

METHOD

The CCS-P job analysis involved a multi-method approach that included meetings with subject-matter experts and a survey. This section of the report describes the activities conducted for the CCS-P Job Analysis.

First, subject-matter experts identified the tasks and knowledge/skills they believe are important to the work performed by CCS-Ps. Then, a Web-based survey was developed and disseminated to CCS-Ps. The purpose of the survey was to obtain verification (or refutation) from a large number of knowledgeable professionals that the tasks and knowledge/skills identified by the subject-matter experts are important to their work.

Survey research functions as a “check and balance” on the judgments of the subject-matter experts and reduces the likelihood that unimportant areas will be considered in the development of the test specifications. The use of a survey is also an efficient and cost-effective method of obtaining input from large numbers of subject-matter experts and makes it possible for ratings to be analyzed separately by appropriate respondent subgroups.

The survey results provide information to guide the development of test specifications and content-valid certification examinations. What matters most is that a certification examination covers important knowledge needed to perform job activities.

The methodology used to conduct the job analysis is described in detail below and included the following steps:

1. Development of the CCS-P survey.
2. Dissemination of the CCS-P survey.
3. Analysis of the CCS-P survey data.
4. Development of the test specifications for the CCS-P Examination.

1. Development of the CCS-P Survey

Development of Draft Listing of Tasks and Knowledge

A draft list of task and knowledge/skills statements was developed based on the previous job analysis results.

Conduct of the Job Analysis Task Force Meeting

AHIMA convened a Task Force Committee comprised of a representative group of CCS-Ps. (See Appendix A.) The Task Force meeting was conducted April 11-12, at AHIMA headquarters in Chicago, IL. The purpose of the meeting was to develop the survey content. Prometric staff facilitated the meeting.

Prometric staff sent a pre-meeting mailing to the Task Force that included a document consisting of the meeting agenda, definition of job analysis, procedures for reviewing and revising the task and knowledge/skill statements, the preliminary listing of tasks and knowledge/skills, and a list of Task Force participants.

Activities conducted during the meeting included reviewing and revising the major domains and tasks and knowledge/skills that are necessary for competent performance by CCS-Ps. Survey rating scales also were approved.

Survey Construction and Review Activities

Survey Construction

After the Task Force Meeting, Prometric staff constructed the draft survey. The survey was designed for online delivery.

The following seven task and knowledge/skill domains were covered on the survey:

1. Health Information Documentation
2. ICD-9-CM Diagnosis Coding
3. CPT and HCPCS II Coding
4. Reimbursement
5. Data Quality and Analysis
6. Information and Communication Technologies
7. Compliance and Regulatory Issues

Survey Review by Task Force Committee

Each Task Force member was asked to review the online draft survey. The purpose of the review was to provide the Committee with an opportunity to view their work and recommend any revisions.

Comments were compiled by Prometric staff and reviewed with the Task Force members. Recommended refinements were incorporated, as appropriate, into the survey in preparation for the conduct of a pilot test.

Survey Pilot Test

The purpose of the small-scale pilot test was to have CCS-Ps who had no previous involvement in the development of the survey review it online and offer suggestions for its improvement.

AHIMA nominated CCS-Ps to participate in the survey pilot test. Pilot participants were asked to review the survey for clarity of wording, ease of use, and comprehensiveness of content coverage. Comments were compiled by Prometric and reviewed by Web conference with Task Force members. The survey was revised and finalized based on the review of the pilot test comments.

Final Version of the CCS-P Survey

The final version of the Internet-delivered survey consisted of five sections: Section 1: Background and General Information; Section 2: Tasks; Section 3: Knowledge/Skills; Section 4: Recommendations for Test Content; and Section 5: Comments.

In Section 1: Background and General Information, survey participants were asked to provide demographic and background information about themselves and their professional activities.

In Section 2: Tasks, survey participants were asked to rate the statements using the Importance and Performance scales shown below:

Importance: How important is competent performance of the task in your current position?

Response choices: 0=Of no importance, 1=Of little importance, 2=Of moderate importance, 3=Important, 4=Very important

Performance: Indicate whether you perform or supervise the work.

