

UPSTATE

MEDICAL UNIVERSITY

2014 THINK GREEN SUSTAINABILITY ANNUAL REPORT



A closer look at the history and focus of Upstate's sustainability program.

SUNY Upstate Medical University is continually transforming and growing into an ever-more sustainable entity. With every patient coming to the hospital, with every staff person getting to work, with every student attending a class, with every facility and program being developed, and even with every meal being served... Upstate sees an opportunity for sustainability and turns it into a reality.

Upstate has a robust sustainability program that was originally developed to design, maintain and drive efforts to make its many locations of the institution environmentally-conscious. Since that program and strategy were formally designed and put into place in 2008, Upstate Medical University has proven itself to be a leader in sustainability.

Within Upstate's two hospital campuses, four colleges, dozens of classrooms, 350 research laboratories and close to 800 hospital beds, the institution employs more than 9,000 employees and hosts more than 1,600 students on campus. Upstate covers more than 22 buildings that account for 3.5 million square feet. Additionally, more than half-million patients and visitors who come through the hospital doors each year.

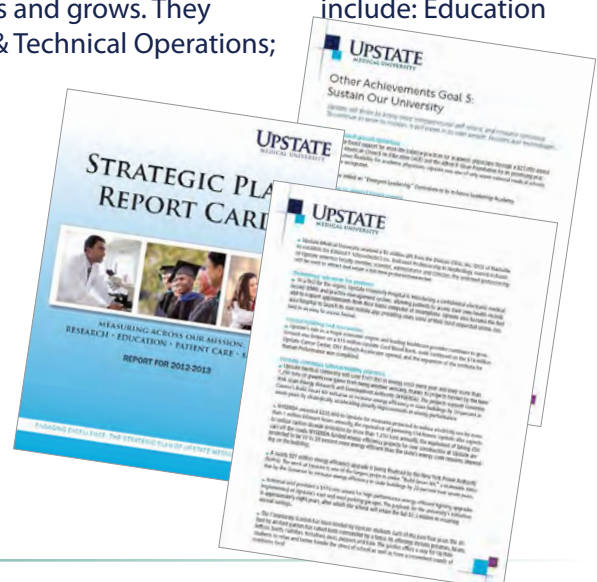
History of Upstate's Sustainability Program

The history of Upstate's commitment to sustainability begins in the 1990s, when Upstate Medical University President Gregory Eastwood launched an institution-wide recycling program. The year was 1997, and the recycling program began with convenient collection areas for both cardboard and metal materials. The success of this program quickly blossomed into a more comprehensive recycling program that reached all corners of the institution's academic and clinical settings.

In 2008, the Upstate Medical University Sustainability Task Force was developed. Charged with leading sustainability initiatives, the goal was to engage the entire Upstate community in its sustainability program.

Three active sub-groups lead the effort on specific program objectives as Upstate's commitment to sustainability continues and grows. They include: Education and Awareness; Building Construction & Technical Operations; and Products, Equipment, Materials & Services.

The sustainability program has made significant progress since its inception and is now a key element within the University's strategic plan.



2014 THINK GREEN SUSTAINABILITY ANNUAL REPORT

1

Focus of Upstate's Sustainability Program

Upstate Sustainability Goals:

(originally published in 2008)

- ✓ To reduce energy use in buildings by 37% by 2010, as compared to 1989-90 on a Btu/SF basis. If the reduction target is not applicable/attainable then achieve an Energy Star Rating of 75 or better on all areas where reduction target is not applicable/attainable.
- ✓ Cap greenhouse gas emissions at current levels and reduce emissions 20% by 2014.
- ✓ Increase use of renewable electricity (total of purchased and on-site generated) to 30% of total consumption by 2014.
- ✓ Increase use of bio-diesel to 10% of total motor fuel usage when available.
- ✓ Increase use of bio heating oil to 10% of total #2 fuel oil usage when available.
- ✓ Actively research the use of a combined heat and power (CHP) plant at or supporting Upstate.
- ✓ Design new buildings and rehab existing buildings in accordance with the Leadership in Energy and Environmental Design (LEED) silver rating or higher.
- ✓ Procure energy and fuel at competitive prices while managing price risk in accordance with a prudent, clearly defined, and documented University risk management policy that utilizes financially sound market based products.
- ✓ Convert vehicle fleet to alternate/hybrid fuels where operationally feasible through replacement purchases.

Upstate's Sustainability Vision:

(originally published in 2008)

Upstate will become a leader within SUNY and our regional community. Sustainability will be an integral part of Upstate's culture and as such will be a guiding principal for both routine and strategic decisions going forward.

Upstate Medical University Sustainability Task Force Sustainability Principles:

(originally published in 2008)

- Operations will be aggressively managed to reduce Upstate's dependence upon fossil fuels and feedstock.
- The energy and carbon footprint of facility construction, space utilization, and all aspects of staff commuting will be minimized.
- Cradle to grave management of purchased supplies will consider energy, carbon footprint, and recycling equal with pricing.
- All Upstate staff, students, patients, suppliers and vendors will be engaged in the sustainability effort.
- Invest at least 10% of capital construction funding in energy conservation projects that demonstrate leadership or with an ROI <20 years.
- Partner with SUNY and sister institutions to enhance creation of procurement of renewable carbon free energy.



1 Timeline

1997

SUNY Upstate Medical University President Gregory Eastwood, MD, launches a recycling program - the first of its kind at the university.



2002

Phase 1 of CNY Biotech Research Center announced. The LEED-certified building was designed to establish the Syracuse area as a leading center for plant and animal biotechnology research.



2004

Upstate installs a sophisticated filtration system for water stations, including drinking fountains.



2005

Upstate becomes smoke-free within all building/grounds owned or leased by SUNY Upstate. The enforced policy - the first of its kind in the region - is helpful in eliminating secondhand smoke from the grounds, thereby improving the health and prospects for longer life. Upstate offers free education and smoking cessation programs for employees.



2007

The CNY Biotechnology Research Corp. receives a \$400,000 grant to design, build and test a special energy-efficient bioreactor to produce ethanol from cheese whey - a joint venture with the CNYBRC and SUNY Upstate Medical University, the State College of Environmental Science and Forestry, the Hilliard Corp. in Elmira and Corning Inc.



1

Timeline (continued)

2008

Catering to You menu program eliminates daily paper menus for patient use at the downtown campus.

Students engage in Upstate's sustainability program and introduce a program to recycle bottles, cans and batteries from the main academic building and Campus Activities Building, which houses classrooms, research labs, office space and the Health Sciences Library.



In response to an executive order from Gov. David Paterson stating that bottled water will no longer be allowed as a state expenditure, Upstate Medical University discontinues the purchase of bottled water using state funds effective July 1, 2009.



Written requirements established for all capital projects to be at least LEED Silver.

Recycling partnership program with Wal-Mart launches. Upstate raises money for the Golisano Children's Hospital by turning used inkjet and laser cartridges, cell phones and PDAs into cash through a special recycling program with the Wal-Mart Supercenter in Camillus, NY.



2009

To underscore Upstate's commitment to sustainability, then President David Smith signs the American College and University President's Climate Commitment in March 2009. By signing the Commitment, Upstate formally commits to develop, publish and update a written plan that identifies specific measures Upstate will undertake that will result in carbon neutrality.

We can be greener... if you help:



Upstate hosts its first annual Think Green Fair for all staff, students, faculty and visitors to learn more about sustainability – the efforts at Upstate as well as what they can do at home to be more environmentally conscience.



