

UPSTATE MEDICAL UNIVERSITY

**g**think  
**green**  
[green.upstate.edu](http://green.upstate.edu)



**2015 THINK GREEN SUSTAINABILITY REPORT**

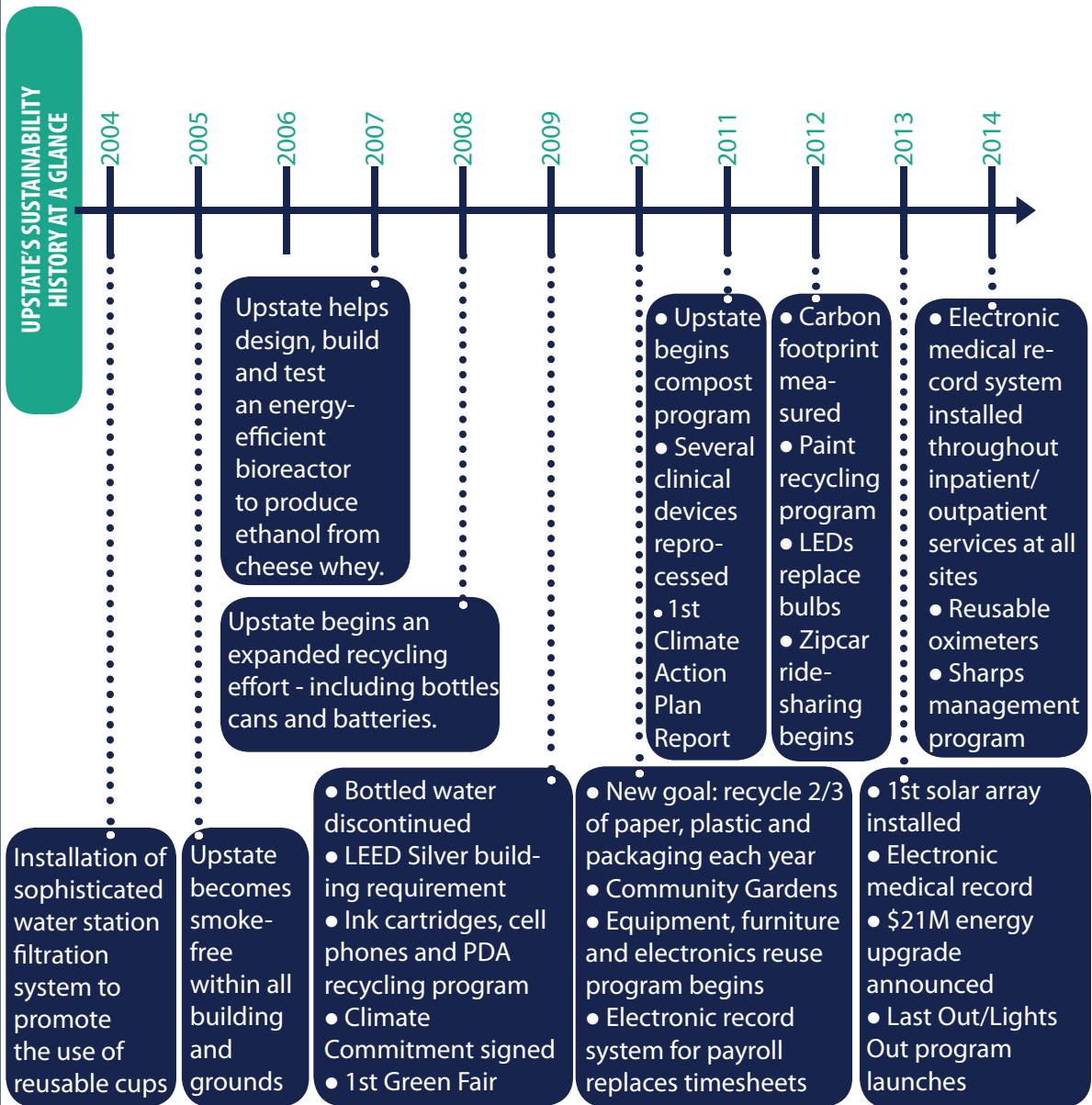
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**A closer look at the history and focus of Upstat's sustainability program.**

*Upstate Medical University's sustainability program first began in 1997 and has continued to grow through the years. The cornerstone of the program and strategy began when President Gregory Eastwood, MD, launched the university's first-ever recycling program throughout the hospital and academic settings. Since then, Upstate Medical University's sustainability program has expanded to include sustainability education, increase employee/visitor/patient/student participation, construction priorities, community involvement and more.*

**HISTORY**

This brief historical overview reflects on the major achievements throughout the sustainability program's history.



