Although nursing research is not new, the discipline of nursing science is a more recent development in the history of professional nursing, according to Dr. Clarann Weinert, a Sister of Charity of Cincinnati and professor in the College of Nursing at Montana State University-Bozeman. Sr. Weinert, the director of the College of Nursing’s Center for Research on Chronic Health Conditions in Rural Dwellers, is known internationally as a leader of the growing community of nurses who are making important connections between nursing practice and nursing research.

In a conversation with Health Progress, Sr. Weinert recently discussed nursing, nursing science, and the status of health care in rural areas.

Have nursing practice and nursing research only recently come together?
Historically, as far back as Florence Nightingale, there has been nursing research going on. Nightingale was, in fact, a very eminent scientist. She was a statistician, doing outstanding epidemiological kinds of research, research on hospitals and the design of hospitals and the ways that such design affected the care and recovery of sick people. But the science, or discipline, of nursing research only really began to come into maturity in the 1960s, when more nurses started to acquire advanced college degrees in major disciplines such as sociology, anthropology, physiology, and biology.

It is, in that sense, a young science. But nursing research has been conducted throughout modern times. Early in this century, it was primarily research about nursing and nursing education, because at that time women seeking a profession were pretty much relegated to schools of education. So what did they study? They studied nurses: What sort of people make good nurses?

What are the best ways to prepare people for nursing careers? How should nursing be taught?

What we call nursing science, which is the science of building and maintaining a research-grounded knowledge base for our practice, has blossomed since the mid-1960s.

What differentiates current nursing research from that of 40 or 50 years ago?
Today we have a very rich knowledge database that drives and informs our practice, our theory, and our research. As we continue to expand, more opportunities arise for nurses to get their doctorates, so that they can be in a position to do nursing science. When I was looking to get my doctorate in 1973, there was only a handful of programs—perhaps six or eight—that gave an advanced degree in nursing. Now we have nearly 80 programs that provide a doctorate in nursing.

My doctorate is not in nursing—it’s in sociology. In my era, most nurses who wanted to teach got a degree in another, non-nursing discipline. This has turned out to be helpful, because our backgrounds in those different disciplines helped us to form nursing school faculties that are equipped to train students in the research skills needed for nursing science. People are beginning to realize that nursing is a science-based practice. The complexity of health, health care, and nursing intervention today is such that we must have a strong science base.

What are some of the key aspects of nursing research today?
Nursing is about care of the entire individual. The scope of nursing science ranges from nurse scientists looking through microscopes at cells—I have a friend at the University of Mississippi, for example, who examines rat cells as a means of...
studying wound healing in human adults with diabetes—to people who study the world health situation from a perspective of public health nursing, to people (like myself) who are looking at ways individuals and families might better manage chronic health conditions.

Nursing science is people doing all kinds of research using all kinds of different physiological and psychosocial measures. Nursing research spans all nursing, and nursing is about helping people respond to the threat of illness or helping them recover from illness. Nursing is the caring piece, the healing piece. But we are not into things like drug trials, for example. That's not nursing research.

Aside from that, it's very hard to say what nursing research is. It has to do with looking at how people adjust to environmental influences, how people are able to manage in health and illness situations, and how nursing interventions can help people either stay healthy, recover their health, or die with dignity.

What kind of research are you currently conducting?

It's highly varied. I always have six or seven projects going at one time. My major project is the "Women to Women2" project, which we have been working on for the past five or six years. Basically, it's a melding of the use of blossoming technologies with the science that we've been studying.

I've been studying social support—environmental influences and their impact on the way people manage their lives. Physiologists and psychosocial researchers started studying social support back in the 1970s. It seems like a no-brainer today, but back then people did not really recognize the impact that adequate social support can have on disease prevention and health promotion, as well as on recovery from illness.

In the early 1980s, I was involved in developing a nursing measure of social support that we could use in our science and in the clinical arena. Over the 25 years that I have been doing research, this whole idea of support—how it influences the way people with chronic illness are able to manage—has become vital.

For the past 21 years, I have lived in Montana and so have focused—not exclusively, but primarily—on families in a rural setting. As our work progressed, we saw that social support was important and that we could document scientifically that it worked. We know that one way to mobilize support is through support groups, Alcoholics Anonymous being one of the primary examples. We also know that in rural areas there are a lot of barriers to people getting together on a face-to-face basis. As the technology became available, we sought ways to provide support and education for women using the computer, using online methods through which rural women could have chat rooms to run their support groups. We've experimented with education modules as well.

