



UPSTATE

MEDICAL UNIVERSITY

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INSIDE

Harvard-Trained Breast Reconstruction Surgeon

Plastic surgeon Michael Curtis MD, who recently completed a breast reconstruction fellowship at Beth Israel Deaconess in Boston, has joined Upstate's Department of Surgery.

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2010 Community Impact Report

With a budget that exceeds \$1 billion, Upstate Medical University is a powerful economic engine for Upstate New York.

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Upstate medical student Jenna Gaesser with Michael, a patient at the new Upstate Golisano Children's Hospital, Syracuse, NY

Knowing changes everything.SM

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Michael Curtis MD

PLASTIC SURGEON BRINGS RARE EXPERTISE IN BREAST RECONSTRUCTION

The Upstate Medical University appointment of plastic surgeon Michael Curtis MD represents a homecoming for the Upstate grad and Utica native — and a critical surgical resource for the region.

Dr. Curtis is Harvard fellowship-trained in microvascular breast reconstruction, a subspecialty rarely available outside major metropolitan areas. According to a recent study, only 20 percent of women have breast reconstruction after mastectomy. A common impediment? Lack of access to a surgeon trained in all types of reconstruction.

Dr. Curtis completed his fellowship in aesthetic and reconstructive breast surgery at Beth Israel Deaconess Medical Center in Boston. He completed his residency, in plastic and general surgery, at the Saint Louis University School of Medicine. He earned his medical degree at Upstate in 2000 and his undergraduate degree in biology at Utica College of Syracuse University.

Breast Reconstruction

In the past 30 years, breast reconstruction options have steadily advanced, with increasingly better outcomes and more natural results, according to Dr. Curtis. “With each patient, I explain all the options, including which procedure she is best suited for,” he says. “Together we make a choice.”

Implants remain the most common choice, accounting for 65 percent of the 85,000 patients who had breast reconstruction in 2009.

Autologous Options

The development of tissue flap procedures represents a major advance in breast reconstruction, according to Dr. Curtis, who notes, “No implant can replicate what human tissue feels like.”

The tissue flap reconstructs the breast with tissue from the patient’s stomach, either in the form of a transverse rectus abdominis myocutaneous (TRAM) flap, or a newer type of abdominal reconstruction called the deep inferior epigastric perforator, or DIEP flap. Other autologous reconstruction options are the superior gluteal artery perforator (SGAP) flap from the buttocks or the latissimus dorsi flap from the upper back.

The most recent advance in tissue flap reconstruction — the DIEP flap — represents a major focus of Dr. Curtis’ fellowship training. With the DIEP flap, “We use the same source vessel as the TRAM flap, but only the skin and fat,” Dr. Curtis explains.

“With the TRAM flap, you lose core muscle and function. With the DIEP flap, 70 percent of the stomach muscle is functioning within a year — and you get a tummy tuck in the process.”

As clinical assistant professor of surgery at Upstate, Dr. Curtis will be a key member of its breast cancer team. He will also perform general plastic surgery reconstruction for burn and trauma patients, in both the pediatric and adult populations.

“While many people associate plastic surgeons with glamorous practices in major cities,” says Dr. Curtis, “I prefer academic medicine. I like teaching medical students and residents.”

Depending on the patient, says Dr. Curtis, there may be enough tissue to perform a bilateral reconstruction.

Implant Issues

While breast implants continue to evolve, they also have a higher risk of infection than tissue flap procedures, and 30 percent of implants must be replaced within 10 years.

“Breast implants were taken off the American market between the 1990s and 2006, but they were always available for breast reconstruction,” reports Dr. Curtis.

The implant process often begins with insertion of a tissue expander at the time of mastectomy. Fluid injections gradually stretch the tissue until the implant is inserted.

“Under certain circumstances, and depending on breast size, implants may be inserted at the time of mastectomy. If radiation is required, implant reconstruction is less successful,” says Dr. Curtis. “There is a much higher risk of infection and other complications when radiation is involved.” ■



2010 Regional Impact Report

HEALTHY COMMUNITY = HEALTHY ECONOMY



Upstate Medical University exists to ensure the health of the Upstate New York region, an area that covers one-third of New York State, 17 counties and 1.8 million citizens.