# 1

## HISTORY (continued)

The history of Upstate’s commitment to sustainability began in the 1990s, when Upstate Medical University President Gregory Eastwood, MD, 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. Upstate includes one hospital with two campuses, four colleges, and more than 35 offsite clinical and administrative locations. More than 9,000 people work at Upstate and it serves a 17-county area in New York State.

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.

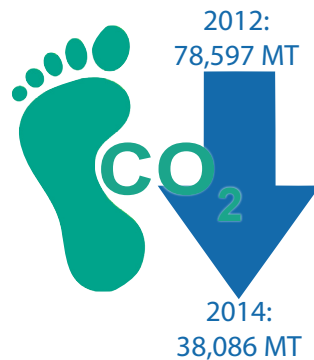
Three active sub-groups of the task force lead the effort on specific program objectives as Upstate’s commitment to sustainability continues and expands. They include:

- Education and Awareness
- Building Construction and Technical Operations
- Products, Equipment, Materials and Services

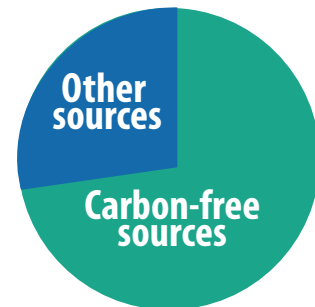
The sustainability program has made significant progress since its inception and is now a key element within the Upstate’s strategic plan.

The following illustrates the successes achieved by the sustainability program at Upstate in recent years.

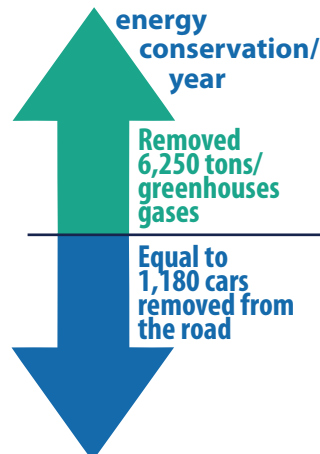
### carbon footprint reduction



### electrical energy sources



### energy conservation/ year



# 1

## FOCUS

Throughout Upstate’s past - and continuing into the future - the focus of the sustainability program remains simple yet strong: increase participation and sustainability, and decrease waste at Upstate and beyond.

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)*



### REDUCE FOSSIL FUEL CONSUMPTION

Operations will be aggressively managed to reduce Upstate’s dependence upon fossil fuels and feedstock.



### MINIMIZE ENERGY AND CARBON FOOTPRINT

The energy and carbon footprint of facility construction, space utilization, and all aspects of staff commuting will be minimized.



### SUPPLY PURCHASES AND MANAGEMENT

Cradle to grave management of purchased supplies will consider energy, carbon footprint, and recycling equal with pricing.



### SUSTAINABILITY PARTICIPATION

All Upstate staff, students, patients, suppliers and vendors will be engaged in the sustainability effort.



### ENERGY CONSERVATION IN CONSTRUCTION

Invest at least 10% of capital construction funding in energy conservation projects that demonstrate leadership or with an ROI <20 years.



### SUNY PARTNERSHIP

Partner with SUNY and sister institutions to enhance creation of procurement of renewable carbon-free energy.



2

**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 - its past achievements are the foundation of tomorrow’s sustainability endeavors. Over the past year, Upstate’s sustainability teams have gone beyond what was achieved in years past. Upstate has introduced new, innovative ways to implement green initiatives to again surpass our sustainability goals. These unique projects include changes at the patient’s bedside, in the operating rooms, construction processes, education and communication, recycling methods in office spaces, and more.*

**64 DEPARTMENT CHAMPIONS**  
 Upstate employees volunteer to participate in the sustainability program. They share sustainability news and information with their departments and colleagues, share new sustainability ideas, and help identify best practices within departments.

