

NCLEX-RN 2016: Canadian Results

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Message from the President

As a council of regulators, we share a common legislated role: to protect the public through the regulation of nurses. The NCLEX-RN plays an integral role in meeting this mandate; it is one way that we evaluate whether an individual has the required competence to deliver care safely.

The NCLEX-RN has been in place since 2015. While maintaining the exam's integrity requires regulators not be directly involved in preparing students to write the NCLEX-RN, we are working with educators and other stakeholders to ensure nursing graduates have what they need to write the NCLEX-RN. We also continue to work with these groups to determine what factors are influencing the outcomes of those who choose to write the exam in French.

Improvements to results reporting

In an effort to increase the value of this report for readers, we've made the following improvements:

1. Writers have been grouped into cohorts of graduates, based on the year they first attempted the NCLEX. The cohorts, which replace the ultimate pass rate presented in the 2015 report, enable educators to better track how their graduates are performing on the exam over time. (Note: Writers cannot be tracked by graduation year, but most writers attempt the exam for the first time in the year they graduate).
2. The French writers' performance section now focuses on results of graduates from Canadian programs offering French or bilingual instruction, rather than only graduates who attempted the exam in French. It includes the results of grads of these programs who choose to write the exam in English and French.

2016 results summary

All 2016 pass rates increased over those reported in 2015. With two years of data now available, we're able to begin to see some trends in the results:

- The national first-attempt pass rate was higher for the 2016 cohort: 79.9% compared to 69.7% for the 2015 cohort.
- By the end of 2016, 88.9% of the 2016 cohort had passed the NCLEX-RN. This is 4.8% higher than the 2015 cohort.
- By the end of 2016, 92.9% of all writers who started writing in 2015 had passed the exam.

Sincerely,

Cynthia Johansen, President
Canadian Council of Registered Nurse Regulators

Background on the NCLEX-RN

The role of Canada's provincial nursing regulators

Registered nursing is a self-regulated profession in Canada. Each province or territory (12) has its own regulatory body to oversee nursing in its jurisdiction, all of which are members of the Canadian Council of Registered Nurse Regulators (CCRNRR).

Through provincial and territorial legislation, Canada's Registered Nurse (RN) regulators are accountable to the public for ensuring RNs are safe, competent and ethical practitioners.

Regulators achieve their mandate by taking responsibility for such activities as registering and licensing RNs, overseeing reviews of professional conduct, setting standards that govern RN nursing education and how RNs perform their work, and identifying the competencies needed by RNs entering the profession. These entry-level competencies are the skills, knowledge and judgment the regulators have determined are needed to provide safe, competent and ethical nursing care in a variety of work settings.

It is the role and authority of Canada's RN regulators to decide on and implement an entry exam that tests for specific skills RNs need in order to practise safely from their first day at work. The regulators monitor the exam results to identify trends and areas for improvement or adjustment based on evidence and the impact on public safety.

The purpose of the regulators' nursing exam

When an RN starts their first day of nursing practice, the public needs to feel confident they have basic skills, knowledge and judgment to provide safe care. For example, can the RN assess a person's vital signs and respond to any changes they see? Can they evaluate a person's need for pain management? Can they safely administer medications? Do they understand how to maintain a client's confidentiality and respect their privacy? These are some of the basic skills we all expect of any new RN in Canada.

Legislation gives Canada's regulators the responsibility to ensure RN applicants have these abilities before they start practising nursing.

Before an applicant (educated in Canada) can be licensed/registered to practise as an RN in Canada, they must first graduate from an approved RN baccalaureate education program. As part of a robust set of requirements, an applicant also must pass a regulator-selected registration exam.

Applicants for licensure/registration as an RN in 10 of Canada's 12 RN jurisdictions are required to successfully complete the National Council Licensure Examination (NCLEX-RN).¹ This exam is a computer-adaptive test administered by the National Council of State Boards of Nursing (NCSBN). NCLEX-RN has been administered by NCSBN as a registration exam for licensure in the United States since 1982 and in Canada since 2015. NCSBN is an independent, not-for-profit organization whose members include boards of nursing in the 50 states, the District of Columbia, four U.S. territories, and 24 associate members (including all members of CCRNR).²

¹ Applicants for RN licensure in Quebec complete the Ordre des infirmières et infirmiers du Québec professional examination. Applicants to Yukon are processed via endorsement from another Canadian jurisdiction.

² For more information on the National Council of State Boards of Nursing (NCSBN), visit: [ncsbn.org/about](https://www.ncsbn.org/about)

Changes that led to this new nursing registration exam

Throughout the early 2000s, Canada's RN regulators discussed and reviewed best practices for an entry-to-practice exam. The goal of this review was to find areas for improvement and ways to incorporate state-of-the-art best practices into the RN entry-to-practice exam. This review laid the foundation for a thorough business case and Request for Proposal (RFP) process for selecting a new entry-to-practice exam.

The process resulted in 10 of Canada's RN regulators (excluding Quebec and the Yukon) choosing the NCLEX-RN as the exam that can best test applicants' readiness to enter the practice of nursing. A comprehensive process keeps the exam's content up to date with changing nursing practice. The new exam has allowed regulators to establish more rigour and security in its testing to help ensure that the content of the exam is not compromised. As the exam is available year round, exam writers have greater access to it.

In late 2011, regulators informed Canada's RN educators and other stakeholders that they would be launching the NCLEX-RN on January 1, 2015. Educators were given access to a number of resources with information they could use to help prepare students for the exam. These resources included: webinars, teleconferences, regularly updated FAQs, a quarterly NCLEX-RN newsletter, conferences organized by the National Council of State Boards of Nursing, and links to resources, such as test plans and information about computer-adaptive testing (CAT). These resources continue to be updated and accessible.

How the NCLEX-RN was developed and is implemented in Canada

Developing and reviewing the test questions³

Canada's RN regulators are responsible for ensuring that the entry exam tests an applicant for basic entry-level competencies — competencies that are taught in Canada's nursing programs. A national analysis of nursing practice identified the knowledge, skills and abilities required of Canadian RNs in their first year of practice, and confirmed that the NCLEX-RN is a valid test of these competencies. This practice analysis is conducted every three years to ensure the exam keeps pace with changes in entry-level nursing practice.

Canadian RNs in the 10 provinces and territories using the NCLEX-RN participated in developing and reviewing the test questions currently in use. All questions in use include both imperial and metric measurements and generic drug names that would be familiar to Canadian exam writers. Canadian RNs continue to participate in the exam's development and review to ensure it meets the needs of Canadian exam writers and is free of bias. Any questions the Canadian reviewers deem unsuitable for Canadian writers are removed from the question bank and are not used in the exam.

French translation process

A rigorous translation process is used to develop the French version of the exam. Translation of NCLEX-RN items from English to French is conducted by Canadians using federal translation standards. Translated items are reviewed by a translation panel consisting of three to six Canadian bilingual RNs. These RNs are required to be fluent in French and English, and to be practising in a bilingual facility or setting. Their participation is approved by their nursing regulatory body. Any exam items not approved by the translation panels are removed from both the French and English versions of the NCLEX-RN exam.⁴

³ For more information on NCLEX exam development, visit ncsbn.org/9011.htm

⁴ For more information on NCLEX translation process, visit: ncsbn.org/Translating_the_NCLEX-Web_v4.pdf and NCLEX translation lexicon: [ncsbn.org/NCLEX_Translation_Lexicon_v2_\(00000002\).pdf](https://ncsbn.org/NCLEX_Translation_Lexicon_v2_(00000002).pdf)

Topics covered on the exam

The content of the NCLEX-RN exam (referred to as the test plan) is divided into four categories, with two of the categories having sub-categories. All categories are based on client need.⁵ Exam writers are asked questions from each topic area. The breakdown of each category and subcategory questions presented during the exam is below.

Table 1. NCLEX-RN exam categories

Category based on client need	% of questions from each category and subcategory
Safe and effective care environment The nurse promotes achievement of client outcomes by providing and directing nursing care that enhances the care delivery setting to protect clients and health care personnel:	
Management of care <ul style="list-style-type: none"> • Providing and directing nursing care that enhances the care delivery setting to protect clients and health care personnel. 	17–23%
Safety and infection control <ul style="list-style-type: none"> • Protecting clients and health care personnel from health and environmental hazards. 	9–15%
Health promotion and maintenance The nurse provides and directs nursing care of the client that incorporates the knowledge of expected growth and development principles, prevention and/or early detection of health problems, and strategies to achieve optimal health.	6–12%
Psychosocial integrity The nurse provides and directs nursing care that promotes and supports the emotional, mental and social well-being of the client experiencing stressful events, as well as clients with acute or chronic mental illness.	6–12%
Physiological integrity The nurse promotes physical health and wellness by providing care and comfort, reducing client risk potential and managing health alterations:	
Basic care and comfort <ul style="list-style-type: none"> • Providing comfort and assistance in the performance of activities of daily living. 	6–12%
Pharmacological and parenteral therapies <ul style="list-style-type: none"> • Providing care related to the administration of medications and parenteral therapies. 	12–18%
Reduction of risk potential <ul style="list-style-type: none"> • Reducing the likelihood that clients will develop complications or health problems related to existing conditions, treatments or procedures. 	9–15%
Physiological adaptation <ul style="list-style-type: none"> • Managing and providing care for clients with acute, chronic or life-threatening physical health conditions. 	11–17%

⁵ For more information about the test plan, visit: ncsbn.org/testplans

The format of the NCLEX-RN

Computer-adaptive testing (CAT)

The format of the NCLEX-RN is known as computer-adaptive testing (CAT). It is much different from a traditional pen-and-paper exam in the way the questions are presented, how the exam writer can respond to questions and how a pass is determined.⁶

Typically, with a pen-and-paper exam, all writers receive the same questions and the same number of questions. Some questions are easy and others are more difficult. In the end, a percentage correct indicates the candidate's ability on the test and whether they pass or fail. An exam writer with a high level of ability will have to answer all the questions, even the easy ones. Having to do this is an inefficient way to test someone's level of ability. Multiple-choice questions on a pen-and-paper exam can also make the results of a lower-ability writer seem higher than they should. For example, if the writer can choose from one of four answers to a question, they can guess at an answer. This gives them a 25% chance of getting the answer right, even if they did not actually know the answer. Therefore, the question is not really measuring their ability.

