



SUNY UPSTATE  
**Outlook**

News on education, biomedical research & health care  
at SUNY Upstate Medical University • Syracuse, New York

Volume 7, Number 1

Spring 2008

On the  
Road

with SUNY Upstate

On call in rural Ghana:  
Assistant Professor of  
Emergency Medicine,  
David Reed MD

SUNY UPSTATE  
**Outlook**  
Spring 2008



## OUR MISSION, IN ACTION

Before my big move – from Central Texas to Central New York – I definitely did my homework. Online and on paper, SUNY Upstate Medical University made a strong, positive impression. But what really appealed to me was its mission – “improving the health of the communities it serves, through education, biomedical research and healthcare.”

Now that I’m on site, I see – on a daily basis – that mission in action. Whether we are providing free primary care at the Amaus Clinic in Syracuse or teaching emergency medicine in China, SUNY Upstate is truly improving health – locally, regionally and globally.

This issue of *Outlook* adds many layers to my appreciation of our mission. These outreach stories prove that SUNY Upstate is relevant, resourceful – and visionary in addressing emerging medical needs. And these inspiring stories make me proud to call SUNY Upstate – and Central New York – my new home.

–Wanda Thompson PhD  
Associate Senior Vice President for Operations  
SUNY Upstate Medical University



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# SUNY Upstate



# On the Map

AROUND  
THE CORNER  
AND AROUND  
THE WORLD,  
SUNY UPSTATE  
ADDRESSES  
TODAY'S MOST  
DISTRESSING  
HEALTH-CARE  
DILEMMAS.

## UPSTATE GOES DOWNTOWN

### Primary Care for the Often-Forgotten

As the nation debates universal health care, SUNY Upstate tackles an immediate local need: free primary care for the often-forgotten.  
by Denise Owen Harrigan

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Research by SUNY Upstate medical student Diane St. Fleur suggests that some Onondaga County residents receive better health care when they're behind bars.  
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## LOOKING OUT FOR UPSTATE

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In answer to alarming demographic projections, SUNY Upstate has shifted into high gear, creating solutions for physician shortages in rural counties.

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SUNY Upstate is poised to enlarge its footprint – and escalate its impact on health – thanks to \$280 million in capital funding earmarked by New York State.

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### A Pipeline to Rural Medicine

SUNY Upstate's RMED program generates great doctors – and impassioned believers in rural medicine.  
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## UPSTATE GOES GLOBAL

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University Hospital OR colleagues Holly Dailey RN, Sherard Tatum MD and Lamont Jones MD share their highly specialized surgical skills on a goodwill mission to Vietnam.

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Blazing a trail for SUNY Upstate physicians and students, emergency physician David Reed MD takes a sabbatical to address gross inequities in global health care.

by Denise Owen Harrigan

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To develop specialties such as emergency medicine, China and India look to John McCabe MD and his SUNY Upstate colleagues.

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With nursing and teaching skills honed at SUNY Upstate, Army Major LeRoy Marklund MS, RN now trains people to respond to chemical attacks and other acts of terrorism.

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Medical student Christopher Pray delivers first aid to a remote village in El Salvador – and builds critical awareness of diabetes and hypertension.  
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### SPECIAL INSERT: Above and Beyond

Who, where, when – and why: everything you need to know about registering as a marrow donor.

insert

# SUNY Upstate On Call

LOCAL,  
REGIONAL  
& GLOBAL  
RESPONSE

As the heart and hub of Central New York health care, SUNY Upstate Medical University has been steadily growing for 55 years, expanding its impact along with the footprint of its Syracuse campus. Now, the region's only academic medical center is taking its mission further afield. To remedy unsettling trends in health-care services and medical education, "We are adopting an 'if-you-need-us, we-will-come' mentality," explains SUNY Upstate President David R. Smith MD.

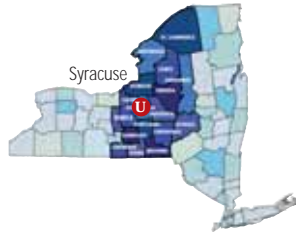
For underserved urban patients in downtown Syracuse, Upstate has opened a free, primary-care clinic, under the medical direction of LynnBeth Satterly MD, MS, assistant professor of family medicine. To help meet the medical needs

of the Central New York region – where 17 of 19 counties are medically underserved – SUNY Upstate plans to double the size of its nationally recognized Rural Medical Education Program (RMED).

And to help address gross disparities in international health care, SUNY Upstate doctors, nurses and students volunteer around the globe.

These and other critical outreach efforts provide the itinerary for this issue of **Outlook**.

Please join us for a glimpse of SUNY Upstate's journey outward – and forward.



# Primary Care for the Often-Forgotten

In the dead of an Upstate New York winter, the street is a harsh place to call home. Cathedral Emergency Services, at the heart of downtown Syracuse, offers a temporary respite from this frigid world. Every Wednesday morning, Syracuse's homeless population crowds into the narrow, cozy building for a hot breakfast, cooked by volunteers. Other mornings, the doors are open for free coffee, doughnuts and connections to a safety net of social services.

This winter, the Wednesday morning menu expanded. After breakfast, a white, wooden sign went up on the sidewalk, announcing to all that "The Doctor is In."

The doctor is SUNY Upstate's LynnBeth Satterly MD, MS. Assisting her are medical and nursing students from SUNY Upstate, nursing students from LeMoyne College, social work and psychology students from Syracuse University and local volunteers. They work – and learn – under a team of medical volunteers at the new Amaus clinic.

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SUNY Upstate medical student Joseph Morgan takes a medical history from Amaus patient Percy Hunt of Syracuse. Before the Amaus Clinic opened its doors downtown, "Finding a doctor was like pulling hens' teeth," according to Hunt.

## Patients without consistent primary care can develop an “incredibly complex snarl of issues.”

Orchestrating their efforts – to provide primary care to often-overlooked patients – are the Reverend Neal Quartier PhD, pastor at the Cathedral of the Immaculate Conception, and Satterly, medical director of Amaus and assistant professor of family medicine at SUNY Upstate.

Amaus is not an emergency clinic – patients with life-threatening issues are taken to University Hospital on the SUNY Upstate campus. Still, Amaus addresses an urgent community need for free primary care in an accessible location.

### Common Ground

“Amaus is here because the people we serve know and trust Cathedral Emergency Services,” explains Satterly.

“This is where they get their food. We wanted to meet them where they are.”

Amaus is a collaborative service, in the best sense of word. Space is provided by the Cathedral of the Immaculate Conception. Exam rooms were built and painted by parish volunteers. Medical equipment and medications are donated by Welch Allyn, SUNY Upstate and pharmaceutical companies.



LynnBeth Satterly, MD, MS  
Assistant Professor  
of Family Medicine  
Medical Director,  
Amaus Clinic  
Health Services

“Through my medical practice, I have a lot of connections,” says Satterly. “If we ask in the name of Cathedral Emergency Services, we get more than enough.”

### Common Cause

Before joining the SUNY Upstate faculty last year, Satterly spent 10 years in private practice with her husband, Clyde Satterly MD. The opportunity to establish and practice at Amaus was an offer she couldn’t refuse. “This is the kind of work that gives life meaning,” she says. “This is why I went to medical school – to combine service and academic medicine.”

As a family physician, Satterly knew that patients without consistent primary care can develop an “incredibly complex snarl of issues.” As an impassioned community advocate, she also knew that those with the greatest need have the least access to primary care. “We have so many people – the homeless, unemployed, refugees, parolees and even the working poor – who fall through the cracks,” she says.

### The Student Factor

Since physicians on the SUNY Upstate faculty spend 20 percent of their time teaching, Satterly spends that time at Amaus, instructing medical students while caring for underserved patients.

“As much as the patients need Amaus, the students need it even more,” she believes. “As tomorrow’s health-care leaders, they need to go beyond the university to see what’s happening to people in the community. Working at Amaus is like a crash course in poverty. The students see that being a person of limited means affects everything – your ability to get health care, to get a job, to keep a job.

“At Amaus, we see patients with chronic diabetes, asthma, sinus infections,” Satterly reports. “Without routine care, these problems become much more advanced, and patients can be in real pain. Often they have mental illness. Sometimes they have overwhelming medical problems to sort out. We spend as long as they need.”

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## AT AMAUS, AN AWAKENING

As medical students learn to triage and prioritize medical symptoms, they also see where patients slip through a porous health-care system.

**H**is short white coat is still crisp and new. His second semester of medical school is barely underway. But Andrew Schmitt of Cooperstown is already stationed on the front lines of a vital battle – to bring basic health care to the homeless and most marginalized members of the Syracuse community.

Schmitt volunteers at the weekly, walk-in Amaus Health Services clinic at the Cathedral of the Immaculate Conception in downtown Syracuse. He works under the wing of Amaus Medical Director LynnBeth Satterly MD, MS, assistant professor of family medicine at SUNY Upstate.

“I am the first medical person to meet with the patients,” says Schmitt, whose parents are both nurses. “I take their vitals and health histories for Dr. Satterly. I try to get a sense of what’s going on with each patient.”

Even more important, Schmitt is gaining a sense of what’s amiss in American health care. “It’s a birdseye view of the complexity, and the perils, of a system that leaves 47 million people without health insurance,” says Satterly.

### Inch by Inch

By design, medical students inch slowly toward the “practice” of medicine. They spend most of their first two years in classrooms and labs, studying science before they meet patients. Even then, their standard role is to shadow attending physicians. “As a medical student, you are a fly on the wall. You stand back and observe,” explains Schmitt.

