with increased healthcare coverage under federal law, will likely result in a growth in out-patient services in the healthcare industry, such as rehabilitation clinics, long-term care facilities, and home care programs. As a result, occupations experiencing the largest growth include home care aides, physical and occupation therapist assistants, dental hygienists, and medical assistants.

Emerging careers in Health/Information Technology (HIT): Estimates based on data from the Bureau of Labor Statistics (BLS), Department of Education, and independent studies indicate a shortfall of approximately 51,000 qualified Health IT (HIT) workers who will be required over the next five years to meet the needs of hospitals and physicians as they move to adopting an electronic healthcare system, facilitated by the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009. The HITECH Act is a key component of healthcare reform. The Act encompasses interoperable electronic health records (EHRs) including computerized systems to order tests and medications, and support systems to aid clinical decision making and the development of a national health information network to permit the secure exchange of electronic health information among providers. The Congressional Budget Office estimates that the incentive mechanisms in the HITECH Act will increase HIT adoption rates from 45 percent to about 70 percent for hospitals and from 65 percent to approximately 90 percent for physicians. To support job growth in this emerging career field and ensure the adoption of EHRs, new types of workers are needed to facilitate information exchange across healthcare providers and public health authorities, and assist in redesigning workflows within healthcare settings to maximize the quality and efficiency benefits of EHRs, while maintaining privacy and security of health information and records. To that end, the Department of Health and Human Services has embarked on an initiative to build the HIT workforce with community colleges as the primary training ground for these new workers: (1) Practice workflow and information management redesign specialists; (2) Clinician/practitioner consultants; (3) Implementation support specialists; (4) Implementation managers; (5) Technical/software support staff; and (6) Trainers. The average hourly earnings for community college program graduates are expected to be in the target range of between $12.46/hour to $20.25/hour.

Resources:

Healthcare Employment Outlook:

- Massachusetts Career Information System: Massachusetts-specific information on careers which can be used to look at different industries, occupations within those industries, and the skills and education needed to work in these jobs
- WorkKeys Occupational Profiles
- Bureau of Labor Statistics

Healthcare Career Information:

- Top 5 Reasons to Work in the Healthcare Field, About.com
- Break Into a Healthcare Career, About.com
- Healthcare Initiatives, US Department of Labor
- Six Healthcare Careers that are Booming, Yahoo! Education
- Career Clusters in Health Sciences, National Association of State Directors of Career Technical Education Consortium

- Explore Health Careers, American Dental Education Association

Massachusetts Healthcare Job Listings:

- Massachusetts Healthcare Jobs, Jobs.net
- Healthcare Jobsite, Beyond.com

Workplace Scenario (8th Grade Level)

This scenario is based on the work of a medical coder. For more information, view this video.

You are a medical coder. You work in the claims processing office at a large medical center in Boston. The medical center gets paid by insurance companies. They also get paid by individuals. These payments are based on the services they provide to a patient. Each service provided by medical staff has a Current Procedural Terminology (CPT) code. Some examples of the services provided are having an office visit with a physician, getting blood drawn and tested, having a cyst removed, or having anesthesia before surgery. Each one of these services has an individual CPT code.

Since there are thousands of medical services, there are thousands of CPTs. CPTs change all the time. As a medical coder, it is your job to read through a patient's medical record. Then, you need to identify the services and treatments they have received. After doing this, you determine the correct codes for each service.

It is very important that you understand the medical terminology used in the medical records. This is important so that you can identify the services that a patient has received. You also need to pay very close attention to detail so that you don't miss any CPTs that should be included. You also need to make sure you don't use the wrong CPT code.

Sometimes you have to follow up with one of the physicians or other medical staff. During this follow up, you need to make sure that you understand correctly what services a patient received. You may do this follow up over the phone or through email. Email is the preferred method because then you have a written record of the discussion. If you have a conversation on the phone with the medical staff, you need to take notes in the patient's medical record. In either case, you need to make sure that your communication is clear and professional. You also need to make sure that your written records are accurate.

Once you figure out the correct codes for a patient, the billing information is sent to the insurance company. Since insurance companies want to make sure that they only pay for services that a patient has received, they may ask for more information. Insurance companies may also threaten not to pay for a service if they suspect that a service was not performed. When this happens, you need to respond to any questions from the insurance company. This often means that you have to clarify information with medical staff by writing to them for more detail. You may also need to have a conversation with them and take clear and accurate notes. You then write a rebuttal to the insurance company, defending or correcting the billing. These rebuttals must be well-written, clear and professional. You must make sure that you address any questions posed by the insurance company. You must also make sure that the information you provide is accurate and understandable. If you do not do this, the insurance company may not pay or may even press legal charges against the medical center for charging the insurance company more than is actually owed. This is called overbilling.