Upstate begins selling branded reusable drinking cups and mugs to encourage use of filtered water stations vs. bottled water purchases.



1

Timeline (continued)

Upstate launches the “Recycling Starts with You” program. The goal is to recycle 2/3 of the estimated 2,000 tons of paper, plastic, glass, food, packaging, etc. that is added to the waste stream each year.



Upstate Community Garden offers a way for Upstate students to relax and better handle the stress of school as well as have a convenient supply of nutritious food.



Upstate installs standardized receptacles for trash, recyclables and returnables.

Upstate installs new filtered water stations that offer a vertical gooseneck element to easily fill reusable bottles to promote refilling existing vessels.



2010

Upstate initiates a program to reuse surplus office equipment, furniture, electronic components and various sundry items. Surplus items from campus renovations and upgrades which are deemed to be in reusable condition are processed and organized at a surplus warehouse. Since 2010, Upstate's Program to Repurpose Durable goods has diverted/saved more than \$840,000 from purchasing new items.



Upstate's Center for Bioethics and Humanities begins its perennial garden, featuring low-maintenance plants that do not require a lot of water in an effort to go green.



Upstate implements the electronic record system for payroll and replaces paper timesheets, saving 73,488 sheets of paper. The electronic time and attendance system saves 162,552 documents per year, and the electronic management of records for non-Upstate employees working at the university saves tens of thousands of pieces of paper each year.



1

Timeline (continued)

2011

Upstate launches its compost program. When the composting program was first proposed, Upstate was one of the first schools to implement such a program. Upstate diverts more than 25 tons of food waste per year for composting.



Upstate submits its first Greenhouse Gas Emission Inventory and also submitted its first Climate Action Plan Report.



Upstate begins reprocessing several clinical devices and engineering equipment in an effort to reduce the waste stream, including sterile tourniquet cuffs, saw blades, drill bits, pulse oximeters and external fixation components.



Upstate earns recognition as a "Blue Ribbon Recycler" by OCRRA. The agency commends Upstate's recycling initiatives and results:

- The amount of recycled bottles, plastic and cans in the hospital alone increased to approximately 4,000 pounds per month compared to 1,125 pounds per month in 2010.
- Total weight of recycling materials collected in 2010 was 541 tons, up from 504 tons in 2009.



Public and Media Relations Department launches e-newsletter substitute for university news.

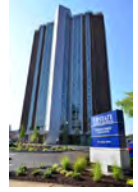


1

Timeline (continued)

2012

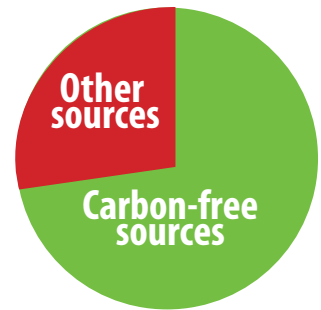
Upstate opens a new residence hall in downtown Syracuse that is expected to receive silver LEED certification by the Leadership in Energy and Environmental Design, an internationally recognized green building certification system.



Upstate's Community Campus becomes smoke-free and tobacco-free promoting a healthy environment that encourages health and healing.



Upstate computes its first carbon footprint. As a signatory of the American College and University Presidents' Climate Commitment (ACUPCC), Upstate is obliged to update its footprint every two years. Upstate's footprint has been reduced by over 50% (78,597 MT to 38,036 MT). While the institution has made significant progress in its sustainability program, this reduction came from a more accurate accounting of the actual electrical energy sources supplied to this region by National Grid. In reality, more than 70% of Upstate's electrical energy already comes from carbon free sources.



1

Timeline (continued)

2012

Onondaga County Resource Recovery Agency names Upstate “Recycler of the Year” – the only medical institution to receive this honor from the agency. The award applauded Upstate’s efforts and initiatives below:



- Diversion of approx. 800 to 1,000lb. of food waste and trimmings per week, totaling approximately 7.2 tons in 6 months.
- Battery recycling program that collected more than 1,740lb. of rechargeable batteries.
- Sustainability website featuring Upstate’s recycling efforts and recycling tips for employees and students.
- Recycling of fluorescent light bulbs.
- Distribution of departmental publications electronically to save paper.
- Flat mop system for cleaning floors that eliminates mop buckets and reduces water and the use of high-tech floor scrubbers that clean without chemicals.
- Introduction of a paint recycling program that has donated more than 120 gallons of paint to Habitat for Humanity.



1

Timeline (continued)

2012

Upstate installs a new and more energy-efficient lighting system in the parking garages. The new LED fixtures last four times longer, use 85% less energy and save Upstate about \$165,000 per year – about 2% of the university’s entire electric bill. To date, nearly 1,000 fixtures have been replaced with LED fixtures. The project incurred \$165,000 in annual energy savings and extended lamp life to 10 years.



Upstate broke ground on a \$15 million Upstate Cord Blood Bank, which will be a green building.



Upstate introduces the Zipcar ride-sharing program which provides a transportation alternative to students, faculty and employees that reduces daily commuter traffic and lessens Upstate’s carbon footprint.

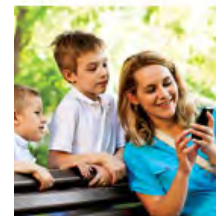


2013

Upstate installs its first solar array in the new Neuroscience Research Building. The system heats 36% of the new addition’s hot water, and saves about \$12,000/year in natural gas.



Upstate begins using the electronic medical record within ambulatory services, and launches MyChart a free app for patients to electronically access lab results, appointment information, current medication, immunization history.



Spending of \$21M in energy upgrades is announced - Upstate will save more than \$1.3 million annually and remove approximately 6,250 tons of greenhouse gases from the atmosphere every year. That is the equivalent of removing more than 1,180 cars from the road.

Removed: 6,250 tons/
greenhouses
gases

Equal to: 1,180 cars
removed from
the road



1

Timeline (continued)

2013

Upstate opens the CNY Biotech Accelerator – a 40,000 square foot facility dedicated to helping biotech and biomedical for-profit companies become successful and commercialize their products. This research was built to the specifications of LEED Gold.



Upstate Medical University officially opened its newest research space - the \$72-million Neuroscience Research Building received LEED Silver level from the U.S. Green Building Council.



Upstate announces a project to incur energy savings of \$167,000/year and 1,250 tons of greenhouse gases begins thanks to energy efficiency projects funded by the New York State Energy Research and Development Authority. The \$335,000 award is projected to reduce electricity use by more than 1 million kilowatt hours annually, the equivalent of powering 104 homes and they are projected to reduce carbon dioxide emissions by more than 1,250 tons annually, the equivalent of taking 250 cars off the roads.

Removed:	1,250 tons/ carbon dioxide emissions
Equal to:	250 cars removed from the road

Last Out, Lights Out campaign begins to encourage employees to turn off lights when a space (for example, an office area) is not in use. Last Out, Lights Out stickers are placed on light switches throughout Upstate’s campuses.



2014

The focus of the sustainability initiatives in 2014 are focused on energy consumption throughout Upstate’s various campuses, LEED-certified construction projects, and the completed implementation of electronic medical records for all patients within the hospital campuses, clinics and satellite offices.



The techniques and programs implemented to facilitate the growth and development of Upstate’s sustainability program.