Response choices: 0=Neither perform or supervise the work, 1=Perform the work, 2= Supervise the work, 3= Both perform and supervise the work

In Section 3: Knowledge/skill, survey participants were asked to rate the statements using the Importance scale shown below:

Importance: How important is the knowledge/skill for competent performance in your current position?

Response choices: 0=Of no importance, 1=Of little importance, 2=Of moderate importance, 3=Important, 4=Very important

Survey participants were asked to indicate how well the statements covered the tasks and knowledge/skills within each domain. Respondents made their judgments using a five-point rating scale (1=Very Poorly, 2=Poorly, 3=Adequately, 4=Well, 5=Very Well). A write-in area was provided for respondents to note any areas that were not covered within a specific domain.

In Section 4: Recommendation for Test Content, survey participants were asked to indicate the weight (emphasis) that each of the seven Domains should receive on the examination:

1. Health Information Documentation
2. ICD-9-CM Diagnosis Coding
3. CPT and HCPCS II Coding
4. Reimbursement
5. Data Quality and Analysis
6. Information and Communication Technologies
7. Compliance and Regulatory Issues

This was accomplished by distributing 100 percentage points across the seven areas. These distributions represented the allocation of examination items survey participants believed should be devoted to each knowledge/skill area. These responses were used to tabulate the recommended test content weights.

In Section 5: Comments, survey participants were provided the opportunity to comments on the following:

- What additional professional development and/or continuing education could you use to improve your performance in your current work role?
- How do you expect your work role to change over the next few years? What tasks will be performed and what knowledge will be needed to meet changing job demands?

2. Dissemination of the CCS-P Survey

Prometric staff produced and disseminated a Web-based survey to 3,580 Certified Coding Specialists-Physician-based. The survey was released on May 31, 2007. Reminder emails were sent on June 20 and June 29. The survey was closed on July 2.

The invitation and the survey are provided in Appendix B. Response rates were calculated and communicated to AHIMA on an ongoing basis.

3. Analysis of the CCS-P Survey Data

As previously noted, the purpose of the survey was to validate the tasks and knowledge/skills that relatively large numbers of CCS-Ps judged to be relevant (verified as important) to their work.

These objectives are accomplished through an analysis of the mean importance ratings for tasks and knowledge/skills. The derivation of test specifications from those statements verified as important by the surveyed professionals provides a substantial evidential basis for the content validity (content relevance) of credentialing examinations.

The following quantitative data analyses were produced:

- Means, standard deviations, and frequency distributions for tasks and knowledge/skills importance ratings.
- Frequency percent distribution of the performance ratings.
- Means, standard deviations, and frequency distributions for tasks and knowledge/skills content coverage (domain) ratings.
- Means and standard deviations for test content recommendations.

Write-in comments were summarized regarding respondents' professional development needs and their expectations about how their work role will change over the next few years.

Criterion for Interpretation of Mean Importance Ratings

Since a major purpose of the survey is to ensure that only validated tasks and knowledge statements are included in the development of test specifications, a criterion (cut point) for inclusion needs to be established.

A criterion that has been used in similar studies is a mean importance rating that represents the midpoint between moderately important and important. For the importance rating scale used across many studies, the value of this criterion is 2.50.

It is believed that this criterion is consistent with the intent of content validity, which is to measure only important knowledge in the credentialing examination. Therefore, for the CCS-P Job Analysis, Prometric recommended the value of this criterion should be set at 2.50.

The task and knowledge statements were placed into one of three categories—Pass, Borderline, or Fail—based on their mean importance ratings:

- The Pass Category contains those statements whose mean ratings are at or above 2.50, and are considered eligible for inclusion in the development of test specifications.
- The Borderline Category contains those statements whose mean ratings are between 2.40 and 2.49. The Borderline Category is included to provide a point of discussion for the Test Specifications Committee to determine if the statement(s) warrant(s) inclusion in the test specifications.
- The Fail Category contains those statements whose mean ratings are less than 2.40. It is recommended that statements in the Fail Category be excluded from consideration in the test specifications.