Upstate's investment in the Upstate region generates benefits far beyond the boundaries of physical and mental health. One critical byproduct of a healthy community is economic vitality. Good health, and good health care, are essential to rebuilding a dynamic Upstate New York, a region that is evolving from a manufacturing to a service economy — and struggling to weather an economic recession.

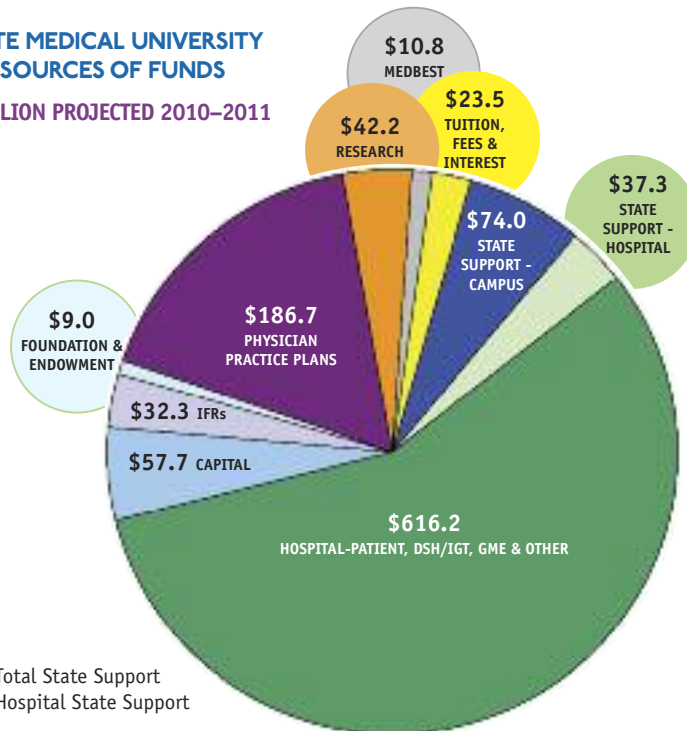
According to a recent Brookings Institute study of the Upstate New York region, the best strategy for stimulating the economy is investing in its educational and medical institutions. Upstate Medical University represents both — it is the region's only academic medical university and a powerful economic engine, with more than 8,000 employees and an annual budget that well exceeds one billion dollars: \$1,089,706,000.

The Upstate Medical University budget has a huge ripple effect on the region. When you factor in the 2.3 multiplier effect established by the Association of American Medical Colleges, Upstate has an annual economic impact of more than \$2.3 billion.

Because of its public mission, it is often assumed that Upstate is heavily state-supported. In fact, just over 10 percent of its revenues come in the form of direct support from New York State, and even less for the hospital. And for every \$1 of state

UPSTATE MEDICAL UNIVERSITY TOTAL SOURCES OF FUNDS

\$1+ BILLION PROJECTED 2010-2011



10.2% Total State Support
5.7% Hospital State Support

support, Upstate Medical University generates approximately \$8 through its own activities – quite a return on investment for New York taxpayers.

This remarkable ROI is fueled, in part, by Upstate’s dramatic growth in the past four years. Its workforce has grown to 8,195 employees, the largest in the county. Its biomedical research enterprise – the often-unheralded segment of its mission – has grown by 20 percent in the past year alone. Its student enrollment has grown by 25 percent, from 1,200 to 1,500.

This is not growth for growth’s sake. More than two-thirds of the counties in the region are designated as Health Professional Shortage Areas. Upstate’s core mission – dating back 175 years – is to address local health care needs by educating health care professionals. Through our four colleges, we now offer 30 different programs –

and we keep adding more (such as the new physician assistant program) as the region encounters dangerous shortages.

Upstate’s clinical growth is also generated by regional demand. Patient-care resources are continually expanding to meet the dramatic rise in chronic conditions such as diabetes and heart disease, as well as the complex needs of a large, aging population.

With a healthy population – and an adequate supply of health care providers in the pipeline – Upstate New York will be poised for a prosperous future, and Upstate Medical University will support it every step of the way.

Thank you for entrusting Upstate Medical University with the health of Upstate New York.

—David R. Smith MD
President, Upstate Medical University

Regional Impact Report continues on next page

Educational Impact

HOMETOWN HERO

James Coleman MD is right back where he started — and exactly where he's always wanted to be — working as a family physician in his home town of Watkins Glen, NY.