SUNY Upstate Medical University has a bountiful sustainability program that is successful despite the institution’s many challenges. For example, to better serve its 17-county region, Upstate operates two hospital campuses that continually operate 24/7. Together, these campuses account for 75% of Upstate’s overall energy resources and solid waste generation. In these clinical environments, rapid changes in health care technology represent a significant impact on the carbon footprint. For these reasons, a large portion of sustainability programs focus on the clinical environment at Upstate.

In 2014, The university’s sustainability teams have gone beyond what was achieved in years past, and have implemented new, innovative ways to implement green initiatives to again surpass our sustainability goals. These measures include changes at the patient’s bedside, in the operating rooms, construction processes, education and communication, recycling methods in office spaces, and even transportation made available for staff.

The following list of achievements reflects Upstate’s commitment to sustainability:

Pathway to Wellness

The mission of the Pathway to Wellness is to increase awareness of healthy and positive lifestyle choices. In 2014, the program launched an outdoor route for employees to walk one mile on a designated route. This is in addition to indoor routes that have been identified. The program hosts events to share information about such sustainable initiatives as bike paths at Upstate and in the community, commuting, walking trails, healthy eating, ergonomics, staying fit at work, “Take the Stairs” program, healthy meeting guides and tobacco cessation.



2

Bike to Work

Upstate launched a series of Bike to Work initiatives in 2014, including an educational booth at the 2014 Green Fair and publishing a brochure detailing the bike racks available throughout Upstate campuses. Bike to Work information has also been made available at wellness fairs hosted by the Pathway To Wellness program.



Recycling Waste within Leased Properties

In spring 2014, Upstate began conversations with the owner's of various leased spaces that the institution occupies. The property owners have since verified that the infrastructure is in place to properly segregate and dispose of recycled material. They have also worked with their contract cleaners to ensure proper segregation is occurring as waste is collected.



2

Shuttle Service

A new shuttle service was launched in January 2014 to provide students, staff, patients, visitors and volunteers with an alternative method of transportation between hospital campuses seven days a week, from 6:45 am to 11:20 pm. Prior to the service, individuals were driving their own vehicles to commute between campuses – incurring costs and using excessive resources. The shuttle helps reduce the carbon footprint by transporting multiple riders at one time. This shuttle service is in addition a shuttled service provided to the downtown campus satellite locations and various parking areas.



Green Cleaning Products

Currently, more than 38% of the cleaning products used throughout the institution are considered green by various criteria (CCD-086, GS-37, CCD-113 and GS-41). Upstate began custom ordering its waste bags to ensure that plastic is not wasted by having bags that are too large for the intended application. This includes specifying the thickness of the bag.

Upstate continues to invest in these initiatives to improve environmental friendliness:

- Chemical dilution systems to minimize chemical use
- Increase use of microfiber mops
- Virtually eliminate the use of mop/bucket/wringer in favor of 3M Pulse mop, reducing the amount of water used to clean. This is estimated to use 400 less gallons of water per day to clean floors.
- Place dual roll dispensers in restrooms to reduce disposal of “stub rolls” resulting in better utilization of paper products.
- Use of coreless toilet paper rolls at University Hospital’s Community Campus.
- Conversion to hands-free soap and hand sanitizer dispensers.
- Implemented the use of SPP pads, reducing the need for floor stripper when waxing floors. This results in less chemicals being purchased, and less chemicals being poured down the drain.
- 4 Autoscrubbers with ECH2O technology autoscrubs the floors with water only, eliminating the need for chemicals in these pieces of equipment.
- All paper towel and toilet paper products are made from 100% recycled content.
- Use entry matting made of recycled material.
- Replaced disposable dusters with washable microfiber dusters.



2

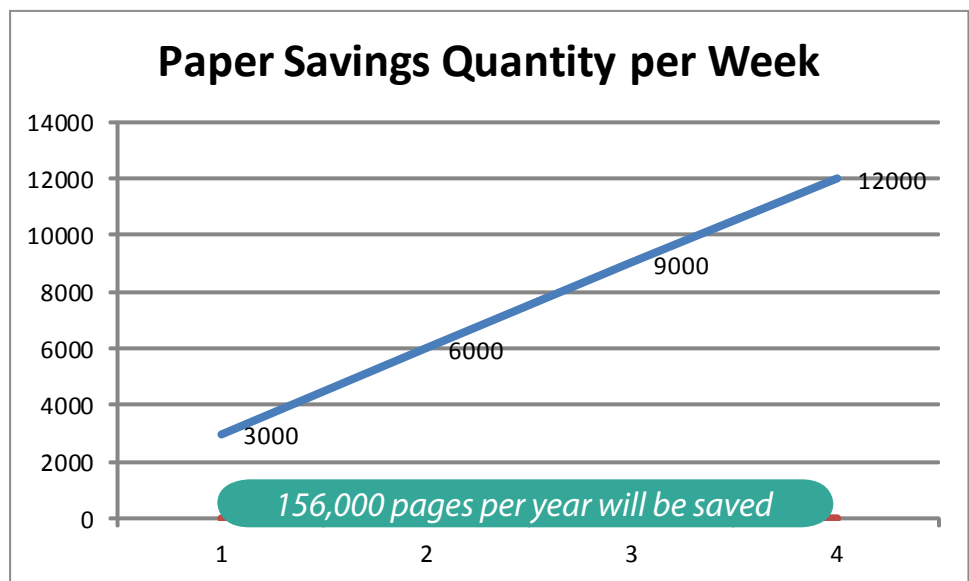
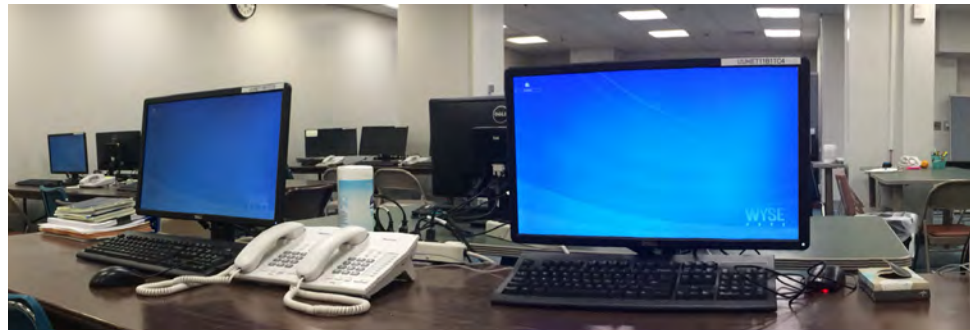
Electronic Medical Records

In Spring 2014, Upstate finalized its institution-wide implementation of the electronic medical record system with its last installment within inpatient services at both hospital campuses.

With this new technology, all clinical areas within Upstate previously using paper records for patient files are now paperless. The system offers digital versus paper prescriptions, lab results and immunization records; the ability to paperlessly document or review a patient’s record; e-prescribe; electronically place orders for laboratory, radiology, and other ancillary procedures as well as medications; and create visit notes.

Initial statistics show that Upstate scanned 679,739 fewer printed documents in a five-month period following the inpatient system implementation.

Since Upstate began electronic transitions of care on July 22, 2014, 16 Continuity of Care documents were sent electronically rather than fax. A typical Continuity of Care document is approximately 6 to 12 pages long. In just the first two weeks after installation, the new system has saved at least 6,000 pages from printing in offices.

