Jan. 25, 2024

National Nursing Education Database:
2021–2022 Aggregate Data

Results

Table 2

and seven master's entry programs in this sample, which limits generalizations across those populations. As can be seen from Table 2, the majority of the bachelor's and accelerated bachelor's programs are urban, while the majority

2020–2021 data. The majority of LPN/VN, associate's and bachelor's programs are publicly owned, though 44.4% of

programs are similar to those from 2020–2021. Regarding learning modalities, only 20.7% of the accelerated Bachelor of Science in Nursing (BSN) programs are in–person only, though the majority of the other program types are in-person-only (range from 56.8% to 80%). This compares to the 2020–2021 data, though the accelerated BSN programs had more in-person-only learning in 2020–2021 (39.1%). Similar to 2020–2021 data, online-only learning is present in associate's and accelerated BSN programs to a very limited extent and not at all in the other programs. Of the six program types evaluated, between 20% and 75.9% had some hybrid component. The literature often cites

Table 3. Breakdown of Program Hours by Program Type						
	LPN/VN	Diploma	Associate's	Bachelor's	Accelerated BSN	Master's Entry
N	330	5	367	234	29	7
Direct Patient Care Hours						
Mean	406.13	612.00	445.43	610.29	552.85	736.57
SD	±181.68	±392.98	±299.58	±240.2	±156.75	±155.14
Simulation Hours						
Mean	46.96	56.30	67.44	83.26	93.31	59.57
SD	±43.73	±32.75	±57.45	±62.29	±63.3	±26.92
Skills Lab Hours						
Mean	110.86	99.30	105.05	112.03	108.14	104.14
SD	±63.54	±59.20	±78.59	±69.71	±69.41	±56.73

Table 4 reports on the trend of direct care clinical experience hours from 2010 through 2022. The 2010 and 2017 data on direct care clinical experience hours were obtained in national studies by NCSBN (Smiley, 2019), while the 2020–2021 and 2021–2022 data are from the aggregate Annual Report data, from participating NRBs, for those years (NCSBN, 2023). As is apparent in Table 4, direct care clinical hours have decreased in U.S. nursing programs since 2010. When comparing direct care clinical hours across English speaking countries, Hungerford (2019) found in a scoping review exercise that the U.S. lags behind Australia, New Zealand and the United Kingdom[3]. The pandemic could be a reason for decreasing hours in 2020–2021 and 2021–2022, so we will see if this downward trend reverses with the 2022–2023 data. While direct care clinical hours are pivotal to positive outcomes in nursing education

students should have. This is an important indicator to monitor.

Table 4. Trend of Direct Care Clinical Hours from 2010–2022				
	2010 (median hours)	2017 (median hours)	2020-21 (mean hours)	2021-22 (mean hours)
Master's Entry	770	780	665	736.57
Bachelor's	765	712	625.64	610.29
Associate's	628	573	437.61	445.43
Diploma	720	683	530.21	612.00
LPN/VN	(data not collected)	565	386.3	406.13

NCSBN's mixed-methods, national study of nursing education, followed by an analysis of the data by researchers, educators, attorneys and regulators, determined the key quality indicators of nursing education programs (Spector et al., 2020). It is crucial for nursing education programs and NRBs to identify any quality indicators that have not been met so that programs can be proactive in making improvements before their outcomes are adversely impacted. Therefore, the Annual Reports that the NRBs and nursing programs receive have a summary of the eight key quality indicators that need to be met. Table 5 illustrates the percentage of the 972 nursing programs, across program types, in the 2021–2022 Annual Report program that met, or did not meet, the quality indicators. Nursing programs can present these national data to their administrators to convince them that more resources and/or funding are needed so they will meet national standards.

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3 Australia mandates 800 hours; New Zealand mandates 1100 hours; the United Kingdom mandates 2300 hours.

Compared to the 2020–2021 Annual Report aggregate data for programs meeting quality indicators (NCSBN, 2023), the 2021–2022 data are similar. For example, LPN/VN programs continue to lag behind other nursing programs for national nursing accreditation. The literature suggests that national nursing accreditation leads to better program

changes. Some of these changes include new director or assistant/associate director, staff or faculty layoff, changes

etc. The research suggests that this lack of upper administrative support is associated with poorer outcomes (Spector et al., 2020). There were 26.4% (similar to the percentage in 2020–2021) of the programs in this database that had less than 35% full-time faculty, which is a major quality indicator and can lead to poorer outcomes (Spector et al., 2020). In the 2021–2022 database, we found that on-time graduation rates of 70% (used by the U.S. national nursing accreditors and the U.S. Department of Education) are not being met by programs. While graduation rates

had been consistently collecting those data. However, we are now consistently collecting those data and will be statistically analyzing if on-time graduation rates are associated with better program outcomes. Indeed, 45.4% of the programs in the 2021–2022 database have less than 70% graduation rates.