As an undergraduate at Harvard University, Dr. Coleman set his sights on one medical school: Upstate Medical University. The attraction was Upstate's pioneering RMED program, which allows students to spend a year training with family physicians in rural areas of New York State.

For his RMED placement, Dr. Coleman went home to Watkins Glen. His preceptor was his own family doctor, Blanche Borzell MD. Today, Dr. Borzell and Dr. Coleman both practice family medicine in the Schuyler Hospital system.

Practicing medicine in a small town is like being part of a big family, says Dr. Coleman. "It's a very rewarding way to make a living." But not enough young graduates recognize these rewards.

More than two-thirds of the counties in Upstate New York are designated as Health Professional Shortage Areas. More than half of New York's active physicians are over age 50.

There is an equally urgent need to supply nurses and other health care professionals to the region. Fortunately, Upstate Medical University delivers solutions. In the past four years, it has increased its enrollment by 25 percent. Thirty years ago, its proactive College of Medicine established its RMED network to address the shortage of rural physicians. Today, close to half of its medical graduates choose



Jamie Coleman MD, graduate of Upstate Medical University and family physician in Watkins Glen

to specialize in primary care — the area of greatest need. And Upstate's Colleges of Nursing and Health Professions place hundreds of students in clinical training sites throughout Upstate New York.

There's more good news: Upstate Medical University not only attracts great students (its College of Medicine, for instance, recently had more than 5,000 applicants for 160 slots), it keeps their great minds — and critical skills — in New York State.

More than 6,000 Upstate graduates practice in the state, the majority in Central and Upstate New York.

Education, On Demand HAVE KNOWLEDGE, WILL TRAVEL

Patients reap the rewards when nurses acquire advanced skills. But in remote areas, nurses often lack access to advanced courses. That's what prompted Upstate Medical University to dispatch faculty from the College of Nursing to bring its Nurse Practitioner program to the North Country, an area with too-few health care providers, and even fewer health-care educators.

A nurse practitioner (NP) may independently prescribe medication and provide certain levels of medical care. When Upstate offered its first North Country NP program in 2009, through Jefferson Community College (JCC), 13 students promptly enrolled, including, pictured above right, Jeff Perrine RN, a emergency room manager in Watertown; Olga Jeanne Dolly RN, a school nurse in Gouverneur; and Kristen Considine RN.

"Upstate made it doable for me to become a nurse practitioner," reports Dolly. "Traveling to Syracuse for classes? That would not be doable. I'm finding every course extremely valuable. I immediately put what I learn into practice."

Throughout Upstate New York, Upstate Medical University has created, or adapted, educational programs that respond to regional needs. Upstate also offers nursing courses at Cayuga Medical Center in Ithaca. Its respiratory program is offered at JCC, by virtue of real-time, distance-learning technology. Its Syracuse-based, highly responsive Physician Assistant program, established in 2008, recently received a \$3.1 million federal grant to



RNs can earn advanced degrees through Upstate Medical University's satellite program in Watertown.

accelerate its growth. And through Upstate's Binghamton campus, each year more than 40 medical students begin two years of clinical training under Southern Tier physicians.

Timely, accessible, responsive health-care education is the core of Upstate's mission — and essential to the survival of the Upstate New York region. ■

BUILDING NY'S HEALTH CARE WORKFORCE

Responding to the clarion call for programs that will increase the supply of physicians and health care providers, Upstate has put in the works: an expansion of our rural medical education program, a new Physician Assistant master's program, and new programs for respiratory therapists and nurse practitioners in family and family mental health. The majority of Upstate Medical University graduates in NYS serve in Upstate New York.

College of Medicine	2,777 grads in NYS
College of Health Professions	2,260 grads in NYS
College of Nursing	1,400 grads in NYS

RESEARCHING CURES

Worldwide, 500+ scientists — all of whom earned graduate degrees (MD/PhD, PhD, MS) at Upstate — are conducting biomedical research.

College of Graduate Studies	500+ worldwide
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EDUCATING PRIMARY CARE DOCS

Close to half of the most recent graduates of Upstate's College of Medicine are pursuing careers in primary care. The breakdown is as follows:

Family Practice	9%
Internal Medicine	24%
Obstetrics/Gynecology	4%
Pediatrics	8%