A computer-adaptive test uses computer technology and measurement theory to provide a more efficient and effective means of assessing an exam writer's ability. Questions can be targeted to a writer's level of ability.

With the NCLEX-RN, writers must answer questions covering several categories or topic areas. As the exam proceeds, a question from one of the topic areas is selected from the exam's large bank of questions. Each of these questions has been classified by its level of difficulty.

After the writer answers the question, the computer calculates an ability estimate based on all of the previous answers the writer selected. The computer program selects the next question for the writer based on this ability estimate. It selects a question the writer should have a 50% chance of answering correctly. That way, the next question will not be too difficult or too easy for the writer.

If the writer answered the question correctly, the next question they see will be more difficult than the previous one. If they got the answer wrong, the next question will be slightly easier. This process is repeated for each question and across each topic area, with the writer's ability estimate being recalculated each time. This process creates an exam that is tailored to the writer's knowledge and skills. Two writers in the same examination room will not get the same exam.⁷

The exam continues in this way until the computer program determines if the writer has passed or failed.

How a pass or fail is determined

The computer program decides whether a writer has passed or failed the NCLEX-RN using one of three rules:

1. **95% confidence interval rule:** The exam will stop once the computer program has calculated with 95% certainty that the writer's ability is clearly above or below the passing standard. This is the most commonly applied rule.⁸

⁶ For more information on computer-adaptive testing (CAT), visit: ncsbn.org/356.htm.

⁷ For more information on the question selection process, visit: ncsbn.org/5906.htm.

⁸ For more information on the 95% confidence rule, visit: ncsbn.org/5908.htm.

2. **Maximum-length exam rule:** When an exam writer's ability is very close to the passing standard, the computer continues to give questions until the maximum number of questions is reached (265). At this point, the computer disregards the 95% confidence rule and decides whether the writer has passed or failed based on their final ability estimate.⁹
3. **Run-out-of-time rule:** When an exam writer runs out of time before reaching the maximum amount of items, the computer program has not been able to determine whether they passed or failed with 95% certainty and has to use an alternate rule. If the writer hasn't answered the minimum number of questions (75), then they will fail that attempt at the NCLEX-RN. However, if the writer has answered at least the minimum amount of questions (75), the computer program will review the last 60 ability estimates. If the writer's last 60 ability estimates were above the passing standard, then they will pass. However, if their ability dropped below the passing standard, even once, during their last 60 questions, they will fail. This does not mean the writer must answer the last 60 questions correctly; each ability estimate is based on all the previous items they have answered.¹⁰

Each time the computer re-estimates the writer's ability, the estimate becomes more precise. This ability is measured against a passing standard that accurately reflects the amount of nursing ability an RN needs when they start in their profession.

Passing standard

The passing standard is a cut point along an ability range that marks the minimum ability-level requirement. For the NCLEX-RN, it is the minimum ability required to safely and effectively practise nursing at the entry-level.

Because the skills and knowledge needed by RNs change over time, the passing standard must reflect these changes. To ensure the passing standard remains accurate, it is reviewed at least once every three years.¹¹ The exam reviewers look at an array of information, such as the results of a survey in which employers and educators are asked for their opinions on the competency of the current cohort of nurses entering the profession and a historical record of candidate performance on the NCLEX-RN since it was started. The passing standard is not altered to attempt to set a maximum number of writers who are successful on the exam. The current passing standard is set at 0.00 logits.

What is a logit?

A logit is a unit of measurement used to report relative differences between a writer's ability estimates and the difficulty of the items.

Because the exam questions vary in their level of difficulty, there is no linear way to measure the writer's performance on the exam. The level of difficulty of the questions each writer receives has to be factored in, along with an estimate of the writer's ability. The logit measure puts ability estimates and question difficulty on the same measurement scale. If the writer keeps answering questions correctly, their ability estimate will be increasing as the average difficulty of the questions increases.

The logit scale ranges from negative infinity to positive infinity, with the bulk of the ability distribution within the range of -3.0 to 3.0 logits.

⁹ For more information on maximum-length exam rule, visit: ncsbn.org/5910.htm.

¹⁰ For more information on run-out-of-time rule, visit: ncsbn.org/5912.htm.

¹¹ To learn more about the current passing standard, visit: ncsbn.org/2630.htm.

Introduction

This report provides statistics on the performance of graduates of Canadian nursing education programs who wrote the NCLEX-RN in 2015 and 2016 as part of their registration/licensure application process with a provincial or territorial Registered Nurse (RN) regulator in Canada. These writers are referred to as “Canadian-educated graduates” throughout the report.

The report only includes graduates’ attempts on the NCLEX-RN; any attempts at the previous nursing regulators’ exam in years prior to 2015 are not included.

This report does not include Canadian graduates who applied for licensure/registration outside of Canada. Such graduates represent a small percentage of the overall graduates from Canadian RN programs.

Cohorts

For the purposes of reporting, the Canadian-educated graduates were separated into two cohorts based on the year in which they wrote the NCLEX-RN for the first time. By introducing the concept of cohorts, a group of writers can be followed every year in which they make new attempts.

Table 2. 2015 and 2016 cohorts by exam year

	2015 Exam Year	2016 Exam Year
2015 cohort	9,048	1,072
2016 cohort	–	9,306

In 2015, 9,048 Canadian-educated graduates wrote the NCLEX-RN for the first time and thus belong to the 2015 cohort. Of those who did not pass the exam in 2015, 1,072 wrote again in 2016.

In 2016, 9,306 graduates wrote the exam for the first time, and are considered part of the 2016 cohort.

National NCLEX-RN results

2016 cohort national pass rate by the end of 2016

Of the 9,306 Canadian-educated graduates in the 2016 cohort (who wrote the NCLEX-RN for the first time in 2016), 88.9% had passed it by the end of 2016 after one or more attempts. (see Table 3). This is referred to as the 2016 **year-end NCLEX-RN pass rate of the 2016 cohort**.

Table 3. Year-end NCLEX-RN pass rate of the 2016 cohort

2016 cohort	Passed	Failed	Total writers	Year-End Pass Rate
By the end of 2016:	8,274	1,032	9,306	88.9%

2015 cohort national pass rate by the end of 2016

Of the 9,048 Canadian-educated graduates in the 2015 cohort (who wrote the NCLEX-RN for the first time in 2015), 84.1% passed by the end of 2015 after one or more attempts (see Table 4). Of the 1,443 graduates in the 2015 cohort who did not pass the exam in 2015, 1,072 attempted the exam again in 2016. Of this group, 74.6% passed by 2016's year end. Ultimately, by the end of 2016, 92.9% of the 2015 cohort had passed the exam. The remainder who had not yet passed by the end of 2016, may still be able to attempt the exam in 2017 or subsequent years.

Table 4. Year-end NCLEX-RN pass rates of the 2015 cohort

2015 cohort writing in:	Passed	Failed	Total writers	Year-End Pass Rate
2015	7,605	1,443	9,048	84.1%
2016	800	272	1,072	74.6%
By the end of 2016:	8,405	643	9,048	92.9%

The percentage of the 2016 cohort who had passed by the end of 2016 (88.9%) was 4.8 percentage points higher than that of the 2015 cohort by the end of their first year of writing in 2015 (84.1%). Looking at the cumulative results of 2015 cohort after two years of writing, 92.9% have passed and only 7.1% have not passed yet.

2015 and 2016 cohorts' pass rates by attempt

The NCLEX-RN results can also be reviewed to see how successful each cohort was on each attempt (see Table 5). Of the 9,306 graduates in the 2016 cohort, 79.9% passed on their first attempt, which was a 10.2-percentage point higher pass rate when compared to the 2015 cohort's first-attempt pass rate of 69.7%.

Table 5. NCLEX-RN pass rates by attempt and by cohort (as of the end of 2016)

	2015 Cohort		2016 Cohort	
	Total writers	Attempt Pass rate	Total writers	Attempt Pass rate
Passed on first attempt	9,048	69.7%	9,306	79.9%
Passed on second attempt	2,511	65.7%	1,168	66.2%
Passed on third attempt	603	65.3%	107	57.0%
Passed after additional attempts	109	50.5%	6	50.0%

NCLEX-RN results by Canadian province or territory of education

Table 6 shows the provincial and territorial distributions of graduates in the 2015 and the 2016 cohorts. For example, 1,637 Alberta-educated graduates attempted the NCLEX-RN exam for the first time during 2015, and they represented 18.1% of the national total for that year. In 2016, 1,573 Alberta-educated graduates attempted the exam for the first time in 2016, and they represented 16.9% of the national total for that year.