At Amaus, he feels privileged to work face-to-face with patients – and to work on the patients’ turf. “In a teaching hospital,” Schmitt says, “you always have a line of residents and interns in front of you. At Amaus, I can actually do something to help.”

To pave the way for Satterly, Schmitt checks each patient from head-to-toe, reviewing systems and symptoms, especially as they relate to the reason for the visit. As he pieces together a patient’s (often-complex) medical history, Schmitt is learning to triage and prioritize – both critical assessment tools. “I’m asking myself, ‘Is this patient stable medically? Mentally? Is this something we can safely deal with at the clinic? Should we be calling an ambulance to take him to University Hospital? Should I call in Dr. Satterly immediately?’”

“Dr. Satterly is a wonderful teacher,” he says. And Amaus is a provocative classroom. “This experience really gives you something to think about. Not just in terms of medicine, but policy issues and barriers to health care. I’ve learned that simple things, like not having transportation, or a calendar to record doctors’ appointments or a refrigerator to store medications – can quickly lead to serious medical problems.”

Andrew Schmitt of  
Cooperstown  
SUNY Upstate  
medical student  
and Amaus volunteer

AMAUS  
HEALTH  
SERVICES



Amaus Medical Director LynnBeth Satterly MD, MS, at right, discusses patient histories with first-year medical students, from left, Christine Nelson, Latoya Lawrence, Kavita Ketwaroo, Elizabeth Budman and Ikenna Anaka.

Primary Care – continued from page 6

### Heartfelt Care

“We try to make them feel connected. We want them to know that someone in the world cares for them,” Satterly says. “Our patients really appreciate the attention.

“We’ve had real success stories,” Satterly adds. “We’ve helped patients find jobs. We’ve given them physicals so they can begin jobs and get health insurance. We’ve referred them to other doctors in the community – specialists who have volunteered their services.

“We don’t view a patient as a disease process,” Satterly stresses. “We work in a culture of respect. We believe that, when you strip away the superficial differences, we all have the same heart and soul. In terms of dignity and value, the playing field is level.

“Patients have changed us, taught us to slow down and listen, to look beyond the surface, to be present even when we can’t fix the situation,” says Satterly. “I am continually inspired by the generosity of those who are economically ‘poor.’”

### A Step Ahead

One frigid Wednesday morning this winter, Amaus added a foot clinic to its usual menu of medical services. “Our patients’ feet take the brunt of the cold winter weather,” Satterly explains. “They are at high risk for frostbite, blisters, infections and circulation problems, especially if they have diabetes. By examining their feet, we can intercept these problems. We can pamper them with footbaths and pedicures. We’ve collected warm socks and heavy boots to help them through the rest of the winter.”

In the middle of the foot clinic, Satterly emerged from a treatment room, chuckling and shaking her head. Her shirtsleeves were rolled back. She had just left five patients, sitting in a row and soaking their feet in buckets of bubbles. “Go back and take a look,” she urged a fresh crop of medical students. “It looks like five dudes at the Amaus spa.” ■

–by Denise Owen Harrigan

“Patients have...taught us to slow down and listen...  
to be present even when we can’t fix the problem.”



# Health Care Behind Bars

## UPSTATE MEDICAL STUDENT EXAMINES THE SYSTEM

Last summer, Diane St. Fleur encountered a person who was able to count on three meals a day and access to a doctor, but only because he was in jail. The fact that his plight is shared by many both distresses – and inspires – Diane St. Fleur, a SUNY Upstate medical student who did research on health care at the Justice Center in downtown Syracuse and at nearby Jamesville Penitentiary.

St. Fleur worked under the direction of James Greenwald MD, medical director for correctional health and associate professor of family medicine at SUNY Upstate, and at the request of the Onondaga County Health Department (OCHD), which conducts annual ‘quality improvement’ reviews of all its services, including health care in local jails.

According to OCHD protocols, each of the thousands of people who goes through the Justice Center is seen by a Health Department nurse at booking and receives a complete physical within two weeks of incarceration.

To help analyze the efficiency of the process, St. Fleur had the daunting task of collecting data from hundreds of patients’ files and sick-call request forms.

“There’s a lot of record-keeping,” notes St. Fleur, “and much of it’s paper-based.”

In addition to collecting data, she joined Greenwald and an OCHD physician-assistant on twice-weekly patient rounds at the jails, where she observed that Greenwald “treated all the incarcerated men with respect, and they responded.”

St. Fleur interviewed patient-inmates, wrote medical histories, took blood pressures and checked heart rates and temperatures. She was confident in the job, thanks to skills she developed during the first-year Practice of Medicine course, taught by a team of faculty members including Cynthia Morrow MD, OCHD commissioner of health.

After several months of patient visits, data collection and analysis, St. Fleur presented her research findings to Dr. Greenwald and the OCHD staff.

What did St. Fleur find? “I saw the same medical conditions that are prevalent in society as a whole,

particularly among minority groups – lots of diabetes, hypertension and asthma,” she reports. “And a number of cancer cases. Some patients were treated for injuries from assault. Many of the incarcerated have mental health conditions and are often untreated until they arrive in jail.

“For the most part, efficient procedures are in place,” says St. Fleur. “Dr. Greenwald helped me with the overall analysis and recommended a new, easier process for the nurse, physician and physician’s assistant to consult with each other on specific patients.”

Most importantly, St. Fleur presented the need to invest in an electronic database to replace the current paper-based system.

With these findings, OCHD obtained state funding to begin the transition to electronic records and is pursuing grant funding to complete the project. ■

–by Susan Keeter



As an undergraduate at Cornell, Diane St. Fleur took premed courses but majored in Africana Studies, which ‘raised her consciousness’ and fueled her passion for providing quality health care to the disenfranchised.



Second-year medical student Brandon Lusher worked with fifth grader Xavier White on a science fair project on gravity.

# It Takes a Village

## TO CULTIVATE YOUNG SCIENTISTS

Since September, 64 SUNY Upstate medical and graduate students have traveled to Dr. King Elementary School in Syracuse to volunteer as reading tutors or as mentors to students who are creating projects for the school's science fair.

These Upstate students are volunteers with Adopt a School, a program that teams local businesses and universities with Syracuse schools. SUNY Upstate's five-year participation is led by Susan Stearns PhD, assistant dean for student affairs. Each Upstate tutor meets weekly year-round with one student, working on reading skills. The science fair volunteers do research with small teams of students once a week for two months.

Nicholas Nacca worked with Ahmari Armstrong and her team on a science fair project entitled, "How can you taste things with your tongue?"

According to Armstrong, "Nick brought in a book, and showed us how to use it to do scientific research. We learned about taste buds and how they send messages to your brain. I drew all the letters and made the picture of the facial nerve."

Armstrong, who plans to be a teacher and a doctor when she grows up, found Nick "nice, and a good teacher." ■

—by Susan Keeter

SUNY Upstate nursing students are also evident at Dr. King school. Every year for more than 10 years, several nurse practitioner students have chosen to do their clinical preceptorships at the school's health clinic.



Fifth-grader Ahmari Armstrong with, from left: her father, Dwayne Armstrong; Susan Stearns PhD, assistant dean of student affairs at SUNY Upstate; Uzo Unobagha, assistant principal at Dr. King Elementary; and Armstrong's science project mentor, Nicholas Nacca, second-year medical student.



# Prescription for a Healthy Region

SUNY Upstate has traditionally subscribed to the “if-you-build-it, they-will-come” model of medical care and education. This is standard for the nation’s 125 academic medical centers – complex and prestigious institutions that interweave medical care, medical education and biomedical research. But increasingly – and by necessity – SUNY Upstate is thinking outside this monolithic model.

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David R. Smith MD  
President  
SUNY Upstate  
Medical University



## Seventeen of 19 Upstate New York counties are medically underserved.

Prescription – continued from page 11

Central New York has health-care issues that cannot be fully addressed on our campus,” reports SUNY Upstate President David R. Smith MD. “As a public trust, SUNY Upstate is accountable for a tract of land that covers one-third of New York State – the middle corridor, from Canada to Pennsylvania – and a population of 1.8 million people. For many of these Central New Yorkers, health-care access is in jeopardy.”

The problem is largely demographic. “Patients today are living longer but requiring more complex care,” he explains. “The Baby Boomers are approaching retirement. The health-care workforce is disproportionately graying – or gravitating to urban areas – leaving much of CNY medically underserved.”

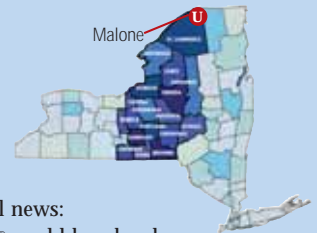
### Mobilize Resources

These ominous indicators are compelling SUNY Upstate to extend its reach. “We are expanding and mobilizing our educational resources,” says Smith. “We are exploring new strategies for delivering clinical care.”

Thinking regionally is nothing new for SUNY Upstate. Academic medical centers routinely provide highly specialized, or tertiary, care to patients from a broad geographic area. At University Hospital – SUNY Upstate’s teaching hospital – most patients travel from outlying counties to receive care.

### Four Hours North

Take Melissa Parent of Malone, NY, a few miles from the Canadian border. Growing up on her family’s organic dairy farm, Melissa had an idyllic childhood. But at age 13, she was diagnosed with an arteriovenous malformation (AVM), an intricate tangle of arteries and veins pressing on her brain. Melissa and her family drove four hours south to see renowned SUNY Upstate neurosurgeon, Charles Hodge MD. He told the family that, left untreated, Melissa’s AVM could cause a hemorrhage or paralysis. Conventional brain surgery could be even more risky.