Definition of Pass, Borderline and Fail Categories for Task and Knowledge Mean Ratings	
<u>Means</u>	
Pass:	At or above 2.50
Borderline:	2.40 to 2.49
Fail:	Less than 2.40

If the Test Specifications Committee believes that a statement rated below 2.50 should be included in the specifications and can provide compelling written rationales, those statements may be considered for inclusion. For example, although a task or knowledge/skill may have a mean rating of less than 2.50, more than 50.00% of the respondents may have rated the statement as important or very important. In this instance, the Test Specifications Committee might recommend the inclusion of the statement on the test specifications. The written rationale would note that a majority of the survey respondents rated the statement as important.

4. Development of Test Specifications for the CCS-P Examination

Two meetings were facilitated by the Prometric staff to develop the CCS-P test plan based on the job analysis results. The meetings were conducted by Web conference on August 6 and 7.

The meetings focused on:

- identifying the tasks and knowledge/skill statements that are important for inclusion on the CCS-P Examination;
- establishing the percentage test weights for each knowledge/skill domain on the CCS-P Examination. These percentage test weights are used to guide examination development activities; and,
- linking task and knowledge/skill statements to verify that knowledge tested on the CCS-P Examination is related to the performance of important tasks; thereby further establishing the defensibility of CCS-P Examination content. Linking also provides items writers with useful information they can use to develop questions that test knowledge relevant to the performance of tasks.

RESULTS

Survey Response Rate

A total of 1,279 (35.73%) invited participants submitted surveys. Based on the analysis of survey responses, a representative group of CCS-Ps completed the survey in sufficient numbers to well meet the requirements for statistical analysis of the results.

Table 1. Response Rates for the CCS-P Job Analysis Survey

No. of Surveys Disseminated	Number of Surveys Submitted	Percent of Surveys Submitted
3,580	1,279	35.73%

Demographic Characteristics of Survey Respondents

Information provided by respondents to the background information section of the surveys is summarized below (See Appendix C for details).

CCS-P Credentials: The CCS-P certification was awarded to 20.63% of the respondents between 1997-1999; 42.46% between 2000-2003; and 36.90% between 2004-2007.

Primary Work Setting: The top three work settings reported by respondents were hospital with 17.98% response, physician office with 17.75% response and multi-hospital system with 14.39% response.

Job Title: The top two job titles were coder (27.76%) and coder/biller/reimbursement specialist (17.67%).

Geographic Region: All regions of the United States were represented among the survey respondents.

Years Performing Coding: The majority (53.01%) have been coding for more than 10 years.

Percentage of Time Spent Coding: Approximately half of the respondents (50.43%) spend at least 70% of their time coding.

Highest Academic Educational Attainment: The majority of respondents reported that they have completed an Associate's Degree Program (28.15%) or hold a Bachelor's Degree (25.25%).

Gender: The majority of respondents are female (96.39%).

Mechanism for reviewing health records: The majority of respondents (57.86%) reported that they use a hybrid (combination of both paper and electronic) mechanism for reviewing health records.

Primary Tools: While a large number of respondents (29.24%) use encoders (logic-based code output software), the majority of respondents (62%) reported that they primarily use codebooks to assign and/or validate codes.

Task and Knowledge Ratings by Overall Group of Respondents

The following provides a summary of survey respondents' ratings of the tasks and knowledge statements.

Tasks

Means and standard deviations for the tasks included on the survey are provided in Appendix D for the overall group of respondents. Table 2 provides a summary of the tasks that were placed in Pass, Borderline, and Fail categories by domain.

Thirty-six of the 44 tasks (82%) achieved high means (at or above 2.50, the Pass Category). One of the tasks (2%) had a mean between 2.40 and 2.49 (Borderline Category). This task was in Domain 3: CPT and HCPCS II Coding. A total of seven tasks (16%) achieved means of less than 2.40 (Fail Category). Three of these tasks were in Domain 3: CPT and HCPCS II Coding; four were in Domain 4: Reimbursement.

Table 2. Task Statements by the Pass, Borderline and Fail Categories

Tasks	No. of Tasks	Pass (2.50 of Above)	Borderline (2.40 to 2.49)	Fail (Less than 2.40)
1. Health Information Documentation	6	6	0	0
2. ICD-9-CM Diagnosis Coding	3	3	0	0
3. CPT and HCPCS II Coding	12	8	1	3
4. Reimbursement	8	4	0	4
5. Data Quality and Analysis	5	5	0	0
6. Information and Communication Technologies	2	2	0	0
7. Compliance and Regulatory Issues	8	8	0	0
Total	44	36	1	7
Percent	--	82%	2%	16%

Knowledge/Skills

Table 3 provides a summary of the knowledge/skills that were placed in Pass, Borderline, and Fail categories by domain for the overall group of respondents. Means and standard deviations for the knowledge/skills statements included on the survey are presented in Appendix E.