Table 6. Number of graduates of Canadian provinces and territories by cohort

Province or territory of education	2015 Cohort		2016 Cohort	
	Total writers	% of National total	Total writers	% of National total
Alberta	1,637	18.1%	1,573	16.9%
British Columbia	1,305	14.4%	1,497	16.1%
Manitoba	490	5.4%	466	5.0%
New Brunswick	322	3.6%	321	3.4%
Newfoundland and Labrador	250	2.8%	223	2.4%
Nova Scotia	393	4.3%	382	4.1%
Northwest Territories and Nunavut	19	0.2%	16	0.2%
Ontario	4,021	44.4%	4,216	45.3%
Prince Edward Island	62	0.7%	66	0.7%
Saskatchewan	549	6.1%	546	5.9%
Total number of graduates	9,048	100%	9,306	100%

Please see “Appendix A: Provincial and territorial distributions of graduates writing the NCLEX-RN in 2016” for number of graduates writing the NCLEX-RN in 2016 by cohort and by province or territory of education.

Year-end pass rates by province and territory of education

Table 7 shows the year-end NCLEX-RN pass rates by Canadian province or territory of education for each cohort. For example, 83.9% of those who received their education in Alberta and wrote the exam for the first time in 2015 (2015 Alberta cohort) had passed the NCLEX-RN by the end of 2015. By the end of next year, 93.7% of the 2015 Alberta cohort had passed the exam (9.8% more). Of the 2016 Alberta cohort, 88.4% passed by the end of 2016.

Compared to the first year-end pass rate of the 2015 cohort (in 2015), the 2016 year-end pass rate was higher for all provinces and territories, with the exception of Northwest Territories and Nunavut¹² and Nova Scotia.

Table 7. Year-end NCLEX-RN pass rates by Canadian province and territory of education and cohort

Province or territory of education	2015 Cohort			2016 Cohort	
	Total writers	2015 Year-end pass rate	2016 Year-end pass rate	Total writers	2016 Year-end pass rate
Alberta	1,637	83.9%	93.7%	1,573	88.4%
British Columbia	1,305	87.3%	96.6%	1,497	92.8%
Manitoba	490	83.1%	92.2%	466	91.6%
New Brunswick	322	71.4%	88.8%	321	75.4%
Newfoundland and Labrador	250	92.8%	97.6%	223	98.2%
Nova Scotia	393	89.1%	97.2%	382	89.0%
Northwest Territories and Nunavut	19	94.7%	94.7%	16	87.5%
Ontario	4,021	83.7%	90.9%	4,216	88.5%
Prince Edward Island	62	87.1%	91.9%	66	90.9%
Saskatchewan	549	79.4%	93.6%	546	84.4%
National	9,048	84.1%	92.9%	9,306	88.9%

¹² The decrease in the pass rate of 2016 Northwest Territories and Nunavut cohort must be interpreted with caution. The smaller the number of graduates writing the exam is, the higher volatility of the pass rate is (just a few more graduates failing or passing the exam will have a significant impact on a provincial pass rate).

First-attempt pass rates by province and territory of education

Table 8 shows first-attempt NCLEX-RN pass rates for each cohort by Canadian province and territory of education. Compared to the first-attempt pass rate of the 2015 cohort, the first-attempt pass rate of the 2016 cohort was substantially higher for all provinces and territories, with the exception of Northwest Territories and Nunavut¹³.

Table 8. First attempt NCLEX-RN pass rates by Canadian province and territory of education and cohort

Province or territory of education	2015 Cohort		2016 Cohort	
	Total writers	First-attempt pass rate	Total writers	First-attempt pass rate
Alberta	1,637	69.1%	1,573	78.0%
British Columbia	1,305	79.8%	1,497	86.8%
Manitoba	490	74.1%	466	85.8%
New Brunswick	322	50.3%	321	60.4%
Newfoundland and Labrador	250	79.2%	223	87.9%
Nova Scotia	393	75.8%	382	77.5%
Northwest Territories and Nunavut	19	84.2%	16	68.8%
Ontario	4,021	67.7%	4,216	80.1%
Prince Edward Island	62	66.1%	66	87.9%
Saskatchewan	549	60.5%	546	69.2%
National	9,048	69.7%	9,306	79.9%

For more information on the performance of Canadian-educated graduates by province or territory of education, please refer to “Appendix B: Detailed exam statistics by province or territory of education.”

¹³ The decrease in the pass rate of 2016 Northwest Territories and Nunavut cohort must be interpreted with caution. The smaller the number of graduates writing the exam is, the higher the volatility of the pass rate (just a few more graduates failing or passing the exam will have a significant impact on a provincial pass rate).

National first-attempt pass rates NCLEX-RN written in French

Canadian graduates can choose to write the NCLEX-RN in either English or French. In addition, writers can switch the language in which they choose to write the exam from one attempt to another. As a result, it is not possible to compare year-end results by language.

Table 9 shows the first-attempt pass rates for 2015 and 2016 cohorts who wrote their first exam attempt in French. The first-attempt pass rate for attempts in French from the 2016 cohort was 36.4%. This is a 9.6 percentage-point higher pass rate than the first-attempt pass rate of the 2015 cohort.

Table 9. First-attempt pass rates by cohort who wrote their exam attempt in French

Exam written in:	2015 Cohort		2016 Cohort	
	Total writers	First-attempt pass rate	Total writers	First-attempt pass rate
French	138	26.8%	88	36.4%

National exam duration statistics

Writers of the NCLEX-RN answer between 75 and 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” in this report for more information.)

With computer-adaptive tests (CATs), the number of questions an exam writer answered and how long it took them to complete the exam show how quickly the writer demonstrates whether they meet the required level of competence (the passing standard). On average, successful first-attempt writers in 2016 were able to demonstrate their competence quickly, within 2 hours and 2 minutes (see Table 10).

For those, who were not successful, the increase in the time taken on the exam demonstrates whether they were close to passing. The first-attempt writers from the 2016 cohort who were not successful had on average a four-minute increase in their exam length compared to the first-time writers in the 2015 cohort.

Table 10. Canadian-educated graduates: Average exam duration on their first NCLEX-RN attempts

Average exam duration	By writers who passed	By writers who failed	By all writers
2016 cohort	2 hr 2 min	3 hr 4 min	2 hr 14 min
2016 cohort: Total number of writers	7,437	1,869	9,306
2015 cohort	2 hr 13 min	3 hr 0 min	2 hr 27 min
2015 cohort: Total number of writers	6,306	2,742	9,048

Maximum test time: 6 hours

Successful first-attempt writers in the 2016 cohort were able to demonstrate their competence quicker: with an average of 107 questions compared to 120 questions in 2015 (see Table 11). This is closer to the minimum number of questions a writer could receive (75) than it is to the maximum number (265).

Table 11. Canadian-educated graduates: Average number of questions answered on their first NCLEX-RN attempts

Average number of questions answered	By writers who passed	By writers who failed	By all writers
2016 cohort	107	168	119
2016 cohort: Total number of writers	7,437	1,869	9,306
2015 cohort	120	165	133
2015 cohort: Total number of writers	6,306	2,742	9,048

Number of questions: minimum of 75 and maximum of 265

For the 2016 cohort, 60.7% of writers who were successful on their first attempt at the NCLEX-RN answered only 75 questions. This is an improvement when compared to 49.5% in 2015. This means they were able to demonstrate the required level of competence after answering the minimum number of questions. Of writers who were not successful on their first attempt, 22.8% needed only a minimum number of questions to demonstrate that they did not meet the required level of competence (see Table 12). This is also an improvement when compared to 2015 when 24.9% of writers who were not successful failed after answering only a minimum number of questions.

Table 12. Canadian-educated graduates: % of writers answering minimum number of questions on their first NCLEX-RN attempt

% of writers answering minimum number of questions	By writers who passed	By writers who failed	By all writers
2016 cohort	60.7%	22.8%	53.1%
2016 cohort: Total number of writers	7,437	1,869	9,306
2015 cohort	49.5%	24.9%	42.1%
2015 cohort: Total number of writers	6,306	2,742	9,048

Number of questions: minimum of 75 and maximum of 265

The proportion answering the maximum number of questions reflects how many writers were close to the passing standard at the end of their exam. Of the 7,437 Canadian-educated graduates in the 2016 cohort who passed on their first attempt, only 8.8% passed by a small margin, as they had to answer the maximum number of questions in order to demonstrate their competency. This is an improvement compared to the 2015 cohort, when 13.8% of first-attempt writers passed by a small margin.

Of the 1,869 Canadian-educated graduates in the 2016 cohort who were not successful on their first attempt, 30.6% answered the maximum number of questions — in other words, almost one-third of those who failed were close to meeting the passing standard by the end of the test (see Table 13).