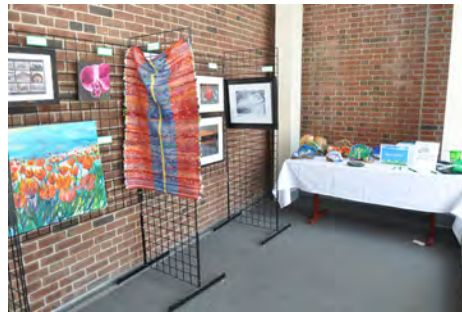


2

Green Fair 2014

Upstate hosted its annual Green Fair with new displays, give-aways, vendors and artwork in 2014. New features to the annual fair included:

- Free locally-grown tomato plants given to all Green Fair attendees.
- Raffle prizes included a gardening bucket with various gardening tools, green cleaning products and green person care products.
- First annual Think Green Art Fair showcased artwork submitted by Upstate staff and students. The artists were encouraged to submit artwork that celebrated nature, conservation efforts, sustainability and provided commentary on industrial/human impact on the environment.



2

Think Green Committee

The Think Green Committee began a campaign to recruit department champions from all sections of Upstate. The designated individuals are responsible for communicating about and advocating for environmentally and fiscally-friendly practices at Upstate. They share related information within their department, and are the identified people for colleagues to turn to with questions, suggestions or concerns related to green matters.

**IT'S EASY TO
THINK GREEN...**
... AND WE NEED DEPARTMENT CHAMPIONS!

The Think Green Committee is looking for an employee in every department to help get the word out about all the great Green initiatives at Upstate.

It takes very little time, but generates a lot of positive energy!

Would you like to join?
email: green@upstate.edu

UPSTATE MEDICAL UNIVERSITY
think green
upstate.edu/green

Catering to You

Catering to You was introduced at the Community Campus in August. The system replaces the daily paper menu and instead reuses weekly menus and orders are taken with tablets to reduce the use of paper tickets in the kitchen.



2

Cancer Center *opened summer 2014*

The new center infuses nature into every aspect of its architectural design, from its modern exterior that maximizes the use of natural light, to the use of sustainable and eco-friendly materials meant to conserve energy, to its landscape that includes a four-season healing garden.

- An interesting feature of the facility is a green roof that prevents 211,000 gallons of storm water from entering into the sewer system, but rather circumvents it to a reservoir that waters its healing garden.
- Upstate Cancer Center is pursuing LEED certification at the silver level from the U.S. Green Building Council.
- The four-season healing garden sprouts from the roof of the Upstate Cancer Center's second floor. The garden is visible from numerous areas on the south side of the cancer center thanks to nearly floor to ceiling windows. Several benches in the garden make sitting among the plantings possible. The garden features spring bulbs, summer flowering perennials, fall blooming grasses and evergreens.
- Highlighting the theme of nature as being a refuge during cancer treatment is art—photographs, paintings and other works—by 31 artists from Upstate New York that is on display throughout the cancer center, depicting scenes from nature, wildlife and seascapes, and landscapes. The stainless steel "Tree of Hope" sculpture sits near the front entrance of the Cancer Center.
- Watering fountains feature a digital counter to measure the number of uses compared to bottled water purchases.



2

Food Service Sustainability

Upstate’s sustainability requirements for the newly selected food vendor included the ability to use environmentally-preferred cleaning products, minimize/eliminate the use of Styrofoam, identify measures to further environmental sustainability (such as biodegradable/compostable consumer packaging), and generate a sustainability/recycling plan that would include green chemicals, paper products, composting, etc.

carbon foodprint™



New Recycling Station

A new recycling station in the downtown campus was designed, purchased and installed prior to National Recycling Day, November 15th. The educational display - located outside the cafeteria - raises awareness of the new recycling station, and demonstrates what is recyclable in the cafeteria. The products listed are specific to items available within all Upstate cafeterias.

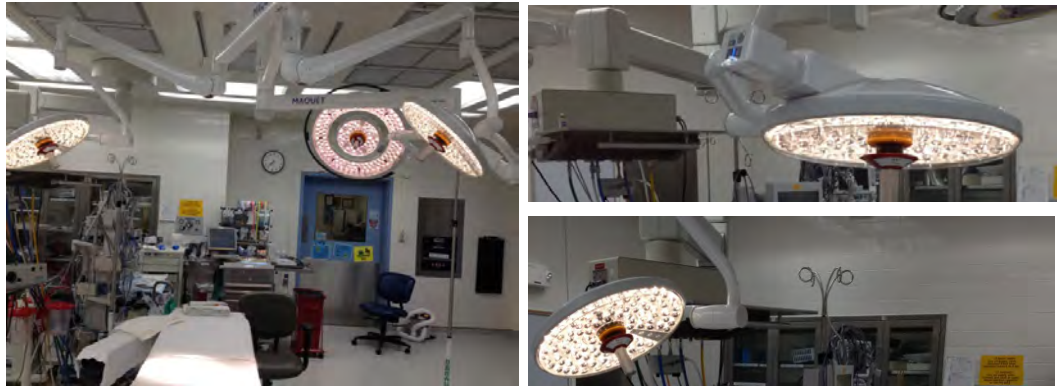
RECYCLE	RETURNABLES	TRASH
Please recycle these items.	Please return these items.	Please trash these items.
<p>Napkin Straw wrapper Cups plastic stackable cardboard cup holder cup sleeve (no styrofoam) Paper food container Plastic take-out container Milk Carton Cereal container Yogurt container Plastic dip container Juice bottle</p>	<p>Soda bottle (no caps) Water bottle (no caps)</p>	<p>Styrofoam: Cup Plate Bowl Plastic eating utensils Straw Cup covers</p>
<p>If you take any of these items with you, they can be recycled in recycle containers around Upstate.</p> <p>COFFEE BREAK ITEMS paper cup paper sleeve cardboard tray (no covers)</p>	<p>Taking your bottle with you? Look for returnable containers around Upstate to pitch in.</p>	



2

LED Light Installation in Operating Rooms

Three operating rooms at the downtown hospital campus were fitted with new energy-saving LED lights as part of a pilot sustainability program. The new LED light quality is excellent and it is expected that Upstate will implement a replacement program for the remaining 17 operating rooms in 2015. Energy savings from the pilot program operating room lights is approximately 75%. The previous lights generated temperatures of 118°F, while the LED lights temperature is only 75°F.

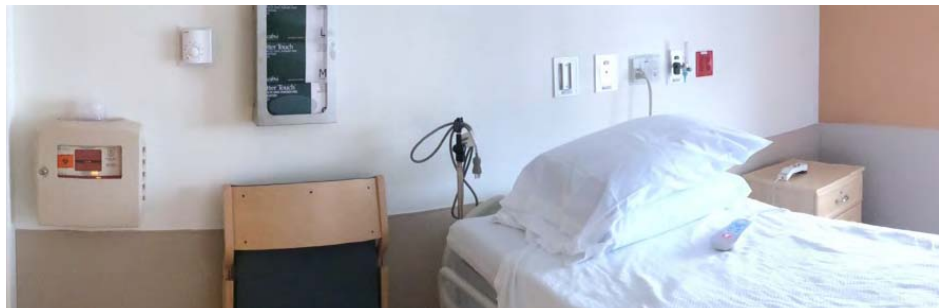


Sharps Management Program

In April of 2014, Upstate University Hospital's downtown campus implemented a Sharps Management Program. Over 2,000 locations were converted across campus. Prior to the program, a sharps container was used once and discarded with the Regulated Medical Waste, eventually ending up in a landfill.