Then Hodge delivered hopeful news: the revolutionary Gamma Knife® could bombard Melissa’s AVM with powerful but very precise beams of radiation. The Gamma Knife is a rare resource, but SUNY Upstate had recently invested in this advanced technology.

A few days later, Melissa checked into University Hospital for her one-day Gamma Knife treatment (often called “surgery without a scalpel,” because there is no incision and very rapid recuperation). Four years later, Melissa is back home, healthy and about to graduate from high school in Malone. “My AVM is completely gone. The Gamma Knife was awesome,” reports Melissa. “The only ‘side effect’ is that I’ve decided to become a doctor.”



“With Baby Boomers nearing retirement, health care will be stressed as never before.”

### Broader Focus

It's an inspiring story, but not the entire story. SUNY Upstate's larger mission is to address the full spectrum of its region's health-care needs. While this includes highly specialized clinical services, for patients such as Melissa, it also encompasses medical education. SUNY Upstate's four colleges educate many of CNY's medical professionals. Its College of Medicine has 2,200 medical graduates in New York State, 722 in Central New York, and three in Melissa Parent's hometown of Malone. But all three physicians are approaching retirement age – and wondering who will step in and care for their patients.

### Graying

These Malone physicians are not alone. A recent study found that 52 percent of the patient-care physicians in New York are 50 years and older. Seventeen of 19 Upstate New York counties are medically underserved. While new physicians are in the pipeline, they are flocking to urban areas. In Downstate New York, there are 336 physicians per capita, compared to 228 physicians per capita in Upstate New York.\*

It's not just a geographic problem, notes Smith. Too few doctors are choosing indispensable specialties, such as primary care, general surgery and obstetrics.

### Older. Wiser. Unprepared.

On the patient side of the medical equation, the numbers are also alarming, according to Smith. “I see a collision of realities. With millions of Baby Boomers

nearing retirement, our health-care system will be stressed as never before.” According to the *Journal of the American Medical Association*: “The conventional wisdom is that a shortage looms, raising questions about the medical community's ability to provide care to an aging population that is living longer and living with chronic conditions.”

A recent Harvard study concludes that Americans 85 and older are the country's fastest growing group of older adults, with 40 percent surviving to at least 90.

“Senior citizens are living longer and living with chronic medical conditions like diabetes, cancer and heart disease,” warns Smith. “And chronic disease already consumes about 80 percent of our nation's health-care dollars.”

### High-Gear Response

These sobering predictions have propelled SUNY Upstate into high-gear planning mode. “We will show our presence as a regional force,” Smith promises. “We will lead with the educational process, increasing enrollment in our four colleges by 30 percent in the next five years.

“Expanding the training of new doctors, nurses and other health professionals is critical for our state,” he adds. “State support to expand our facilities and faculty is the only way to meet this goal.” ■

\*Annual New York Physician Workforce Profile, 2007 Edition, Center for Health Workforce Studies



Rendering of expansion for SUNY Upstate's Institute for Human Performance, as viewed from the intersection of South Crouse Avenue and Madison Street.

# A Capital Plan

**Voicing a resounding yes to  
SUNY Upstate's prescription for a healthy region,  
New York State earmarks or authorizes \$280 million  
for Upstate's capital expansion and renovation plans.**

**W**ith a major infusion of state support, SUNY Upstate Medical University is poised to address regional barriers to quality health care – while fueling the Upstate New York economy with much-needed jobs in education, research and construction.

By unveiling its vision for “responsive, regional growth,” SUNY Upstate has inspired New York State legislators to earmark, in their 2007-2008 budget, \$130 million for capital projects ranging from a biomedical research center in Syracuse to a castle-based campus in Binghamton.

New York State also approved \$150 million in bonding authorization, which allows University

Hospital to borrow money for further expansion and renovation.

“In terms of community benefit, this may be the greatest investment since the Erie Canal was cut through the City of Syracuse in the 1800s,” notes David R. Smith MD, president of SUNY Upstate Medical University. “We are grateful to our state delegation, SUNY officials and all our supporters who made clear the merits of funding our research, patient care and educational programming.

“The beneficiary of this investment is not SUNY Upstate, but the New York State communities that we are ready to serve,” says Smith.

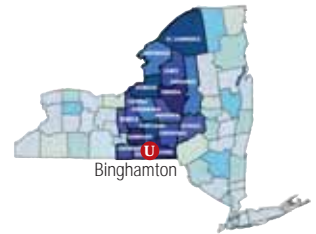
## Campus within a Castle

Soon to be renovated and repurposed, the historic Binghamton “Castle” will serve as the campus for SUNY Upstate’s expanding presence in medically underserved counties surrounding Binghamton. The New York State Legislature has allocated \$12.45 million for phase one of the castle renovation.

The investment recognizes a long and mutually beneficial collaboration between Upstate’s College of Medicine and Binghamton-area hospitals and physicians. Since 1979, more than 2,260 SUNY Upstate medical students have completed their third- and fourth-year clinical training under 400-plus volunteer physicians in the Binghamton region. The renovated “castle” will provide a more visible presence for what has essentially been a “medical school without walls.” SUNY Upstate also plans to offer a new physician assistant degree at the castle/campus.

The 1858 building’s significance in health and medicine, social history and architecture was acknowledged with its 1997 designation as a National Historic Landmark. A year earlier it was added to National and State Registers of Historic

Places, and in 1999 the former “Inebriate Asylum” was listed as one of the state’s most endangered buildings by the Preservation League of New York State.



## Institute for Human Performance

The major project to receive approval is the \$72 million expansion of the university’s research-focused Institute for Human Performance (IHP). The existing building is filled to capacity, as are Upstate’s research laboratories in Weiskotten Hall.

State-of-the-art research space is essential if SUNY Upstate is to recruit more top-tier researchers – and compete for top-level biomedical graduate students.

The need for New York State to invest in SUNY’s research infrastructure was underscored last year by an alarming report from the state Commission on Higher Education. While SUNY is the nation’s largest public university, New York has lost almost a billion dollars in research expenditures since 1980 – and no SUNY campus appeared on *U.S. News and World Report’s* 2007 list of the top 50 universities.

While SUNY Upstate currently has about \$38.7 million in funded research studies, “The state recognizes that New York needs to reinvigorate its research support,” says Smith. “Capital funding to expand Upstate’s research space is a sound investment.

## In addition to the IHP expansion and the Binghamton “castle” renovation, the funded or authorized projects include:

- \$150 million in bonding authorization to build cancer and heart centers – and to modernize patient rooms – at University Hospital. The authorization permits University Hospital to borrow money for designated expansion and renovation. These loans will be repaid with patient revenues. Similar bond authorization preceded the construction of University Hospital’s East Tower, which will house the Golisano Children’s Hospital and other specialty floors. Currently under construction, the East Tower expansion will open next year.
- \$36 million for a new academic building, an essential component of SUNY Upstate’s responsive growth agenda. To meet the region’s health-care needs, Upstate plans to expand enrollment in its four colleges by 30 percent in the next five years. In the past three years, SUNY Upstate has introduced six new education programs, with three additional degree programs to be offered by 2009. Last year, the university launched a recruitment effort for nearly 50 new faculty.
- \$10 million for a cord blood center. SUNY Upstate, with research strengths in cancer and immunology, will collaborate with the NYS Health Department and other organizations to investigate potentially life-saving treatments through umbilical cord blood.



# RMED: A Pipeline to Rural Medicine

**The country doctor – that reassuring icon of American medicine – is an increasingly endangered species. Fortunately, SUNY Upstate saw this coming.**

New York State is famous for its breathtaking rural landscapes. But when it comes to its rural doctors, the outlook isn't pretty. In New York's urban counties, there is roughly one doctor for every 300 people. But in its rural counties, there is one doctor for every 600 people.

From 2001 to 2005, Northern New York lost eight percent of its doctors. And those remaining in rural counties aren't getting any younger – 56 percent of New York's rural physicians are older than 50. And fewer medical school graduates are choosing to practice primary care, or family medicine, which are essential in rural settings.

SUNY Upstate Medical University is stepping up its efforts to address the shortage. It is bolstering its 19-year-old Rural Medical Education program (RMED) with a \$250,000 Rural Medical Scholars program.

According to SUNY Upstate President David R. Smith MD, "It's an incredible opportunity to make a difference in the region."

Upstate aims to at least double the number of students in RMED and intensify recruitment of students from rural or small town backgrounds. The current enrollment is eight to 10 students per year.

As Upstate recruits students for the program, RMED's associate director cautions students not to get hung up on the word "rural."

continued on page 18



## THE RMED LEGACY

**T**he Rural Medical Education Program at SUNY Upstate Medical University continues to resemble an extended family.

This spring, third-year student Melissa Cloonan began her nine-month RMED training at the Samaritan Medical Center's Plaza Family Health Center in Watertown. Cloonan is paired with preceptor Jason White MD, a graduate not only of SUNY Upstate, but of the RMED program as well.

The Upstate family connection doesn't end there. White practices alongside his RMED preceptor, Joseph Wetterhahn MD, who graduated from Upstate (then SUNY Health Science Center) in 1987, two years before the RMED program began.

Several other RMED graduates are preceptors as well, in small communities throughout the Upstate region.

Wetterhahn, who has been preceptor to seven RMED students, knows what to expect in Cloonan. "RMED students are always bright and focused, and eager learners," he says. "They kind of self-select and demand a higher level of teaching."

White says Cloonan will spend most of her time with his patients in his office, and – as he told her – will "follow patients through their whole health-care journey."

But Cloonan, like other RMED students, also will be able to work with specialists in other fields that may

interest her. "We tailor the experience to the student. We can work things into the day," White says.

And the night as well – Cloonan will indeed get calls in the wee hours to help deliver babies.