So that's what we have been doing with Women to Women2: putting computers in women's homes, thereby allowing them to run their support and education groups online. And then, of course, we've conducted measurements of this process throughout the year.

What have the measurements revealed?

They've shown that women will take to the program like ducks to water. They find it extremely helpful. The women not only appreciate but grow with the opportunity to be talking to other women who are managing chronic illnesses. And we don't do an illness—we do illnesses. So we're asking: What is it about having any chronic illness that can be helped through having somebody else's support? One person might be dealing with fibromyalgia and another with multiple sclerosis, but both of them are dealing with fatigue and having to talk with their physicians about a disease that's difficult to diagnose. Having these women be able to come together has been tremendous! We get outstanding feedback from the women involved.

What are you measuring?

We're looking at such things as levels of depression, loneliness, self-esteem, social support, and knowledge gained through the teaching units.

What is your advice to nurses wanting to pursue the scientific research side of their profession?

Get your doctorate. Don't pursue one of the many other ways that you can get a registered nurse's degree these days. Take advantage of the time you're in an undergraduate program to get exposed to science. And set your sights from Day One on getting an advanced degree.

It used to be that very few people got a master's. Then it was that very few people got a doctorate. What we need to be saying to nurses now is that nursing is both an art and a science, and you need to be excellent at both. To do the science piece, you need to get the necessary training. And don't wait until you're 55 to get your doctorate; start thinking about it earlier. We need to have people coming out of doctoral programs earlier, so that their research programs can make
more of an impact and move the science and knowledge base forward.

What excites you about nursing research today?
I’m a passionate scientist. I love science and see how it can make a difference in nursing practice. I’m a mentor; I enjoy bringing others along. It gives me as much pleasure to see someone else’s research succeed as it does to see my own succeed. I love working with students and getting them enthusiastic about science.

I think we’re at a wonderful place in nursing. If you’re a nurse, you can do absolutely anything. You can be a newscaster, you can work at the bedside, you can be a scientist, you can be an administrator—there’s nothing that you can’t do with a good solid nursing background. But my passion is science, and it always has been.

You’re a religious at a state university carrying out nursing research. What part of this turns the most heads?
I’m an internationally known scientist at a smaller school with fewer research resources, and that turns as many heads as anything else. In the professional arena I am “Dr. Weinert.” But I also always identify myself as a woman religious, and very frequently people are quite interested in that combination. I think it’s a wonderful portrayal of where religious life is today. Religious life is everywhere. I like doing a good job and being able to bring to the position my values, expectations, and integrity. Living my passion for science and succeeding in this situation is more important to me than turning any heads.

Do you see yourself as a trailblazer?
In my religious community, quite a few of us are academics, doing wonderful things in whatever area we are in. I think anybody who knows about religious life knows that it’s very diverse. We usually consider such diversity as having more to do with working with the poor on the streets than being in leadership positions. But I think both are equally important. Whether the work is political, administrative, or academic, I think religious life has a place in it.

What are your thoughts on the current nurse staffing crisis?
I think that some of the ways we have dealt with nursing and the use of the professional competencies of nursing have really made for some problems. We have not allowed nurses to fully practice, in the sense of exercising their autonomy and ability to practice. And I think we need to enable nurses to use their skills in the most appro-

priate ways—rather than in inappropriate ways, such as performing a lot of unnecessary paperwork.

I think we are still not allowing nurses to fully do what nurses can do. So people are being turned off and leaving the profession. People are working 12-hour shifts and burning out. I think there is an urgency for us to—not just bring more people in—but change nursing. Nursing needs to take its proper role in health care so that we can best use nurses’ skills and talents.

Once we do that, we will have the flow of nursing talent we need. We’ve got people standing at our doorstep ready to come in. It’s not that there are not enough people. One of the major issues is the lack of faculty at nursing schools. You just can’t say, “Double your enrollment” when there are too few faculty members. Society hasn’t put a lot of emphasis on the academic side. Money is flowing to other places, and academia is not well paid. That’s a values thing. There’s a huge looming vacuum: Many of us who graduated in the early 1980s are going to be retiring in the next five or six years. That’s what I would call the “hidden nursing shortage crisis.”

