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# FILLING THE HEALTHCARE VOID

By 2020, Americans might find that a simple trip to the doctor's office isn't so simple anymore. As the Baby Boom generation nears retirement age, the U.S. health care system is suffering from a severe shortage of physicians and other health care professionals.

The number of new physicians licensed each year has held steady for the past two decades, while demand for health care services has climbed sharply. Predictions vary, but the shortfall could be as high as 200,000 doctors by 2020.

The situation in Pennsylvania is particularly acute, as the state has seen an exodus of doctors fleeing high malpractice insurance premiums, just as the state's elderly population – the biggest consumers of health care – is set to expand by 23 percent. Pennsylvania is already short by as many as 10,000

physicians; to make up the deficit, the state needs 25 percent more doctors.

That's unlikely to happen. Training a physician takes 10 years. This year's new doctors started school in 1997, well before any shortage was anticipated.

To help fill this gap between demand and supply, the health care community is increasingly turning to nurse practitioners, highly trained specialists who are able to assume some of the duties normally carried out by physicians. By redefining the traditional physician and nurse roles, the need for additional doctors could be reduced by as much as 50 percent. Pennsylvania Gov. Edward G. Rendell, in his "Prescription for Pennsylvania" health care proposal, called for a dramatic expansion of the role played by nurse practitioners in the state.



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CARL ROSS, PH.D., CRNP, CNE + PROFESSOR OF NURSING

Robert Morris University's School of Nursing is emerging as a regional and national leader in addressing these critical shortages. This fall, the University is launching a Doctor of Nursing Practice degree program, the first such program to gain approval from the Pennsylvania State Board of Nursing. Nationally, only a handful of universities offer D.N.P. programs. And **Lynda Davidson, Ph.D., RN**, dean of RMU's School of Nursing, is helping to draft the accreditation rules that will shape doctoral education for nurses across the country in the coming years.

Primary care physicians have traditionally served several key roles in the health care system. They are a major source of health and wellness information. They help chronically ill patients manage their conditions. And they act as a sieve for the rest of the health care industry, sifting out and treating patients with common illnesses and sending those with more complicated diseases on to the appropriate specialist.

Pennsylvania's shortage of primary care physicians stems from several factors. The state's roughly 32,000 physicians are nearing retirement, and as they get older, they work

fewer hours. The effect on doctor productivity is equivalent to losing 4,000 full-time physicians, according to research by **Stephen Foreman, Ph.D.**, associate professor of health care administration and economics at RMU. Additionally, doctors are facing declining insurance reimbursements and escalating costs for malpractice insurance. Pennsylvania malpractice rates are up to five times higher than those in neighboring states. To help pay the bills, physicians are increasingly gravitating toward more lucrative specialty practices such as cardiology, orthopedics and internal medicine.

Compounding the problem is a shortage of nurses at all levels of practice. If current trends don't change, the U.S. will be facing a projected 29 percent shortfall in registered nurses by 2020. Nurse practitioners are also in short supply, and the country needs to add 3,400 each year for the next 13 years. Pennsylvania needs up to 930 more nurse practitioners per year to help make up for its deficit.

Faced with this understaffing crisis, the health care industry is looking to nurse practitioners as a means to increase efficiency, improve care and reduce the number of nurses

who leave practice. The nurse practitioner role has been around since 1965, when the profession was created to help provide primary care during another time when the country was expecting a physician shortage. These advanced practice nurses completed extra education, often a master's degree, which provided additional experience in specialty areas such as family practice, adult health or acute care.

Today, there are more than 140,000 nurse practitioners working in hospitals and clinics. Since it costs far less to educate a nurse than a physician, nurse practitioners can do some of the same work more efficiently. They create a multiplier effect for physicians, taking on many common responsibilities that physicians used to handle and freeing up doctors to focus on patients with more complex problems. Nurse practitioners can also provide leadership and advocate for registered nurses, potentially increasing job satisfaction and reducing staff turnover, which averages 14 percent per year.

As demand builds for nurse practitioners, their need for advanced education and experience grows. Nurses in general, and nurse practitioners in particular, are expected to play a much greater role in patient care, now and in the future.

When Davidson started her career as a staff nurse in 1977, the nurse's role was seen as subordinate to that of the physician. Nurses took orders, and they rarely questioned a doctor's decision. "As a nurse in the 1970s, I would look at what was being ordered, and if there was a red flag or I saw something that didn't look right to me, I would call another doctor that I knew was an expert and say, 'I'm worried about this,'" Davidson says. "Then they would diplomatically contact the physician and talk about what he or she was doing. It was never me telling the doctor that this wasn't a good idea. We had to play the political game. It was very much a hierarchical situation."

This attitude has changed, partly due to patient safety concerns, partly because of cost pressures, and partly because nurses are expanding the scope of nursing as a profession. Studies consistently show that a team approach to providing care translates to better patient survival and recovery rates,

according to **Marge DiCuccio, RN**, who teaches graduate classes in RMU's nursing program and works as clinical director for critical care services at Children's Hospital in Pittsburgh. "Collaboration is really dependent on a high level of trust," she says.

The D.N.P. program at RMU will prepare nurses to function in this demanding, team-based environment and also teach them skills that used to be the domain of physicians.

The University based the new program on a five-part template for health professions education developed by the Institute of Medicine: patient-centered care, interdisciplinary teams, evidence-based practice, quality improvement and better use of informatics.

