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Nurses for the Future

Linda H. Aiken, Ph.D., R.N.

On October 5, 2010, the Institute of Medicine (IOM) issued a report in which it recommended that the proportion of nurses in the United States who hold at least a bachelor's degree be increased from its current level of 50% to 80% by 2020.[1] The education of nurses may seem to be a less pressing matter than providing access to care for millions of uninsured Americans and making care affordable, effective, and safe for all. Yet if we don't alter the historical patterns of nursing education, the country's nursing resources will be crippled for the foreseeable future — with repercussions for all those patient-focused goals.

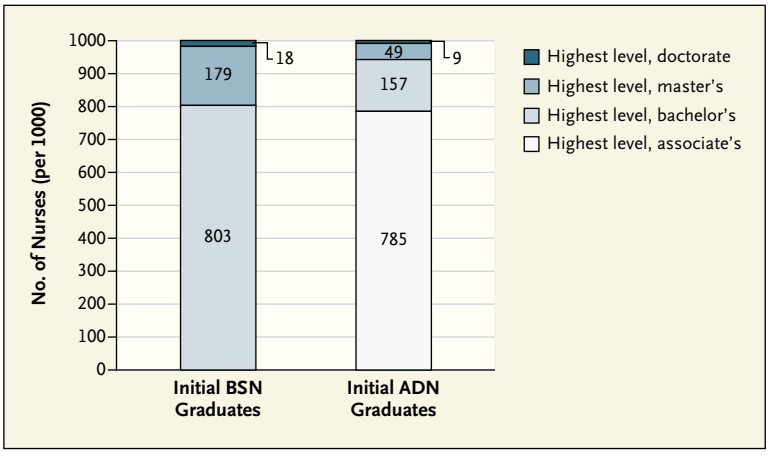
Nursing schools are turning away tens of thousands of qualified applicants because of budget constraints and a worsening faculty shortage. Within the next 10 years, half of nursing-school faculty members will reach retirement age; the anticipated attrition represents a crisis in the making, with potentially far-reaching consequences for the replenishment of the nurse workforce, which is itself on the verge of losing some 500,000 nurses to retirement.

The number of new graduates from nurse-practitioner programs has remained flat, at about 8000 per year, despite rapidly escalating demand. The 80-hour workweek for resident physicians was made possible by teaching hospitals' hiring of thousands of advanced-practice registered nurses (APRNs). More than 3 million American families annually have received care at some 1100 new retail clinics staffed primarily by APRNs. APRNs have facilitated the largest expansion of community health centers since the 1960s, with 7354 sites throughout the country now providing care for more than 16 million people. Nurse anesthetists administer an estimated 30 million anesthetics to patients each year. Moreover, a number of health care reform initiatives are predicated on APRNs' filling a range of new roles in primary care, prevention, and care coordination.

Why has the graduation rate of APRNs stalled when there are so many good employment opportunities for nurses, and why is there a looming shortage of nursing faculty? The answer is simple, although the solution may not be: to qualify for faculty or APRN positions, most nurses have to return to school after obtaining their basic education and licensure to acquire two or more additional academic degrees — a prospect that is simply not feasible for most practicing nurses.

Approximately 60% of new nurses graduate from associate's degree programs, 36% from bachelor's degree programs, and 3% from hospital-sponsored diploma programs. The creation of multiple educational entry points to nursing has been promoted by public policies designed to optimize access to nursing education for a diverse student body, promote wide geographic distribution in supply, and keep costs affordable. But a serious unintended consequence of permitting the majority of new graduates to enter nursing practice with an associate's degree or less is that too few nurses advance through multiple additional degrees to qualify as faculty or APRNs.

The graph shows the yield of graduate degrees according to the type of basic nursing education received. For every 1000 nurses who initially graduated



Highest Degree Attained by Nurses According to Initial Type of Education, per 1000 Graduates, 1974–2004.

ADN denotes associate's degree in nursing, and BSN bachelor of science in nursing. Figures are based on the author's calculations using unpublished data from the 2004 National Sample Survey of Registered Nurses, Health Resources and Service Administration, Bureau of Health Professions, Division of Nursing.

from a bachelor's degree program between 1974 and 1994, almost 200 eventually obtained a master's or higher degree. In contrast, only 58 of every 1000 nurses who initially graduated from an associate's degree program obtained at least a master's degree. Moreover, twice as many nurses with an initial bachelor's degree ultimately obtained a doctorate, a finding that is relevant to the IOM's call for a doubling of the number of doctoral level nurses by 2020.

