

# A Man for All Reasons:

## *Stan the Man Takes Up Residence at the School of Nursing*

BY JUDITH REITMAN

What fascinated the middle school visitors most was his mortality. “Can he die?” a 13-year-old girl asked.

Carol Durham, clinical associate professor, laughed. “Yes, he can die.”

There was a collective “Cool!” among the young observers.

“But we would rather he didn’t,” Durham said.

Those students who weren’t prodding the “patient” with stethoscopes fired rapid questions. Could he sweat (no), bleed (no,) urinate (yes), talk? Yes, Durham said.

“Hey Stan,” one of the boys asked. “What’s up?”

“Not much,” Stan replied, and winked.

A monitor steadily beeped Stan’s pulse rate, heart rate, blood pressure and oxygen saturation. Several girls said they’d like to be nurses or pediatricians after seeing Stan. Aaron Kivette, the students’ 28-year-old teacher at Perry Harrison Middle School in nearby Pittsboro, commented that he hadn’t seen this level of excitement since the school’s basketball season began.

Faculty and nursing education officials were just as taken with Stan that day. They felt Stan’s pulse points, marked with yellow dots for this demonstration, and queried Durham on Stan’s range of critical responses. Carol Swink, associate executive director of the North Carolina Board of Nursing, saw Stan as an evaluative and competency measurement tool. “This has the potential to revolutionize the teach-



Laura Roller feels Stan’s heartbeat under his Carolina t-shirt.

ing of clinical skills,” she said. Gwen Waddell-Schultz, CBSN ’70, MSN ’76, associate chief for nursing education at Durham VA Medical Center, predicted, “Stan is going to add a new dimension to critical care and interactive learning.”

Bernadette Gray-Little, a University executive associate provost, expressed what may have been on the minds of the largely female audience: “Now that we have a bionic man, what about a bionic woman?”

“He’s convertible,” Durham said of the Human Patient Simulator (HPS). “Interchangeable parts.”

This summer, the School of Nursing became the second nursing school in the country to purchase Stan the Man, short for Standard Mannequin, and his young son – or brother, Kenny (aka Stan, Jr.), a PediaSim, for exclusive nursing education. Both are manufactured by Sarasota, FL-based Medical Education Technology, Inc. (METI), which presented the School with a \$1000 scholarship check at Stan’s

unveiling on February 7. In addition to the middle school students, deans, administrators and instructors from nearby schools of nursing, including Barton College, UNC-Wilmington, NC Central, NC A&T and Eastern Carolina University, as well as the NC Board of Nursing, were present at the ceremony. The consensus was that Stan will transform clinical education in nursing.

Since the early 1970s, medical education has employed various types of simulation technology, a concept pioneered by aviation training. The HPS is a relatively recent phenomenon; its programming has been largely developed since 1995 to the present. This new generation of simulators brings response to treatment to the forefront of learning experiences, providing students hands-on, real-time training before they encounter patients.

Stan can become any one of 25 types of patients, representing different ages, physiological parameters, medical histories and even gender;

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GWEN WADDELL-SCHULTZ

to wit, he can become pregnant with preeclampsia. Through a main system PC console or a remote control, instructors can access any of his 70 pre-configured high-consequence scenarios, some of which students may never see during their clinical rotations. Negative-event scenarios include heart attacks, routine anesthesia induction, hypertension, negative pressure pulmonary edema, difficult airway management, spontaneous pneumothorax and intestinal bleeding.

Young Kenny represents a six-year-old child who is nearly four feet tall and about 44 pounds in weight. He can be programmed to simulate near drowning, congestive heart failure, septic shock, juvenile diabetic coma or insulin shock. He also accurately reflects the sensitivity to drugs and various medical applications particular to children. Both HPSS react realistically to over 50 medications in real time. They respond to incorrect or over/under doses, to CPR, defibrillation, intubations, ventilation and catherization, among other procedures.

Durham first saw Stan at a nursing conference. "I want this man," Durham told Dr. Cynthia Freund, the dean at that time. "The School needs this mannequin."

Durham and Dr. Judy Miller, associate professor and leader of the 14-month Second Degree BSN Option, lobbied for the mannequin.

Dr. Linda Cronenwett, who took over the position as dean after Freund, needed little convincing. "Part of the School of Nursing's mission is to be a leader in nursing education, and in this instance we are taking a leadership position in applying the latest technology to clinical skills development," she says. The opportunity to acquire Stan comes at a time, Dean Cronenwett notes, in which the availability of clinical sites is becoming increasingly limited. Meanwhile, there is an increasing need to produce more nurses with better skills, particularly in critical care. "This means that we have to have more predictable clinical training than we currently have. The question then becomes is this the

way to do it. Our early pilot work indicates it is."