Fifty-four of the 64 knowledge/skills (84%) achieved high means (at or above 2.50, the Pass Category). Two of the three knowledge/skills (5%) in the Borderline Category were in Domain 4: Reimbursement and one was in Domain 5: Data Quality and Analysis. Four of the knowledge/skills in the Fail Category were in Domain 4: Reimbursement, three in Domain 5: Data Quality and Analysis for a total of seven (11%).

Table 3. Knowledge/Skill Statements by the Pass, Borderline, and Fail Categories

Knowledge/Skills	No. of Knowledge/Skills	Pass (2.50 of Above)	Borderline (2.40 to 2.49)	Fail (Less than 2.40)
1. Health Information Documentation	12	12	0	0
2. ICD-9-CM Diagnosis Coding	6	6	0	0
3. CPT and HCPCS II Coding	8	8	0	0
4. Reimbursement	14	8	2	4
5. Data Quality and Analysis	7	3	1	3
6. Information and Communication Technologies	11	11	0	0
7. Compliance and Regulatory Issues	6	6	0	0
Total	64	54	3	7
Percent	--	84%	5%	11%

Subgroup Analysis of Tasks and Knowledge Ratings

The index of agreement is a measure of the extent to which subgroups of respondents agree on which tasks and knowledge statements are important. Using the mean importance ratings for task and knowledge statements, indices of agreement were computed:

- If the subgroup means are above the critical importance value (mean ratings at or above 2.50), then they are in agreement that the content is important.
- If the subgroup means are below the critical importance value (mean ratings less than 2.50), then the subgroups are in agreement that the content is considered less important.
- By contrast, if one subgroup's (for example, female) mean ratings are above the critical importance value and another subgroup's (for example, male) means are below the critical importance value then the subgroups are in disagreement as to whether the content is important.

The index of agreement provides a method of computing the similarity in judgments between groups that is more tailored to the purpose of a job analysis than the correlation coefficient. Although the correlation coefficient measures the tendency toward agreement along the full range of possible ratings, the agreement index focuses on whether two groups agree that the content should (or should not) be included in an examination.

As one of the major purposes of this job analysis is to identify appropriate test content, the agreement index provides a statistical method to address this question at the subgroup level. Furthermore, the agreement index requires only 30 respondents per subgroup for computation, whereas the correlation coefficient requires at least 100 respondents per subgroup to provide a reliable measure of agreement.

An illustrative example for two groups on a survey with 100 knowledge statements shows how the index is computed. If two groups passed the same 96 knowledge statements and failed the same 2 knowledge areas (out of the 100 total knowledge areas in the survey), the consistency index would be computed as: $Agreement = (96 + 2)/100 = 0.98$

The index of agreement coefficients for tasks and knowledge are provided in Appendix F. For most of the subgroup analyses, there was a high level of agreement among respondents regarding the importance of both tasks and knowledge. One exception to this statement occurs in the work setting subgroup analysis. There is low agreement between those that selected Ambulatory Care facility and the other subgroups. Likewise among the subgroups for the job function agreement, some groups had a moderate level of agreement. The most notable exception occurred with the question about percent of time spent coding. Those that are not coding at all had very low agreement on the tasks and moderate agreement on the importance of the knowledge statements. Because the focus of this test on primarily on coding requirements, it was determined that additional analyses were not required.

Content Coverage Ratings

The survey participants were asked to indicate how well the statements within each of the task and knowledge domains covered important aspects of that area. These responses provide an indication of the adequacy (comprehensiveness) of the survey content.

The five-point rating scale included 1=Very Poorly, 2=Poorly, 3=Adequately, 4=Well and 5=Very Well. The means and standard deviations for the task and knowledge ratings are provided in Tables 4 and 5. For the task domains, the means ranged from 4.22 to 4.35. The means across the knowledge/skill domains ranged from 4.24 to 4.43. These means provide supportive evidence that the tasks and knowledge were comprehensive and well-covered on the survey.

