

REPORT ON THE POSSIBLE IMPACT OF REPEAT TEST-TAKERS ON NURSING EDUCATIONAL PROGRAMS' NCLEX PASS RATES

SUMMARY:

In response to several inquiries from program deans/directors/coordinators regarding the possible effects of using second-time test-takers in calculating programs' NCLEX examination pass rates, board staff examined program NCLEX scores for the last examination year. The examination year utilized for calculating the pass rates for professional nursing educational programs is from October 1, 2006 to September 30, 2007. The examination year utilized in calculating pass rates for vocational nursing educational programs is from January 1, 2006 to December 31, 2006.

In general, the inclusion of examination scores from repeat test-takers in the NCLEX examination pass rates would have:

- lowered the pass rate for 80% of the professional programs and 53% of the vocational programs, and
- dropped 12 of the professional programs and 14 of the vocational programs to below 80% for the year.

A significant finding is that no program's examination pass rate would have moved from below 80% to 80% or above.

BACKGROUND:

NCLEX examination information available to state boards of nursing provides testing data and analysis for candidates that are:

- first-time test-takers (those applicants who are testing for the first time following completion of a program) and
- repeat test-takers (those applicants who are testing for the second time or beyond and who are within four years of completing a program).

Information related specifically to second-time test-takers (as distinguished from repeat test-takers) is not available from NCSBN and could only be obtained by the follow-up of each candidate and a manual calculation of pass rates. The accuracy of such information would be questionable.

Rationale for the Use of Data on First-Time Test-Takers in the NCLEX Examination Pass Rate:

- An evaluation of the NCLEX examination results from first-time test-takers provides a better measure of the effectiveness of the nursing educational program.
- Other intervening variables occurring in the history of the repeat candidate (work history, review courses, other preparation) would impact the score on a second attempt at passing the NCLEX, making it a less valuable measure of the effectiveness of the nursing program.

Nancy Spector, PhD, RN, Director of Education at NCSBN, stated that she knows of no state board of nursing which uses repeat test-taker scores in calculating the NCLEX examination pass rate.

Thomas O'Neill, PhD, Associate Director of NCLEX Examinations at NCSBN, said that "repeaters as a group typically score lower than first time examinees since only failures are taking the test. The high-ability candidates will not be a part of the repeating cohort. Including repeaters will typically lower a school's pass rate." He indicated that it seems somewhat unfair to punish the educational program repeatedly for graduating a student who perhaps should not have graduated.

Dr. O'Neill co-authored a NCSBN research brief entitled "NCLEX® Delay Pass Rate Study" which indicated that the NCLEX passing rates tend to decrease with increased time between the date of becoming eligible to sit for the examination and the test date itself. It was also evident from the study results that large volumes of candidates who are repeat testers are waiting to test longer and are producing the lowest passing rates. In addition, the repeater populations of both the RN and VN candidates taking the examinations continue to grow even though eventually most candidates do pass the examination.

NCLEX EXAMINATION DATA FOR TEXAS:

Texas RN Programs - NCLEX Examination Pass Rate for October 1, 2006 - September 30, 2007:

	Candidates (Repeaters + First-Time Test-Takers) Testing in Texas	First-Time Test-Takers Testing in Texas	All Candidates (Repeaters + First- Time Test-Takers) Testing in Texas and Out-of-State	First-Time Test-Takers Testing in Texas and Out-of-State
Number Tested	7762	6831	7932	7001
Number Passed	6679 = 86.05%	6158 = 90.15%	6835 = 86.17%	6314 = 90.19%

Texas PN Programs - NCLEX Examination Pass Rate for January 1, 2006 - December 31, 2006:

	Candidates (Repeaters + First-Time Test-Takers) Testing in Texas	First-Time Test-Takers Testing in Texas	All Candidates (Repeaters + First- Time Test-Takers) Testing in Texas and Out-of-State	First-Time Test-Takers Testing in Texas and Out-of-State
Number Tested	5019	4485	5064	4440
Number Passed	4399 = 87.65%	4079 = 90.95%	4435 = 87.58%	4034 = 91.06%

NCLEX Examination Pass Rate Data Reported:

	Number of RN Programs	Number of VN Programs
n = programs with reported NCLEX examination pass rate during examination year	86*	111*
Programs which would have an increased pass rate if repeaters were factored into the Examination Pass Rate	12**	21**

	Number of RN Programs	Number of VN Programs
Programs which had an Examination Pass Rate below 80% that would be moved to 80% or above by adding repeaters' scores	0***	0***
Programs where the pass rate would remain the same when repeaters' scores were included	5****	31****
Programs where a drop in Examination Pass Rate would occur when repeaters' scores were included	69*****	59*****
Programs where Examination Pass Rate would drop below 80% when repeaters' scores were included	12	14

LEGEND:

- * = The number of programs reported each year varies due to changes in the number of approved programs in the state and consolidations of programs within one school resulting in collapsing the NCLEX examination program codes into one. The 86 professional and 111 vocational nursing educational programs had separate program codes at the end of the examination year.
- ** = The range of additional points that would have been added to the pass rate for each RN program to cause an increased pass rate fell between 0.03 and 2.71 points, with a mean of 0.64 and a mode of 0.17 points. The range of additional points that would have been added to the pass rate for each VN program to cause an increased pass rate fell between 0.02 and 7.50 points, with a mean of 0.94 and a mode of 0.44 points. (Note: 7.50 was an outlier; the second highest number of points is 2.15 points. If the outlier were removed, the mean of additional points that would be added would be 0.58.)
- *** = Including scores from repeat test-takers with the examination pass rate would not move any RN or VN program from a pass rate below 80% to 80% or above.
- **** = A number of programs would not have experienced any change in their examination pass rate when repeat test-takers' scores were included. These were usually programs who had a 100% pass rate.
- ***** = 80% of the RN programs and 53% of the VN programs would experience a drop in the examination pass rate when repeat test-takers' scores were included. The range of points that would drop from the RN programs' pass rate fell between 0.30 to 16.59 points with a mean of 4.55 and a mode of 3.23 points. The range of points that would drop from the VN programs' pass rates fell between 0.27 to 15.33 points with a mean of 4.85 and a mode of 3.52 points.

It is significant that **12** RN programs and **14** VN programs would experience an examination pass rate of below 80% if repeat test-takers' NCLEX scores were included in the calculation for this year. This would raise the number of programs with low pass rates from **8** to **20** for RN programs and from **8** to **22** for VN programs.

DISCUSSION:

- This report cannot address the impact of including second-time test-takers in the NCLEX examination pass rates because this information is not provided by NCSBN.
 - The reported information from NCSBN relates to all repeat test-takers, not to only second time test-takers.
 - Determining which repeat candidates are taking the NCLEX examination for the second time would be work intensive because of the time required for tracking each failure and recalculating the examination pass rate.
 - Other complications would arise since an applicant might test a second time in the subsequent examination year rather than in the same examination year. This change would raise many questions about the process of determining examination pass rates.
- The best measure of the effectiveness of the nursing educational program is the results from the NCLEX examination taken as early as possible after the applicant completes the program of study. Repeat test-taker scores on the NCLEX examination are mediated by other factors such as review strategies that occur post graduation.
- In the analysis of the impact of using repeat test-takers NCLEX scores in the examination pass rate, 80.23% (69 of 86) of the RN programs and 53.15% (59 of 111) of the VN programs would experience a drop in their pass rate. Twelve additional RN programs and 14 additional VN programs' examination pass rates would fall below the required 80%.
- No programs' examination pass rate which was below 80% for the examination year studied would have increased to above 80% when repeat test-takers scores were included.
- In general, since repeat test-takers typically score lower than first time test-takers, the inclusion of these scores will usually lower a program's examination pass rate.
- A change in the method that the Texas BON currently utilizes to calculate NCLEX pass rates for Texas nursing educational programs to include repeat test-takers would be a significant difference from the method used in all other states nationwide.
- Additionally, a method incorporating the results of repeat test-takers into program pass rates would be outside the program evaluation techniques recommended by educational researchers.

STAFF RECOMMENDATION:

This is an information report. No recommendation is necessary.