Table 13. Canadian-educated graduates: % of writers answering maximum number of questions on their first NCLEX-RN attempt

% of writers answering maximum number of questions	By writers who passed	By writers who failed	By all writers
2016 cohort	8.8%	30.6%	13.1%
2016 cohort: Total number of writers	7,437	1,869	9,306
2015 cohort	13.8%	30.5%	18.8%
2015 cohort: Total number of writers	6,306	2,742	9,048

Number of questions: minimum of 75 and maximum of 265

For similar tables showing exam duration statistics on the second, third and additional attempts, see “Appendix C: National exam duration statistics for repeat attempts of the 2016 cohort.”

National NCLEX-RN test-plan performance

Each writer of the NCLEX-RN must answer questions across four major categories (with two of the categories having sub-categories for a total of eight topic areas), all of which are based on patient needs. The content for these question topics is referred to as the test plan. (See “Topics covered on the exam” for more information.)

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

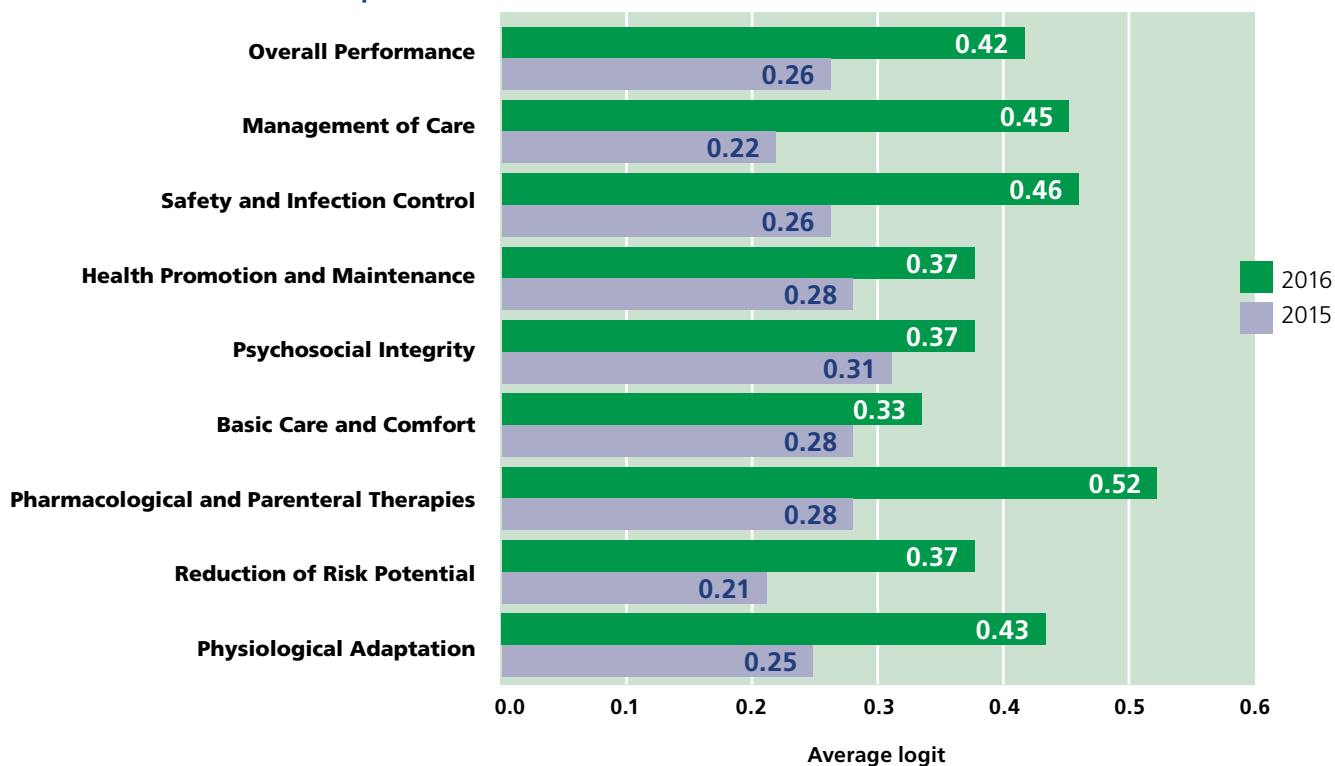
Figure 1 shows how well an average Canadian-educated graduate taking the NCLEX-RN examination for the first time in 2016 and 2015 performed overall and on each test-plan category. The average first-attempt performance of Canadian-educated graduates can be compared against the passing standard, each test-plan category and cohort (based on the year of writers’ first attempt). The longer bars indicate better performance.

The overall test-plan performance of the first-attempt writers of the 2016 cohort was on average 0.42 logits above the passing standard. It was also 0.16 logits above the first-attempt 2015 cohort average. (It was 0.26 logits for the 2015 cohort and 0.42 logits for the 2016 cohort.)

First-attempt writers in the 2016 cohort performed best on questions dealing with *Pharmacological and Parenteral Therapies* (0.52 logits). The lowest average logit was 0.33 on the *Basic Care and Comfort* test-plan category.

On average, first-attempt writers in the 2016 cohort had a higher performance on all test-plan categories than the first-attempt writers in the 2015 cohort. The largest average performance difference between the two cohorts was 0.25-logits increase on the *Reduction of Risk Potential* test category.

Figure 1. Average NCLEX-RN test-plan category performance of Canadian-educated graduates on their first attempt

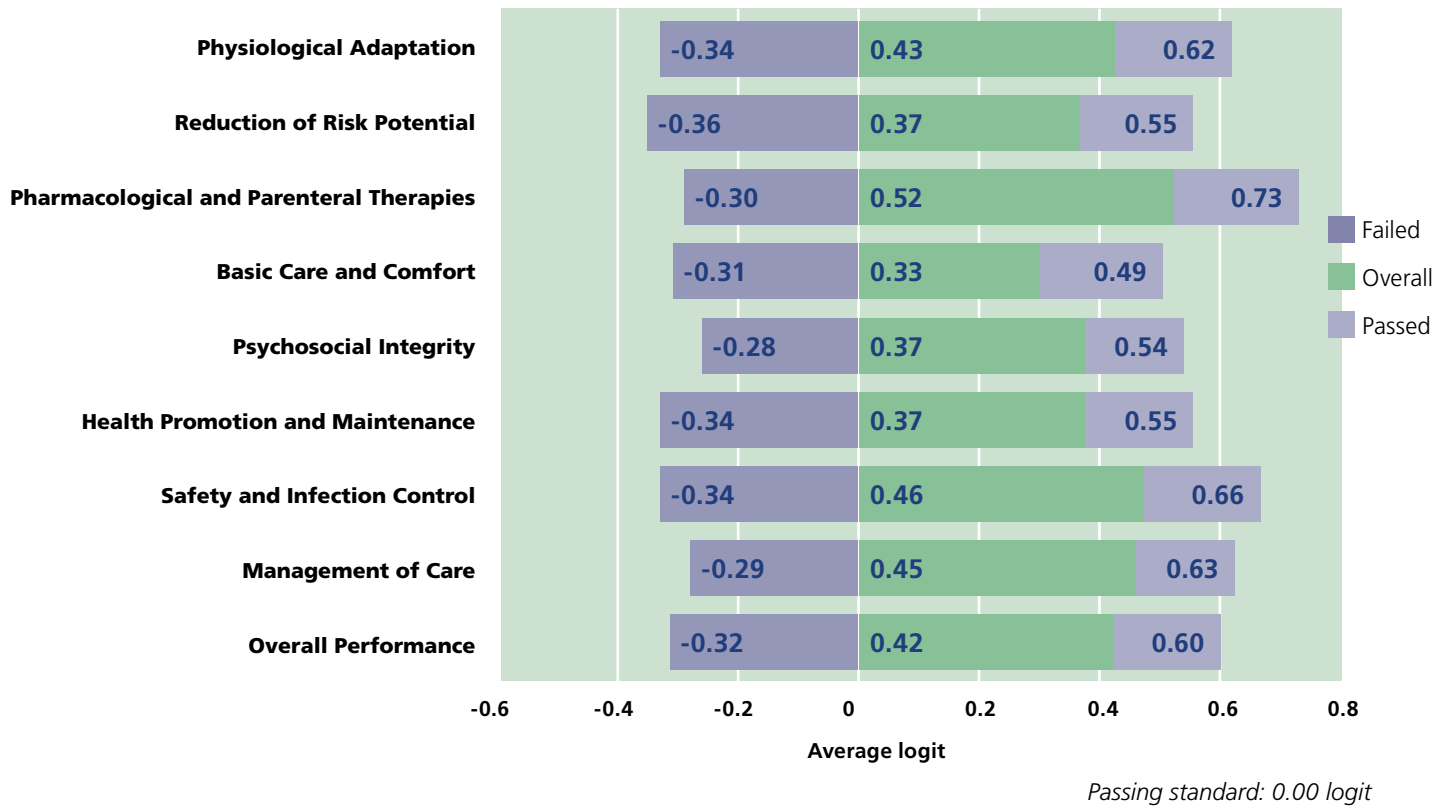


Passing standard: 0.00 logit

Figure 2 presents the same information as Figure 1, but with the average first-attempt performance of the 2016 cohort broken down by the exam result: graduates who passed the exam, who failed the exam and overall first-attempt writers in 2016 (for reference).

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

Figure 2. Average test-plan category performance of Canadian-educated graduates on their first NCLEX-RN attempt in 2016 (presented separately for those who passed and those who failed)



For more information on the average performance of Canadian-educated graduates on each test-plan category by province or territory of education, see “Appendix D: National test-plan performance by province or territory of education.”