That study, which was conducted last year by Durham and Miller, found tremendous enthusiasm among the eight initial students who worked with Stan. Subsequently, 31 of the 14-month option students utilized Stan. Durham observes, "They find Stan a valuable learning experience by engaging the mannequin as a patient that must be treated with different modalities in order to prevent or turn around the crisis. And so they gain experience and build their confidence."

Dr. Beverly Foster, director of undergraduate programs and clinical associate professor, says that the

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DEAN LINDA CRONENWETT



**Dean Cronenwett looks on as Carol Durham cuts the ceremonial ribbon celebrating the debut of Stan and Kenny.**

### **"A Vigorous Confidence Builder"**

Twenty four-year-old Sherry Dumas, a 14-month Second Degree BSN Option student, thinks of Stan as "a vigorous confidence builder." During her first semester with Stan, he's been a 60-year-old man with congestive heart failure, a 20-year-old football player with a collapsed lung, overcome ventricular tachycardia and cardiac arrest, and nearly flat lined. She's bagged, resuscitated and defibrillated him. When he "came into" the emergency room complaining about chest pains, she asked him about his history of heart problems. He said he had had a prior heart attack. The football player who had been tackled and seriously injured told her, "I can't breathe. It really hurts."

"You can talk to him and it felt pretty close to his being a real patient," Dumas explained. "You can give him medications through a special port and a bar code reader shows us how he reacts."

Dumas's team of 4-5 students played out various

high-risk scenarios. They learned how many people it takes to run a code and how roles must be delegated. "It was a little more relaxed than if he had been a real patient, but it was still stressful because he could actually deteriorate." Stan actually "died" in another class.

"I think the big benefit was getting confidence because he is about as real as you can get without his being an actual person. I feel if I entered a hospital setting I would know what to do. Before Stan, I knew what I was supposed to do, now I know I can do it." She also was surprised at her depth of knowledge. "You can use what you learn in a practical setting. It's very reinforcing to apply what you've learned."

Dumas is especially looking forward to her OB/GYN rotation when Stan becomes a pregnant woman. The consensus is that Stan will not be an especially attractive woman, but he will certainly be a woman of substance.

*“We are probably just at the tip of the iceberg in terms of what we can accomplish with Stan.”*

DR. BEVERLY FOSTER



**Chelsea Johnson and Chelsea Green look on as Zach O'Dell listens to Stan's heartbeat.**

School intends to fully integrate Stan into the two-year BSN program as well. “We are probably just at the tip of the iceberg in terms of what we can accomplish with Stan,” she says.

Professor Emerita Laurice Ferris, who worked in critical care in the 1960s and 70s, wishes she had had Stan when she was teaching. “The point is to anticipate and assess a patient in an ongoing fashion in hopes of averting a crisis, but now students will know what to do in the event of a crisis on the floor or in critical care,” the now retired Ferris says.

Ferris concurs with Durham that such experience will increase confidence, as well as reduce anxiety. “There is always a level of anxiety when you know you are going to have a code, when you have a patient near death. But if you get into a crisis, you will have had a heads-up. This will help the student tremendously and the patient will ultimately get the best possible care, which is what we want.”

Southern Illinois University at Edwardsville, the first to purchase an HPS for exclusive nursing instruction, found that participating

students accrued substantial benefit in working with Stan. Students increased their confidence, improved their decision-making and critical-thinking skills and enhanced their prior learning. Stan helped them visualize physiological effects on the human body, including medicinal effects, which are hard to conceptualize when learned through lecturing and/or reading. As for instructors, Stan enabled them to utilize a structured laboratory setting instead of trying to find appropriate and/or rare patient care opportunities in a health care setting. Stan was valuable in evaluating students' synthesis of knowledge and technical skills as well.

In addition, Stan presents a viable alternative to using animals in medical teaching. “Pressure to decrease or eliminate the use of animals in laboratories has prompted many medical and nursing schools to consider Stan,” says Kimberlee Reinhardt-Lopez, one of the METI reps who attended the February 7 event.

The School plans to partner with other clinical and education organizations to develop this new technology.

And what, indeed, happens if Stan dies? “You can start him back up again,” Durham says, smiling. ■

## **A Worthy Cause: Alumna and Husband Support the HPS Lab**

Supporting the School of Nursing has always been a cause close to the hearts of Jane Sox Monroe (BSN '56) and her husband, Paul (BSBA '56). When they heard about the School's need for support for the new Human Patient Simulator Laboratory for Critical Care Skill Development, they knew it was an opportunity to give back to the place they said had given them so much.