**90%  
 OF STORM WATER  
 IS COLLECTED**

**SAVE THE RAIN PROGRAM**  
 Upstate is a participant in Onondaga County’s efforts to save rain by developing green infrastructure and environmentally-friendly solutions to capture storm water where it lands. One of these three points collects 90% of storm water from the roofs and surfaces surrounding the new Upstate Cancer Center. The system releases the runoff slowly to keep it out of the combined sewer system that leads to Onondaga Lake. This installation alone diverts about 1.3 million gallons of storm water per year.

**Collecting  
 and reusing  
 211,000  
 gallons of storm  
 water**

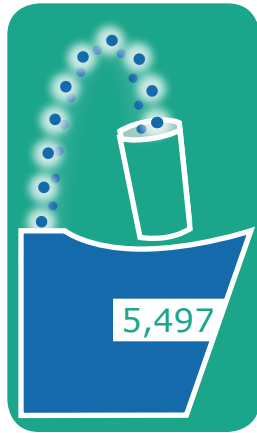
**GREEN ROOF**  
 Upstate’s new Cancer Center - a 90,000 square foot facility - was constructed with a green roof. This green infrastructure application prevents 211,000 gallons of storm water from entering into the sewer system, and instead circumvents it to a reservoir that waters the center’s four-season rooftop healing garden.

2



**THINK GREEN REUSABLE CUPS**

These cups promote Upstate’s sustainability program - known as “Think Green” - and are sold by all food vendor companies present at 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.



**HIGH-TECH WATER FILLING STATION**

A pilot high-tech water filling station displays the number of disposable plastic bottles saved when users instead fill a bottle or Upstate Think Green cup. The results for the station during a 10-month period showed more than 5,000 fills. That equals more than 500 uses per month, or approx. 20 per day.



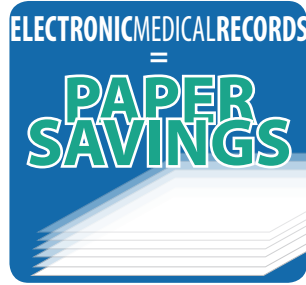
**COMPOSTING**

The Onondaga County Resource Recovery Agency (OCRRRA) lists Upstate University Hospital as one of the sustainability leaders in the community. By teaming up with its food service providers and OCRRRA, Upstate is diverting pre-consumer food scraps from the waste stream. In 2014 alone, the hospital composted more than 32 tons.

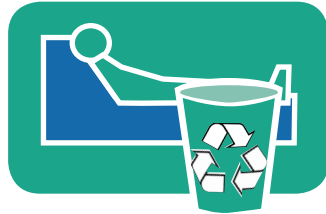


24% of Upstate’s waste is compostable organic material.  
15% of Onondaga County’s waste stream is food waste.

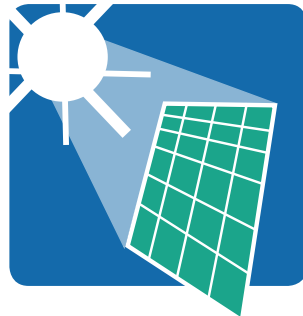
## 2

**ELECTRONIC MEDICAL RECORDS**

The spring 2014 implementation of Epic in Upstate's hospital sites completed the installation of the electronic medical record (EMR) system in all inpatient and outpatient care sites. EMR eliminates thousands of reams of paper as all patient care documentation is now stored and shared electronically. Early estimates show that 4,155 electronic documents sent to other national Epic sites equalled a savings of approx. 24,930 paper pages in just six months. The total volume will be significantly larger, as these transitions only count for a fraction of EMR transfers.

**PATIENT ROOM RECYCLING**

In 2015, Upstate University Hospital will be the first hospital in Central New York to offer a patient room recycling room program. The new program will be piloted within 71 Upstate University Hospital pediatric patient rooms, which were chosen due to the amount of recycling material generated here, including bottles, formula containers, etc. The goal is to expand this program to all 195 private patient rooms.