With the Sharps Management Program, the containers are used up to 600 times. At the end of their useful life, the containers are recycled. This program will eliminate the purchase and disposal of approximately 54,000 sharps containers per year. This will result in a reduction of over 78,000lbs. of plastic from entering a landfill. The reduction in purchases of sharps containers will also lead to a reduction of about 6,075lbs. of cardboard generated per year. Over the five year life of this contract, it is estimated that Upstate will eliminate the purchase and disposal of approximately 270,000 sharps containers, not counting for anticipated growth.

- Sharps collected from facilities and community (40,000 lbs/year)
- Disposed as medical waste via reusable containers saves \$28,000/year
- Reduces our carbon footprint by approx. 12 tons of CO2 equiv./yr



2

Reusable Oximeters

Switched from recyclable to reusable oximeters in the hospital emergency rooms, cutting expense by half and removing clinical devices from managed medical waste stream.



Energy-Efficient Lighting Upgrades

National Grid provided a \$175,000 award for high-performance, energy-efficient lighting upgrades implemented in Upstate’s east and west parking garages. The payback for the university’s initiatives is approximately eight years, after which Upstate will retain the full \$1.3 million in recurring annual savings.



LEED Construction

In 2014, the following buildings either completed or are in process of construction. Upstate focused heavily on achieving LEED certification within the construction phases. LEED-certified buildings cost less to operate, reducing energy and water bills by as much as 40%. The expected LEED certification levels are detailed below.

Building	SF	Expected LEED Cert. Level
CNY Biotech Accelerator	49,000	Silver or gold
Geneva Tower	137,000	Silver or Gold
IHP Expansion	158,000	Silver
Cancer Center	145,000	Silver
New Academic Building	72,000	Silver
Cord Blood Bank	15,000	Silver



University Hospital energy reduction projects:

- Energy Recovery
- Lighting and controls
- Building management system expansion
- Motor and Transformer replacements
- Steam trap repair and replacement
- Chiller controls

Sustainable Weiskotten Hall Addition Construction Projects:

- Retrofit HVAC Systems
- Variable volume fume hoods
- Occupancy controlled ventilation
- Fan and motor replacements
- New Lighting and controls
- BMS Upgrades
- Chiller controls



2

Building envelope and HVAC systems

- Projects range from system and equipment replacements to window and door weather-stripping and heat recovery
- Building Management system upgrades to add remote control and scheduling capabilities
- High-efficiency motor replacements
- Fan and pump variable speed drives
- Chiller modifications include control interface for remote control and variable speed drives for efficient load control

Lighting and Equipment Efficiencies

- Installing high efficiency electric motors when equipment is replaced or serviced
- Adding variable speed motor controls where loads fluctuate.
- Adding compact fluorescent bulbs to replace inefficient incandescent lamps

New Initiatives/Recycling Programs

- Consolidating/melting blue sterile wrap
- New push for paper recycling - goal is 67% of paper waste stream
- Standardized printers throughout Upstate



Beyond these efforts, the sustainability efforts at Upstate will continue in 2014 and beyond. The task force is already in the process of a developing a number of additional sustainability projects, including:

- Energy-saving window replacement program in Weiskotten Hall.
- Placing high efficiency units on variable speed drives (for pumps and motors) as air handling units in the hospital wear out.
- Re-lamping project in the hospital using LED lights where possible.
- The Cord Blood Bank will enter phase two of construction - the energy-conscious building will be built up to LEED certification requirements.
- Considering adding vehicles to the fleet of Zip Cars to respond to the high demand and usage.
- Developing a solarium garden in an effort to ignite the creativity and imagination of its visitors using green space. The rooftop garden will introduce vegetative greenery and provide a roof terrace on the south side of the 12th floor to be used as open-air contemplative space for visitors, patients and staff.
- Pilot program to promote recycling in appropriate patient care areas with adherence to infection control and nursing policies, to ensure the health and safety of patients. Recycling containers will be available in patient rooms participating in the pilot-program where possible based on patient condition.
- Launch of a sustainable sales program for 'Think Green' Reusable Cups by all food vendor companies across the institution. The cups will reduce the use of single-use water bottles and styrofoam cups, promote Upstate's sustainability program by displaying the Upstate logo and website, and a portion of proceeds directly benefits the Pediatric Pulmonary Sunshine Fund for Cystic Fibrosis.



Measuring and tracking the progress and success of Upstate’s sustainability program and using those statistics to establish goals and predict trends.

With the implementation of so many sustainability programs and techniques over the years and especially 2014, it is imperative for the university to measure its outcomes. The measurement of these efforts help Upstate realize the impact, encourage continuation and maintenance of these efforts, and also lends the data necessary to review how these programs can be adjusted to achieve their maximum potential and deliver the maximum benefit.

Upstate has rigorous monitoring systems in place that track energy usage, waste production, recycling and food compost volume, greenhouse gas emissions and many other components of its carbon footprint.

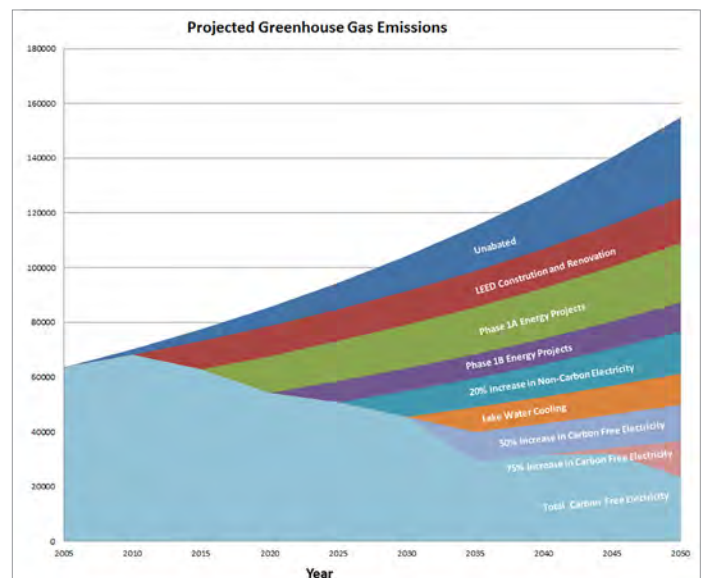
Some of this monitoring is required by New York State, and some is done by Upstate’s own initiative. The data helps Upstate improve efficiency and reduce waste, and helps the Sustainability Task Force promote a culture shift within the institution.

A number of reports that are reviewed annually are available on page 23.

Upstate is one of only six hospitals in the country participating in a year-long Department of Energy study to develop best practices in clinical settings. Data recorders in operating rooms and other settings are yielding valuable information on heating and cooling systems that will result in significant energy savings. The Department of Energy reported that our initial data submissions were “fantastic and uniquely informative.”

