

## EXECUTIVE SUMMARY

The National Asthma Educator Certification Board (NAECB) conducted this study to identify critical tasks performed by asthma educators at the entry level. Therefore, this was a job analysis study. Study results were intended to facilitate continued development of a credentialing examination program sponsored by the NAECB. The study was done in 2008 and was the second study of this job.

Members of a Job Analysis Committee (JAC) supervised data gathering and results evaluation phases of the study. Committee members represented the NAECB examination program and stakeholders outside the NAECB. Committee members represented regions across the country and varying practice settings. The JAC set test specifications and identified tasks included on the detailed content outline of the examination.

The study was conducted in phases including survey development, distribution, and response analyses. The JAC developed tasks and background questions included on the survey. The JAC chose strategies for sampling survey respondents after consulting with the staff of Applied Measurement Professionals, Inc. (AMP). The Committee created exclusion rules by which tasks were classified as critical or uncritical for competent performance. The Committee also developed item distributions for a test specifications table as the final step of the study.

AMP sent emails to 2,958 subject matter experts that gave them the opportunity to access the electronic survey. Sample members who received survey invitations were selected from the following populations:

- Asthma educators holding the credential as of 12/20/2007 (n=2168)
- Asthma educators who had attempted, but not passed the credentialing examination as of 12/20/2007(n=617)
- Asthma educators who had not attempted the credentialing exam as of 12/20/2007 (n=173)

AMP sent a reminder email three weeks after sending the first message. Of these, 576 were returned as undeliverable, and three were returned by individuals who were not asthma educators, yielding 2, 379 valid invitations

A volunteer sample of 506 people visited the web-based survey in response to the invitation. A set of survey responses was considered valid when at least 50% of the tasks included in the survey were rated. Following this criterion, 69 responses were deleted from the data set, yielding 437 usable survey responses. The corrected response rate was 18.0%, which is a rate typically observed at AMP for these studies.

Of those who responded to a question about the adequacy of the task list in describing the job domain, 97.3% found the list complete or adequate. The lowest intraclass correlation value associated with task ratings by major content areas was .93. Therefore, these respondents used the task rating scale with a very high level of reliability, projecting quite similar results to other potential samples from the population. Coefficient alpha values for all major content areas exceeded .90; indicating respondents consistently rated tasks within each content area, which indicated tasks were logically organized within the outline.

After examining task-rating results, the Committee established exclusion rules designed to narrow the list of 149 tasks to only those that were critical to job success. These rules were designed to identify extensively performed and highly important tasks. Such tasks were labeled as critical for asthma educators at the entry level. Applying these exclusion rules retained 145 tasks across 4 major content areas. Subsumed under these 4 major content areas were 14 minor domains for which examination items were specified.

The Committee decided that 150 items per test form would continue to sufficiently cover critical content. The test specifications table was developed to distribute these 150 items across major and minor content domains as well as three levels of cognitive complexity. Cognitive complexity dimensions were defined for each critical task according to job conduct by consensus among JAC members so items linked to the content outline would closely align with complexities of entry level technician competencies. Therefore, test scores should reflect critical job content and complexity.