"RMED gives students exposure to real family medicine," Wetterhahn says. "In a one-month or six-week rotation, you just get a taste of family medicine. When you're there for nine months, you get a real flavor of the struggle and success stories of family medicine."

Cloonan says she might not choose family medicine as a career. Most RMED graduates specialize in family medicine, but others have chosen different specialties, from anesthesiology to urology.

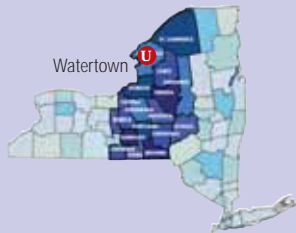
"RMED is a great way to see if I like practicing near home," says Cloonan, who grew up in Gouverneur, about 30 miles from Watertown.

White, who grew up in Watertown, knows the rewards of practicing near his roots.

"As a family doctor, I had the opportunity to come back and take care of people in my community," he says.

Wetterhahn, also a native of Northern New York, says a lot of people in Watertown were happy when former RMED student White returned to Samaritan as a physician.

"Patients were asking about him for years," he says. ■



From left,  
Joseph Wetterhahn MD '87,  
Melissa Cloonan, RMED student;  
and her preceptor,  
Jason White MD '01

RMED: A Pipeline – continued from page 16

Peter Beatty PhD says as far as RMED is concerned, rural can indeed mean a quiet place like Rushville, a village south of Canandaigua that has only one traffic signal. Or it can apply to small, yet busy, cities like Watertown and Oswego.



Peter Beatty PhD

Unlike their Upstate counterparts who stay in Syracuse or go to Upstate’s Binghamton campus for their third year of medical school, RMED students bridge their third and fourth years by spending nine consecutive months in smaller communities across the region.

They work primarily with one physician and immerse themselves in family medicine, but they also spend time learning from local specialists in surgery, radiology and other disciplines.

“There’s always tremendous growth” in the RMED students over that time, says preceptor John Dewar MD, a family physician at Canton-Potsdam Hospital in Northern New York. “By the time they leave, they’re doctors.”

Whatever the exact population of the community welcoming those students, RMED provides unique, hands-on training they won’t get elsewhere.

“The students feel much more like a member of a health-care team, rather than an appendage,” Beatty says.

Continuity is a key part of the RMED program – continuity between student and patient, and between student and instructor.

By seeing the same patients over and over during their stay, RMED students “get to see medical problems

New York State	NUMBERS	
	Urban counties	Rural counties
Number of physicians: 62,770	Urban Rural	
Average age: 51	Primary care physicians per 100,000 population: 105	Primary care physicians per 100,000 population: 68
Primary care physicians per 100,000 population: 99	Ob/gyn physicians per 100,000 population: 19	Ob/gyn physicians per 100,000 population: 9
Ob/gyn physicians per 100,000 population: 18	Percent of physicians who are age 50 and older: 52%	Percent of physicians who are age 50 and older: 56%
Percent of physicians who are age 50 and older: 52%		

From the Annual New York Physician Workforce Profile, 2007 edition. (data reflects 2006)

much earlier in the natural history of the problem,” Beatty says. “Since most medical problems are managed on an outpatient basis, there’s a continuity between student and patient over time.”

RMED students also like the connection they have with their preceptors.

“They work with the same physician over an extended period, so instructors have a better feel for their strengths and weaknesses, and where they need to focus,” Beatty says.

On the question of how well RMED fills the need for doctors in underserved areas, Beatty says the program has done well but can stand to grow.

“We have a good track record. As far as RMED students choosing to practice in rural areas,” Beatty says, “at last count, 55 of RMED’s 155 graduates are practicing, or still training, in Upstate New York. ■

–by James McKeever



Scott Cohen MD, preceptor, and  
Jenny O'Reilly, RMED student

## NO PLACE LIKE HOME

Jenny O'Reilly knows all too well the necessity of small-town doctors. In 2001, O'Reilly was home from college on a break when she became seriously ill and ended up at Chenango Memorial Hospital in Norwich, in the Southern Tier.

Scott Cohen MD diagnosed bacterial meningitis, a potentially fatal inflammation of the membranes around the brain and spinal cord. O'Reilly was in a coma for eight days and endured a year of treatment, including dialysis. At one point, she thought she might have to have a leg amputated, but her condition improved.

Flash forward to 2007, when a fully recovered O'Reilly – a third-year medical student at SUNY Upstate Medical University – opened the envelope that announced her placement in the RMED program.

O'Reilly was being sent to Chenango Memorial, with none other than Cohen as one of her preceptors. She was thrilled.

"I ended up training under the guy who saved my life," O'Reilly says.

She also landed right where she wants to start her career in family medicine after her three-year residency. O'Reilly grew up seven miles away from Norwich, and her community rallied around O'Reilly when she was ill, raising \$10,000 to help pay her medical expenses.

During her nine-month RMED training in Norwich, O'Reilly would meet – and sometimes treat – people who knew of her illness and recovery. They would tell her they had simply invested in her medical training, and that she had better come back to give them a return on their investment.

Before her illness, O'Reilly wanted to become a nurse but doubted that she was cut out for the rigors of medicine. But as she recovered from meningitis – and spent a year in and out of a wheelchair – O'Reilly figured, "If I can get through this, I can get through medical school."

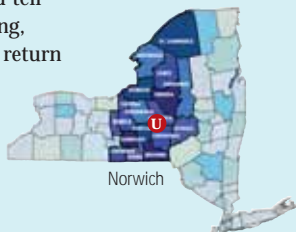
Her experience with meningitis also gave her a strong sense of empathy for patients.

During her RMED training, O'Reilly would treat someone undergoing a certain procedure or treatment and think: "I've had that. I know how it feels."

O'Reilly can't say enough about the RMED program, which allowed her to first-assist on about 60 surgeries and help resuscitate a newborn. "I couldn't imagine doing it any other way," O'Reilly says of RMED.

She graduates in May and will do her residency in a small community near Worcester, Mass., an area that reminds her a lot of Norwich. ■

–by James McKeever



Norwich





More than 150 SUNY Upstate faculty members have made teaching visits to RMED sites, including this 1990s team escorted by L. Thomas Wolff MD, second from left. For a short period, faculty members were transported by a grant-funded private plane. "The plane allowed us to visit two RMED sites in a single day," reports Wolff.

## The Road to RMED

**A**s a medical student – and a young father – L. Thomas Wolff MD took a summer job to help ends meet. The connections he made, in the summer of 1965, are still paying dividends for rural New York State.

Wolff's assignment was to locate physicians who practiced in small towns. "The folks in the federal government were preparing to launch Medicaid and Medicare," he explains. "To set up a network of physicians, they needed to know where New York's doctors practiced."

### My Town

The NYS Department of Health hired Wolff to help with a health workforce assessment. The young medical student was immediately impressed with the commitment – and caliber – of the "country doctors" he encountered. "I drove from county to county, checking local phone books and counting heads," Wolff remembers. "I would pop my head into doctors' offices and ask, 'Who takes care of patients who can't pay?' Most of the doctors said, 'I do. This is my town.'

"I loved the doctors I met on the road," says Wolff, "but even in 1965, there weren't enough of them. One doc might run two or three offices, 30 miles apart."

Wolff continued counting heads until he graduated from the Albany College of Medicine. His exposure – to great physicians, the majority in general practice – steered him toward a career in family medicine. "It wasn't even a specialty in the 1960s," Wolff says. "But I liked that you did some of everything, and you had nice, long relationships with your patients."

Wolff went on to complete a family medicine residency at St. Joseph's Hospital in Syracuse and to establish the first seven family medicine residencies for the U.S. Army. Then he succeeded the late Frank Caliva MD as chair of the Department of Family Medicine at SUNY Upstate. At the age of 31, Wolff was named the youngest department chair in Upstate's history.

Under his leadership, the Department of Family Medicine residency tripled in size, yet the rural physician shortage persisted. When Wolff stepped down as chair in 1985, he could finally focus on this rural challenge. "I had always wanted to create a meaningful education program to expose medical students to the rewards of rural practice," Wolff explains. "Physicians who practice in isolated areas are not doing it for the money. It's a mindset. It's a way of life."

“I loved the doctors I met on the road,  
but even in 1965, there weren’t enough of them.”

### Radical Thinking

Wolff proposed that Upstate medical students spend a year training and living in rural communities. “At that time, this was radical thinking,” he remembers. “What medical school faculty is going to hand over a year of training to unknown physicians?”

“But SUNY Upstate could take that risk,” Wolff says, “because I had great connections with rural docs. I knew who the stars were. I knew which doctors would be great teachers.”

A rural physician training program had been pioneered at the University of Minnesota, with impressive results. “Jack Verby MD, who launched Minnesota’s program, took a sabbatical to help Upstate establish its own Rural Medical Education Program (RMED) in 1989,” reports Wolff.

### Immersion

“There were so many components to develop: the curriculum, voluntary faculty, hospital connections and community support,” he says. “This was a very different approach to training rural docs. Our medical students would spend a year immersed in these areas – joining local churches, coaching sports, playing in the community band.”

But the top priority was recruiting rural faculty. “We had to find primary-care preceptors, as well as surgeons, ob-gyns, internists and psychiatrists to help train our students,” Wolff remembers. “We had to integrate our standard medical school curriculum with rural resources.”

In the early days of RMED, Wolff made a point of taking skeptical Upstate faculty to meet RMED preceptors. “On the drive to the site, some would challenge the RMED premise,” he reports. “On the way home, they would often praise the rural doctors and their medical insights.”