**SO LONG ELECTRICITY, HELLO SOLAR PANELS**

The solar array installed in the Neuroscience Research Building heats 36% of the building's hot water. This system saves about \$12,000/year in natural gas.

**LESS GRASS, LESS GAS**

Upstate has reduced the total grass-covered area on its grounds by 25% in 2015. This reduction thereby requires less gasoline to operate the mowing equipment.

**RENEWABLE ENERGY**

Upstate maintains a LEED Silver minimum requirement for all capital projects. Most recently, a 129-apartment building for students was awarded LEED Silver Certification following a \$32 million renovation. Included in the renovation was the work needed to use only 100% renewable energy within the building. This included significant upgrades to the windows, lighting, insulation, heating, air conditioning and ventilation systems.

## 2

**BIKE TO WORK**

Upstate launched a Bike to Work initiatives in 2014, including an educational booths at annual Green Fairs 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 throughout the year. The mission of the Pathway to Wellness is to increase awareness of healthy and positive lifestyle choices by providing programs and resources that promote a culture of health and wellness for the Upstate community.

**TAKE THE STAIRS**

Reducing the usage of elevators saves considerable energy required to operate them. Upstate's "Take the Stairs" initiative urges staff and visitors to take the stairs instead of the elevator. The added benefit of taking the stairs is the health benefit. "Take the Stairs" information is made available at Pathway to Wellness programs throughout the year in addition to informational posters posted at the majority of stairwells near elevators throughout Upstate's many locations.

**SHUTTLE SERVICE BETWEEN CAMPUSES**

Upstate's shuttle provides students, staff, patients, visitors and volunteers with an alternative method of transportation between hospital campuses seven days a week. 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.

**COLLECT WASTE, SAVE PLASTIC**

Upstate custom orders its waste bags to ensure that plastic is not wasted on bags that are too large for the intended application. Upstate's custom ordering also includes specifying the reduced thickness of the bag.



2

**38%**  
cleaning  
products are  
**GREEN**

**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). These include chemical dilution systems, microfiber mops to reduce the use of water, coreless toilet rolls, paper towel and toilet paper products are made from 100% recycled content.



**100% RECYCLED CONTENT & CORELESS TOILET ROLLS**



**400 GALLONS OF WATER SAVED PER DAY TO CLEAN FLOORS**



**REDUCTION OF STYROFOAM PRODUCTS**

Upstate issues sustainability requirements for food vendors, which were developed as a result of valuable input from the Upstate student population. Following these requirements, Upstate's food vendor have significantly reduced the use of styrofoam in its retail locations. This amounts to approx. 1,316,000 pieces of Styrofoam removed from the waste stream per year.

Upstate's sustainability requirements for food vendors include 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.



**NEW MENUS - NEW WAY TO REDUCE PAPER**

"Catering to You" was introduced at the Upstate University Hospital Community Campus in 2014. The system replaces patients' daily paper menu and instead reuses weekly menus. Meal orders are taken with electronic tablets to reduce the use of paper tickets in the kitchen.



## 2

**SUSTAINABILITY IN THE CLINICAL AREA**

Upstate University Hospital's clinic areas have initiated a number of strategies designed to reduce the supplies used and energy consumed in operating rooms and surgery centers.

**REPROCESSING/REMANUFACTURING SINGLE-USE DEVICES**

Upstate has partnered with companies that specialize in reprocessing and remanufacturing. Previously discarded in the trash as "regulated medical waste," which ends up in landfills or is incinerated, devices are now identified as still working or containing parts that could still be used, and are captured. These devices are then purchased back from the reprocessor. Within the operating rooms, devices that are currently purchased include tourniquet cuffs, drill bits, saw blades, external fixator components, energy devices, and many more. Devices that can not be reprocessed are recycled by the vendor.