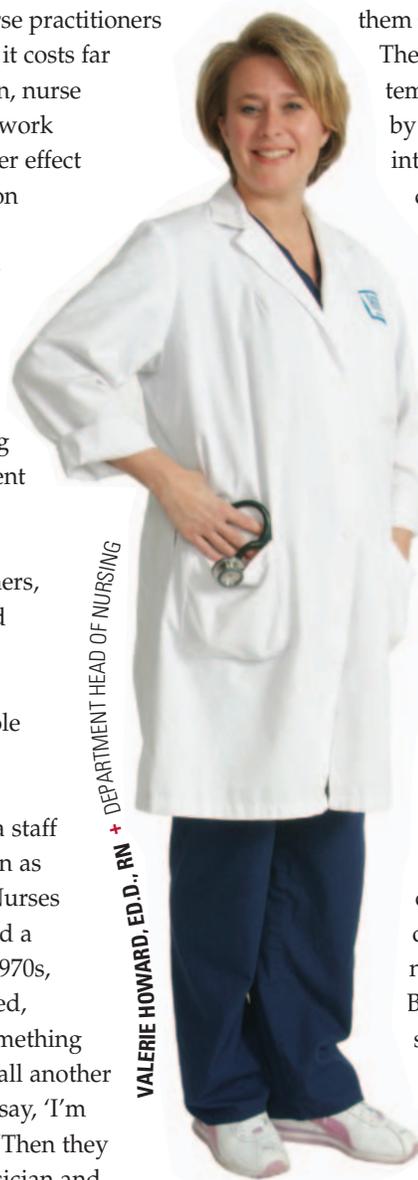
The D.N.P. will enhance the expertise of bachelor's and master's prepared nurses, allowing them to function at the highest level of nursing practice and assume greater independence.

Despite the impact this degree will have on the field of nursing, only about 30 universities now offer a D.N.P., including RMU. The American Association of Colleges of Nursing has recommended that all new advanced practice nurses should be educated at the doctoral level by 2015. The movement is so new that the Pennsylvania Department of Education had to import experts from two other states to review RMU's proposal.

RMU's program offers two options: a B.S.N. to D.N.P. program for nurses with a bachelor's degree, and an "executive format" D.N.P. completion program for advanced practice nurses who already hold master's degrees. Both programs began admitting students this spring, and classes will begin in the fall.

The D.N.P. completion program has attracted interest from as far away as Hawaii because students will spend only five days per semester on campus in classes. Students will complete assignments and clinical experiences in their home locations, relying on e-mail and the Internet to communicate with instructors. This part-time program Takes three years to complete.

B.S.N. to D.N.P. students can choose from three different tracks: adult nurse practitioner (ANP), family nurse practitioner (FNP) and psychiatric mental health nurse practitioner (PMHNP). The ANP and FNP tracks prepare nurses to provide primary care services to a wide range of



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age groups, including the elderly, but the family track also contains a component on caring for children.

The PMHNP track covers psychiatric illnesses, neuropharmacology and neurobiology. All three tracks emphasize several key skill sets. "Nurses will improve their ability to perform differential diagnoses,"

Davidson says. They will learn to identify the common illnesses and how to tell when a patient might have a more serious problem. The B.S.N. to D.N.P. option can be completed either full time in three years or part time in six years.

The D.N.P. program incorporates several of RMU's traditional strengths: strong nursing education, communications skills, business and technology. The University's Bachelor of

Science in Nursing program boasts one of the highest NCLEX exam pass rates in the state, and 100 percent of RMU's nursing graduates have found employment.

D.N.P. students will benefit from the same faculty and facilities that have spurred other graduates to success. Students will spend time studying the dynamics of teamwork, and they'll gain clinical experience in institutions such as Children's Hospital of Pittsburgh, Heritage Valley Health System and Magee-Womens Hospital. They'll study health care finance and health policy to gain a better understanding of the industry, and they'll use personal digital assistants, or PDAs, to complement their clinical practice.

A final critical piece of the D.N.P. program is the idea of evidence-based practice. "It means not just doing things because, well, we've been doing them that way forever," Davidson says. Nurses will learn to collect and analyze clinical data to spot problems and develop better procedures. "Somebody did a survey



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and found that sometimes nurses base their decisions on things like how much time they have," Davidson says. "That's not necessarily the best for the patient. Instead nurses should look at factors such as how sick the patient is, what is the diagnosis and what are the risks."

The next major hurdle for the D.N.P. program is earning accreditation from the Commission on Collegiate Nursing Education, a national organization that oversees nursing education in the U.S. But the CCNE hasn't had a chance to develop accreditation standards for the D.N.P. Davidson is among a group of educators that will create a process for other universities looking to offer a D.N.P. Her participation gives RMU a voice in the future of nursing.

Preparing nurse practitioners at a doctoral level is a major step for the profession, according to DiCuccio. "Doctoral education is much more intense than it was at a master's level. RMU is educating nurses to be bedside scientists," she says.

WRITTEN BY JOSH EARL | PHOTOGRAPHY BY KEVIN COOKE

## HEALTH+WATCH

While RMU is expanding its offerings in the discipline of nursing, the University is also looking to fill other needs within the health care industry. This fall, RMU plans to launch a **Bachelor of Science in Nuclear Medicine Technology** degree program.

Nuclear medicine is a type of medical imaging that uses radioactive isotopes to diagnose diseases. The patient ingests or is injected with a small amount of radioactive material, and the technologist tracks the course of the radioactivity with a gamma camera.

Demand for nuclear medicine technologists is growing rapidly, and RMU will be the first in the region to offer a four-year degree in this field. The University is currently awaiting approval for the program from the Pennsylvania Department of Education.