
WORKING TOGETHER REDUCES OUR ENVIRONMENTAL IMPACT

Environmental Stewardship Program FY14 Report





Ascension Mission

Rooted in the loving ministry of Jesus as healer, we commit ourselves to serving all persons with special attention to those who are poor and vulnerable. Our Catholic health ministry is dedicated to spiritually centered, holistic care, which sustains and improves the health of individuals and communities. We are advocates for a compassionate and just society through our actions and our words.

Contents

Environmental Stewardship at Ascension — An Overview	3
Making Progress in Environmental Stewardship	9
Leadership & Infrastructure	10
Education & Communication	13
Energy Efficiency	16
Water Conservation	19
Waste Management & Reduction	20
Food Systems	24
Sustainable Site & Transportation	25
Chemical Management	27
Environmentally Preferable Purchasing	28
Future Plans	30
How to Participate	32
System Green Team Members	34
Sources	36

On the cover: St. Vincent's Medical Center Clay County, Middleburg, Florida. Built using Ascension's Planning, Design and Construction Standards, it achieved an Energy Star baseline score of 85.



Environmental Stewardship at Ascension — An Overview

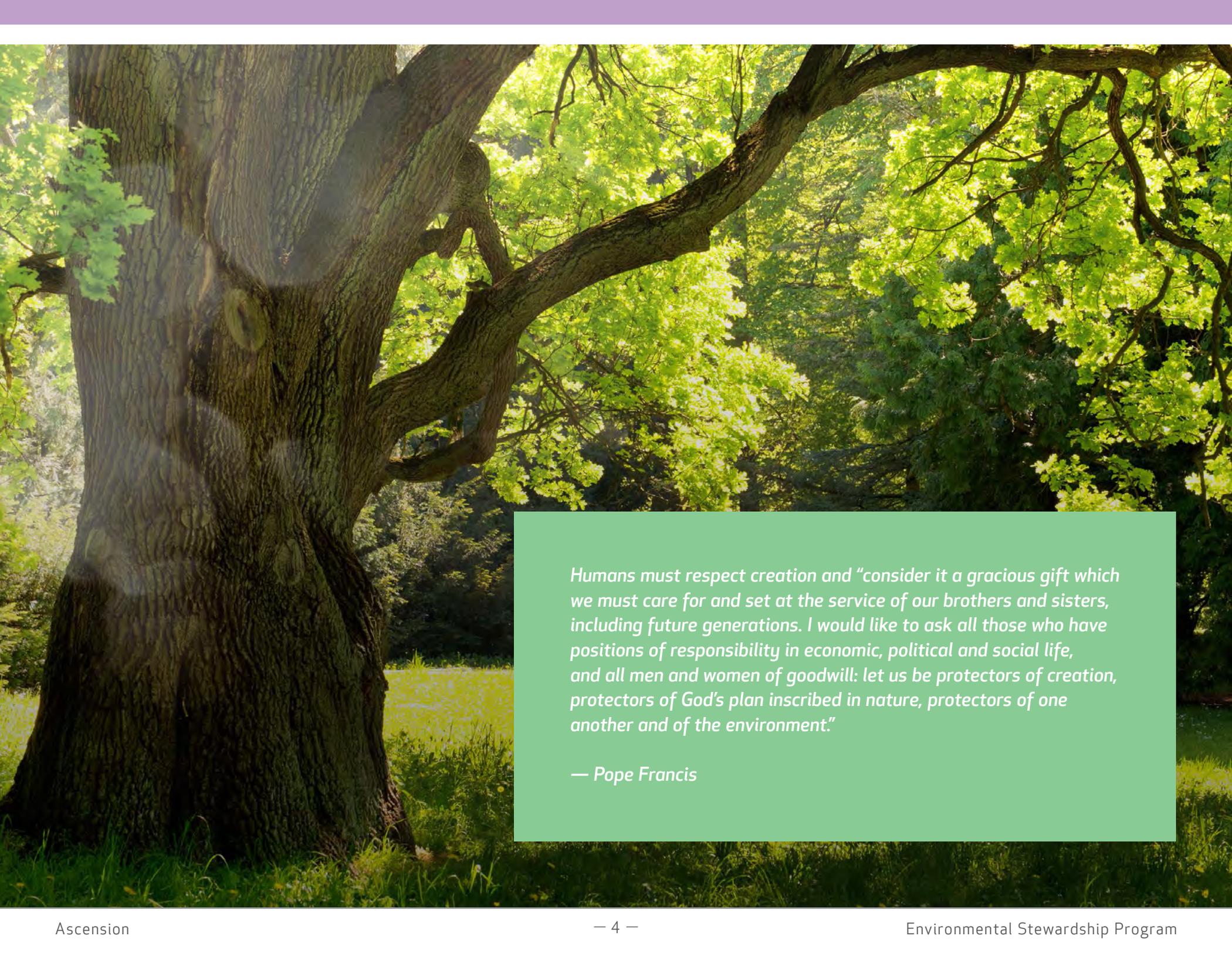
The Environmental Stewardship Program challenges us to act as stewards of God's creation and operate at our full potential by identifying and implementing practical solutions to minimize the organization's impact on the natural environment and the communities we serve.

