



Accelerated Education Opportunities for Nurses and Physicians

HCAI Health Workforce Education and Training (HWET) Council Discussion Brief

Alexandra Ament and Diane Rittenhouse

September 2023

Why This is Important

- / California faces shortages of health professions such as nurses, physicians, and behavioral health professionals. In addition, California's health professional workforce is insufficiently diverse with regard to racial/ethnic and socio-economic backgrounds.
- / Accelerated health professional training programs permit health professions students to complete their graduation requirements more quickly than traditional programs allowing them expedited entry into the workforce.

Context

- / Traditional medical and nursing degree programs are described in Table 1.
- / Accelerated health professional degree programs vary in how they shorten the length of training. They can be single degree programs that shorten the length of time to receive one degree (e.g. 3-year MD); or dual degree programs that either combine a bachelor's degree with a graduate degree (e.g. BA/MD) or confer two graduate-level degrees (e.g. MD/MPH). For example,
 - Students who receive a bachelor's degree in any subject then decide to pursue nursing can enter accelerated BSN programs, often called second-degree BSN programs.
 - As of 2020, 35% of US medical schools have, or are developing, accelerated 3YMD pathways.ⁱ (In the 1970s and 1980s, 3-year MD programs were more common in the United States, though many closed due to discontinuation of government funding and a predicted improvement of the physician shortage.ⁱⁱ)
 - At least 45 universities across the United States and Puerto Rico offer combined BA/MD degrees.ⁱⁱⁱ Not all of these programs are accelerated, however.
 - Many accelerated medical school programs include admission to an affiliate residency program, referred to as a 3+3 (UME/GME) program. Some of these programs also include a focus, such as on primary care, a social mission, or an emphasis rural care.
- / Positive impacts of accelerated health professional degree programs include:
 - The ability for graduates to enter the workforce sooner
 - The ability for graduates to enter the workforce at lower overall cost to the student (assumes accelerated programs are less expensive programs, which is not always the case)
 - The ability for graduates to enter the workforce with a lower educational debt (assumes accelerated programs are less expensive programs, which is not always the case). the possibility of a more flexible educational schedule than traditional programs, particularly if there is a significant online component

- / Negative impacts of accelerated health professional degree programs include:
 - The perception that graduates are not as well trained^{iv,v}
 - Questions about medical students maturity to enter the workforce at younger ages^{vi}
 - The potential loss of revenue at professional schools due to shortened training; (some have compensated by charging for the degree instead of tuition)
 - The increased cost of some accelerated nursing programs, which can be more expensive than traditional nursing programs^{vii}
 - The possibility of increased stress on students, as workloads can be heavier due to a compacted schedule

What the Evidence Says

- / Few evaluation studies exist in the published literature. Those studies that do exist focus on accelerated training programs for nurses and physicians. Most information is available about dual degree BA/MD and accelerated 3-year MD programs.
- / There is wide variability among nursing programs' nomenclature, scope, clinical practice hours, and graduation requirements, making comparisons among accelerated programs difficult.^{viii} One systematic review of the literature from 1994 through 2015 found strong evidence that college graduates entering BSN courses in the U.S. as accelerated students have similar or better outcomes in attrition and success rates compared to traditional students.^{ix}
- / A published case study of an accelerated associate degree nursing program at a mid-Atlantic community college also found retention rates and academic success equivalent to, or slightly higher than, the traditional program.^x
- / A more recent scoping review concluded that accelerated BSN and MSN students and graduates have higher program satisfaction, similar or better academic performance, and lower attrition rates than their counterparts in traditional programs; however, due to the accelerated nature of these programs, students seemed to lack sufficient time to learn clinical skills, causing them to feel less confident.^{xi}
- / Evaluations comparing the performance of nursing graduates from traditional and accelerated programs have largely not been done. In 2013 a cross-sectional survey of new graduate nurses with less than 3 years' experience from across Canada determined there were few significant differences between nurses who graduated from accelerated vs. traditional programs in terms of how confident they were transitioning to practice, their career satisfaction, and job retention.^{xii}
- / Multiple studies have found that there is no difference in performance between students from 3-year medical school programs versus those from 4-year programs.^{xiii,xiv,xv}
 - Tulane University concluded that there was no statistical difference between the academic performance of its accelerated students compared to its traditional students in the evaluation of its accelerated program, comprised of 2 years of undergraduate training, one year of public service, followed by 4 years of medical school.^{xvi}
 - A study from Northwestern University from 1999 to 2013 compared students coming from their accelerated Honors Program in Medical Education (3yrBA/4yrMD) with the other students in their medical school. The evaluation suggested that dual degree BA/MD programs allowed students more freedom for academic exploration and a less stressful undergraduate experience without having the