“My nursing degree not only provided me with a career, but it allowed me to be able to do something for others,” explains Monroe. “I feel it's now my responsibility to do something for the School that helped me become the person I wanted to be.”

The skills she learned at the School of Nursing have been invaluable to her throughout her life, says

Monroe, from working as a public health nurse to serving as a member of the Catawba County (NC) Board of Health. Helping new nurses get the skills they need for a successful career is only another example of the caring attitude she developed while at the School of Nursing.

“I believe the new human patient simulators will allow nursing students to learn so much more, from improving their critical care skills to feeling more competent and comfortable with patients,” she says.

“Nurses have so many responsibilities, but the most important is making a patient feel special through tender loving care, which is a vital combination of compassion and skills.”

# Issues in Nursing Leadership: *A Panel Discussion*

BY NORMA SINGLETON HAWTHORNE

As nurses move through their careers, more options open to them, especially with advanced education. Yet, according to a group of panelists who led a discussion during Alumni Day on November 10, leadership is a quality that can be expressed at any point along the path.

“To even be here at UNC-Chapel Hill School of Nursing, you must be a leader in some capacity,” says Senior Class President Leslie Collins. Student nurses volunteer with the multidisciplinary Student Health Coalition and the student-operated free clinic in Carrboro where they see patients, operate the laboratory and coordinate patient flow. “This is important preparation for what’s to come after graduation, and it will help us become even stronger leaders,” she says.

Doctoral student Stewart Bond, who is studying delirium in late stage cancer patients, observes that there can be many leaders at all levels. “I see people participating, serving on committees, actively involved. This leadership is more about action and behavior, rather than attaining a position or role.”

Leaders, he says, are the people who understand the politics, know how to get things done and are able to influence others. “Leaders network and mentor others. They are continuously learning because they are aware that new knowledge will make them more valuable contributors. Effective nurse leaders listen to others, think before they speak and



**Stewart Bond, Professor Susan Foley Pierce, Leslie Collins and Bonnie Fields offer their perspective on nursing leadership.**

understand how to deliver key messages to colleague.” This takes practice, he says.

When Bonnie Fields (BSN '80) consulted in health care management for one of the Big Five accounting firms, she worked with nurse leaders as their organizations were undergoing dramatic change. She presented three characteristics of successful nurse leaders for the audience to consider: they are competent, although not necessarily technical experts; they are strong communicators, able to motivate and inspire; and they can think outside of the box.

“When organizations change, they depend on this type of leadership,” she says. “Successful leaders are honest, open and comfortable being challenged. They’re able to listen to opposing views and are open to changing their minds. Successful leaders are flexible and invite innovation. They give credit to others and will step up to take the blame when things go wrong.”

She asked the crowd to think of the film *Apollo 13* and the control

room crisis scene when people came together to find a way to bring the astronauts home. It took a team to discover the best solution, she points out. Fields emphasizes that, “If we are nurse managers in complex health systems, we must help foster an organizational leadership style that allows people to try new ideas and make mistakes.”

“I subscribe to the theories and practices of transformational leadership,” says Professor Susan Foley Pierce, president-elect of the North Carolina Nurses Association. “Leaders must understand and tap into people’s basic values, goals and motivations. I tell my students that to lead you must know yourself; you must control yourself, rising above your own petty issues and goals; you must look ahead and become a futurist; and you must be willing to take risks by being curious and willing to change the status quo, if needed.” Pierce says that it is most important to remember that no one person has all the answers – that everyone has some of the answers.

# Alumni Leading from Strength, Leading to Care

The School of Nursing has produced many leaders in its 52-year history, from educators to consultants to chief operating officers. The three alumni profiled in these pages have taken the valuable education they received while at the School and developed it into not only rewarding careers but efforts that push the boundaries of known health care.

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PAMELA JAMESON

*Pamela Ellis Jameson,  
BSN '76, MPH '86, CNAA*

When Pam Jameson returned home to Linville, NC, after completing her undergraduate degree, she didn't expect to stay long. But as her career developed, Jameson says the choice to remain “at home” in the community where she grew up with the people she knew best was clear. “I could go anywhere in the world and my Carolina education would be recognized. I also knew that my nursing degree would give me a solid base on which to explore more education later if I wished.”

Now her most challenging role as vice president of clinical operations at Avery Health System is to make a small rural hospital, Charles A. Cannon, Jr. Memorial Hospital, financially viable in the midst of regulatory requirements and limited resources. But it's not just about economies of scale. “We'll overcome these challenges by providing the right kind of care for our community. If we do this, we'll be successful financially.”