Appendices

Appendix A: Provincial and territorial distribution of graduates writing the NCLEX-RN in 2016

Table A1. Number of graduates of Canadian provinces or territories writing the NCLEX-RN at least once in 2016

Province or territory of education	2015 Cohort writing in 2016		2016 Cohort writing in 2016		Total writing in 2016
	Total writers	% of National total	Total writers	% of National total	Provincial/Territorial Total
Alberta	211	19.7%	1,573	16.9%	1,784
British Columbia	142	13.2%	1,497	16.1%	1,639
Manitoba	58	5.4%	466	5.0%	524
New Brunswick	83	7.7%	321	3.4%	404
Newfoundland and Labrador	13	1.2%	223	2.4%	236
Nova Scotia	40	3.7%	382	4.1%	422
Northwest Territories and Nunavut	0	0.0%	16	0.2%	16
Ontario	413	38.5%	4,216	45.3%	4,629
Prince Edward Island	6	0.6%	66	0.7%	72
Saskatchewan	106	9.9%	546	5.9%	652
Total number of graduates	1,072	100%	9,306	100%	10,378

Appendix B: Detailed exam statistics by province or territory of education

Table B1. 2016 year-end: number of NCLEX-RN attempts and pass rates of nadian-educated graduates by cohort and province or territory of education

Province or territory of education		Cohort			Second attempt		Third attempt		All additional attempts	
		# of Grads	Year-end pass rate	First-attempt pass rate	# of Grads	Pass rate	# of Grads	Pass rate	# of Grads	Pass rate
2015	Alberta	1,637	93.7%	69.1%	480	65.4%	110	71.8%	15	66.7%
	British Columbia	1,305	96.6%	79.8%	248	71.0%	57	66.7%	7	85.7%
	Manitoba	490	92.2%	74.1%	109	63.3%	25	80.0%	0	-
	New Brunswick	322	88.8%	50.3%	155	44.5%	81	45.7%	48	37.5%
	Newfoundland and Labrador	250	97.6%	79.2%	50	68.0%	13	92.3%	0	-
	Nova Scotia	393	97.2%	75.8%	93	62.4%	33	57.6%	12	58.3%
	Northwest Territories and Nunavut	19	94.7%	84.2%	*	66.7%	*	0.0%	0	-
	Ontario	4,021	90.9%	67.7%	1,138	69.8%	197	70.1%	*	33.3%
	Prince Edward Island	62	91.9%	66.1%	**	65.0%	**	50.0%	0	-
	Saskatchewan	549	93.6%	60.5%	215	56.3%	80	60.0%	24	54.2%
National 2015 cohort total		9,048	92.9%	69.7%	2,511	65.7%	603	65.3%	109	50.5%
2016	Alberta	1,573	88.4%	78.0%	213	71.8%	15	73.3%	0	-
	British Columbia	1,497	92.8%	86.8%	109	76.1%	11	63.6%	0	-
	Manitoba	466	91.6%	85.8%	35	77.1%	0	-	0	-
	New Brunswick	321	75.4%	60.4%	92	44.6%	21	19.0%	6	50.0%
	Newfoundland and Labrador	223	98.2%	87.9%	26	76.9%	*	75.0%	0	-
	Nova Scotia	382	89.0%	77.5%	76	52.6%	9	44.4%	0	-
	Northwest Territories and Nunavut	16	87.5%	68.8%	*	25.0%	*	100%	0	-
	Ontario	4,216	88.5%	80.1%	492	67.3%	34	64.7%	0	-
	Prince Edward Island	66	90.9%	87.9%	*	50.0%	0	-	0	-
	Saskatchewan	546	84.4%	69.2%	117	64.1%	11	72.7%	0	-
National 2016 cohort total		9,306	88.9%	79.9%	1,168	66.2%	107	57.0%	6	50.0%

* To protect the privacy and confidentiality of Canadian graduates, statistics occurring when the number of graduates is between one and four have been suppressed in this report and replaced by an asterisk (*). Where this is done, the next smallest cell count is also suppressed to ensure that the values cannot be derived by using the overall total. This second suppressed value is replaced with two asterisks (**) to indicate the value was not suppressed due to a low value.

Appendix C: National exam duration statistics for repeat attempts of the 2016 cohort

Table C1. Canadian-educated graduates: Exam duration statistics of the 2016 cohort on their second NCLEX-RN attempt

Second attempt	By writers who passed	By writers who failed	All graduates
Average number of questions answered	135	177	149
% of writers answering minimum number of questions	38.9%	19.7%	32.4%
% of writers answering maximum number of questions	20.7%	36.7%	26.1%
Average exam duration	2 h 41 min	3 h 19 min	2 h 54 min
2016 cohort: Total number of graduates writing the second attempt	773	395	1,168

Number of questions: minimum of 75 and maximum of 265

Maximum test time: 6 hours

Table C2. Canadian-educated graduates: Exam duration statistics of the 2016 cohort on their third NCLEX-RN attempts

Third attempt	By writers who passed	By writers who failed	All graduates
Average number of questions answered	150	190	167
% of writers answering minimum number of questions	31.1%	19.6%	26.2%
% of writers answering maximum number of questions	27.9%	39.1%	32.7%
Average exam duration	3 h 5 min	3 h 30 min	3 h 16 min
2016 cohort: Total number of graduates writing the third attempt	61	46	107

Number of questions: minimum of 75 and maximum of 265

Maximum test time: 6 hours

Table C3. Canadian-educated graduates: Exam duration statistics of the 2016 cohort on their additional NCLEX-RN attempts

All additional attempts	By writers who passed	By writers who failed	All graduates
Average number of questions answered	202	208	205
% of writers answering minimum number of questions	33.3%	0.0%	16.7%
% of writers answering maximum number of questions	66.7%	66.7%	66.7%
Average exam duration	3 h 51 min	3 h 37 min	3 h 44 min
2016 cohort: Total number of graduates writing additional attempts	3	3	6

Number of questions: minimum of 75 and maximum of 265

Maximum test time: 6 hours

Appendix D: National test-plan performance by province or territory of education

The following figures show the national test-plan performance by province or territory of education and cohort. The statistics are based on average performance of Canadian-educated graduates' first attempts only, presented as average logit.

Figure D1. Average NCLEX-RN test-plan first-attempt performance of Canadian-educated graduates by province or territory of education — overall performance

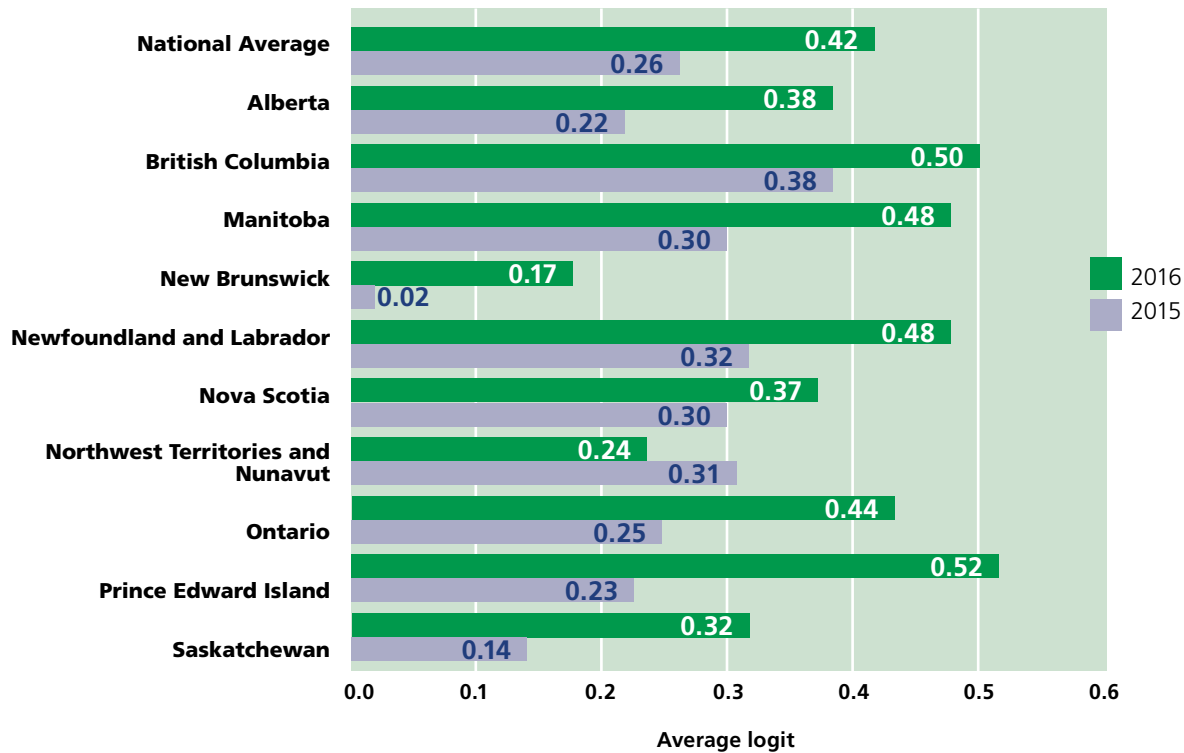


Figure D2. Average NCLEX-RN test-plan first-attempt performance of Canadian-educated graduates by province or territory of education — Management of Care

