



NCLEX-RN 2015: performance of Nova Scotia graduates

College of Registered Nurses of Nova Scotia

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Introduction

As the regulatory body for registered nurses in Nova Scotia, the College of Registered Nurses of Nova Scotia (CRNNS) is accountable to the public for ensuring that nurses are safe, competent, ethical, and compassionate practitioners throughout their career – including as new nurses entering the profession. To demonstrate that they possess the knowledge, skill, and judgment to provide safe nursing care, nursing graduates must pass an entry-to-practice exam, the NCLEX-RN, prior to becoming licenced with CRNNS.

Nova Scotia has had an entry-to-practice exam in place for over 50 years. While the introduction of the NCLEX-RN in 2015 replaced the previous exam’s paper and pen format with computer adaptive technology, the purpose of the exam remains the same: to test a nursing graduate’s ability to provide safe nursing care.

We now have access to a full year of data since the introduction of the NCLEX-RN. This report, along with the companion report, *NCLEX-RN 2015: Canadian Results*, provides the public with a clear statistical analysis of the performance of the Canadian and Nova Scotian graduates who attempted the NCLEX-RN in 2015.

Nova Scotians need to receive safe and quality nursing care from competent registered nurses at all stages of their career. We believe the comprehensive analysis contained in this report demonstrates that the overwhelming majority of Nova Scotia nursing graduates have the ability to meet the demands of nursing practice in Nova Scotia.

Sincerely,
Sue Smith, RN, BN, MAOL
CRNNS CEO & Registrar

Background on the NCLEX-RN

This report provides statistics on the performance of graduates of Nova Scotia nursing education programs who wrote the NCLEX-RN in 2015 as a part of their registration/licensure application process with a provincial or territorial RN regulator in Canada. The report includes only attempts made on the NCLEX-RN. Any attempts at the nursing regulator's exam in years prior to 2015 are not included here.

The “ultimate” pass rate displayed in this report measures the percentage of graduates who wrote the exam during 2015 and had passed the exam by their latest attempt in 2015. It indicates how many graduates passed the NCLEX-RN during 2015, and are therefore available to the health care workforce (pending completion of all other registration/licensure requirements). See “How the 2015 first-attempt and ultimate pass rates is calculated” section in the *NCLEX-RN 2015: Canadian Results* report for more information on pass rates and how they are determined.

Nova Scotia results

The 393 Nova Scotia graduates who wrote NCLEX-RN in 2015 represented 4.3% of graduates nationally. Of this total, 89.1% succeeded at passing the exam by the end of 2015.

Table 1. NCLEX-RN ultimate pass rate of Nova Scotia graduates in 2015

	PASSED	FAILED	TOTAL WRITERS	ULTIMATE PASS RATE
<i>Number of graduates and ultimate pass rate</i>	350	43	393	89.1%

Table 2. NCLEX-RN number of attempts taken by Nova Scotia graduates in 2015

	PASSED	FAILED	TOTAL WRITERS	PASS RATE ON THIS ATTEMPT
<i>First attempt</i>	298	95	393	75.8%
<i>Second attempt</i>	50	32	82	61.0%
<i>Third and fourth attempt¹</i>	*	*	*	50.0%

1st attempt: Of 393 Nova Scotia graduates who wrote the NCLEX-RN in 2015, 298 (75.8%) passed the exam on their first attempt, and 95 were unsuccessful.

2nd attempt: Of those 95 who were unsuccessful on their first attempt, 82 attempted the exam for the second time, with 50 (or 61%) passing.

3rd attempt: Of the 32 graduates who did not pass on their second attempt, less than 5 attempted the exam for the third time, with 50% succeeding, and the remaining 50% failing.

Ultimate result: of 393 Nova Scotia graduates who wrote NCLEX-RN in 2015, 89.1% passed the exam by the end of 2015.

¹ To protect the privacy and confidentiality of Nova Scotia graduates, values between one and four have been suppressed in this report and replaced by an asterisk (*).

Exam duration statistics

Writers of the NCLEX-RN answer from a minimum of 75 questions to a maximum of 265 questions. For most writers, the computer program will stop asking questions once the program has calculated with 95% certainty that the writer is clearly above or below the passing standard (see “How a pass or fail is determined” section in the *NCLEX-RN 2015: Canadian Results* report for more information).

With computer-adaptive tests (CATs), the number of questions an exam writer answers and how long it took them to complete the exam shows how quickly the writer demonstrates whether they meet the required level of competence (the passing standard).