Recently, Jameson saw the opportunity to affect change by introducing Planetree, a model to create patient-centered care in healing environments. “For so long, patient

care has been provider focused. With Planetree, everything we do is for patient satisfaction. It is not wrong for the patient to be at the center of your health care service model,” she says. “Staff and community benefit, too.” Planetree was a good fit for Avery Health System. With the merger, they had an opportunity to establish a new culture for a new organization.

Jameson's advice to professional colleagues stems from an unshakable belief: it is essential to care for the whole person — their spiritual, emotional and psychological needs in addition to their physical needs. “When you choose to work in a health care organization, look for one that has heart and demonstrates that its mission is more than the quality of care received. It must pay attention to how it is delivered, too.”

*Rebecca Dewees Olson,  
BSN '74, MS*

Becky Olson was shocked when she first heard that 35% of the Eastern Band of Cherokee Indians has diabetes, compared to 5.9% nationally. So when she was asked to act as a management consultant for Cherokee Choices, an initiative that addresses the problem of Type 2 dia-



*Olson*

betes by focusing on the reservation's children, she jumped at the chance. Where better to start prevention than during a person's most formative years, she thought. The community members with whom she spoke agreed.

Now in its second year, the Cherokee Choices program focuses on fourth graders and takes a rather nontraditional approach to reducing the risk of Type 2 diabetes in the tribe. By introducing a school-based group-mentoring model to promote healthy behaviors, program leaders hope to improve the overall emotional and physical well being of the children. Enhancing the children's self-esteem and cultural awareness are important components of the program, as is developing healthy coping skills. Better food choices, more exercise and stress management are also strongly emphasized. The initiative, funded by a grant from the Center for Disease Control and Prevention, includes teacher, parent and community-wide components to promote sustainability.

“Although we are in the early stages, our fourth graders are react-

# rning Leadership

ing very positively to the mentors and their special lessons and activities. They are learning that conquering the climbing wall makes exercise fun; reviewing fractions while creating a recipe for trail mix is 'cool'; and talking to a trusted adult who has a little extra time for you is invaluable."

Olson, who served as a project director and assistant director of UNC-Chapel Hill's Center for Health Promotion and Disease Prevention from 1994 to 1999, says that no matter what type of work she is doing, she constantly references her nursing education base and can't conceive of managing without it.

"I've had the pleasure of applying my Carolina nursing education in a variety of roles over the years, in both traditional and nontraditional ways. It has always provided me with a strong basis for understanding individual and community expressions of concern. In my current role, when I hear 'critical thinking' or 'logic model,' I often think 'nursing process.'"

*P. Kay Wagoner,  
BSN '70, MSN '78, PhD '86*

In her work to discover novel treatments for sickle cell disease, urinary incontinence, atrial fibrillation epilepsy, glaucoma and pain, Kay Wagoner relies on her nursing background. Honored on University Day 2001 with the Distinguished Alumna Award presented to her by Chancellor James Moeser, Wagoner recalled how her experiences in nursing school and

nursing practice prepared her for her role as founder and CEO of Icagen. The company is the first biotech firm dedicated to utilizing ion channels as therapeutic targets. It is a leader in using ion channel genes and ion channel chemistry to move from gene products to drug products.

"I am convinced that a nursing degree is a basic life necessity. Everyday I use the knowledge and processing skills I learned in nursing school. In my personal life and professional work, I am often asked questions relating to health, well-being, coping with crises, and on and on, and I pull from my days in nursing school and my experiences in my nursing practice."

During her career, Wagoner has served as the founder and first director of the non-profit cardiac rehabilitation organization Orange Cardiovascular Foundation, worked in the Intensive Care Unit at UNC Memorial Hospital, and served as a faculty member at the School of Nursing. Soon after receiving her doctorate in physiology from the UNC-Chapel Hill School of Medicine, she became the senior scientist at Glaxo Research Institute in Research Triangle Park, where she created the Ion Channel Biology Group. During this time she wrote articles for esteemed journals and established many concepts used today in the pharmaceutical drug discovery industry.

"My decisions about pharmaceutical priorities are made in light of an enhanced understanding of what it is like to be sick, hospitalized or recovering from illness. I would not



*Wagoner*

have that perspective if it were not for my nursing background," she says.

Wagoner observes that nurses can be leaders in clinical units, academic departments and scientific laboratories. Nurse scientists, she says, are those who have earned advanced degrees and combine basic scientific methods into nursing research and nursing practice. "I would tend to say that the field allows for those of us in nontraditional roles to applaud our nursing roots. The definitions of nursing are endless." She recommends that nursing students practice the art and skills of nursing in both inpatient and outpatient settings. "These varied perspectives will help determine what your true interests are. Then," she advises, "get more education to open more doors." ■