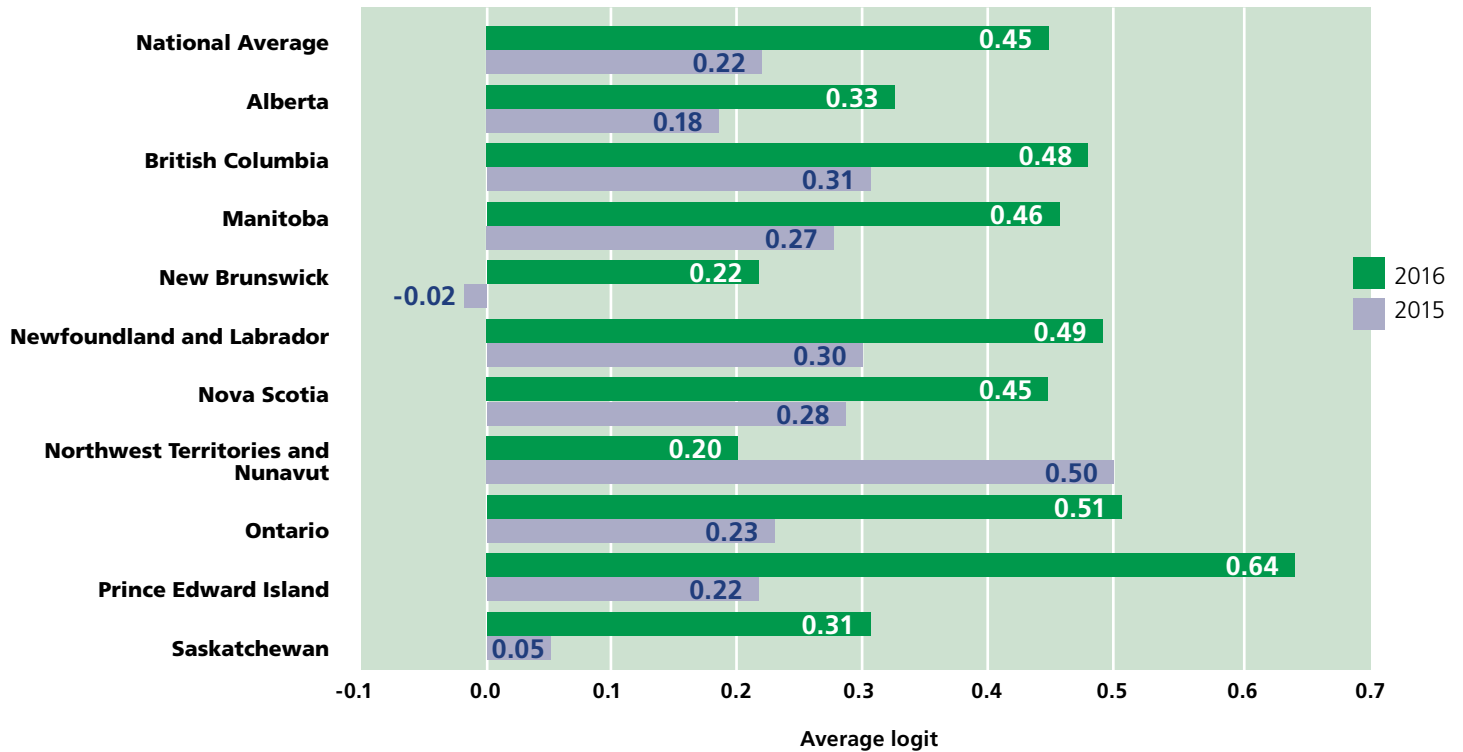
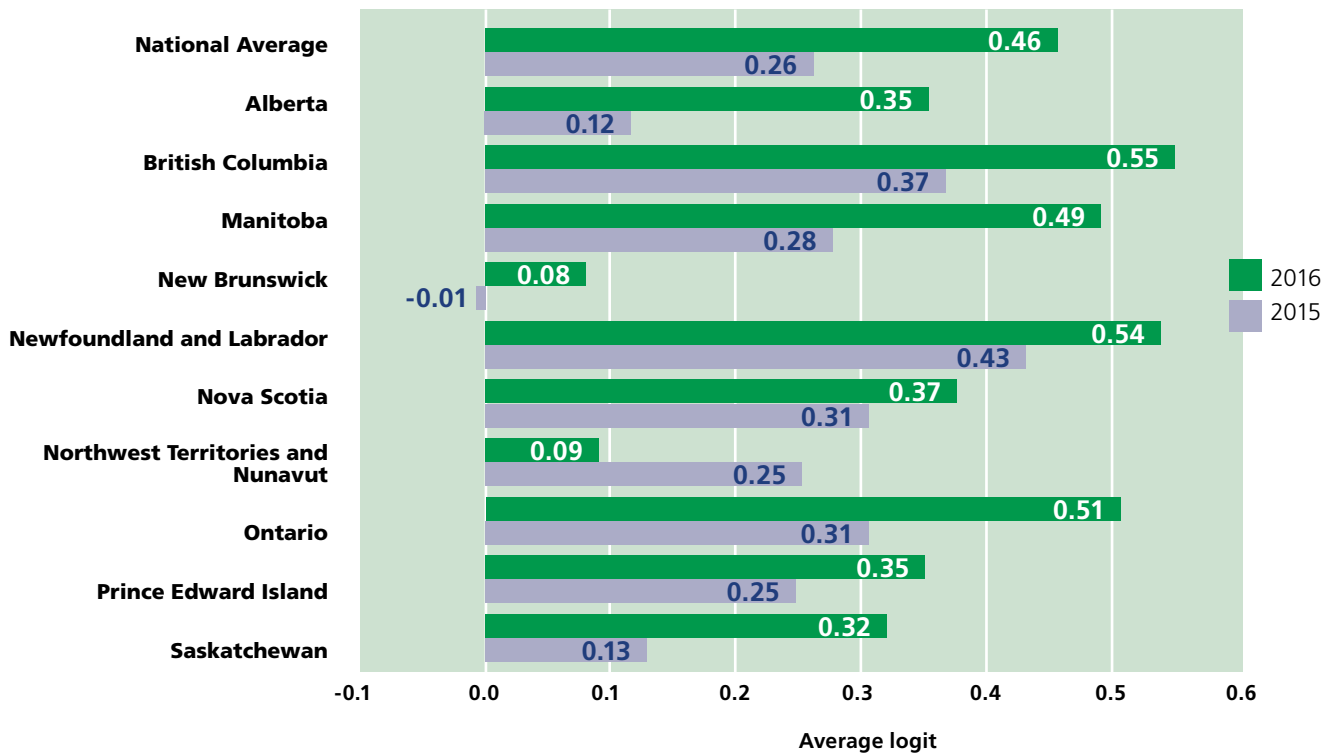


Figure D3. Average NCLEX-RN test-plan first-attempt performance of Canadian-educated graduates by province or territory of education — Safety and Infection Control



Passing standard: 0.00 logit

Figure D4. Average NCLEX-RN test-plan first-attempt performance of Canadian-educated graduates by province or territory of education — Health Promotion and Maintenance