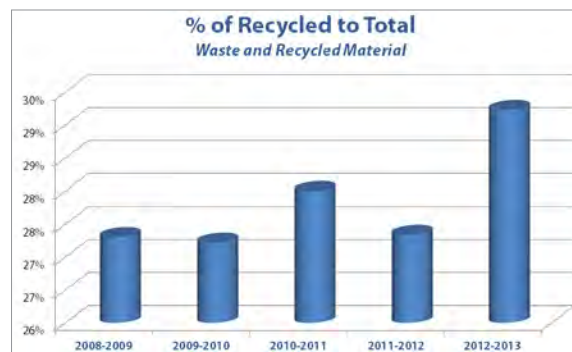
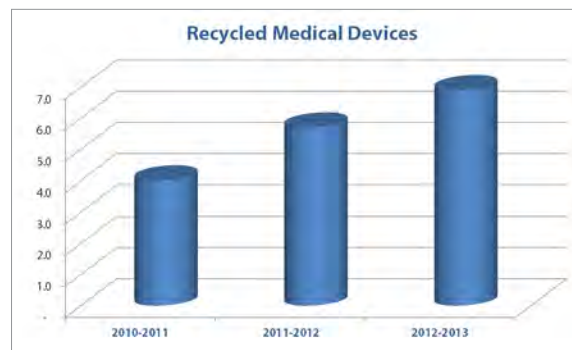
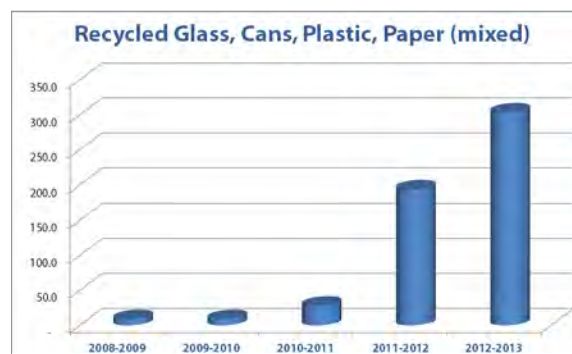
As a member of the Association for the Advancement of Sustainability in Higher Education (AASHE), Upstate submits a Greenhouse Gas Inventory and Climate Action Plan – in alternating years -- to the AASHE. Measurements such as those below are included in those documents. Our goal as stated in our Climate Action Plan is to achieve net zero emissions by 2050.

Sustainability programs, their financial impact and energy usage, are carefully monitored by leadership and employees in Physical Plant, Facilities, Environmental Health & Safety, and Environmental Services departments.



3

The sustainability committee reviews the statistics garnered from the reports below, and uses them to evaluate progress towards the established sustainability goals (see page 2).



IN SUMMARY

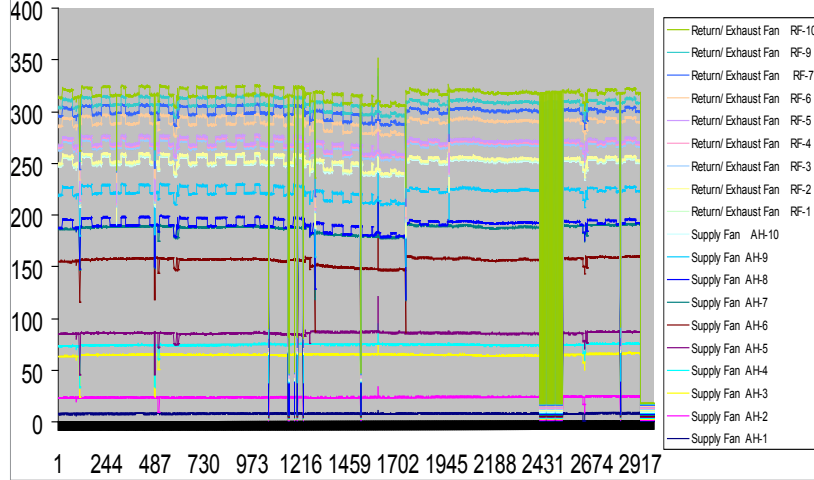
- Since 2008, the quantity of total recycled material at Upstate has increased by more than 314 tons.
- By 2012-2013, the total amount of recycled glass, cans, plastic and mix paper was 303.5 tons - a 57% increase over the prior year.
- The recycling of medical devices continues to increase, nearly doubling since the totals were recorded.
- By the end of 2013, recycled material accounted for 29% of Upstate's total waste and recycled material.
- In 2013, the overall waste stream is down 1%, and recycled volume is up 1.6%.
- In 2013, regulated medical waste decreased by close to 3% while patient volume increased in contrast.
- Upstate doubled the volume of recycled electronic waste in 2013, and the total composted food waste increased by more than 600%.



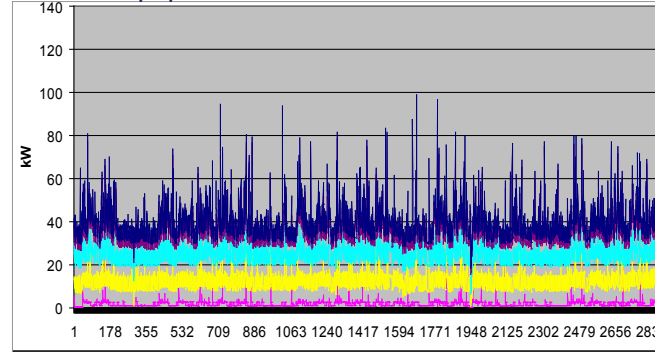
3

Below are a series of sampled graphs that are among those regularly reviewed by sustainability committee members to ensure Upstate's alignment with its sustainability goals and principles. The information is reviewed throughout the year to ensure effectiveness and measure outcomes.