On average, successful graduates were able to demonstrate their competence quickly, within 2 hours and 18 minutes (see Table 3 (a)). The average number of questions taken by Nova Scotia graduates who were successful on their first exam attempt was 122 which is closer to the minimum number of questions a writer could receive (75) than it is to the maximum number (265).

In 2015, almost half (or 48%) of writers who were successful on their first attempt answered the minimum number of questions (75 questions). This means they were able to demonstrate the required level of competence with just the minimum required number of questions. Over a quarter (27.4%) of those graduates, who were not successful on their first attempt, needed only a minimum number of questions to demonstrate that they did not meet the required level of competence.

The proportion answering the maximum number of questions reflects how many graduates were close to the passing standard at the end of their exam. Only 13.1% of 298 Nova Scotia graduates who passed on their first attempt, passed by a small margin: they had to answer the maximum number of questions in order to demonstrate their competency.

Of 95 Nova Scotia graduates who were not successful on their first attempt, 33.7% answered the maximum number of questions — in other words, a third of those who failed were close to meeting the passing standard at the end of the test.

Table 3 (a). Exam Duration Statistics: first NCLEX-RN attempt in 2015

<i>First attempt</i>	BY WRITERS WHO PASSED	BY WRITERS WHO FAILED	BY ALL WRITERS
Average number of questions answered	122	160	131
% of writers answering minimum number of questions	48.0%	27.4%	43.0%
% of writers answering maximum number of questions	13.1%	33.7%	18.1%
Average exam duration	2 h 18 min	2 h 49 min	2 h 26 min
<i>TOTAL NUMBER OF GRADUATES TAKING FIRST ATTEMPT (FOR REFERENCE)</i>	298	95	393
<i>Number of questions: minimum of 75 and maximum of 265</i>			
<i>Maximum test time: 6 hours</i>			

With the second attempt, 82 graduates answered more questions on average (143 questions vs. 131 questions as per Table 3(a)) and took an average of 28 minutes longer time to write the exam.

Of the 50 graduates who were successful on their second attempt, 34% answered the minimum number of questions, which is a decrease compared to the first-attempt’s 48% rate. There was also an increased rate of answering the maximum number of questions for successful graduates. This means that a higher proportion of successful graduates passed by a small margin, and a smaller proportion demonstrated their required level of competence with the minimum required number of questions on their second attempt.

Of the 32 graduates who were not successful, a smaller proportion failed after taking the minimum number of questions. This means that on their second attempt, graduates answered more questions in order to demonstrate their candidate ability.

Table 3 (b). Exam Duration Statistics: second NCLEX-RN attempt in 2015

<i>Second attempt</i>	BY WRITERS WHO PASSED	BY WRITERS WHO FAILED	BY ALL WRITERS
Average number of questions answered	134	157	143
% of writers answering minimum number of questions	34.0%	21.9%	29.3%
% of writers answering maximum number of questions	16.0%	21.9%	18.3%
Average exam duration	2 h 47 min	3 h 4 min	2 h 53 min
<i>TOTAL NUMBER OF GRADUATES TAKING SECOND ATTEMPT (FOR REFERENCE)</i>	50	32	82
<i>Number of questions: minimum of 75 and maximum of 265</i>			
<i>Maximum test time: 6 hours</i>			

With the third attempt, graduates, on average, answered less questions (138 vs. 143 as per Table 3(b)) and 23 minutes longer than second attempt writers did.

All graduates who were successful on their third attempt answered the minimum number of questions.

Half of the graduates who were not successful on their third attempt answered the maximum number of questions, being close to the passing standard.

Table 3 (c). Exam Duration Statistics: third NCLEX-RN attempt in 2015

<i>Third attempt</i>	BY WRITERS WHO PASSED	BY WRITERS WHO FAILED	BY ALL WRITERS
Average number of questions answered	75	201	138
% of writers answering minimum number of questions	100.0%	-	50.0%
% of writers answering maximum number of questions	-	50.0%	25.0%
Average exam duration	1 h 16 min	5 h 15 min	3 h 16 min
<i>TOTAL NUMBER OF GRADUATES TAKING THIRD ATTEMPT (FOR REFERENCE)²</i>	*	*	*
<i>Number of questions: minimum of 75 and maximum of 265</i>			
<i>Maximum test time: 6 hours</i>			

² To protect the privacy and confidentiality of Nova Scotia graduates, values between one and four have been suppressed in this report and replaced by an asterisk (*).

