



## DEVELOPING THE CANADIAN REGISTERED NURSE EXAMINATION

*This bulletin is the eighth of a series to keep you informed of issues related to the Canadian Registered Nurse Examination (CRNE). It describes the process to develop the exam and the people who make it happen.*

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Developing the CRNE requires organization and collaboration. The rigorous development process is overseen by the Canadian Nurses Association (CNA) and guided by a team of test development professionals at Assessment Strategies Inc. (ASI). In addition, the jurisdictions that use the exam collaborate on its development, and volunteer nurses provide clinical expertise. The goal of this collaboration is to create a valid, reliable and defensible licensure/registration exam.

Like most construction projects, the CRNE depends on a blueprint. The blueprint for the CRNE not only guides its development, but it also ensures a solid foundation. Equally important are the building blocks, or the multiple activities that produce a credible exam, and the personnel involved in the construction.

### FOUNDATION

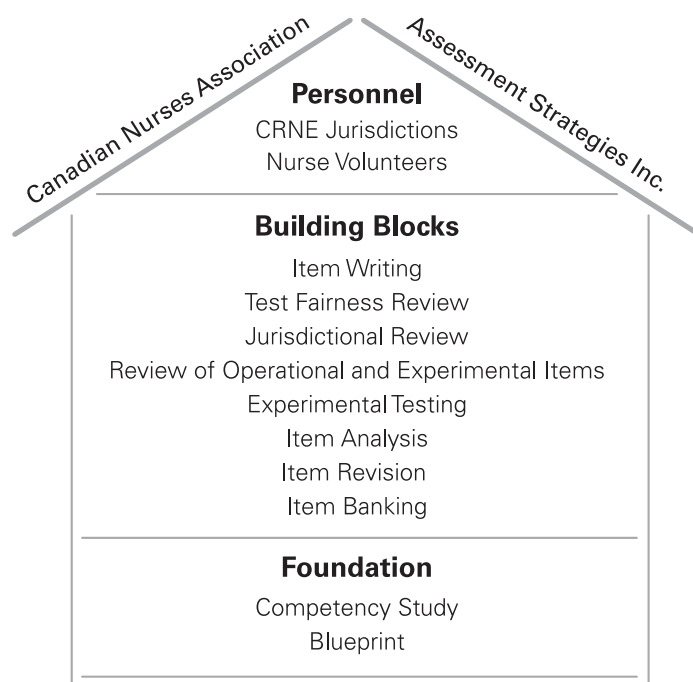
In addition to the blueprint, the exam is based on a competency study. Together, these two components form a solid foundation for the steps that follow. The competencies and the blueprint are developed for five-year cycles and are revised as necessary during that interval to reflect changes in nursing practice. This foundation takes approximately 1.5 years to develop.

### COMPETENCY STUDY

A committee of representatives from each jurisdiction completes the competency study by reviewing the knowledge, skills, abilities, attitudes and judgment required for safe and effective nursing practice. These competencies are the starting point for developing exam questions. Competencies are validated based on their applicability and importance as well as how frequently they are required in the practice of the entry-level nurse. The June 2005-May 2010 CRNE assesses 194 competencies.

### BLUEPRINT

Each jurisdiction designates a representative to participate on a committee to develop an outline of the contents to be tested on the CRNE – this outline becomes the CRNE blueprint. The blueprint builds on the competencies and defines specific variables and weightings used



Developing the Canadian Registered Nurse Examination



to develop the exam. For example, structural variables include the exam length, question presentation, question format and taxonomies (knowledge, application, critical thinking and affective attributes).

## **BUILDING BLOCKS**

The CRNE building blocks are essential activities for developing the exam that uphold its validity and reliability. These building blocks include item (question) writing, a test fairness review, a jurisdictional review, experimental testing, item analysis and item banking. It takes approximately 1.5 years from the time an item is written to the time it is placed in the item bank.

### **ITEM WRITING**

Groups of nurse volunteers from across the country meet in Ottawa to compose exam questions during what is called an “item writing session.” Multiple-choice and short-answer questions are developed to measure the competencies and fulfill the requirements of the blueprint. Experienced nurses write the questions, drawing on nursing content expertise they have achieved through clinical, educational and administrative work. Approximately six English and six French item writing sessions occur annually.

### **TEST FAIRNESS REVIEW**

A test fairness review is conducted to ensure that candidates are not disadvantaged by the CRNE content due to minority status or stereotypes. Representatives from minority groups review the exam questions and provide feedback.

### **JURISDICTIONAL REVIEW**

To make the CRNE a truly national exam, the jurisdictions designate qualified nurses to review exam items for consistency with current standards of practice for entry-level nurses in their province/territory.

### **EXPERIMENTAL TESTING**

Before an exam item becomes an operational item (an official exam question), it appears as an experimental question on the exam. The experimental questions are evaluated to determine if they could be used on future exams. These questions are not identified on the exam nor are they included in the candidates’ final results.

### **ITEM ANALYSIS**

ASI and the examination committee, which includes nursing representatives from each jurisdiction, use statistical data to evaluate how candidates perform on the experimental items to ensure reliability and validity. If the performance is deemed statistically unreliable, then the item is sent back to the item writers for revision. If the performance is reliable and acceptable, the committee considers the experimental item for use on the exam.

## **REVIEW OF OPERATIONAL AND EXPERIMENTAL ITEMS**

The examination committee reviews each of the items in both official languages to verify that they are current, reflect nursing practice in all the jurisdictions and meet the specifications of the blueprint. CNA approves the items and the exam based on recommendations from the examination committee.

### **ITEM REVISION**

Exam items may require revision before they can be approved for the CRNE. Reasons for revision include performance that did not meet the established statistical criteria or content issues identified by the test fairness review, the jurisdictional review or the examination committee.

### **ITEM BANKING**

Exam items are stored in an item bank – a question database secured by the testing company. The item bank is drawn upon should a new or replacement question be required to test a particular competency.

## **PERSONNEL**

The CRNE personnel provide the energy and commitment to make it all happen. Exam development volunteers must meet CNA’s terms of reference criteria. To protect the integrity of the exam, all those involved in its development must sign and honour a security agreement which stipulates that all CRNE information is to be kept confidential.

### **JURISDICTIONS**

Representatives from all the provinces and territories (except Quebec) are involved in the CRNE development process so the exam captures a national nursing perspective.

### **NURSE VOLUNTEERS**

Nurse leaders active in the profession contribute their time and expertise at every step. The CRNE is an exam for nurses – created by nurses.

Developing the CRNE is a comprehensive and ongoing process. The essential steps described here and the involvement of nursing experts from across the country contribute to a reliable and valid national exam.



The CRNE Bulletin is published by the Regulatory Policy department of the Canadian Nurses Association.

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