### 55 and Counting

Since 1989, Upstate’s RMED program has grown from two sites (Hamilton and Potsdam) to 18 sites. More than 155 Upstate graduates have completed RMED, and 55 are practicing, or still training, in Upstate New York.

“Everyone wins,” according to Wolff. Graduates routinely rank time spent with their primary rural preceptors as the most valuable part of their medical education.

To reward the preceptors, Upstate faculty visit the RMED sites to offer continuing medical education (CME). “This allows the preceptors to earn CME credits without leaving town,” explains Wolff. “We are very grateful to these generous physicians, who teach our medical students at their own expense. As practicing physicians, we understand that stopping to train students slows you down.”

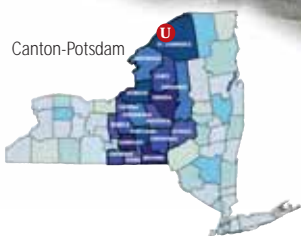
On the other hand, Wolff notes, “The preceptors genuinely enjoy the students. They get to see these ‘diamonds in the rough’ develop into budding physicians.

“These are incredible students,” Wolff adds. “They volunteer for RMED because they want this experience, not because they are required to have this experience.”

### Bottom Line

The RMED students take the same exams and boards as Upstate’s Syracuse and Binghamton students, so their rural training is quantifiable. “Our RMED students score as well as students in the traditional curriculum,” Wolff reports.

“I think the personal relationships really motivate RMED students,” he adds. “The students stay long enough to develop real connections with their preceptors, and their patients. I remember one RMED student telling me, ‘I never read so much medicine in my life. But I wasn’t reading to prepare for a test, I was reading to take care of my patients.’” ■



## HIS & HERS: RMED

“I can imagine myself living there and practicing there.”

**A**ndrew and Sarah Bohn are the first married couple to go through SUNY Upstate’s RMED program. They worked with different preceptors, or teachers, for nine months at Canton-Potsdam Hospital.

Andrew Bohn worked with Gregory Healey MD, while Sarah Bohn worked with the husband-and-wife team of John Dewar MD and Sandra McCloy MD.

The Bohns were in separate orbits much of the time at the hospital, but they were able to work as a team when they were on call on weekends.

“One weekend, in the early stages, they looked a little tired,” Dewar recalls. “I got off the phone and told them we had three more admissions coming. I think it was Andy who said, ‘When does this end?’ I said, ‘It doesn’t end. You battle death and disease, you take a break, and you go back and battle death and disease again.’”

Sarah said she, not Andrew, was the one who complained that day to Dewar. They thought his “battle death and disease” quote so fitting, they made it their RMED mantra.

They returned to Syracuse in February.

Sarah grew up in a small community outside Marietta, Ohio. She has always wanted to practice family medicine in a rural area. Does she recommend RMED to others? “Most definitely.”

Andrew lived in a St. Louis suburb until he was 11 and his family moved to Jamestown, outside Buffalo. He wants to go into emergency medicine, and wasn’t sure RMED would fit into his career plans.

“But once I got up there I realized what a great experience it is,” he says.

### Excerpts from a joint interview:

**Andrew:** I ended up first-assisting on everything. I was talking to other students (not in RMED), who said they thought stitching twice in six weeks was great. I did that almost every day.

**Sarah:** We’re responsible for the patients we see. It’s akin to an internship. If we’re in the office, we see a patient and make a plan. If we don’t know, we ask the preceptor.

**Andrew:** I was listening to a few classmates gripe about going into the OR and doing nothing. The cases you do (in RMED) are a little less exotic, but you get to learn more doing simple cases than just watching the exotic.

**Sarah:** It’s very much like an internship, but with a lesser volume and then it progresses. It’s a good stepping point and transition to internships.

**Sarah:** I got called many times in the middle of the night delivering babies. You’re not going to get that in the University setting. It just prepares you for the next step.

**Andrew:** Leaving was kind of hard for me. I had to tell an elderly woman who was a frequent patient I was leaving, and she got all choked up and gave me a big hug. You get attached to people.

**Sarah:** It was hard to leave Potsdam. I really like the community. I can imagine myself living there and practicing there later. People said, “You’re coming back, right?”

—by James McKeever



# From Surgery to Psychiatry

## COLLEGE OF NURSING PROGRAMS TACKLE PRESSING NEEDS

**T**wo new SUNY Upstate nursing programs will help address vital gaps in health care delivery in Central New York.

Beginning in fall 2008, nurses can pursue a master's degree in a new specialty: family psychiatric mental health. As nurse practitioners, graduates of the program will be able to diagnose, treat and provide therapy for patients with mental health issues.

On the surgical front, last fall SUNY Upstate began a Registered Nurse First Assistant (RNFA) program, which educates nurses to assist surgeons before, during and after surgical procedures.

"These programs address urgent community needs and are unique in our region," reports Elvira Szigeti PhD, RN, dean of Upstate's College of Nursing. The RNFA is one of only two New York State programs approved by the Competency and Credentialing Institute. The family psychiatric mental health nurse practitioner program is one of only three offered by SUNY.

### An Extra Set of Surgical Hands

The RN First Assistant program is especially beneficial for small towns and rural areas, according to Barbara Black, MA, MS, RN, ANP, director of the college's post-master's certificate and continuing education programs.

"There are many procedures which require two sets of hands," she explains. "Additional surgeons are more readily available in larger hospitals and practices, but that may not be the case in smaller communities. The

presence of certified RNFAs in these communities allows surgeons to perform procedures that may otherwise be impossible. This clinical support can be valuable in recruiting doctors to a community, and it's good for patients, who can then get the care they need locally."



"Only 20 percent (of children with mental health problems) receive services."

### A Mental Health Crisis

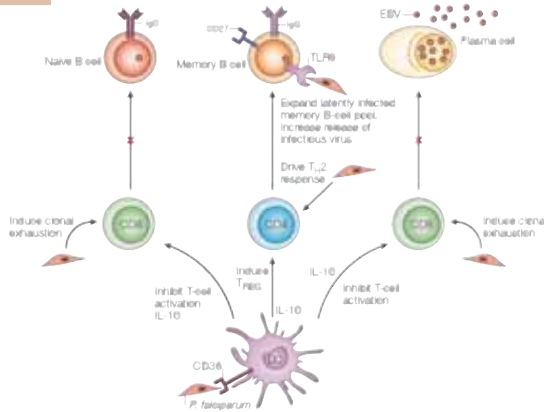
At a time when an estimated one in 10 adults experiences depression, finding treatment is compounded by the shortage of psychiatrists throughout the region.

"This is even more severe for young people," says Szigeti. "Of the 50 area mental health clinics, only seven treat children. One in 10 children and adolescents experience mental health problems, but only 20 percent receive services."

The Family Psychiatric Mental Health Nurse Practitioner program enables graduates to work with the patient populations of their choice. That's good news for Tammy Balamut RN, who plans to pursue the master's degree so that she can work with adolescents.

"Some of our kids are losing their way, but they can be helped if there is enough support for them," says Balamut, who already has experience working with teens in an in-patient psychiatric setting. "I want to be part of helping them get their lives back. There is nothing more rewarding than that." ■

—by Leah Caldwell



# Face to Face with Epstein-Barr Virus

**“The virus I had been studying at a distance – and the questions I had been asking in the abstract – suddenly became so urgent.”** –Rosemary Rochford PhD

**H**ard at work in her research lab, Rosemary Rochford PhD had devoted almost two decades to understanding the elusive Epstein-Barr virus (EBV). Still, she was stunned the first time she stood face-to-face with its devastating human impact. “On a trip to Kenya in 2001, I walked into a hospital ward full of children with the EBV-related cancer, Burkitt’s lymphoma,” remembers Rochford. “The virus I had been studying at a distance – and the questions I had been asking in the abstract – suddenly became so urgent.”

Rochford immediately began investigating what was known about Burkitt’s lymphoma, the most common childhood cancer in Africa. She spent the next few years generating data so that she could secure a National Institutes of Health grant to conduct clinical research in Kenya.

## Treatable, but...

Burkitt’s lymphoma causes fast-growing jaw and abdominal tumors in children ages 2 to 14. In the United States, the condition is very rare, and the survival rate is 90 percent. “The tumors are incredibly responsive

to chemotherapy drugs,” agrees Rochford. But in Equatorial Africa, the survival rate is only 50 percent.

Kenya has better access to chemotherapy than most African nations. But even with chemotherapy, many Kenyan children die from treatment-related dehydration or immune suppression. According to Rochford, “The nurses and doctors do the best they can. But often they lack the resources to provide full treatment.”

With NIH funding, Rochford and her research team are following Burkitt’s lymphoma patients treated at the Nyanza Provincial Hospital in Kisumu, Kenya. They are also comparing the incidence of Burkitt’s lymphoma in regions with and without malaria. “There is strong evidence that malaria plays a role in turning EBV-infected cells into cancer cells,” explains Rochford. “In Equatorial climates, the children are exposed to malaria year-round, because there is no winter to kill the mosquitoes. One of our research goals is to follow 200 children, from either the Kenyan lowlands, where there is a lot of malaria, or the highlands, where there is no malaria.





### Partners in Science

“Our field workers visit the children once a week and take monthly finger pricks for EBV DNA,” Rochford says. “In the United States, this project would be prohibitive in cost. In Kenya, our \$100,000 subcontract provides us with a vehicle, a driver, a Kenyan field worker for every 10 of the 200 children in the study, data entry workers and laboratory staff.”

For laboratory testing, Rochford has developed a native research team, based at the Kenya Medical Research Institute in Kisumu. “Kenya has a strong research infrastructure, and we have wonderful Kenyan colleagues,” she says. “Our study trains one Kenyan master’s student and two Kenyan PhDs, including our project manager – Odada Sumba.