Of the approximately 72,000 nurses graduating from associate's degree nursing programs in 2010, only about 4000 are likely to ever obtain a master's or higher degree — a yield that cannot produce enough faculty to replenish a workforce of more than 3 million nurses. Had the proportions of registered nurses with initial education in bachelor's and associate's degree programs been reversed between 1974 and 1994, with the larger proportion being bachelor's graduates, there would probably have been 50,000 more nurses today with master's or higher degrees.[2]

The IOM is recommending the creation of more efficient pathways for nurses to obtain additional education after licensure. Among the benefits of a more highly educated nurse workforce is the potential for improving patient outcomes.[3] However, unless patterns of initial education are changed, the stream of nurses into graduate education will not be large enough to avert shortages of faculty and APRNs. There is a limit to the number of degrees nurses can reasonably be expected to obtain after licensure.

The most promising strategy for producing enough faculty members and APRNs is for all prelicensure nurse-education programs to confer bachelor's degrees. Because of licensure requirements, there is no longer a substantial difference in the time to completion of associate's and bachelor's degrees in nursing: both take about 3 years of full-time study. The IOM has called for discontinuing hospital diploma programs entirely. Some states now permit community colleges to grant bachelor's degrees in nursing, which is a reasonable solution. Distance learning and simulation technologies, partnerships between educational institutions and clinical organizations, and more creative collaboration between community colleges and universities can facilitate the provision of a bachelor's degree to everyone who enters a prelicensure program. Students will not pass up an opportunity to obtain a bachelor's degree for the same time commitment and cost required for an associate's degree, and nursing schools, including community colleges, will respond to financial incentives that reward them for granting a bachelor's degree as the end point of basic nursing education.

Public funding for nursing education must be used to steer the change in basic nursing education, just as public funding for patient care steers change in health care delivery. More than $8 billion per year in Perkins funds from the Department of Education (an important source of funding for community colleges but outside the reach of health care workforce planning) could be used as part of a comprehensive federal strategy that would make it possible for all new nurses to graduate with a bachelor's degree. Baccalaureate education is a stated priority for Title 8 funds (annual appropriations administered by the Department of Health and Human Services that support nursing education), but funding levels are inadequate. The Nurse Training Act of 1964 expanded university

education for nurses and laid the groundwork for the development of APRNs.[4] We need an equivalent effort now. The approximately $160 million per year in Medicare funding for nursing education should be used to support clinical training of graduate-level APRNs rather than diploma nursing programs.[5]

It will be extremely difficult, if not impossible, to generate enough nursing faculty, APRNs, and nurses to fill leadership and executive roles requiring graduate-level education if entry-level nursing education does not shift entirely to the baccalaureate level. The stakeholders (educational institutions and students) will respond to financial incentives — which are, after all, the tried-and-true American way of bringing about change.

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Assessing an ACO Prototype — Medicare's Physician Group Practice Demonstration

John K. Iglehart

One of the few major provisions of the Affordable Care Act (ACA) with solid bipartisan support establishes a new delivery model: the accountable care organization (ACO). Congress directed the Department of Health and Human Services (DHHS) to develop an ACO program to improve the quality of care provided to Medicare beneficiaries and reduce its costs while retaining fee-for-service payment. Under this program, medical groups would have to take responsibility for achieving these goals and would share in any savings derived by Medicare.

Despite the burst of interest in ACOs, little attention has been paid to the results of a demonstration project sponsored by the Centers for Medicare and Medicaid Services (CMS) that was the model for the reform law's ACO provisions. In the Medicare Physician Group Practice (PGP) demonstration, the CMS contracted with 10 large multispecialty groups with diverse organizational structures, including free-standing physician groups, academic faculty practices, integrated delivery systems, and a network of small physician practices.[1]

As a share of total Medicare spending, fee-for-service expenditures for physician services have been relatively stable (13% of $491 billion in 2009). However, this payment model has been under attack because of its inherent incentive for increasing the quantity, but not necessarily the quality, of physician-delivered care. But policymakers vividly remember the backlash against managed care, whose capitation payments were seen as an incentive to stint on care, so with no new alternative to fee for service in the offing, Medicare's physician-payment policy has remained essentially static.[2]

In 2000, Congress tasked the DHHS with testing incentive-based payment methods for physicians, directing Medicare to encourage care coordination and investment in processes for more efficient service delivery and to reward physicians for improving health care outcomes. In response, the CMS designed the PGP project to examine whether care management initiatives could generate cost savings by reducing avoidable hospital admissions, readmissions, and emergency department visits, while improving quality.[1]

The demonstration began in April 2005, with 10 large group practices (ranging from 232 to 1291 physicians) operating in various regions of the country. Participating doctors received their regular Medicare fee-for-service payments, but the groups were also eligible for an 80% share of Medicare's savings ("performance payments") if the