NCLEX-RN test plan performance

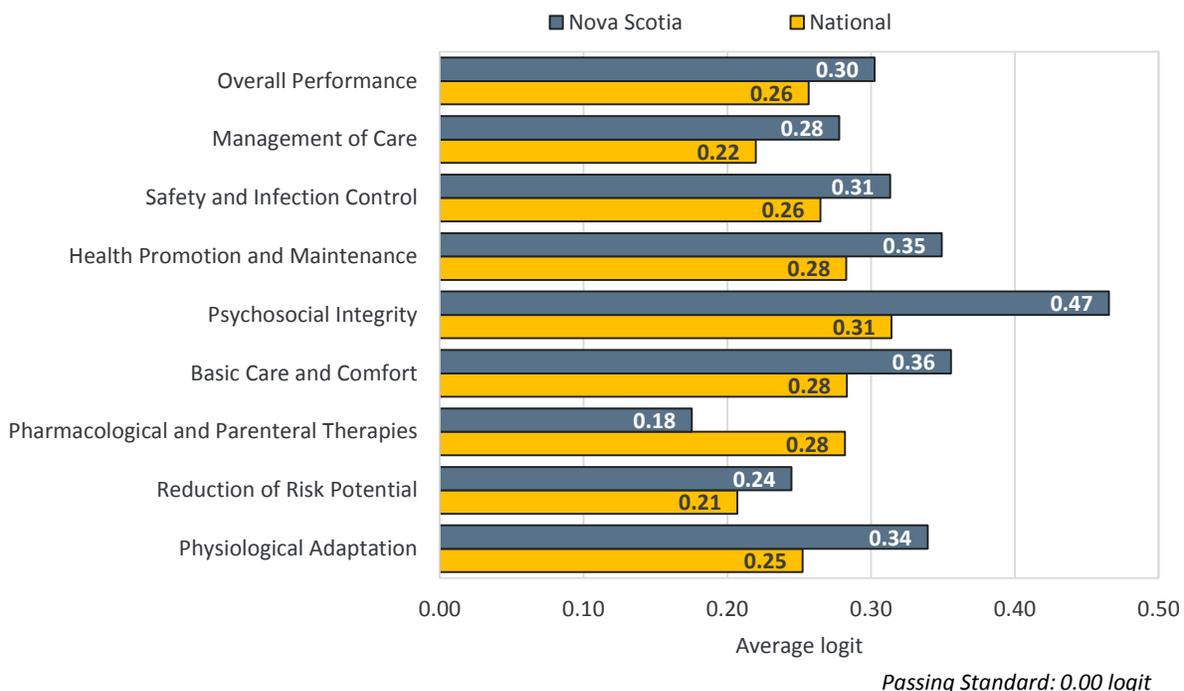
Each writer of the NCLEX-RN must answer questions across four major categories, all of which are based on client needs. The content for these question topics is referred to as the test plan (for more information, see “Topics covered on the exam” section in the *NCLEX-RN: Canadian Results* report).

To pass the NCLEX-RN, the exam writer must perform above the passing standard, which is set at 0.00 logits (for more information, see “How a pass or fail is determined” and “What is a logit?” in the *NCLEX-RN: Canadian Results* report).

The longer bars indicate better performance. The average performance of graduates can be compared against the passing standard itself as well as each test plan category.

Figure 1 shows how well an average Nova Scotia graduate taking the NCLEX-RN examination for the first time in 2015 performed overall and on each test plan category.

Figure 1. Average test plan category performance of Nova Scotia graduates on their first NCLEX-RN attempt in 2015 compared to average national performance in 2015



In 2015, Nova Scotia graduates, on average, were 0.30 logits above the passing standard on their overall test plan performance. They were also 0.04 logits above the national average, which was at 0.26 logits in 2015.

Compared to the national average and the passing standard, Nova Scotia graduates were doing best at the *Psychosocial Integrity* test plan category.

Psychosocial Integrity tests the competency of nursing care that promotes and supports the emotional, mental and social wellbeing of the client experiencing stressful events, and clients with acute or chronic mental illness.

The lowest average logit of 0.18 was with *Pharmacological and Parenteral Therapies* test plan category, which was 0.10 logits lower than the average national performance on this category.