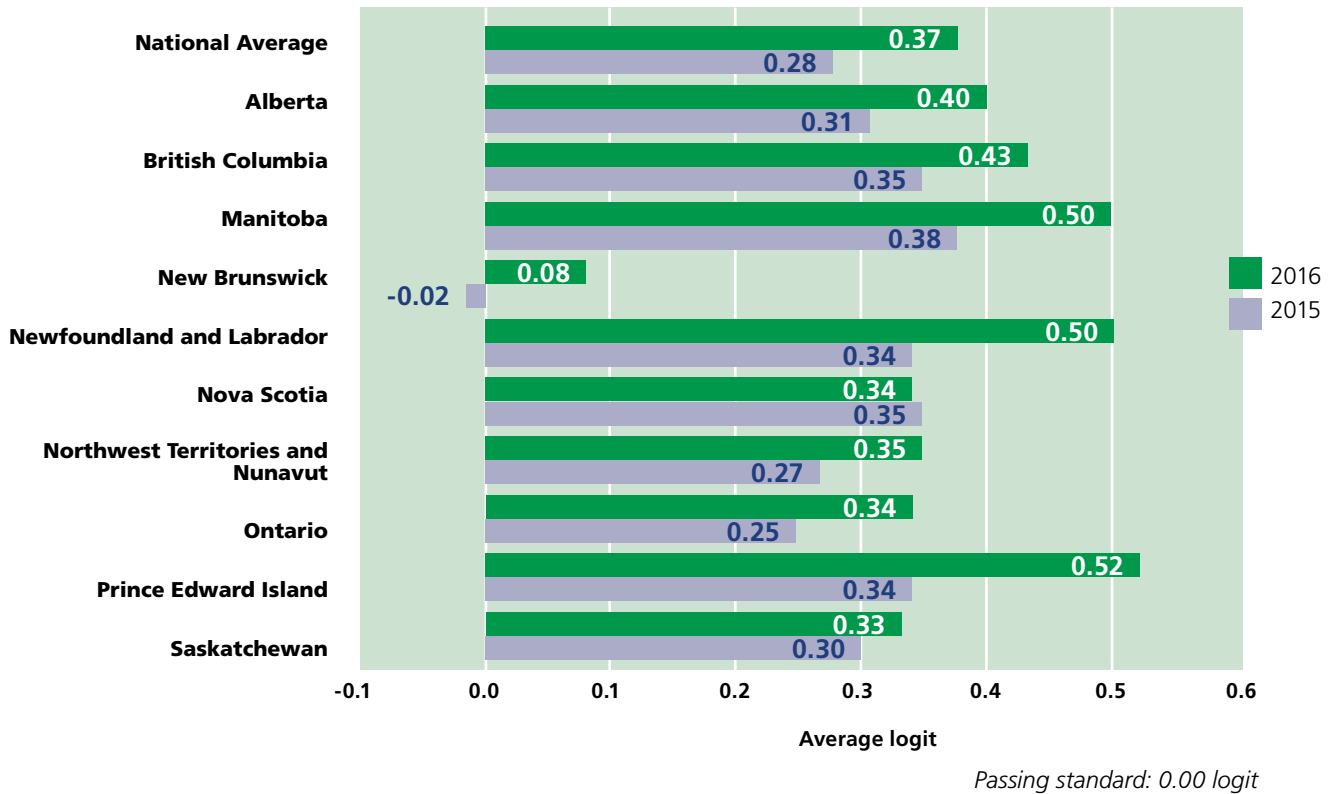


Figure D5. Average NCLEX-RN test-plan first-attempt performance of Canadian-educated graduates by province or territory of education — Psychosocial Integrity

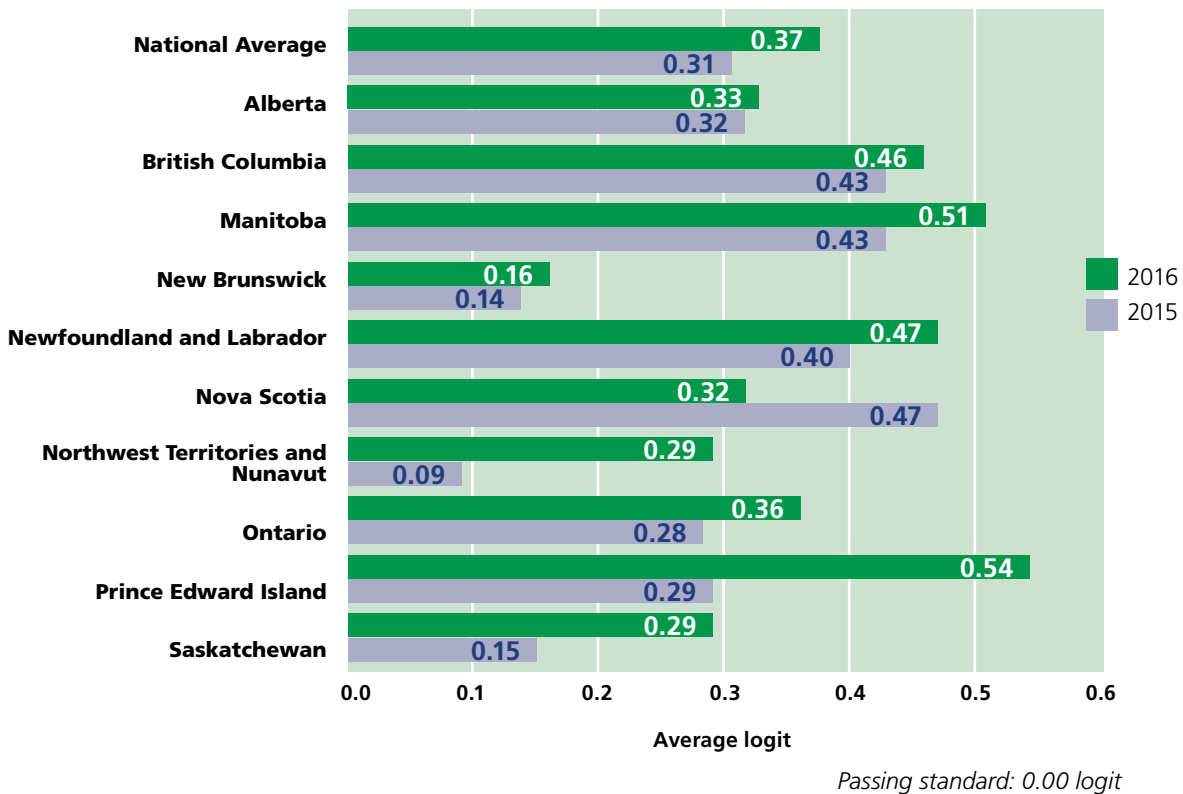


Figure D6. Average NCLEX-RN test-plan first-attempt performance of Canadian-educated graduates by province or territory of education — Basic Care and Comfort

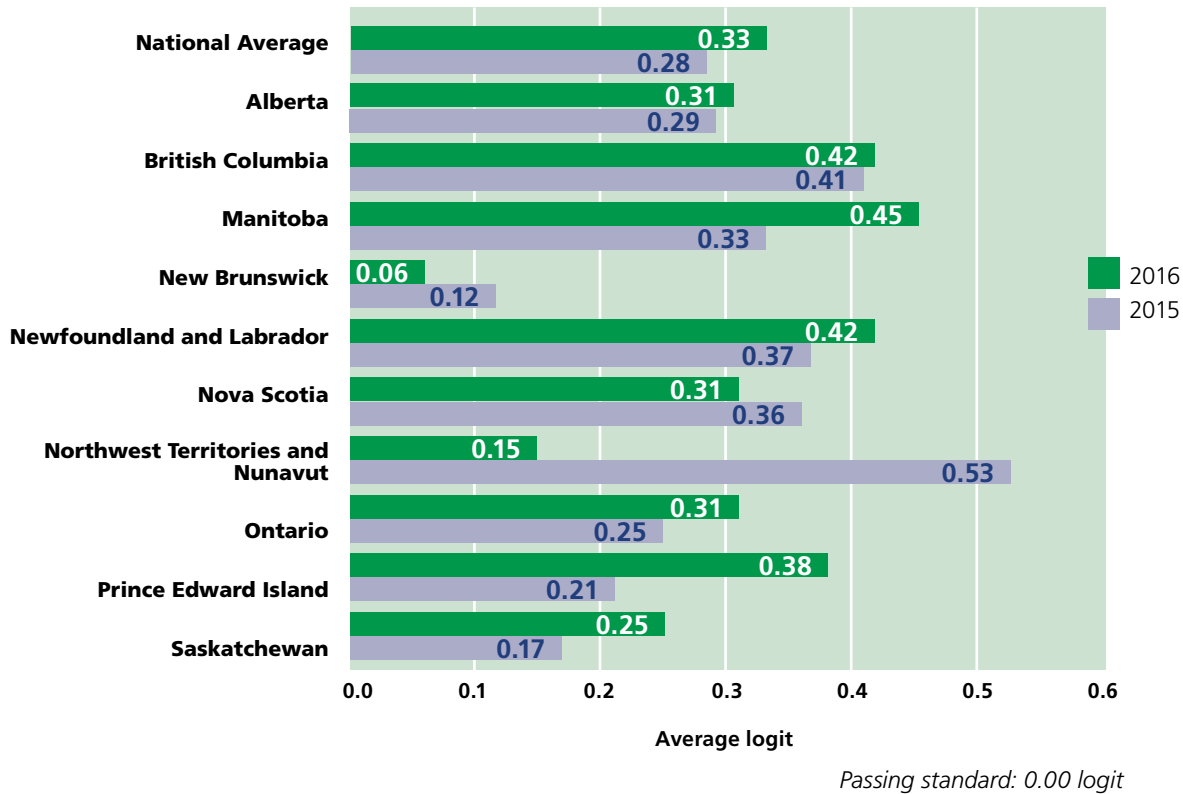


Figure D7. Average NCLEX-RN test-plan first-attempt performance of Canadian-educated graduates by province or territory of education — Pharmacological and Parenteral Therapies