How is the health of people in a rural setting affected by the nursing shortage?
There has been basically a chronic nursing shortage in rural areas. Rural nursing is very demanding. It takes the highest set of skills because—in many settings, such as small hospitals—you’re expected to do all things. So you’re not an emergency room nurse or an obstetrics nurse or a medical/surgical nurse—you’re all of them. And you might be all of them on the same shift. So it’s very demanding to be a rural nurse. You’re often working with only a few colleagues, without a lot of backup. Using today’s technology, you can at least bring the knowledge stream in, and there are some communities of science out there with chat rooms and that sort of thing, which breaks a little of that isolation. But when you’re talking about living in truly rural communities, you have to have tremendous commitment. If you live in that kind of isolation and have a spouse, the spouse has to be able to find a job too. So the nursing shortage in rural areas, like Montana, has been what I would call chronic. But we’ve managed.

The big nursing shortage that we’re talking about in other parts of the country has not really hit hard here yet. But what will happen—what we’re beginning to see happen now—is that headhunters will come out here and offer much better salaries than we can pay. They’ll start pulling nurses away from rural areas. This is a worldwide issue.
We in the United States think we can headhunt in South Africa, Canada, or the Philippines—anyplace we want—and bring those nurses here. That’s an ethical, global issue in nursing and health care. The same kind of thing is beginning to happen here in Montana—luring our people away to go somewhere else because it’s fancier and offers more money.

**What effect is your research having on rural health care?**

A year ago, the National Institutes of Health granted our university the funds to open a Center for Research on Chronic Health Conditions in Rural Dwellers. This was an important event—it showed that we have developed our nursing science to such a level that the federal government would give us money for a center.

The center allows us, under the umbrella of researching chronic illness in the rural setting, to build an infrastructure that will support research around the state—and the region as well—for the development of nurse scientists. We are well situated here to understand rural health care issues. The center allows us to provide small grants to our faculty and faculty members from other nursing programs, thereby pulling intellectual capital together.

The center has allowed us to have a focal point in this part of the country for dealing with rural issues that are common across the Dakotas, Wyoming, and Idaho—large areas without much access to health care, mostly with farm and ranching economies, where the weather often makes availability and accessibility to care a problem. What we’ve been able to do with the center is terribly exciting.

We’re involved in a large variety of projects. For example, we just finished a project on the Crow reservation. One of our faculty members and a nurse from one of the hospitals in Billings set up the technology to carry out what we call “telehealth.” With it, they can conduct a pain management program so the nurse need not drive all the way out to the reservation to provide the appropriate nursing intervention.

We have a project that looks at the ways rural people manage after having treatment for cancer. Another looks at the way older couples, living alone in the rural setting, maintain their health. A third project is examining the impact of spirituality on chronic illness management.

So the center has allowed us to pull together common educational and research opportunities and to bring people together to talk about common research problems. A lot of it is done through telecommunication. The center is allowing us to address more of the rural health issues and to build a cadre of people to continue to address them.

**What might a nurse in rural America experience differently from a nurse in an urban setting?**

In Montana you might live in a town of 500, which means you’re on call practically 24 hours a day. Even when you’re in the checkout line at the grocery store, you’ll have someone asking you about (for example) a pain in his or her elbow. You’ll have a sense of isolation from other colleagues. Because so many people depend on you, you find it hard to get away: You’re it.

Health care today is extremely complex—and complex in rural areas, as well as in urban ones. Medications are complex; treatments are complex. When you’re in a more urban hospital setting, you can go down the hallway and say to another nurse or to a respiratory therapist, “I’m dealing with such-and-such a problem; can you help me?” Well, you don’t have that kind of backup in the rural setting.

You have to be very highly prepared and committed to what you are doing. You must be able to work independently because the closest physician you’ll have to work with might be in a town 50 miles away. In my opinion, understanding rural people and their needs is crucial. You must appreciate that kind of lifestyle, because when you’re in a town of 300 or 400 people, you have to be part of what’s going on. A nurse in a large city can go to the hospital, do his or her 10 hours, and then go home and be a totally different person. Out here, you have to appreciate the rhythm of what we call “the rural subculture.” You can’t decide that you’re going to hold some kind of health educational session in the middle of haying season. People are out haying all night long. It’s necessary to get into a rhythm with people, so that you can provide what they need when they need it.

**What are your hopes for the future of nursing?**

I hope that the profession of nursing can come to terms on basic education, that we soon see that we need a very strong foundation in an academic setting even for entry-level clinical practice. I would love to see more people with a passion for the science. We need nurses with a passion for the caring side, but it has to be blended. I think nursing is and will continue to make a serious contribution to the world’s health, through our leadership and through our scholarship.

—Scott McConnell