We also have a post-doctoral SUNY immunologist in our field laboratory. And Nicolette Oleng, a SUNY Upstate medical student and native of Kenya, worked at the Nyanza Provincial Hospital last summer.”

Continued on page 26

To track malaria-induced changes in the Epstein-Barr virus, 200 Kenyan children are tested monthly for Rosemary Rochford’s NIH-funded clinical study.



Children at Nyanza Provincial Hospital in Kisumu, Kenya



**What is EBV?**

"The majority of the world's population is infected with Epstein-Barr virus, but – in most people – EBV sits quietly in their B cells," according to SUNY Upstate Professor and Chair Rosemary Rochford PhD, who published an overview of the virus in the prestigious journal, *Nature Microbiology*. Under certain conditions, EBV modulates into a type-1 carcinogen associated with a variety of tumors. In AIDS and transplant patients, EBV causes immunoblastic B-cell lymphoma. And in the presence of holoendemic malaria, EBV appears to cause Burkitt's lymphoma in children. "Multiple things drive a B cell to become malignant, but we know that malaria modulates the virus," says Rochford, who began to study EBV as a postdoctoral student at the Scripps Research Institute in California. She joined the faculty at the University of Michigan before moving her research to SUNY Upstate in 2003. In one of her current NIH-funded lab studies, Rochford engrafts severely compromised immune-deficient (SCID) mice with Burkitt's lymphoma. "We use the mice to learn more about the tumors," she explains, "and to hopefully develop treatments that require less supportive care."

Face to Face - from page 25

**Not Safari Science**

"We don't want to be safari scientists, bagging samples to take home," stresses Rochford. "Our research grant provides jobs for people in smaller villages. When I am in Kenya, I help to train Kenyan doctoral students. We hope to one day collaborate on research projects with those scientists."

Rochford travels to Kenya twice a year and communicates by computer daily with her field staff. She was taken off guard, she admits, by Kenya's recent election-related violence. "Kenya has traditionally been stable," she says. "The fires have now died down, but there are embers. Our goal is to continue the research, even when I cannot personally be there. Our field staff is a well-oiled machine."

**Foundation in Place**

"I hope to return in October," says Rochford, whose field work includes oversight of funds from her Equatorial Africa Children's Cancer Fund (EACH). She established the fund for children hospitalized at the Nyanza Provincial Hospital in Kisumu.

In its early days, EACH had toy drives and raised money (with help from SUNY Upstate graduate and medical students) to send toys to these young patients.

More recently, the fund has underwritten hospital renovation and much-needed nursing support. "The kids call their nurse 'mama wa toto' – mother of many," notes Rochford.

"Our next challenge is new beds for the kids," she says with determination. "Right now, on a ward of 30 to 40 patients, there can be two kids in each bed." ■

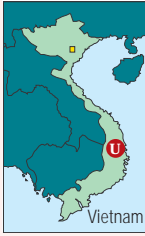
–by Denise Owen Harrigan

**Research, Under Fire**

Even before Kenya's most recent violent political eruptions, Rosemary Rochford PhD understood the risks of conducting research in a developing country. In 2005, while setting up her NIH research in Kenya, Rochford and her party were ambushed by armed robbers. "We were in a car, coming back from dinner, when we were stopped, robbed and then shot," she says. "Mine was only a flesh wound, but my friend's son was terribly wounded. He recovered, fortunately, but I had to ask myself, 'Do I really want to do this?'" Ultimately, her decision was to return to Kenya. "I still have safety concerns," Rochford admits, "but I have a longing to return to Kenya. I have gone back many times... but I don't go out at night."



Rosemary Rochford PhD



A surgery patient in the National Ear, Nose and Throat Hospital of Vietnam

# Happier Faces, Healing Hands

## SUNY UPSTATE SURGICAL TEAM SHARES SKILLS IN VIETNAM

**T**o – literally – bring smiles to the faces of children, a trio of SUNY Upstate surgical experts recently traveled to Southeast Asia on a goodwill mission.

Late last year, surgical tech Holly Dailey RN and facial plastic surgeons Sherard Tatum MD and Lamont Jones MD joined a “Face to Face” mission organized by the American Academy of Facial Plastic and Reconstructive Surgery (AAFPRS). The group’s goal was to reconstruct the faces of Vietnamese children suffering from complex head and neck deformities.

During their visit to the National Ear, Nose and Throat Hospital in Hanoi, the team performed nearly two dozen surgeries to repair cleft palates and perform post-traumatic reconstruction of scar revisions and facial rejuvenation.

“Everyone we worked with was very gracious and grateful,” reports Dailey, whose expenses were supported by SUNY Upstate’s Patil Pediatric Endowment Award. “We were able to give these children a better outlook on life – and share our expertise with local surgeons and nurses.”

“In many issues related to facial deformities, we have more experience, knowledge and skill than our Vietnamese colleagues,” agrees Tatum, associate professor of otolaryngology at SUNY Upstate. “However, the local surgical teams often are very capable and mostly held back by equipment and supply issues. We lecture to them, perform demonstration surgeries and do cases

together. We also learn from them.”

This was the fourth visit to the Hanoi hospital for the AAFPRS Face to Face group. Each year, its U.S. participants return to find many of their teachings and suggestions implemented – as evidenced by the hospital’s new Department of Facial Plastic and Reconstructive Surgery.

“It’s a great example of the power of education, especially on this level,” says Tatum, who has volunteered around the globe on similar missions. “It’s inspiring to see that the wisdom we impart is meaningful and useful.”

According to Jones, AAFPRS fellow in the Department of Otolaryngology at SUNY Upstate, the Vietnam visit underscored the world’s significant health-care disparities. “Whenever you go out of the country,” he says, “you realize how fortunate you are for the level of medical care available here in the United States.” ■



SUNY Upstate surgical tech Holly Dailey RN, right, with her Vietnamese counterpart

# Passport to Practice

“**E**mergency physician with academic background. Do you need me?”

This was the question that helped David Reed MD map an itinerary for his recent sabbatical in international medicine. His straightforward offer – to help health-care systems in crisis – evolved into a global, 15-month journey for Reed and for the medical students and residents who joined him along the way. Reed and assorted colleagues traveled to Ghana, Haiti, Kosovo, Rwanda, Uganda and Sudan. They cared for patients, taught native physicians, helped build a clinic and personally confronted the gross inequities in global health care. “We chose to work where health care is disrupted due to war, natural disasters or economic disparities,” explains Reed. “We were trying to identify the most effective strategies for delivering assistance to disrupted health-care systems.”

In addition to addressing these issues, Reed and his team are building awareness. “Back here, in the United States, we tend to have our heads in the sand. We rarely see malaria, tetanus or dengue fever.

David Reed MD examines a child in rural Ghana

We do not fully appreciate the need for the most basic health-care facilities and medical equipment. We do not understand that, in other parts of the world, things we take for granted, such as sterile gloves, are washed and reused until they fall apart.”

#### Keen Sensitivity

At the same time, Reed says, “Upstate students are keenly aware of the correlation between disease and poverty, whether in the United States or abroad. They genuinely struggle with their obligations as physicians in American society. When Harvard’s global health crusader, Dr. Paul Farmer, spoke last year at Upstate, the room was packed. I remember one medical student saying, ‘I have to repay \$250,000 in student loans. How do I fit global service into my life?’”

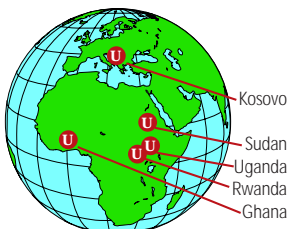
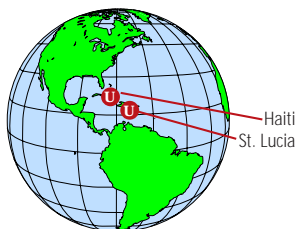
Reed has wrestled with the same question. He has demanding, daily obligations, caring for patients and teaching in University Hospital’s Emergency Department. He lives in Cazenovia with his two children and wife, Amy Laventer, a geology professor at Colgate University. Still, Reed wants to personally participate in addressing global health challenges. One solution has been to volunteer, for two to four weeks a year, at a hospital on the Caribbean island of St. Lucia. “You can reach the island in seven hours,” Reed says, “and get right to work caring for patients.” Those patients, he notes, range from elderly islanders diagnosed with cancer to drug smugglers shot with M-16s. To date, a total of 20 SUNY Upstate residents and medical students have worked with Reed in St. Lucia.

continued on page 30

The families of pediatric patients outside Lacor Hospital in Northern Uganda. With more than 300 children on the “pediatric” ward, and as few as three nurses on the night shift, family members camp onsite – and provide the bulk of the patients’ daily care.



Michael Ferguson MD, a 2007 SUNY Upstate graduate who worked with Reed in Ghana, checks a patient at a rural clinic there. This year, Ferguson is on a medical mission in Capetown, South Africa.



**Passport** - from page 29

Reed was also one of the early volunteer physicians on the scene after Hurricane Katrina. “An emergency physician is probably most prepared to respond to the immediate spectrum of trauma and disease that accompany a large-scale disaster,” says Reed, who spent a week navigating the flooded streets of New Orleans, searching for stranded survivors.