In addition, survey respondents were offered the opportunity to add task or knowledge statements that they believed that had been omitted. The test specifications committee considered these comments and made no additions to the tasks or knowledge statements.

Table 4. Means and Standard Deviations of Task Content Coverage

Task Domain	Mean	SD
1. Health Information Documentation	4.34	0.75
2. ICD-9-CM Diagnosis Coding	4.22	0.77
3. CPT and HCPCS II Coding	4.29	0.75
4. Reimbursement	4.28	0.75
5. Data Quality and Analysis	4.35	0.73
6. Information and Communication Technologies	4.23	0.77
7. Compliance and Regulatory Issues	4.31	0.73

Table 5. Means and Standard Deviations of Knowledge/Skills Content Coverage

Knowledge/Skills Domain	Mean	SD
1. Health Information Documentation	4.39	0.73
2. ICD-9-CM Diagnosis Coding	4.43	0.70
3. CPT and HCPCS II Coding	4.42	0.72
4. Reimbursement	4.36	0.72
5. Data Quality and Analysis	4.24	0.77

6. Information and Communication Technologies	4.32	0.73
7. Compliance and Regulatory Issues	4.39	0.73

CCS-P Examination Content

In survey Section 4: Recommendations for Test Content, participants were asked the following question: “If a new examination contains 100 questions, how many questions should be indicated in each knowledge/skill area?” This information was shared with the Test Specifications Committee as confirmation that their decisions about the weight of the test content domains.

The mean weights across all survey respondents are presented in Table 6. On average, survey respondents gave the highest content weightings to CPT and HCPCS II Coding (27.31%) and ICD-9-CM Diagnostic Coding (25.78%) whereas Information and Communication Technologies (6.39%) and Data Quality and Analysis (7.43%) received the lowest content weightings.

Table 6. Survey Respondents’ Test Content Recommendations by Mean Percentages and Standard Deviations

Domain	Mean %	SD %
1. Health Information Documentation	14.16	7.19
2. ICD-9-CM Diagnostic Coding	25.78	7.69
3. CPT and HCPCS II Coding	27.31	9.06
4. Reimbursement	9.78	5.65
5. Data Quality and Analysis	7.43	4.01
6 Information and Communication Technologies	6.39	3.74
7. Compliance and Regulatory Issues	9.61	5.09

Write-In Comments

Many survey respondents provided responses to the open-ended questions about their professional development needs and/or expected changes in their role as a practitioner over the next few years. The comments are presented in Appendix G.

DEVELOPMENT OF TEST SPECIFICATIONS FOR THE CCS-P EXAMINATION

As previously noted, the CCS-P Test Specifications were developed in August 2007 using the survey results. Decisions made by the Test Specifications Committee regarding the knowledge/skill statements to be included in (or excluded) from the test specifications were based on a careful review of the survey results.

Development of Test Content Weights for the CCS-P Examination

The Test Specifications Committee participated in an exercise that required each member to individually assign a percentage weight to each of the knowledge/skills domains. The Committee members were able to compare the test content weights derived from the survey responses to their own estimates. This resulted in a productive discussion among the Committee members regarding the optimal percentages for the multiple-choice and coding portions of the Examination.

Table 7 shows the: recommended percentage weights by domain; number of knowledge/skill areas included in each domain and the number of items in each domain.

Table 7. CCS-P Test Content Weights Recommended by the CCS-P Test Specifications Committee

Domains	Domain %	Part 1 Knowledge Number of Operational Items	Part 2 Coding Number of Operational Items	No. of Knowledge/Skills
1. Health Information Documentation	18	9	0	12
2. ICD-9-CM Diagnosis Coding	24	12	8	6
3. CPT and HCPCS II Coding	24	12	8	8
4. Reimbursement	8	4	0	14
5. Data Quality and Analysis	10	5	0	7
6. Information and Communication Technologies	6	3	0	11
7. Compliance and Regulatory Issues	10	5	0	6
Total	100.00	50	16	64

Once the committee had agreed to the final weights, they also established the ideal number of items by cognitive level. This ideal has been converted to a range around that ideal because of updated AHIMA policy.

Table 8 shows the ideal and the blueprint ranges for the cognitive level specifications..