pressure of maintaining a high grade point average and preparing for the Medical College Admission Test (MCAT). The academic performance of both groups was equivalent.^{xvii}

- In 2022, a comparison study of students from 9 medical schools having both accelerated (3yr MD) and traditional (4yr MD) programs in 2018 and 2019 demonstrated that students from 3-year MD programs were equally satisfied with the quality of their education, had a more positive student-faculty interaction, graduated with less debt, and were more likely to pursue family medicine and care for medically underserved patients. The study also showed no difference in testing or academic performance.^{xviii}

For Discussion

- / What are the greatest barriers to developing and sustaining accelerated programs in California?
- / How can HCAI help expand access to accelerated programs in California?
- / How can HCAI help make accelerated programs more affordable?
- / How can HCAI help to ensure a diverse student population has equitable access to accelerated programs?
- / How can HCAI help to spread accelerated programs across the state?

Appendix

Table 1. Nursing and physician degree types

Degree name	Abbreviation	Typical time to complete	Educational setting
Licensed Vocational Nurse	LVN	12–14 months	Community college
Associate Degree in Nursing	ADN	2–3 years	Community college
Bachelor of Science in Nursing	BSN	4 years	Undergraduate college or university
Master of Nursing Practice	MNP	2 years (after bachelor’s degree)	Graduate school
Doctor of Nursing Practice	DNP	4 years (after bachelor’s degree)	Graduate school
Doctor of Medicine	MD	4 years (after bachelor’s degree)	Graduate (medical) school
Doctor of Osteopathic Medicine	DO	4 years (after bachelor’s degree)	Graduate (osteopathic) school

Endnotes

ⁱ Cangiarella J, Cohen E, Rivera R, Gillespie C, Abramson S. Evolution of an Accelerated 3-Year Pathway to the MD Degree: The Experience of New York University Grossman School of Medicine. *Acad Med*. 2020 Apr;95(4):534-539. doi: 10.1097/ACM.0000000000003013. PMID: 31577593.

ⁱⁱ Schwartz CC, Ajarapu AS, Stamy CD, Schwinn DA. Comprehensive history of 3-year and accelerated US medical school programs: a century in review. *Med Educ Online*. 2018 Dec;23(1):1530557. doi: 10.1080/10872981.2018.1530557. PMID: 30376794; PMCID: PMC6211283.

ⁱⁱⁱ For a list of current schools, see <https://students-residents.aamc.org/medical-school-admission-requirements/medical-schools-offering-combined-baccalaureate-md-programs-state-and-program-length-2021-2022>.

^{iv} Goldfarb S, Morrison G. The 3-year medical school—Change or shortchange? *N Engl J Med*. 2013;369:1087–1089.