**Upstate Endorsement**

When Reed proposed his recent – somewhat unorthodox – global sabbatical, he received enthusiastic support from his chair, John McCabe MD; his dean, Stephen Scheinman MD; and Upstate’s president, David Smith MD. Reed’s next challenge was selecting from the many international sites in serious need of medical assistance. With the help of colleagues and international relief organizations, he created an itinerary that spanned the globe – but was subject to change, often on short notice. In January, for example, he cancelled a commitment in Kenya due to post-election violence. Even in the relatively stable city of Kampala, Uganda, where he



David Reed MD and medical student Becky Bollin hike to a rural clinic with armed escorts from the Sudanese People’s Liberation Army. In July, Bollin will enter SUNY Upstate’s family medicine residency at St. Joseph’s Hospital.

## Students at Upstate struggle with the question, “How do I fit global service into my life?”

attended a course on Public Health in Complex Emergencies, Reed was cautious. In a letter to colleagues, he wrote, “Over the last couple days, representatives of the rebel Lords Resistance Army (LRA) have been at the hotel holding a reconciliation meeting, trying to find resolution to almost 20 years of conflict. Their presence actually made me a bit more nervous than yesterday’s newspaper article describing four simultaneous disease outbreaks in Uganda: yellow fever, meningitis, bubonic plague and Ebola.”

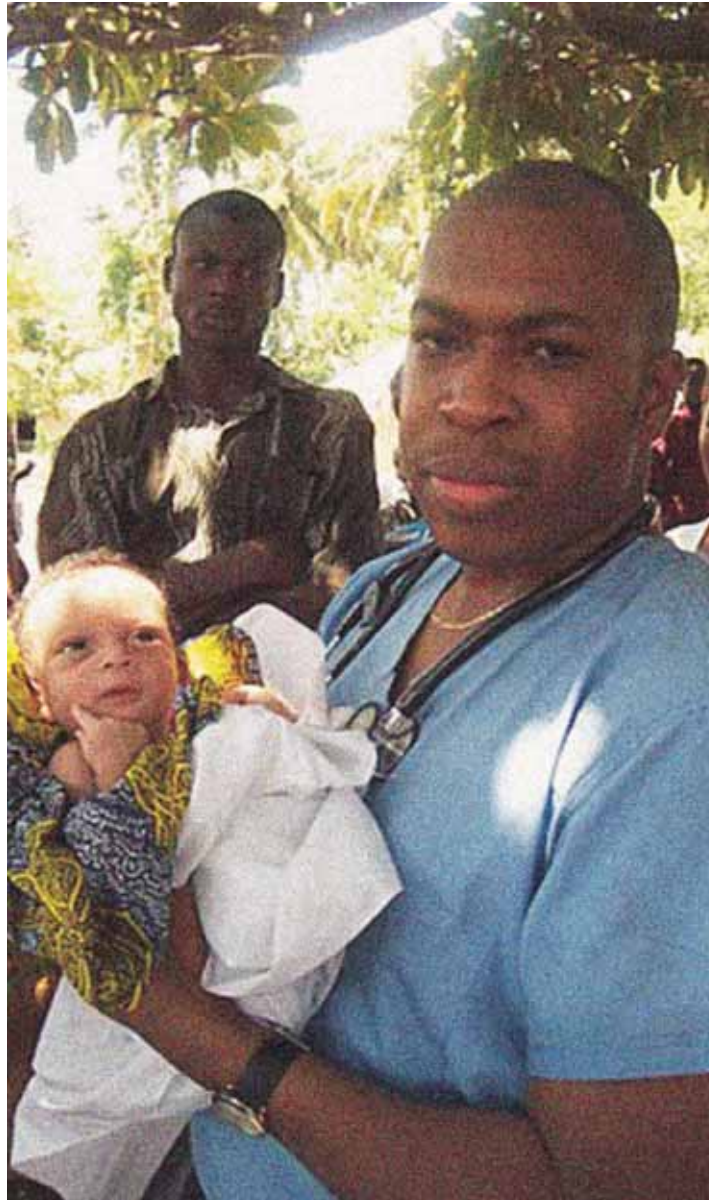
But for the most part, Reed remained unruffled by his surroundings. Emergency medicine requires a high tolerance for uncertainty. Even before his medical training, Reed was conditioned to remain calm: he grew up with missionary parents in Colombia, South America, and he spent 11 years as a search-and-rescue helicopter pilot in the U.S. Navy, flying missions in Antarctica and the Sierra Nevada Mountains in California. “I guess I like to help bring order to chaos,” he admits.

### Insights From Abroad

But even for a pressure-treated emergency physician, the international sabbatical has been challenging. “It is a long-and-steep learning curve but a very satisfying endeavor,” Reed concludes. “And in tangible ways, it helped to expose Upstate’s medical students and residents to global health issues.”

Reed is grateful for the opportunity to join medical teams in other countries. “On a daily basis, I was impressed by the dedicated humanitarian workers I met in the field. Many have committed years to the effort,” he says. “But even more crucial are the local citizens. Long-term success depends on identifying and nurturing local talent. Over time, they will remain most committed to the health-care needs of their region.” ■

—by Denise Owen Harrigan



In Ghana, Lawrence Creswell MD cares for a baby with spina bifida. Creswell, who accompanied Reed to Ghana, will soon be chief resident in SUNY Upstate’s Department of Emergency Medicine.



Professor and Chair of  
Emergency Medicine  
John McCabe MD, second  
from right, tours the  
Manipal Hospital in  
Bangalore, India.

# In Case of Emergency

## UPSTATE'S ON CALL

**Bonds are forged - and lives are saved -  
when SUNY Upstate shares its expertise  
with China and India.**

**W**ith 911 networks, ambulance crews and trauma teams on call around the clock, America's instant, integrated response to medical emergencies is pretty much taken for granted. But in most of the world, emergency medicine is haphazard at best. According to John McCabe MD, professor and chair of Emergency Medicine at SUNY Upstate, the more typical scenario goes like this:

"If you are hit by a car, you may lie in the street for hours. If an ambulance finally arrives, its crew may know little or nothing about emergency medicine. If the patient is taken to a hospital, the care may be slow, fragmented - or nonexistent, if the family can't pay up front for x-rays, examinations, medications and treatment."

Such dramatic disparities in emergency response have inspired McCabe - a recent president of the American Board of Emergency Medicine - to share Upstate's expertise with nations such as China and India. "In the United States, emergency medicine has been a board-certified specialty for 30 years," McCabe explains.

"But until five years ago, only the U.S., United Kingdom, Canada and Australia practiced this specialty. In much of the world, emergency medicine is primitive. The good news is that China and India, two of the world's most populated countries, are eager to learn."

### Give and Take

The other good news, according to McCabe, is that Upstate gains medical insight and cultural perspective from these international exchanges.

In India, for example, some private hospitals rival the best in the U.S. At the same time, there are only two emergency medicine programs for 1.1 billion people. Last year, McCabe took a group of physicians to India to teach emergency medicine. "In October, we will sponsor a national emergency medicine meeting in India, in collaboration with the Syracuse VA Hospital," says McCabe. "India also hopes to send residents to train here. It's very exciting to see India's blossoming interest in emergency medicine."



## China Connection

McCabe first offered to share medical expertise with China in 1996, when Upstate hosted a delegation of Chinese hospital administrators and public health officials. Soon China was sending two groups of physicians a year to Upstate for mid-career training. Each group of four physicians spends three to four months at University Hospital.

“It’s an opportunity to help raise the level of care in China, in emergency medicine as well a variety of specialties,” reports McCabe. “We’ve had great support from our departments of surgery, orthopedics and medicine. The Chinese doctors are handpicked to study at Upstate. Then they go home and advance their specialties. One cardiologist who trained here went back to China and established a thriving program in interventional cardiology.”



In a hospital in Hangzhou, China, the SUNY Upstate delegation is exposed to the thought-provoking integration of traditional Eastern and Western medicine.

## Upstate’s relationship with China is an exchange, with much to be learned on both sides.

While hosting a variety of Chinese specialists, McCabe continues to advance his emergency medicine agenda. “This April we will go with our residents to train ambulance physicians in China,” he reports. “We have a contract with a quasi-governmental agency, and plan to do more exchanges with medical students and residents.

“We’ll also do research, while we’re in China,” McCabe adds. “We’ll compare our uses of hyperbaric medicine, which the Chinese employ more than we do – for stroke and head injuries, for example.”

## Cultural Contrast

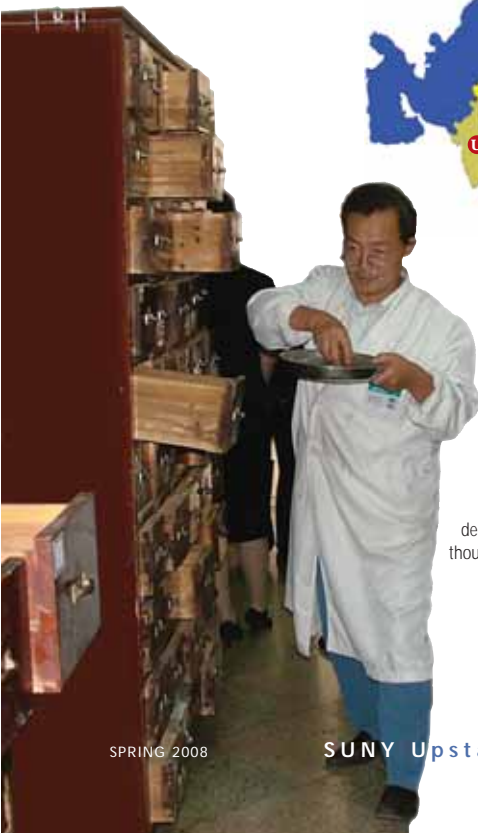
McCabe stresses that Upstate’s relationship with China is an exchange, with much to be learned on both sides. Each spring, up to eight Upstate medical students spend a month in the Chinese city of Hangzhou, a small – by Chinese standards – university city with a population of 4 million.