Table 8. CCS-P Exam Cognitive Levels

Test Content Recommendations	Recall		Application		Analysis	
	Ideal	Range	Ideal	Range	Ideal	Range
1. Health Information Documentation	3	2-4	3	2-4	3	2-4
2. ICD-9-CM Diagnosis Coding	4	3-5	8	6-10	0	0
3. CPT and HCPCS II Coding	4	3-5	8	6-10	0	0
4. Reimbursement	2	1-3	1	0-1	1	0-1
5. Data Quality and Analysis	2	1-3	1	0-1	2	1-3
6. Information and Communication Technologies	2	1-3	1	0-1	0	0
7. Compliance and Regulatory Issues	2	1-3	1	0-1	2	1-3
Total	19	12-26	23	14-28	8	4-11

Test Specifications Task Force Results

Following is a listing of the tasks and knowledge/skills that the Test Specifications Committee recommended for inclusion in the CCS-P test specifications.

Table 9. Approved Tasks for the CCS-P Test Specifications

Tasks Recommended for Inclusion in the CCS-P Test Specifications
Domain 1. Health Information Documentation
1.1. Locate appropriate source documents within the health record for coding or data collection
1.2. Interpret health record documentation using knowledge of anatomy, physiology, clinical disease processes, pharmacology, and medical terminology to identify codeable diagnoses and/or procedures
1.3. Determine when additional clinical documentation is needed to assign and/or validate the diagnosis and/or procedure code(s)
1.4. Consult with/query physicians and/or non-physician practitioners when additional information is needed for coding and/or to clarify conflicting or ambiguous information
1.5. Consult clinical reference materials to enable interpretation of health information documentation
1.6. Determine those elements of the documentation that are extraneous or unnecessary for coding purposes
Domain 2. ICD-9-CM Diagnosis Coding
2.1. Apply ICD-9-CM conventions, formats, instructional notations, tables, and definitions to select diagnoses, conditions, problems, or other reasons for the encounter
2.2. Assign ICD-9-CM code by applying "Diagnostic Coding and Reporting Guidelines for Outpatient Services (Hospital-Based and Physician Office)"
2.3. Consult AHA Coding Clinic to assist in proper assignment of diagnostic codes
Domain 3. CPT and HCPCS II Coding
3.1. Apply CPT guidelines, format, and instructional notes to select services, procedures, and supplies that require coding
3.2.a. Assign CPT code(s) for procedures and/or services rendered during the encounter :Evaluation and Management (E/M) services
3.2.b. Assign CPT code(s) for procedures and/or services rendered during the encounter :Anesthesia
3.2.c. Assign CPT code(s) for procedures and/or services rendered during the encounter :Surgery
3.2.d. Assign CPT code(s) for procedures and/or services rendered during the encounter :Radiology

Tasks Recommended for Inclusion in the CCS-P Test Specifications
3.2.e. Assign CPT code(s) for procedures and/or services rendered during the encounter :Pathology and Laboratory
3.2.f. Assign CPT code(s) for procedures and/or services rendered during the encounter :Medicine
3.2.g. Assign CPT code(s) for procedures and/or services rendered during the encounter :Category III
3.3. Apply HCPCS II guidelines and instructional notes to select services, procedures, drugs and supplies that require coding
3.4. Assign HCPCS II codes for services, procedures, drugs and/or supplies provided
3.5. Append modifiers to CPT and/or HCPCS II codes when applicable
4. Reimbursement
4.1. Create and maintain encounter form or charge tickets and/or electronic equivalents
4.2. Apply bundling and unbundling guidelines (e.g., National Correct Coding Initiative [NCCI])
4.3. Apply reimbursement methodologies for billing and/or reporting (e.g., OIG, CMS, Federal Register)
4.4. Link diagnosis code to the associated procedure code for billing or reporting
4.5. Identify, post and submit charges for healthcare services based on documentation and payer guidelines
4.6. Evaluate payer remittance or payment (e.g., RA, EOB, EOMB) reports for reimbursement and/or denials
4.7. Process claim denials and/or appeals
5. Data Quality and Analysis
5.1. Validate accuracy and completeness of coded data by comparing the documentation to the encounter form or electronic equivalent
5.2. Assess the quality of coding and billing using generated reports
5.3. Verify the accuracy and completeness of the data on the claim
5.4. Conduct coding and billing audits for compliance and trending
5.5. Educate health care providers and/or staff regarding reimbursement methodologies, documentation rules and regulations related to coding
6. Information and Communication Technologies
6.1. Use computer systems to ensure data collection, storage, analysis and reporting of information
6.2. Use common software applications (e.g., word processing; spreadsheets; email; encoders) in the execution of work processes
7. Compliance and Regulatory Issues
7.1. Apply policies and procedures for access and disclosure of personal health information
7.2. Release patient-specific data to authorized individuals
7.3. Apply AHIMA Code of Ethics/Standards of Ethical Coding
7.4. Recognize/report privacy issues/problems
7.5. Protect data integrity and validity using software or hardware technology
7.6. Participate in the development of coding policies to ensure compliance with official coding rules and guidelines
7.7. Evaluate the accuracy and completeness of the patient record as defined by organizational policy and external regulations and standards (e.g., signature, teaching physician rules, PA co-sign requirements)
7.8. Recognize/report compliance concerns/findings