**FLUID WASTE MANAGEMENT**

Operating rooms collect fluid from the surgical field and now dispose of it in the sanitary septic system. This greatly reduces the use of multiple 3-liter plastic collection buckets with lids, the use of a solidifier product, the packaging and inventory process for both, and disposal of a full 8-pound bucket in red bag waste. The waste of one 3-liter suction canister (plus solidifier used for one procedure) is equal - in red bag waste - to approx. 77 procedures with disposable manifolds. Some procedures use multiple suction canisters, even up to 10 per procedure.

**WRAP REDUCTION**

Hard-sided containers used in the operating rooms have reduced the use of blue sterilization wrap, which is made from polyethylene and until recently was recyclable. Upstate is now exploring partnership with a reprocessor to melt the wrap, and turn it into pellets which can be used for other purposes. Wrap was reduced by 250 cases or 60,000 wraps (23%) from 2009 to 2011. Today, approx. 90% of instrument trays are in containers. The OR continues to aggressively promote containers by working with implant manufacturers to provide sets in containers vs. blue-wrapped trays.

**OR CUSTOM PROCEDURE TRAY**

The majority of disposable operating room products are no longer individually packaged in sterile wrapping. Instead, the sterile items are all placed in one pack, then sterilized - thereby reducing the waste of individually-wrapped item packages. This has improved efficiency and reduced labor and transportation in ordering, stocking, and picking of individual items for cases. The boxes are used to hold multiple items in one container. These boxes break down easily and are reused for multiple purposes or recycled with cardboard.

### 3

## 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, it is imperative for Upstate 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 performed 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.

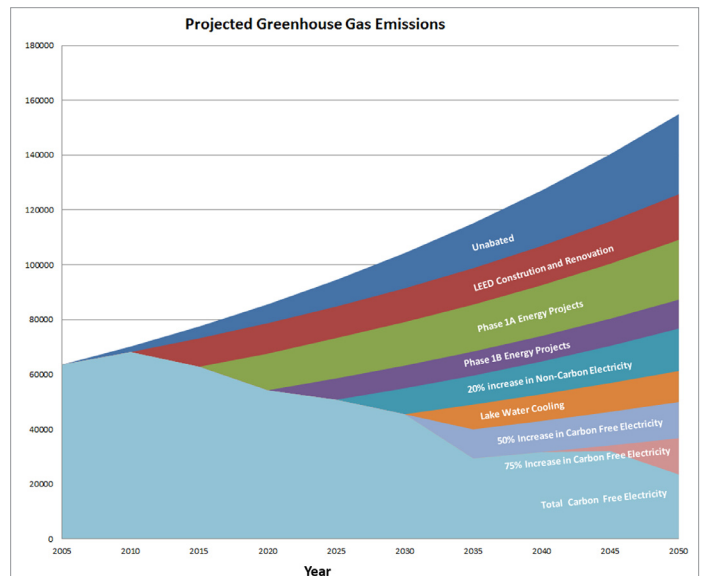
A number of reports that are reviewed annually are available on page 11.

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.

Upstate’s reprocessing savings is reported to the Value Analysis committees including the Steering Committee on a quarterly basis.