Workplace Scenario (High School Level)

This scenario is based on the work of a medical coder. For more information, view this video.

You are a medical coder. You work in the claims processing office at a large medical center in Boston. The medical center gets paid by insurance companies and individuals based on the services they provide to a patient. Each service provided by medical staff has a Current Procedural Terminology (CPT) code. Some examples of the services provided are having an office visit with a

physician, getting blood drawn and tested, having a cyst removed, or having anesthesia before surgery. Each one of these services has an individual CPT code.

Since there are thousands of medical services, there are thousands of CPTs. CPTs change all the time. As a medical coder, it is your job to read through a patient's medical record, identify the services and treatments they have received, and determine the correct codes for each service. It is essential that you understand the medical terminology used in the medical records so that you can identify the services that a patient has received; you also need to pay very close attention to detail so that you don't miss any CPTs that should be included or use the wrong one. Sometimes you have to follow up with one of the physicians or other medical staff to make sure that you understand correctly what services a patient received. You may do this over the phone or through email, which is preferable because then you have a written record of the exchange. If you have a conversation with the medical staff, you need to take notes in the patient's medical record. In either case, you need to ensure that your communication is clear and professional, and that your written records are accurate.

Once you identify the correct codes for a patient, the billing information is sent to the insurance company. Since insurance companies want to ensure that they only pay for services that a patient has received, they may require more information or threaten not to pay for a service if they suspect that a service was not performed. When this occurs, you need to respond to any questions from the insurance company. This often means that you have to clarify information with medical staff by writing to them for more detail or having a conversation and taking clear and accurate notes. You then write a rebuttal to the insurance company, defending or correcting the billing. These rebuttals must be well-written, clear and professional. You must ensure that you address any questions posed by the insurance company and that the information you provide is accurate and understandable. If you fail to do so, the insurance company may not pay or may even press legal charges against the medical center for overbilling—that is, charging the insurance company more than is actually owed.

Core instructional context

Lack of writing skills presents significant challenges to students' career and college readiness and the need for improvement is great. In response to a 2006 survey, 72% of employers stated that they considered high school graduates to be deficient in writing and 80.9% deemed high school graduates deficient in written communication skills (Conference Board, 2006).

Writing is typically considered to be a **five-step process:** pre-writing, drafting, revising, editing and publishing. It's important to keep in mind that writing is a recursive process in which good writers move back and forth between pre-writing, drafting and revising many times during the course of creating a single document.

For many adult writers, **pre-writing** may actually be a pre-thinking stage before any writing is started. In this pre-thinking stage various ideas are considered about the topic. If the topic has not been assigned by the instructor, this is the time the writer chooses and narrows the topic. According to Purdue Online Writing Lab, the writer then needs to ask questions about the writing project such as:

- Who is the audience?
- Are they interested in the topic? Why or why not?
- What does your audience need to know about this topic?
- What experiences has your audience had that would influence them on this topic?
- What do you hope the audience will gain from your text?

To kick off the pre-writing process, lead students in brainstorming, clustering or questioning to generate ideas about the topic. This is also the time to gather any additional information required to write about the topic. Mind mapping is a brainstorming technique that helps build connections between ideas. The Brain is a website that provides free tools including one for mind mapping.

One way for students to identify the additional information they need is to use a KWL chart to identify what they need to know. Groups of students can work on KWL charts together to guide their research.

In the **drafting stage**, the writer's goal is to use the pre-writing outcomes to help build the content. In this stage, the writer can use various strategies to get started, including free writing, listing and

outlining both to develop the topic and get started. During the drafting stage, students should concentrate on organizing information logically and developing the topic with enough detail for the audience and purpose. At this stage, it is a good idea for students to work with a partner to discuss the early draft versions and to get another point of view about the organization and sequencing of the content.

Revision is the process of refining the draft by evaluating it and making changes in order to improve the draft. Revising is a critical stage of the writing process and for most writers it is the most difficult. This stage is a good time for students to work in peer review groups. Peer reviewers need preparation for this role. The Conducting Peer Reviews section of the Writer's Handbook website from University of Wisconsin-Madison provides guidance for peer reviewers. For more information on guiding peer reviewers, visit the resource Using Peer Review to Help Students Improve Their Writing from Washington University at St. Louis.