During the test specification process, two tasks from the list were deleted. From Section 3.2, ‘Assign CPT code(s) for procedures and/or services rendered during the encounter :Category II’ and from Section 4, ‘Manage the physician’s fee schedule (e.g., code maintenance and pricing)’.

The CCS-P Examination consists of two parts. Part 1 is a multiple choice test. Part 2 is a case-based constructed response test in which candidates are required to input the appropriate codes based on the information provided in the cases. The table below indicates whether it should be included in Part 1 and/or Part 2.

Table 10. Approved Knowledge/Skills for the CCS-P Test Specifications

Knowledge/Skills Recommended for Inclusion in the CCS-P Test Specifications	Multiple Choice	Case
1. Health Information Documentation		
1.1 Standards of a health record (e.g., signatures, legibility, patient name, MRN)	x	
1.2 Contents of a health record (e.g., history, physical)	x	
1.3 Clinical concepts:		
1.3a. Medical terminology and abbreviations	x	
1.3b. Anatomy and physiology	x	
1.3c. Pharmacology	x	
1.3d. Clinical findings	x	
1.3e. Signs and symptoms	x	
1.3f. Pathophysiology	x	
1.4. Location of appropriate source documents	x	
1.5. Roles and responsibilities of Health Care Professionals (e.g., who can document in a medical record; who is a billable provider)	x	
1.6. Documentation requirements for type of service (e.g., consult, critical care, observation, certifications)	x	
1.7. Documentation requirements for place of service (e.g., physician's office; inpatient/outpatient; forms used that are specific to a place such as discharge summary, MAR, H&P)	x	
2. ICD-9-CM Diagnosis Coding		
2.1. How to navigate ICD-9-CM (e.g., tabular vs. index)	x	x
2.2. Coding conventions (e.g., formats, symbols)	x	x
2.3. Diagnostic coding and reporting guidelines for outpatient services	x	x
2.4. AHA Coding Clinic content and use	x	x
2.5. How to translate medical terminology and/or documentation to ICD-9-CM code assignment	x	x
2.6. How to use reference materials to support code assignment (e.g., ICD-9-CM Coding Handbook [ed. Faye Brown]; Merck Manual)	x	x
3. CPT and HCPCS II Coding		
3.1. How to navigate CPT manual	x	x
3.2. Coding conventions (e.g., formats, symbols)	x	x
3.3. Application of CPT section and instructional notes	x	x
3.4. E/M code assignment (e.g., key components/contributing factors)	x	x
3.5. How to navigate HCPCS II	x	x
3.6. Modifiers: HCPCS Level I and Level II	x	x
3.7. AMA CPT Assistant content and use	x	x