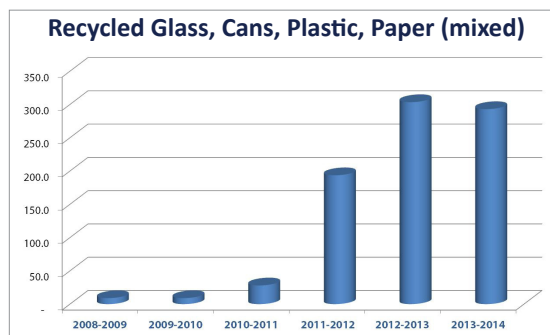
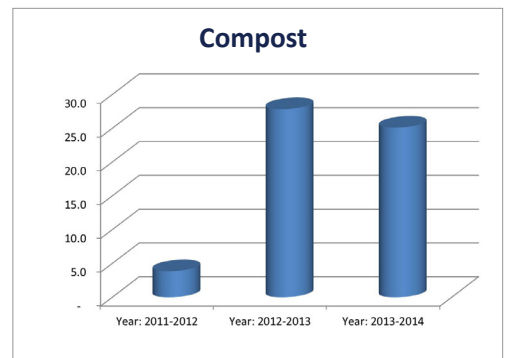
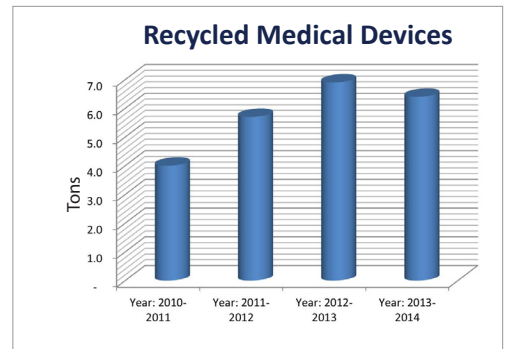
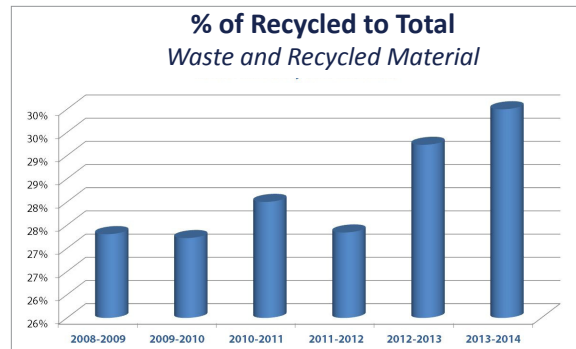


### 3

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

## IN SUMMARY

- In 2014, Upstate’s overall **waste stream decreased by 6%**.
- In 2014, Upstate’s **regulated medical waste decreased by 8%** without a reduction in patient volume.
- By the end of 2014, **recycled material accounted for 30%** of Upstate’s total waste and recycled material. This is an increase from the 29% seen in 2013 and is the **highest ratio recorded to date**.
- Since the hospital began reprocessing in 2009, **savings have totaled \$2.1 million** - compared to what would be spent when buying devices from the original equipment manufacturer.
- **Approx. 70,000 pounds of waste have been saved** by diverting products from the regulated medical waste stream.



4

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

*Upstate's sustainability program is continuing to evolve - yielding more stories, news and information to share with its community than ever before. The sustainability communications committee therefore relies on various channels to communicate to its many target audiences. The result is continuing education and increasing participation in Upstate's sustainability efforts.*

### COMMUNICATIONS OBJECTIVE

The goal of Upstate's Sustainability Communications Committee is three-fold:

1. Educate Upstate's community on its continuing sustainability efforts and results
2. Inform Upstate's community on recycling efforts that can be used outside of work - at home, in the community, etc.
3. Communicate the results of Upstate's sustainability efforts

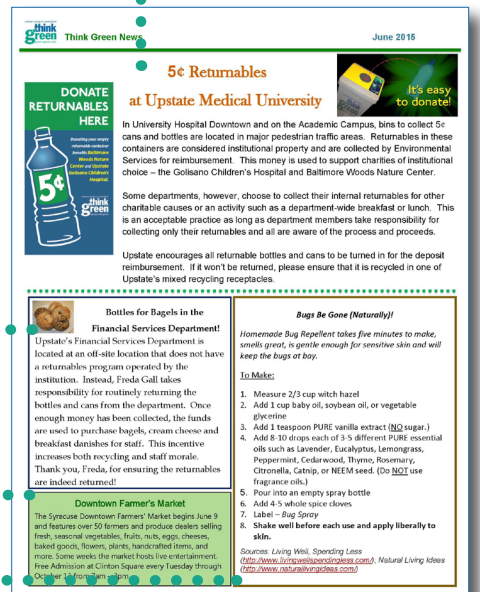
### KEY MESSAGES

In order to regularly meet these objectives, the communications group publishes monthly e-newsletters pertaining to all three objectives. A previous issue, below, showcases the key messages.