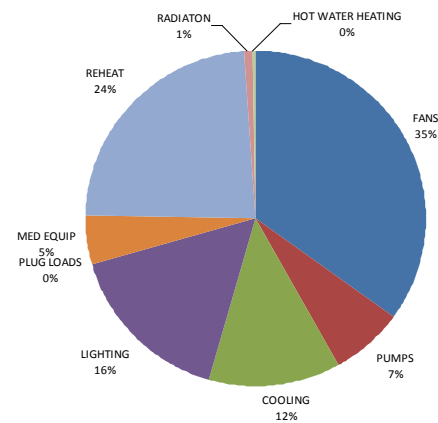
Fan Data



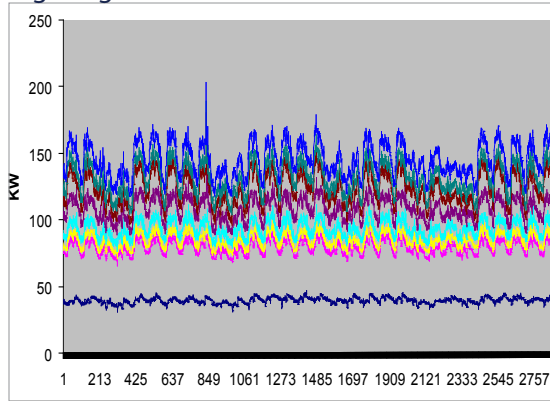
Medical Equipment Data



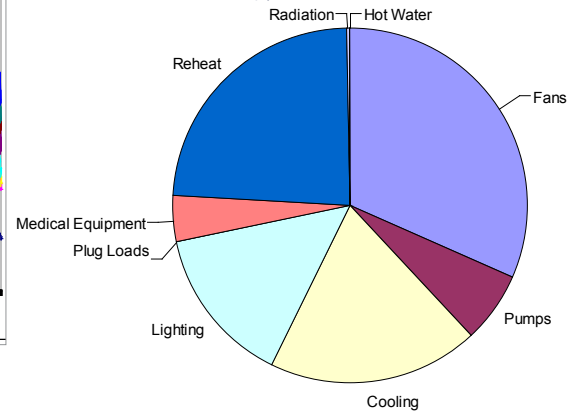
Site Energy Consumption



Lighting Data



Total Energy Consumption

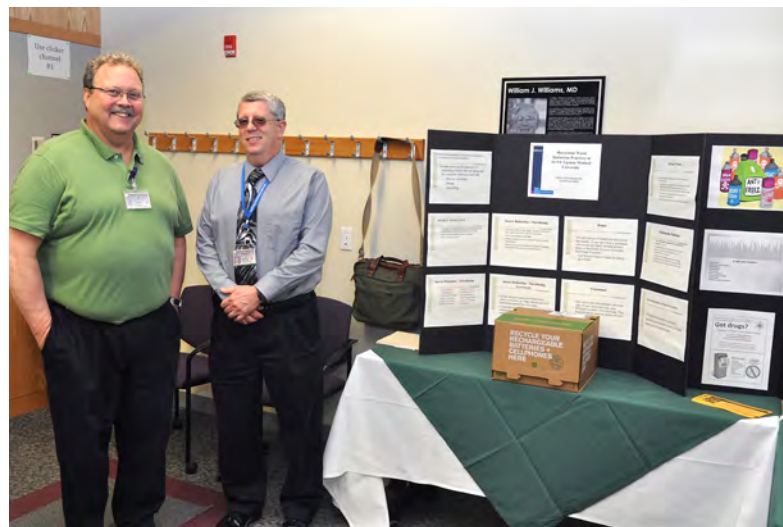


3

At the 2014 Think Green Fair, several departments shared the responsibility of explaining the sustainability initiatives that Upstate has in place, and also to showcase the results of these programs.



Dr. Gregory Eastwood, interim president of Upstate Medical University, at the 2014 Think Green Fair.



3

As an alternative to reports distributed throughout Upstate, sustainability updates (including new programs, accomplishments, and sustainability events) are communicated in a more real-time schedule so that its various audiences are updated as news becomes available.

This information on success stories and their outcomes are distributed via electronic publications, including the Upstate weekly newsletter; the Think Green website (<http://www.upstate.edu/green>); electronic billboards; department champions; and educational events, including the annual Think Green Fair.

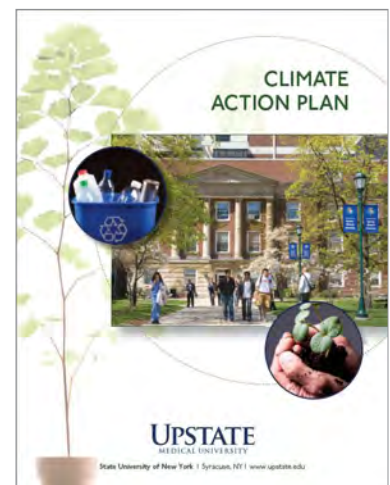


IT'S EASY TO THINK GREEN...
... AND WE NEED DEPARTMENT CHAMPIONS!

The Think Green Committee is looking for an employee in every department to help get the word out about all the great Green initiatives at Upstate.

It takes very little time, but generates a lot of positive energy!

Would you like to join?
 email: green@upstate.edu



Communicating Upstate's sustainability program objectives and messages to its many audiences.

The programs listed above all reinforce the idea that sustainability is a way of life, and Upstate encourages its patients, visitors, staff, students, volunteers and faculty to use these sustainability tactics elsewhere – the home, the workplace and the community.

Using both internal and external methods of message delivery, sustainability goals and achievements are communicated with the various audiences at Upstate.

Upstate's key audiences for this message include:

- Staff, including faculty
- Students
- Volunteers
- Patients
- Visitors
- Vendors
- Greater community

The key messages of all communications regarding sustainability is to generate interaction and participation in the many initiatives at Upstate. In addition, the idea of educating the audiences on what sustainability is, what Upstate is doing, and how you can participate in this movement are key points that underscore each message.

Means of Communication

Internal:

- Department champions
- "Think Green" web page, home to Upstate's Sustainability communications; updated regularly.
- Rotating messages on TV screens throughout campus, highlighting sustainability successes and providing helpful "green" information.
- Regular contributions to "Upstate Announcements" internal e-mails listing events and information.
- Regular contributions to "UpOnline," our institution's weekly newsletter (formerly a print publication, now paperless).
- Flyers rotated in permanent display boards above every filtered water unit on campus announcing sustainability events and news items.
- PDFs announcing sustainability events sent to each department on campus.
- Announcement of "Think Green" initiatives emailed institutionally via a management distribution listing.



4

External:

- Regular updates to “Think Green” web page.
- Representation on Upstate’s news web site when warranted.
- Coverage in “What’s Up at Upstate” news blog and “With Distinction” student blog when appropriate (e.g. student involvement in the community vegetable garden on campus).
- Representation on statewide Sustainability steering committee.
- Educational programs and displays at Upstate’s Think Green Fair.
- Relationships with external audiences, including Onondaga County Save the Rain program.
- Social media initiatives, including Facebook and Yelp.



Upstate's sustainability program and its impact on the greater CNY community.

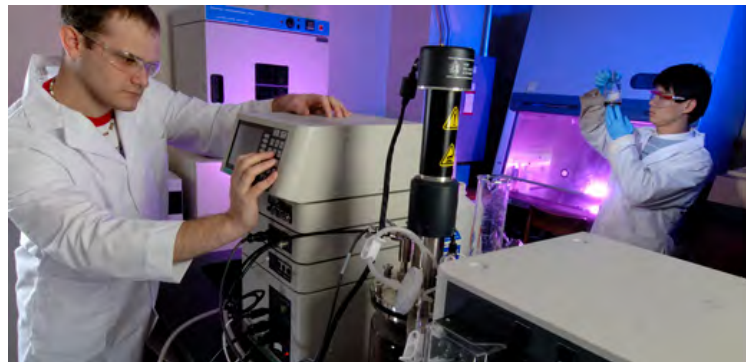
Upstate is an institution that goes beyond the borders of Syracuse. The hospitals and clinical services care for a 17-county region. Upstate employs more than 9,000 people and its student population of more than 1,600 come from all corners of the world. Through education and interaction, Upstate encourages these audiences to use recycling and sustainability methods at home and in their own communities. In addition, Upstate works with regional and local partners and vendors to generate sustainable programs that benefit the institution and the communities it serves. Sustainability at Upstate also works to support charitable organizations, work with area partners and coincide with county sustainable initiatives.

Biotech Accelerator

The Research Center is a public/private partnership between SUNY Upstate Medical University, the SUNY College of Environmental Science and Forestry (SUNY ESF), the Metropolitan Development Authority of Syracuse and Central New York MDA and private sector companies such as Welch-Allyn, Bristol-Myers Squibb, Albany Molecular, G.C. Hanford, International Paper and O'Brien and Gere.

The Accelerator focuses on technologies related to the life sciences and the environment. Examples include:

- Renewable energy
- Alternative fuel
- Renewable Products
- Bio and Chemical Sensor Development
- Cleantech
- Bio Industrial



5

Donations from Returnables

More than 200 specially-marked receptacles throughout Upstate’s downtown campus collect returnable plastic bottles. Every nickel from these collection points benefits the Upstate Golisano Children’s Hospital and Baltimore Woods Nature Center. The goal for the 2014 collection year has been set at \$5,000 to share between these two charities. The Baltimore Woods Nature Center was selected as a benefactor because it is a place-based nature education organization that offers 180 acres of land to explore.



Every nickel counts!

Before you toss that returnable soda or water bottle into any other bin on campus, look for specially marked receptacles featuring the 5¢ bottle sticker.

Upstate has placed more than 200 collection bins on the downtown campus for returnable plastic bottles. Every nickel benefits the Upstate Golisano Children’s Hospital and Baltimore Woods Nature Center.