Knowledge/Skills Recommended for Inclusion in the CCS-P Test Specifications	Multiple Choice	Case
3.8. How to use reference materials to support code assignment (e.g., Coders' Desk Reference; Insiders' View; CPT Changes)	x	x
4. Reimbursement		
4.1. CMS Claims Processing Manual content and use	x	
4.2. How payer specific guidelines impact reimbursement (e.g., Medicare, local coverage determinations)	x	
4.3. Clinical Laboratory Improvement Act (CLIA) (e.g., waived tests, modifier use)	x	
4.4. RBRVS and Medicare physicians' fee schedule database	x	
4.5. Participating versus non-participating (PAR vs. non-PAR) billing requirements	x	
4.6. Claim form data elements	x	
4.7. HIPAA designated code sets	x	
4.8. Linking for medical necessity	x	
4.9. National Correct Coding Initiative (NCCI) content and use	x	
4.10. How to interpret payment reports (e.g. RA; EOB)	x	
4.11. Use of Advanced Beneficiary Notice (ABN)	x	
4.12. Claims denial and appeal process	x	
4.13. Basic insurance terminology (e.g., co-pay; co-insurance; deductible; primary payer)	x	
4.14. Basic accounting terminology (e.g., accounts receivable; write-offs)	x	
5. Data Quality and Analysis		
5.1. How to select a data sample	x	
5.2. How to review and compare documentation and data elements	x	
5.3. How to analyze audit results	x	
5.4. How to display data and results	x	
5.5. Technical report writing	x	
5.6. Oral presentation of audit results	x	
5.7. How to obtain benchmarking data (e.g., CMS or state utilization data; specialty specific data)	x	
6. Information and Communication Technologies		
6.1. Basic computer concepts (e.g., hardware; software; firewall; encryption)	x	
6.2. Common software applications:	x	
6.2a. Word processing	x	
6.2b. Email	x	
6.2c. Spreadsheets	x	
6.2d. Presentation tools	x	
6.2e. Databases	x	
6.3. Internet technology (search engines)	x	

Knowledge/Skills Recommended for Inclusion in the CCS-P Test Specifications	Multiple Choice	Case
6.4. Electronic Health Records content and use	x	
6.5. Coding, Billing, and Claims Submission Software:	x	
6.5a. Claim scrubbers	x	
6.5b. Code look-up software	x	
6.5c. Encoder (logic-based code output software)	x	
7. Compliance and Regulatory Issues		
7.1. HIPAA privacy rules	x	
7.2. HIPAA security rules	x	
7.3. Definition of fraud	x	
7.4. Definition of abuse	x	
7.5. OIG Elements of a compliance program	x	
7.6. AHIMA Code of Ethics	x	

Linkage of Task and Knowledge/Skill Statements

Task and knowledge/skills linking verifies that each knowledge/skill area included on an examination is related to the competent performance of important tasks. As such, linking documents the content validity of the tasks included in the test specifications. (See Appendix I.)

Linking does not require the production of an exhaustive listing; rather, task-knowledge/skill links are developed to ensure that each knowledge is identified as being related to the performance of at least one, or in most cases several, important tasks.

Linking also provides guidance for item-writing activities. When item writers develop questions for specific task domains, they have a listing of knowledge/skills that relate to the tasks. This provides context for developing examination questions, and assists the item writers in question design.

SUMMARY AND CONCLUSIONS

The CCS-P Job Analysis was conducted to:

- identify and validate tasks and knowledge/skills important in the work performed by CCS-Ps;
- create test specifications that may be used to develop new versions of the CCS-P Examination;
- identify important professional development needs and anticipated changes in the CCS-P's work role.

The tasks and knowledge/skill statements were developed through an iterative process involving the combined efforts of AHIMA, subject-matter experts, and Prometric staff. The inventory was then put into survey format and subjected to verification/refutation through the dissemination of a survey to CCS-Ps.

The survey participants were asked to rate the importance of performing specific tasks in their respective current positions, whether they perform and/or supervise the performance of the various tasks and the importance of specific knowledge/skill to perform their job tasks.

The results of the job analysis support the following:

- The tasks and knowledge/skill verified as important through the survey provided the foundation of empirically derived information from which to develop test specifications for the CCS-P Examination.
- Evidence was provided in this job analysis that the comprehensiveness of the content within the task and knowledge/skill domains was adequately covered.
- A variety of professional development needs was identified as well as expected changes in job activities over the next few years. AHIMA can use this information as it reviews and revises its continuing education initiatives.

In summary, the CCS-P Job Analysis took a multi-method approach to identifying the tasks and knowledge/skill important to the work performed by CCS-Ps. The results of the study can be used to develop: 1) new versions of the CCS-P Examination and 2) professional development initiatives.