Pope Francis' emphasis on care of both persons and planet is an invitation to Catholic healthcare for deeper ecological reflection, rooted in the ministry's mission to care for all of creation, its experience serving those harmed by environmental degradation and its capacity to address environmental challenges. The leadership of Pope Francis thus invites the ministry to consider



even more deeply the ways in which it might live its vocation to care for the health and wellness of people and the rest of creation.¹ These four points serve as pillars of Pope Francis' ecological vision:

- The recognition and affirmation of the goodness of all creation
- Humanity's unique place in creation
- The fact that environmental degradation harms people, especially the poor and vulnerable
- Humanity's responsibility to steward God's gift of creation¹



Humans must respect creation and “consider it a gracious gift which we must care for and set at the service of our brothers and sisters, including future generations. I would like to ask all those who have positions of responsibility in economic, political and social life, and all men and women of goodwill: let us be protectors of creation, protectors of God’s plan inscribed in nature, protectors of one another and of the environment.”

— Pope Francis



Environmental Stewardship at Ascension — An Overview

TERMS TO KNOW

Environmental Stewardship: The responsibility for environmental quality shared by all persons whose actions affect the environment.

Sustainability: The ability to meet the needs of the present without compromising the ability of future generations to meet their own needs.

Triple Bottom Line: The simultaneous pursuit of economic prosperity, environmental quality and social equity. This goal of environmental

stewardship is also described as “People, Planet and Profit.” This term was coined in the 1990s by John Elkington as an accounting framework for businesses that take into account social and environmental impacts as well as financial performance.

Triple Aim: A term describing goals in healthcare to provide better patient care, improve population health and reduce per capita cost. It has been widely adopted as a framework for public and private healthcare since its development by Don Berwick, Tom Nolan and John Whittington at the Institute for Healthcare Improvement in 2008.

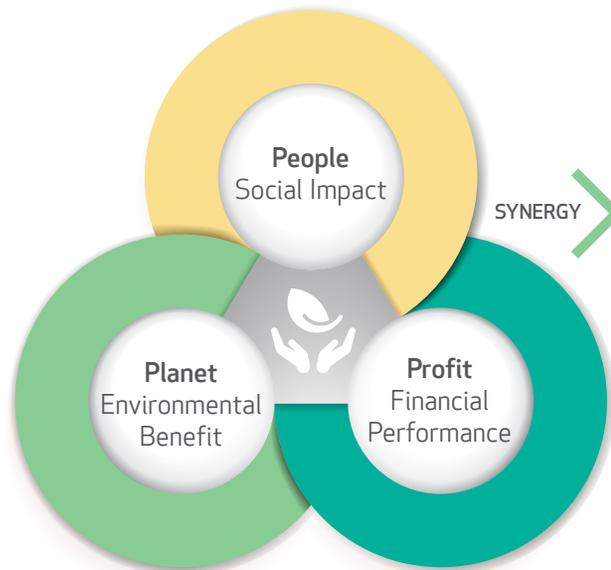
Environmental Stewardship at Ascension — An Overview

Environmental stewardship work at Ascension furthers “Triple Bottom Line” and “Triple Aim” goals:

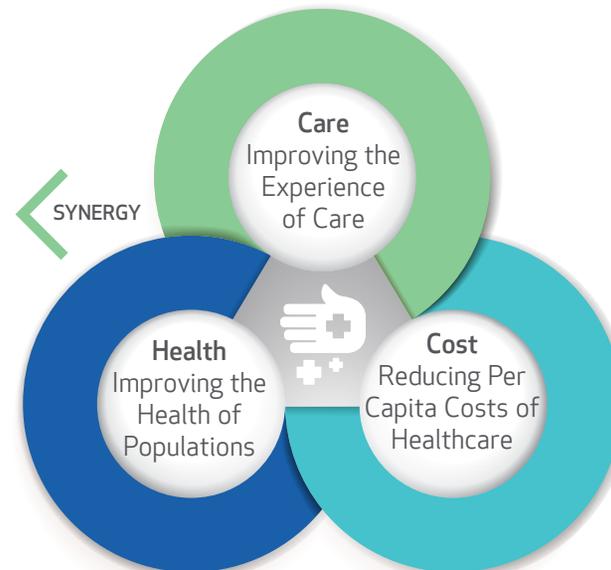
- To improve patient care, we work to ensure that the medical devices and chemicals used in our facilities are safe, non-toxic and do not cause harm either to those we are trying to heal or to our healers.
- To improve population health, we minimize our impact on the environment and in the communities in which we are located. Hospitals are heavy users of energy and water, and create an