Table 5. Key Quality Indicators Across Nursing Program Types							
	LPN/VN	Diploma	Associate's	Bachelor's	Accelerated BSN	Master's Entry	Grand Total
N	330	5	367	234	29	7	972
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Accreditation Status							
Yes	42 (12.7%)	3 (60.0%)	283 (77.1%)	227 (97.0%)	29 (100.0%)	7 (100.0%)	591 (60.8%)
No	288 (87.3%)	2 (40.0%)	84 (22.9%)	7 (3.0%)	0 (0.0%)	0 (0.0%)	381 (39.2%)
Programs' Approval Status							
Fully Approved	303 (91.8%)	4 (80.0%)	326 (88.8%)	216 (92.3%)	26 (89.7%)	6 (85.7%)	881 (90.6%)
Not Approved/Conditional/ Probationary or Warning Status	27 (8.2%)	1 (20.0%)	41 (11.2%)	18 (7.7%)	3 (10.3%)	1 (14.3%)	91 (9.4%)
Experienced Major Organizational Changes							
Yes	144 (43.6%)	3 (60.0%)	166 (45.2%)	131 (56.0%)	21 (72.4%)	5 (71.4%)	470 (48.4%)
No	186 (56.4%)	2 (40.0%)	201 (54.8%)	103 (44.0%)	8 (27.6%)	2 (28.6%)	502 (51.6%)
Director Turnover							
Less than or Equal to Three Directors over the Past Five Years	308 (93.3%)	5 (100.0%)	328 (89.4%)	213 (91.0%)	23 (79.3%)	7 (100.0%)	884 (90.9%)
More than Three Directors over the Past Five Years	22 (6.7%)	0 (0.0%)	39 (10.6%)	21 (9.0%)	6 (20.7%)	0 (0.0%)	88 (9.1%)
Less Than 50% Direct Care Clinical Experience							
Greater than 50% Direct Care Clinical Experience	309 (93.6%)	5 (100.0%)	343 (93.5%)	226 (96.6%)	29 (100.0%)	7 (100.0%)	919 (94.5%)
Less than 50% Direct Care Clinical Experience	21 (6.4%)	0 (0.0%)	24 (6.5%)	8 (3.4%)	0 (0.0%)	0 (0.0%)	53 (5.5%)
Less Than 35% Full-Time Faculty							
Greater than 35% Full-Time Faculty	266 (80.6%)	3 (60.0%)	265 (72.2%)	163 (69.6%)	13 (44.8%)	5 (71.4%)	715 (73.6%)
Less than 35% Full-Time Faculty	64 (19.4%)	2 (40.0%)	102 (27.8%)	71 (30.3%)	16 (55.2%)	2 (28.6%)	257 (26.4%)

Table 5. Key Quality Indicators Across Nursing Program Types							
	LPN/VN	Diploma	Associate's	Bachelor's	Accelerated BSN	Master's Entry	Grand Total
N	330	5	367	234	29	7	972
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Less Than 70% Graduation Rate							
Greater than or Equal to 70% Graduation Rate	150 (45.5%)	0 (0.0%)	199 (54.2%)	159 (67.9%)	18 (62.1%)	5 (71.4%)	531 (54.6%)
Less than 70% Graduation Rate	180 (54.5%)	5 (100.0%)	168 (45.8%)	75 (32.1%)	11 (37.9%)	2 (28.6%)	441 (45.4%)
Programs Established 2017 or Before 2017/After 2017							
2017 or before	313 (94.9%)	5 (100.0%)	330 (89.9%)	209 (89.3%)	23 (79.3%)	3 (42.9%)	883 (90.8%)
After 2017	17 (5.1%)	0 (0.0%)	37 (10.1%)	25 (10.7%)	6 (20.7%)	4 (57.1%)	89 (9.2%)

(Spector et al., 2020) and these are highlighted in Table 6. While most programs provide disability support services, services for students with low socioeconomic statuses and formal remediation for students needing academic support, English as a second language (ESL) services/resources are missing in many nursing programs. While 1.56 (20.7%sing

Table 6. Other Quality Indicators							
	LPN/VN	Diploma	Associate's	Bachelor's	Accelerated BSN	Master's Entry	Grand Total
N	275	7	326	208	23	4	843
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Formal Remediation Process for Students Committing Errors/Near Misses							
Yes	263 (79.7%)	3 (60.0%)	309 (84.2%)	188 (80.3%)	26 (89.7%)	6 (85.7%)	795 (81.8%)
No	67 (20.3%)	2 (40.0%)	58 (15.8%)	46 (19.7%)	3 (10.3%)	1 (14.3%)	177 (18.2%)
Certif ed Simulation Faculty							
Yes	29 (8.8%)	2 (40.0%)	70 (19.1%)	70 (29.9%)	13 (44.8%)	4 (57.1%)	188 (19.3%)
No	244 (73.9%)	3 (60.0%)	284 (77.4%)	155 (66.2%)	16 (55.2%)	3 (42.9%)	705 (72.5%)
Does not offer simulated clinical experience	57 (17.3%)	0 (0.0%)	13 (3.5%)	9 (3.8%)	0 (0.0%)	0 (0.0%)	79 (8.1%)
Accredited Simulation Lab							
Yes	7 (2.1%)	0 (0.0%)	10 (2.7%)	14 (6.0%)	8 (27.6%)	1 (14.3%)	40 (4.1%)
No	266 (80.6%)	5 (100.0%)	344 (93.7%)	211 (90.2%)	21 (72.4%)	6 (85.7%)	853 (87.8%)
Does not offer simulated clinical experience	57 (17.3%)	0 (0.0%)	13 (3.5%)	9 (3.8%)	0 (0.0%)	0 (0.0%)	79 (8.1%)

Conclusion

This 2021-2022 national report of 972 nursing education programs is provided for NRBs and nursing programs to benchmark nursing education metrics to these evidence-based quality indicators. Nurse regulators can work with *before* outcomes (such as NCLEX pass rates) are adversely affected. These 2021–2022 data illustrate the nursing education trends:

- Clinical experience hours have decreased since 2010, though there has been a slight improvement since 2020–2021;
- More than 50% of the nursing programs have no resources and programs for ESL students;
- LPN/VN programs lag behind other nursing programs for being nationally nursing accredited;
- More than a quarter of all nursing programs have less than 35% of their faculty being full-time;
- Many nursing programs do not have a 70% on-time graduation rate;
- Higher administration is often not supportive of nursing education; and
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More states are joining this Annual Report Program every year and our goal is for all NRBs to participate in the program. This database is a major contribution to nursing education and we are grateful to the NRBs and nursing programs that have participated.

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