- ^v Cangiarella J, Gillespie C, Shea JA, Morrison G, Abramson SB. Accelerating medical education: A survey of deans and program directors. *Med Educ Online*. 2016;21:31794.
- ^{vi} Borges NJ, Richard GV, Duffy RD. Career maturity of students in accelerated versus traditional programs. *Career Dev Q*. 2007;56:171–176.
- ^{vii} Lisa Johnson, Barbara McLaughlin, Lauren Tavolaro-Ryley, Dan Larmour. Increasing capacity with an accelerated post-baccalaureate associate degree in nursing. *Teaching and Learning in Nursing*, Volume 18, Issue 1, 2023, Pages 193–196, ISSN 1557-3087, <https://doi.org/10.1016/j.teln.2022.10.004>.
- ^{viii} Jones KD, Hayes R, McCauley L. Strategies to Evaluate and Enhance Accelerated Second-Degree Nursing Pathways. *Nurse Educ*. 2023 Mar–Apr 01;48(2):59–64. doi: 10.1097/NNE.0000000000001344. Epub 2023 Jan 5. PMID: 36728482.
- ^{ix} Doggrell SA, Schaffer S. Attrition and success rates of accelerated students in nursing courses: a systematic review. *BMC Nurs*. 2016 Apr 8;15:24. doi: 10.1186/s12912-016-0145-7. PMID: 27064943; PMCID: PMC4825075.
- ^x Madelyn Danner, Laura Cianelli Preston. Development of accelerated options in an associate degree nursing program. *Teaching and Learning in Nursing*, Volume 9, Issue 2, 2014, Pages 80–83, ISSN 1557-3087, <https://doi.org/10.1016/j.teln.2013.12.001>.
- ^{xi} Lee H, Song Y. Kirkpatrick Model Evaluation of Accelerated Second-Degree Nursing Programs: A Scoping Review. *J Nurs Educ*. 2021 May;60(5):265–271. doi: 10.3928/01484834-20210420-05. Epub 2021 May 1. PMID: 34039135.
- ^{xii} Read E, Laschinger HKS. Transition experiences, intrapersonal resources, and job retention of new graduate nurses from accelerated and traditional nursing programs: A cross-sectional comparative study. *Nurse Educ Today*. 2017 Dec;59:53–58. doi: 10.1016/j.nedt.2017.08.014. Epub 2017 Sep 8. PMID: 28941879.
- ^{xiii} Cangiarella J, Fancher T, Jones B, Dodson L, Leong SL, Hunsaker M, Pallay R, Whyte R, Holthouser A, Abramson SB. Three-Year MD Programs: Perspectives From the Consortium of Accelerated Medical Pathway Programs (CAMPP). *Acad Med*. 2017 Apr;92(4):483–490. doi: 10.1097/ACM.0000000000001465. PMID: 27805950.
- ^{xiv} Coe CL, Baker HM, Byerley JS, Page CP. Fully Integrated Readiness for Service Training (FIRST): An Accelerated Medical Training Program for Rural and Underserved North Carolina. *Acad Med*. 2021 Oct 1;96(10):1436–1440. doi: 10.1097/ACM.0000000000003946. PMID: 33538484.
- ^{xv} Chang LL, Grayson MS, Patrick PA, Sivak SL. Incorporating the fourth year of medical school into an internal medicine residency: effect of an accelerated program on performance outcomes and career choice. *Teach Learn Med*. 2004 Fall;16(4):361–4. doi: 10.1207/s15328015tlm1604_9. PMID: 15582873.
- ^{xvi} Woodson MJ, Morris CA, Mullin DA, Maclaren JM, Rhines BW, Nance AB, Sachs B, Kahn MJ. The Tulane accelerated physician training program (TAP-TP): A novel combination of scholarship and service. *Med Teach*. 2021 Mar;43(3):320–324. doi: 10.1080/0142159X.2020.1841888. Epub 2020 Nov 11. PMID: 33174481.
- ^{xvii} Green MM, Welty L, Thomas JX Jr, Curry RH. Academic Performance of Students in an Accelerated Baccalaureate/MD Program: Implications for Alternative Physician Education Pathways. *Acad Med*. 2016 Feb;91(2):256–61. doi: 10.1097/ACM.0000000000000804. PMID: 26164638.
- ^{xviii} Leong SL, Gillespie C, Jones B, Fancher T, Coe CL, Dodson L, Hunsaker M, Thompson BM, Dempsey A, Pallay R, Crump W, Cangiarella J. Accelerated 3-Year MD Pathway Programs: Graduates' Perspectives on Education Quality, the Learning Environment, Residency Readiness, Debt, Burnout, and Career Plans. *Acad Med*. 2022 Feb 1;97(2):254–261. doi: 10.1097/ACM.0000000000004332. PMID: 34380931; PMCID: PMC8781222.