Upstate's sustainability efforts and results

Upstate's recycling efforts & community involvement



How to recycle at home

Best practice

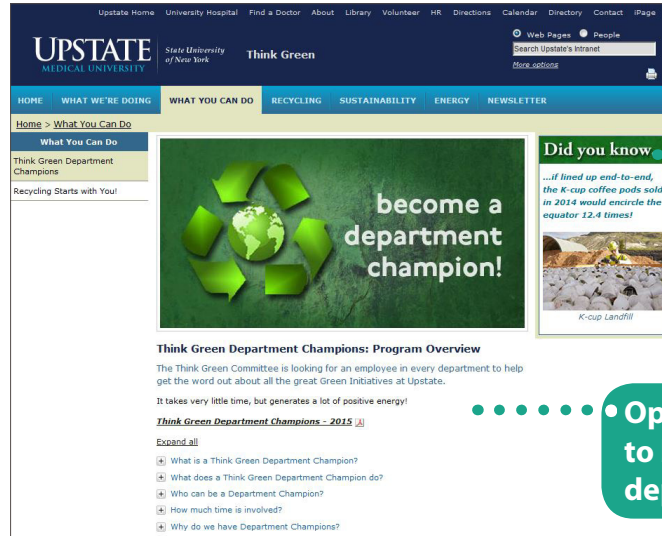
DIY community involvement

Sustainability DIY

# 4

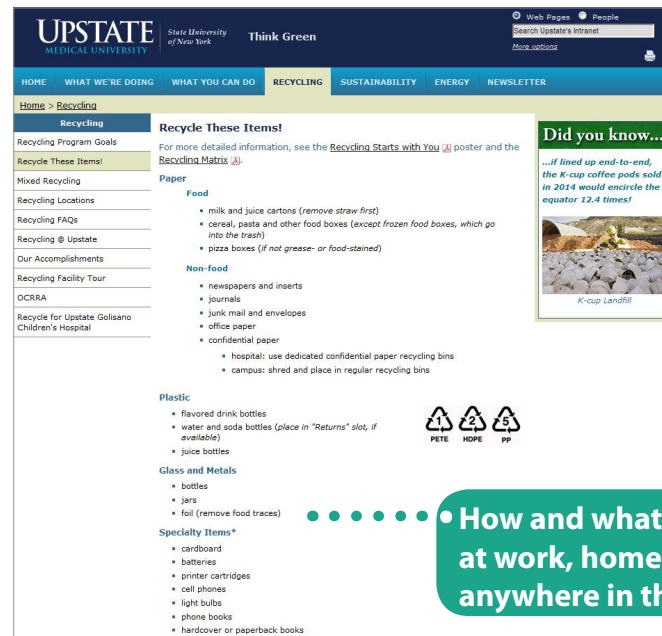
## UPSTATE.EDU/GREEN

The Think Green sustainability website also shares the key messages and is frequently updated with new information, news, tips for recycling at home and facts on global sustainability. The images below demonstrate the site's versatility and comprehensiveness.

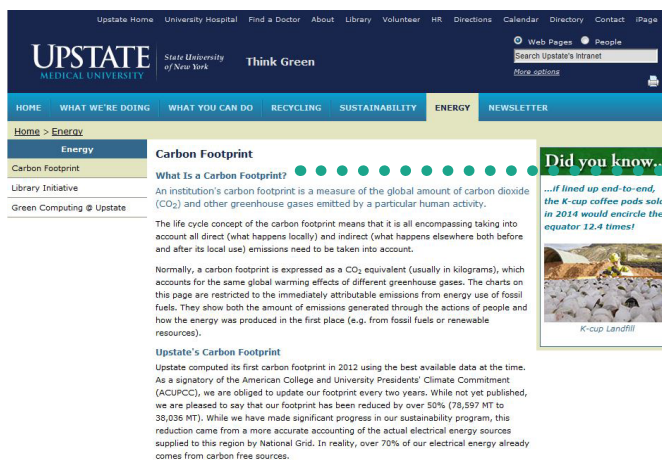


• Did you Know? features global sustainability facts and stats

• Open invitation to all staff to become a Think Green department champion



• How and what to recycle at work, home and anywhere in the county



• Upstate's carbon footprint information and measurements

## 4

### TARGET AUDIENCES

Upstate's key audiences for this message include:

- Staff, including faculty
- Students
- Volunteers
- Patients
- Visitors
- Vendors
- Central New York community

### COMMUNICATION CHANNELS

Internal:

- Department champion
- "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

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



## 5

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

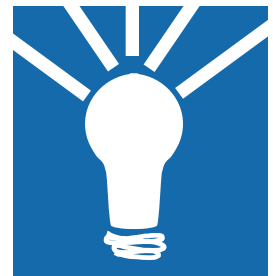
*Upstate is an institution that goes beyond the borders of Syracuse. The hospital's two campuses and clinical services care for a vast 17-county region. Upstate employs more than 9,000 people and its student population of more than 1,600 come from all corners of the world. Through education and interaction, 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-Alllyn, 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, which 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 2015 collection year has been set at \$5,000 to share between these two charities. In 2014, more than \$500 was raised. Additionally, bottles and cans are also collected and recycled within departments who use the proceeds to support charities of choice, department parties and recognition programs.

The Baltimore Woods Nature Center was selected as a benefactor because it is a not-for-profit place-based nature education organization that works to connect people with nature, both from its 80 acres of land and from satellite programs in urban areas.



### 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.



# 5

## REUSABLE CUP SALES BENEFIT CHARITY

The sales program for “Think Green” reusable cups by all food vendor companies across the institution benefits a charitable cause within the institution. This program, aimed at reducing the amount of single use water bottles and styrofoam cups, supports the Pediatric Pulmonary Sunshine Fund for Cystic Fibrosis.

**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

*Thank you! From Owin and his new sister, Rori, patients of the Robert C. Schwartz Cystic Fibrosis Care Center 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 participate in Upstate's annual Think Green Fair hosted at Upstate, which is attended by employees, staff, students, visitors and volunteers. The following agencies showcase their sustainability efforts alongside information on how to become involved.

- SUNY College of Environmental Science and Forestry
- 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
- Onondaga County Resource Recovery Agency (OCRAA)



## 5

## FAIR TRADE PRODUCTS



Cafe Kubal is a local coffee roaster who purchases only fair trade coffee. The cafe will be providing coffee and coffee products in the cafe of Upstate's new academic building currently under construction. The new building will open in spring 2016 and will be the main academic space for the College of Health Professions and Nursing.

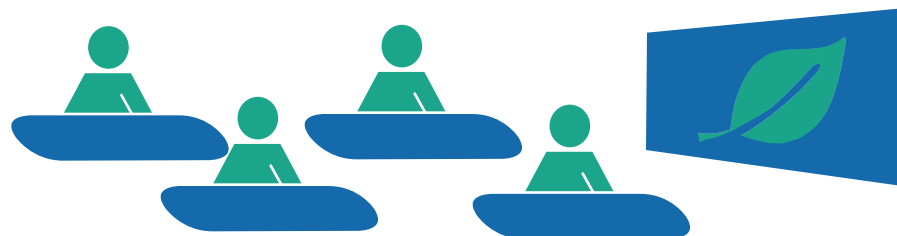
## SYRACUSE GROWS - GARDEN COLLABORATION

Upstate's garden project joined Syracuse Grows this spring. The Upstate Community Garden is a 30-foot by 40-foot garden that began in 2009. Upstate students are involved in planting and maintaining the garden each year. The garden is used to plant a variety of vegetables, generating a supply of locally grown, pesticide-free, nutritious food. In 2015, the Upstate Community Garden became a member garden of Syracuse Grows. Syracuse Grows is a volunteer-run organization established in 2008 that works to build and help maintain community and school gardens by providing advocacy, programming, education, and gardening resources to support local community gardens.



## UPSTATE TEACHES SUSTAINABILITY TO LOCAL HIGH SCHOOL STUDENTS

Upstate Medical University hosted a MedQuest Health Careers Exploration Camp, a four-day medical intensive program designed to introduce students to the health care industry and related careers, for 24 area high school students in July 2015. As a section on sustainability was included in this year's program, students learned about Upstate's "Think Green" initiatives related to recycling, composting, clinical products repurposing, community gardens, LEED certified facilities and the variety of careers involving sustainability in the health care industry. Students ended their session by completing their own pledges as to how they would be more sustainable in the future.



6

**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. This culture, focused on sustainability, begins with Upstate’s leadership and permeates every level of management and staff.*