You can help Upstate save money by reducing trash, and – while you’re at it – help us raise more than \$5,000 to share between these programs.

E-mail green@upstate.edu for more information about the locations of the bottle collection bins or to have one placed in your area.



**Baltimore Woods
Nature Center**
Nature in your hands



5

Reaching the Global Community

Two years ago, Volunteer Services Director Kristin Bruce had more than 300 volunteer smocks embellished with the Community General Hospital logo sitting unused in the volunteer services office. These smocks were replaced by the navy Upstate University Hospital volunteer vests in 2011, and as a result Kristin worked to repurpose the items.

Community Campus volunteers Dick and Barb Bratt had suggested that a portion of the unused smocks be donated to Robinson Presbyterian Church USA. There, a missionary group was working to collect clothing items for people in need living in Uganda. The decision to repurpose these smocks was made more than a year ago, and in October, an email was sent to the Bratts with an update. The message from Ngamije M. Faishal of Kasese, Uganda, thanked the donors for their generous contributions. In addition, the email also shared photos of the smocks being used in Uganda as goods were being distributed to dozens of men, women and children.

Closer to home, more than 70 volunteer smocks were recently donated to the Syracuse City School District. Students of the district now wear these smocks in art class as they work on their various projects throughout the school year. In addition, 50 volunteer smocks that were not customized with the hospital logo were also donated to the team of volunteers serving the Centers at St. Camillus in Syracuse.

"To see these Community General Hospital volunteer smocks being used halfway around the globe is amazing," said Kristin Bruce. "What's more, the volunteers themselves truly appreciate the legacy of their uniforms and are humbled to see their repurposed use today."



5

Onondaga County Save the Rain Program

The “Save the Rain” program is a comprehensive storm water management plan intended to reduce pollution to Onondaga Lake and its tributaries. During wet weather events, storm water flows into the local sewer system, causing heavy flow periods that can overload the system. Upstate implemented measures in three projects to reduce rainfall runoff into the local combined sewer system. Measures are designed to keep storm water out of the system up to the 90% thereby eliminating millions of storm water from entering the existing sewer system.



The new water system outside the hospital and new Cancer Center (left) entrance is one of three projects designed to reduce rainfall runoff.



2012-2013 National Renewable Energy Laboratory Research Project

As one of six hospitals selected from the United States, Upstate installed several energy meters in concentrated care areas as part of a research grant to measure energy performance in hospitals to benchmark energy usage in discreet hospital sectors. General observations from the research include:

- Wide disparities in hospital energy use based on the size of the facility, specialization of services, and location of the facility (climate conditions)
- Moderate temperature zones may have the highest total energy use due to both high seasonal heating and cooling needs
- Accuracy of energy metering is highly dependent on correct zoning of thermal systems, and how the electrical load is distributed. Metering is most effective when it is included as part of system design
- Benchmarking (compiling metered data) is most effective when used as a tool for optimizing system performance and as a comparison tool to other facilities
- Reheat is likely the highest single-energy user, regardless of location

Following Upstate’s participation in the research project, the following sustainability initiatives will be implemented:

- Pilot testing LED lights in operating rooms
- Continue window replacement program in Weiskotten Hall
- As air handling units in the hospital wear out, replace with high efficiency units on variable speed drives
- Complete re-lamping in the hospital using LED lights where feasible



5

Reusable Cup Sales Benefit Charities

The sales program for 'Think Green' Reusable Cups by all food vendor companies across the institution benefits charitable causes within the institution. This program, aimed at reducing the amount of single use water bottles and styrofoam cups, simultaneously supports an internal charity of choice with a portion of proceeds directly benefiting the Pediatric Pulmonary Sunshine Fund for Cystic Fibrosis.



Thank you! From Owin and his new sister, Rori, patients of the Robert C. Schwartz Cystic Fibrosis Care Center Upstate Golisano Children's Hospital

2 GREAT

REASONS TO BUY A THINK GREEN CUP!

1 Proceeds support a worthy cause:

Your purchase supports Upstate's Pediatric Pulmonary Sunshine Fund. The fund helps families of children with Cystic Fibrosis with medical needs not covered by insurance.

2 It helps the environment: Your reusable cup eliminates single-use water bottles from landfills and saves you money on expensive bottled water!

Buy Your Think Green Cup for **\$7** at these Upstate locations:

- All Upstate Cafeterias
- Express Oasis Coffee Bar
- Lori's Gift Shops, Downtown and Community
- Tim Horton's & Cold Stone Creamery*
*11th floor, Upstate Golisano Children's Hospital

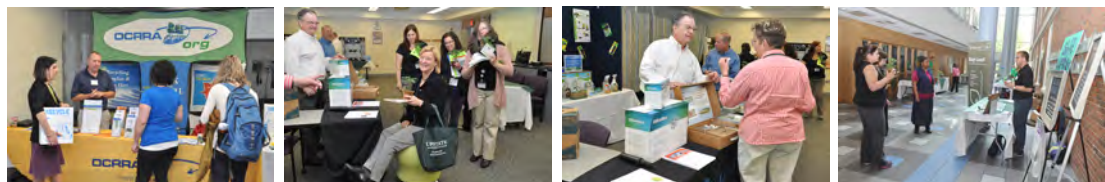
Cystic Fibrosis is a life-threatening disease affecting the lung and digestive system. There is no cure. Some 1,000 children are diagnosed with CF each year.



Think Green Fair Community Partners

Several community agencies participated in the 2014 Think Green Fair hosted at Upstate, which was attended by employees, staff, students, visitors and volunteers.

- SUNY College of Environmental Science and Forestry featured a display on how to go green at home and baby sets to shrink your carbon footprint.
- Syracuse First, a not for profit network of locally owned, independent businesses and organizations dedicated to building a sustainable community, focused on encouraging citizens to "think local first."
- Guy Brown Products, Office Max and Clover Technologies shared information on green office products and remanufactured toners.
- Onondaga County Resource Recovery Agency presented on how to compost and reduce waste at home.



Involving Upstate's senior leadership, board and employees in Upstate's sustainability program.

Sustainability at Upstate is not confined to one person, committee or task force. Instead, sustainability has gradually evolved into a culture that is influencing daily operations in a truly beneficial way.

When the sustainability program was initially formed in 2008, the Sustainability Task Force consisted of an executive committee that included the chairs of three designated subgroups, in addition to Upstate's senior leadership team. These subgroups include education and awareness; products, equipment, purchasing and services; and building construction and technical operations.

These subgroups consist of representation from all facets within Upstate's system - including clinical staff, facilities management, marketing and public professionals, and administration.

As these groups initiate various sustainability programs, it is then the responsibility of all staff, faculty and students to participate voluntarily. Our measured results have clearly illustrated the active involvement by all of these groups. In addition, these groups have also generated their own ideas for other sustainability programs - some are at the individual level while others at the department level.

Upstate's executive team supports the sustainability program by allowing the university to invest financial resources into the aforementioned sustainability programs. There is a cost to invest in sustainability and the executive team allows the sustainability teams to make the judgment of when/where to make these investments.

In all, the entire Upstate community is working hand-in-hand to uphold its Think Green mission on a daily basis.



Paul Seale, Chief Operating Officer, Upstate University Hospital Downtown Campus attending the 2014 Think Green Fair.



Dr. Gregory Eastwood, interim president of Upstate Medical University, discusses recycling initiatives at the 2014 Think Green Fair.