Editing is a stage distinct from revision and it should be done after the revision process is completed. This stage is sometimes referred to as proofreading. During this stage, the writer takes a close look at the piece of writing with an eye to correcting errors in grammar and punctuation, checking spelling and word choice, and checking each sentence for readability. During this stage, the focus is on correctness and clarity. Common errors to look for while editing are listed in the Twelve Common Errors section of the Writer's Handbook website from University of Wisconsin-Madison.

Publishing takes place when a piece of writing is shared with its intended audience. Ideally students will write for an authentic audience (beyond the instructor) such as for the whole class or others outside class through a class website or other means. A student wiki or blog or other free online platform is another excellent way for students to share their writing beyond the classroom.

Example Activity

When working with this scenario in the classroom, consider having students first view the video "What is Medical Coding" for a short overview of the responsibilities and career path of a medical coder.

As described in the scenario, medical coders sometimes need to write rebuttals to insurance companies who have denied insurance claims. In this capacity, they need to use clear, professional language to answer questions from the insurance company and/or defend the reason for billing for a specific service. Assign students to write a sample rebuttal to one or more of the following types of insurance denials:

a. The proper pre-authorization was not received for the service provided.
b. The claim is pending the receipt of medical records documenting the need for the service provided.
c. Services were rendered at a different location than the one that is registered by the provider.

Alternately, students can write a letter related to an insurance denial that has happened in their lives such as a doctor's visit or hospitalization where an insurance company denied them or someone else benefits. Remind students that a good appeal letter is factual, objective, clear, specific, grammatically correct, and provide adequate supporting documentation.

When student have finished their drafts, assign a peer reviewer for the stages of revising and editing.

Assessment

Use your own classroom or college writing rubric to assess student writing. Other sample rubrics you might want to review are:

- College Writing Rubric, Rio Salado College
- Grade 11 Writing Rubric, West Virginia Department of Education Teach 21
- Writing Rubric, Winona State University
- Rubric Examples, California State University, Bakersfield

Contextualized learning activities

1. Email writing/role play activity. Have students work in pairs, in which one plays the role of a doctor and the other the medical coder. Start with a case study/sample patient history such as one from the Happy Medical Coding website, or a simplified version. Review key vocabulary with students to be sure they understand the important elements of the case, or have them research medical terms on their own using an online dictionary such as the U.S. National Library of Medicine Medical Dictionary. Based on the information presented in the case, have the student playing the medical coder draft an email asking the doctor for clarifying information about the case to understand more fully what medical services were provided and should be billed. Have the other student peer edit the email and provide feedback. Then students switch roles and work from a new case study.

2. Ask students to complete the tutorial "Understanding Medical Words" from the National Institutes of Health. Then have them read a sample patient record with medical terminology and complete a KWL chart with regard to their understanding of the sample patient's diagnosis and the services provided. It may help them to use a medical dictionary such as the U.S. National Library of Medicine Medical Dictionary to help with any medical terminology that is new to them. Finally, in class, assign students to small groups based on the patient record reviewed and have them discuss and then summarize in writing the key elements of the case in concise, clear, grammatically correct language.

Contextualized test items

1. Ask students to read and respond to a sample insurance claim denial. Alternatively, give them a sample rebuttal letter and ask them how they would strengthen it.

2. Provide students with a sample patient record and have them "translate" the record into more accessible language.

Contextualized project

Possible ideas for a research project:

1. Assign students to research the frequency with which medical claims are denied and the most common reasons for denial and the role of the medical coder in having a high payment or denial rate from insurers. Synthesize/summarize the findings in writing to share with the rest of the class.
2. Outside of class, have students interview someone who is a medical coder to learn more about what is involved in the work on a daily basis, transcribe the interview and synthesize/summarize the findings to share with the class.

Additional or extension activities, multimedia, readings and/or resources

What is Medical Coding?

Medical Dictionary, U.S. National Library of Medicine

Instructor Adapted Classroom Materials

What's the Right Code? ABE Lesson Plan, Middlesex Community College, ABE/GED

What's the Right Code? ABE Lesson Plan, Middlesex Community College, ABE/GED

What's the Right Code? Lesson Plan, Middlesex Community College, ABE/GED

What's the Right Code? Lesson Plan, ABE/GED and ESL

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