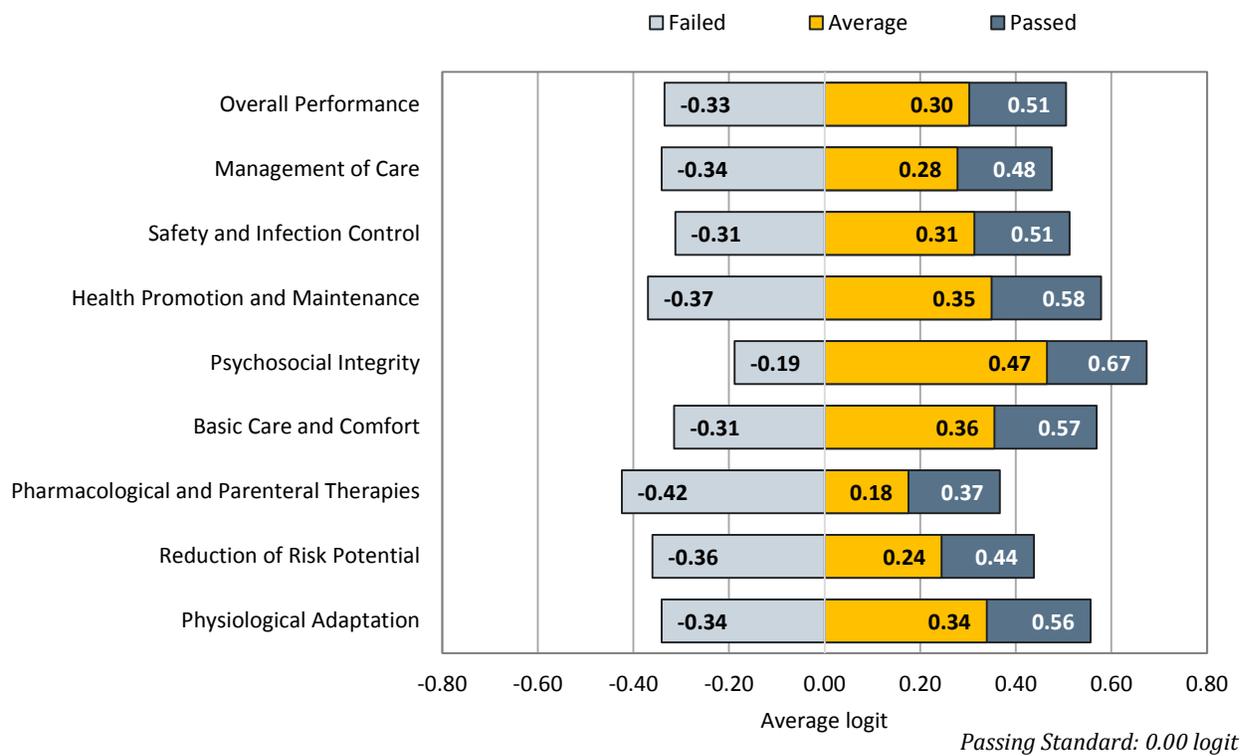
Pharmacological and Parenteral Therapies tests the competency of nursing care related to the administration of medications and parenteral therapies.

For more information on each test plan category, see “Topics covered on the exam” in the report *NCLEX-RN 2015: Canadian Results*.

Figure 2 presents the same information as in Figure 1, but the average performance of graduates is broken down by the exam result: average performance of those graduates who passed the exam, who failed the exam, and overall writers (for reference).

The further the bar is to the right of the passing standard of 0.00 logits, the better the average performance. For those writers who were not successful, the further the bar is to the left from the passing standard, the worse the average performance.

Figure 2. Average test plan category performance of Nova Scotia graduates on their first NCLEX-RN attempt in 2015 (presented separately for those who passed and failed)



There is a noticeable positive skew in a *Psychosocial Integrity* test plan category. The positive skew (where data tends to cluster on the right side) represents a high average passing performance, and in particular, higher performance for those who fail (e.g., -0.19 logit is

closer to a passing standard of 0.00 logit, than for example, -0.42). Both passed and failed first-attempt writers, on average, were performing well on this test category.

There is a noticeable negative skew in *Pharmacological and Parenteral Therapies* test plan category, where most of the values tend to cluster to the left. Both passed and failed first-attempt writers, on average, performed poorest on this category than on any other (-0.42 logits below the passing standard for not successful writers, and 0.37 logits above the passing standard for successful writers).