“Our students develop a broader perspective,” he notes. “In China, they might work in a 1,000-bed hospital with 300 employees. At Upstate, we have a 300-bed hospital with 3,000 employees. Chinese families participate much more in patient care. They also cook and do laundry in the hospital rooms.”

In China, the Upstate students work in hospitals where both Western-style and traditional Eastern medicine are practiced. “They see different approaches to medicine, integrated within the same country,” says McCabe. “Chinese hospitals have fewer ancillary services, such as physical therapy. On the other hand, there are Chinese doctors trained in massage. Acupuncture and aromatherapy may play a role, even when Chinese are practicing Western medicine.

“Our students learn that the world doesn’t revolve around U.S. medicine,” McCabe concludes. “Life is different. Values are different. The importance of medicine is different.” ■

–by Denise Owen Harrigan

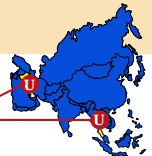




## CLOSE WATCH IN THAILAND

To study dengue fever in Thai children, SUNY Upstate's Timothy Endy MD, MPH and his colleagues collect painstaking data, including temperatures and blood samples, at an elementary school in Northern Thailand. Their research, which tracks the pathogenesis and impact of dengue fever, has

been published in such journals as *Lancet* and the *Journal of Virology*. Endy, an associate professor of infectious disease, continues to study dengue fever under an NIH Program Project Grant and RO1 in collaboration with the Armed Forces Research Institute of Medical Sciences in Bangkok, Thailand.



## PAY IT FORWARD

His time at SUNY Upstate Medical University was brief, but it had a global impact on health care. In 2005, LeRoy Marklund MS, RN earned his post-master's advanced certificate in nursing education at Upstate by taking evening classes. By day, Marklund – now a major in the U.S. Army Nurse Corps – was a teacher at Fort Drum.

Based with the 10th Mountain Division at Fort Drum, Marklund trained more than 300 medics assigned to the 10th Mountain Division and more than 30 nurses assigned to the 865th Combat Support Hospital from Utica.

Before coming to Upstate, Marklund supervised military personnel in Iraq, at a hospital for critically injured soldiers and civilians.

"With his military background, he brought a great perspective to the class," recalls Debora Kirsch MS, RN, clinical assistant professor and director of the baccalaureate nursing program at Upstate.

Marklund spent the past three years as a clinical nurse specialist with the U.S. Army Trauma Training Center in Miami, Fla. He recently accepted a position at the U.S. Army Medical Research Institute of Chemical Defense at Aberdeen Proving Ground in Maryland.

"The classes I had at Upstate helped with my professional development," Marklund says. "I'm a clinical nurse specialist, and part of the job is nurse and patient education. I'm just applying principles I learned at SUNY Upstate."

In his new position, Marklund will teach military personnel and civilians how to deal with large-scale chemical attacks or other acts of terrorism.

"He's clearly a seasoned professional," Kirsch says. "He's intelligent, compassionate and a great asset to the nursing profession." ■

—by James McKeever





## FIVE WEEKS IN EL SALVADOR

Last summer – armed with a year of medical school, two weeks of medical Spanish language classes, three suitcases filled with pamphlets and first aid equipment, and some good advice – Christopher Pray hopped in the back of a pickup truck and headed for a village in the mountains of western El Salvador. Pray, a medical student at SUNY Upstate, had learned about La Isla through a nonprofit organization that offers aid to the village's residents.

It was a three-hour drive over dirt roads to get from the city of Santa Ana to the village of La Isla. When he arrived, Pray discovered that the people of La Isla had no health clinic, but they did have cases and cases of sugary soft drinks, all from U.S. companies.

Pray went to work with finger stick tests and blood pressure cuffs, and discovered a community 'hooked' on soda pop: he tested more than 100 people, and diagnosed dozens of cases of diabetes and hypertension.

Fortunately, Pray had been advised to concentrate on these two conditions because they can be improved through lifestyle changes. Using the Spanish language patient education materials he brought with him, Pray worked with a number of La Isla residents to improve their diabetes and hypertension through diet and exercise.

"Diabetes and hypertension were common...in part because of easy access to U.S. soft drinks."

Early in his stay, Pray cared for a 10-year-old boy who gashed his leg with a machete while harvesting plantain. After examining the child's injury, Pray contacted a U.S. doctor for advice, via cell phone. Using basic first aid – oral antibiotics, sterile water and bandages – Pray was able to help the child, and to train the village's mayor and teachers to administer first aid in the future.

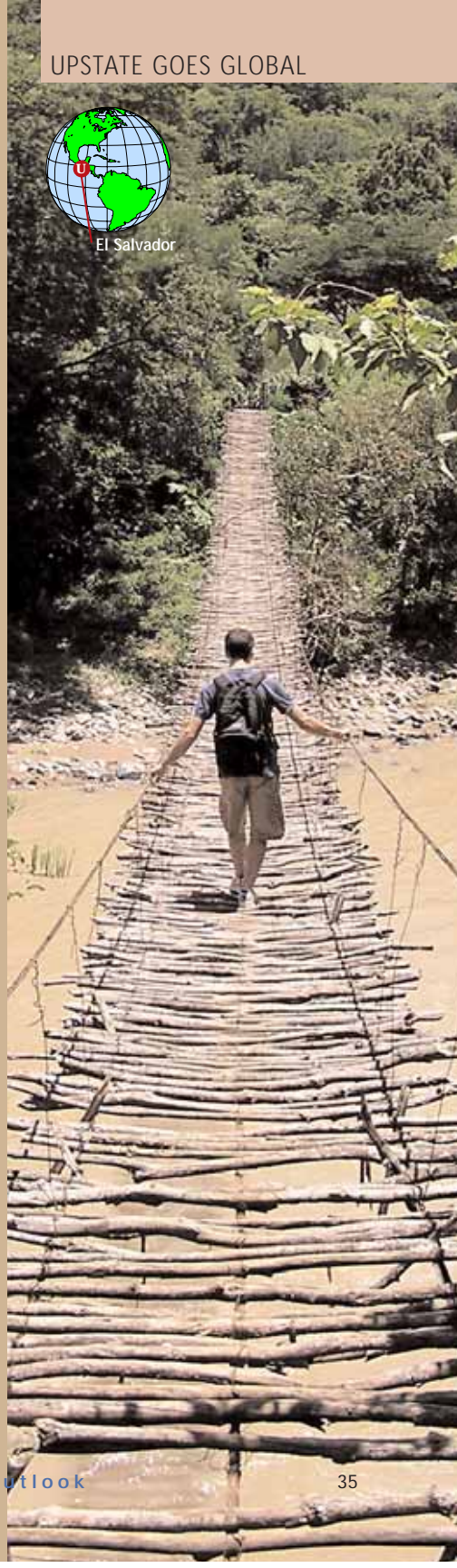
Pray acknowledges that this trip, and his passion for international health, were inspired by the writings of Paul Farmer MD, PhD, founding director of Partners In Health. After returning to medical school last fall, Pray was able to meet Farmer when he spoke at one of Upstate's Keating Memorial Global Health lectures. ■

—by Susan Keeter

In June 2008, Christopher Pray begins his third-year of medical school at SUNY Upstate's clinical campus in Binghamton.

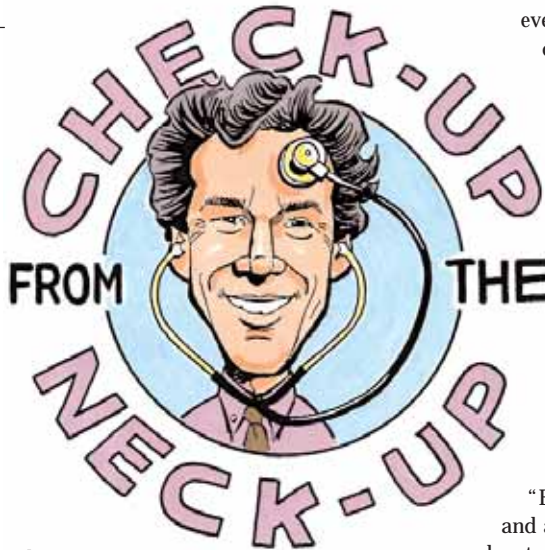


El Salvador



**To hear him on the radio – where he’s breezy,  
witty and wise – you’d never guess that  
Clinical Psychologist Rich O’Neill PhD  
was a shy kid who worried more than he liked.**

**B**ut, in high school, he discovered psychology – and its remarkable ability to transform our outlook on life. Now, after 25 years as a psychologist, O’Neill is translating his insights into a weekly radio segment, *Check-Up From The Neck-Up*. His three-minute parables are packed with humor – and solid research. “Today’s psychology has so much scientific info to share,” says O’Neill, an associate professor of psychiatry and behavioral sciences at SUNY Upstate. “The challenge is to make it simple, useful and fun. And to make me sound brilliant – no easy task!



“In each *Check-Up*, I tackle an everyday challenge to healthy change,” he explains. “We explore solutions, like replacing doubt and denial with curiosity and courage. It’s ultimately about coming to an old fork in the road and taking a new approach.” The tone of *Check-Up From The Neck-Up* is intentionally light. “When people think of mental health, they think of disorders, depression, the dark stuff,” says O’Neill. “But changing how we think, and achieving our goals, is a real adventure. It’s about developing our capacity to be more.”

To listen to Dr. Rich O’Neill’s *Check-Up From The Neck-Up*, tune into SUNY Upstate’s *HealthLink On Air* at 9 a.m. Sundays on 570 WSYR or visit [www.healthlinkonair.org](http://www.healthlinkonair.org)

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