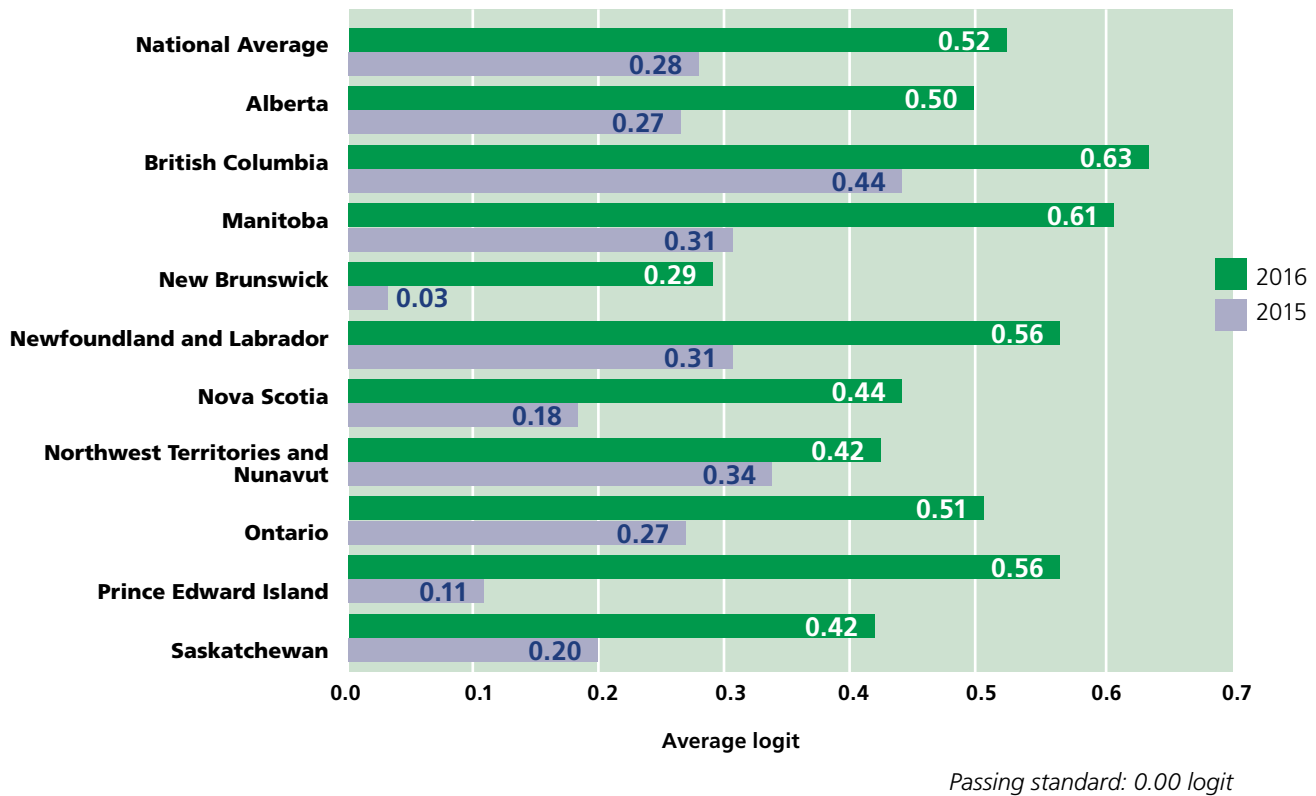


Figure D8. Average NCLEX-RN test-plan first-attempt performance of Canadian-educated graduates by province or territory of education — Reduction of Risk Potential

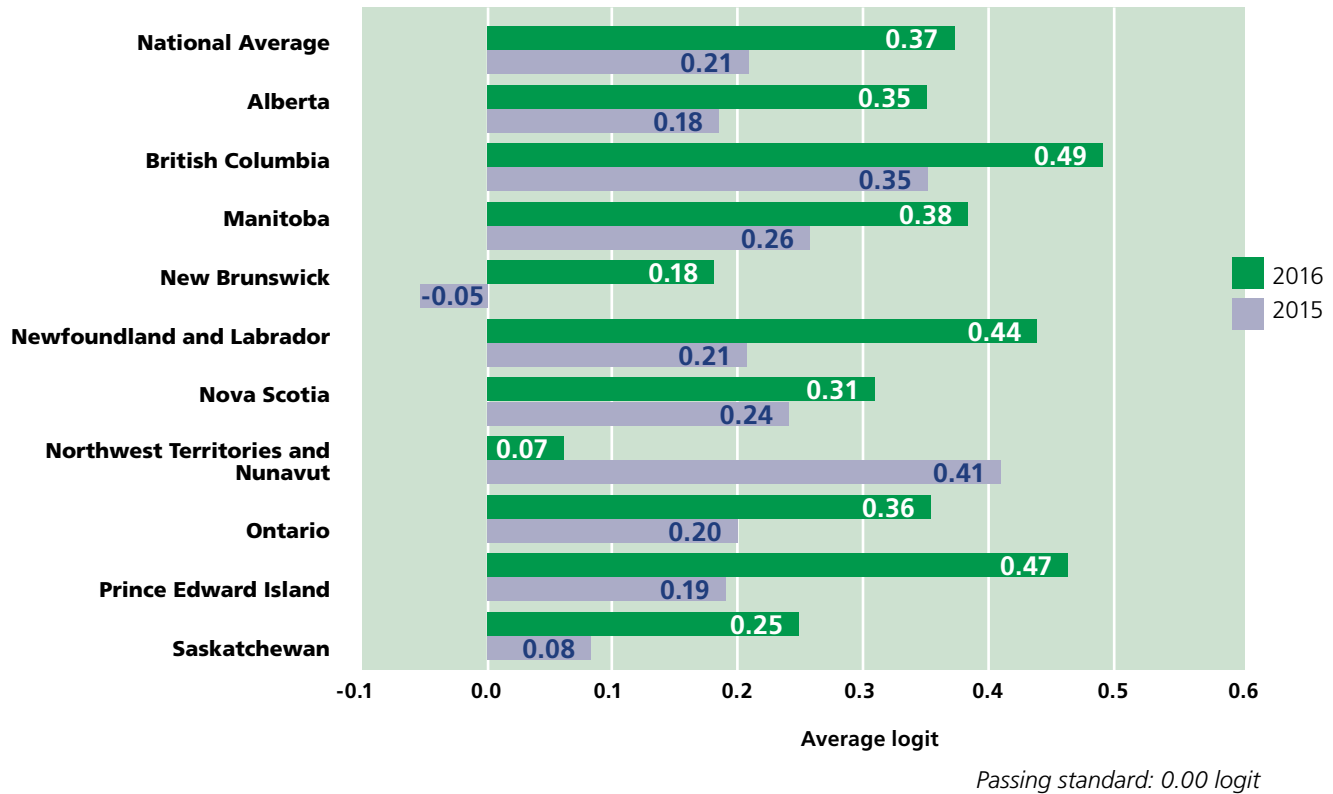
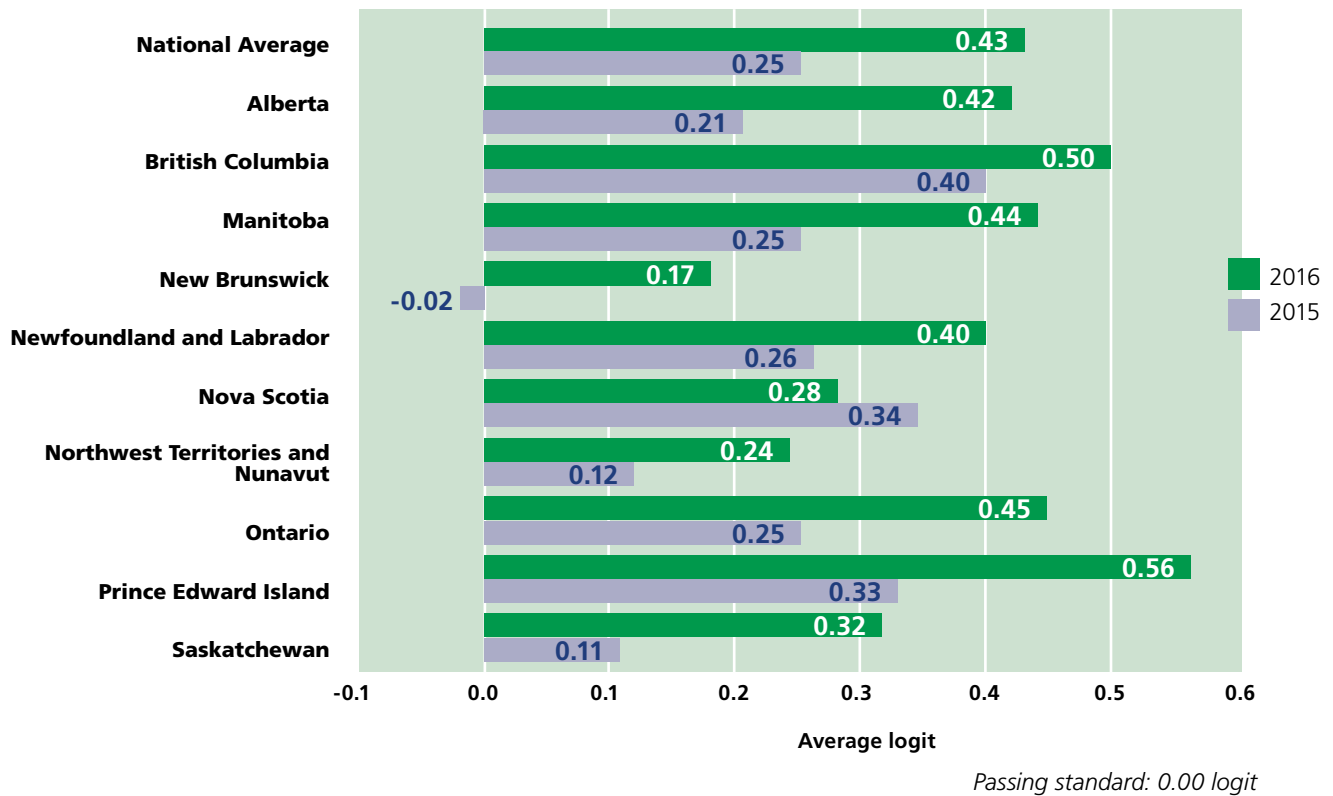


Figure D9. Average NCLEX-RN test-plan first-attempt performance of Canadian-educated graduates by province or territory of education — Physiological Adaptation



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