average of 31 pounds of waste per patient day. Being mindful of energy and water use as well as waste management practices will reduce air and water pollution and improve health outcomes from respiratory illness, cancer, and endocrine and reproductive diseases.

- To reduce per capita cost, we need to provide quality care for the most people in an efficient manner. Many environmental stewardship programs lead to cost savings, which allow us to extend our Mission to provide healthcare to poor and vulnerable populations.



Triple Bottom Line — Specific to Sustainability



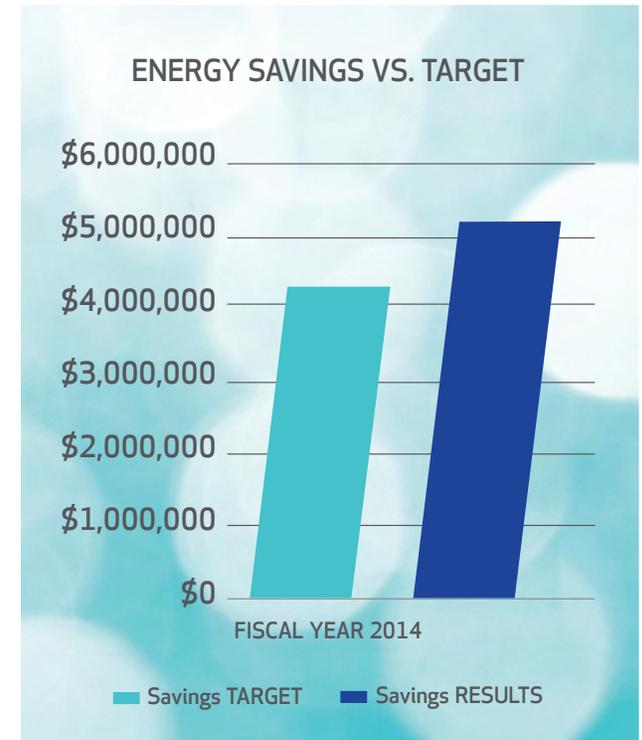
Triple Aim — Specific to Healthcare

Environmental Stewardship at Ascension — An Overview

Resiliency, Agility and Change are recurring themes today in healthcare and in environmental stewardship. HCAHPS² scores, net operating income, DSRIP³ programs and other Key Performance Indicators⁴ dictate the way healthcare is provided today. How do we connect sustainability to the dizzying pace of change in this world?

We can do so by connecting healthcare's Triple Aim with the Triple Bottom Line from the field of environmental stewardship. The Triple Bottom Line provides a framework to evaluate many activities. For example, associates who attend meetings at Ascension rarely find bottled water provided. The Daughters of Charity, one of our founding orders, are responsible for inspiring this policy. The Daughters' mission calls for them to do work around the globe, including engaging in efforts to provide access to clean water in countries like Guatemala and to raise awareness of water as a social justice issue. This illustrates the Triple Bottom Line — for the price of one bottle of water, hundreds of gallons of tap water can be purchased. Thus, minimizing the use of bottled water is less expensive (which demonstrates a financial benefit), minimizes energy use, shipping and waste (three environmental benefits), and frees up resources to help the poor (a social benefit). The value of an environmental stewardship program is better understood now than ever before. At the same time, healthcare systems have to run leaner and embrace transformational change. The question is not so much why do we need to do this work, but how can we get it done amid so many competing priorities?⁵

According to executives polled in a recent McKinsey Global Survey, sustainability is becoming a more strategic and integral part of their businesses. When asked about their companies' reasons for pursuing sustainability, 43 percent say their companies seek to align sustainability with their overall business goals, mission or values.⁷



Ascension's Environmental Stewardship Program began with energy efficiency, which remains at the forefront of the program. All acute care hospitals have been tracked in Energy Star Portfolio Manager since 2008. From 2008 through 2014, we have demonstrated 13.8 percent energy use reduction, \$43 million in cost avoidance and 718,900 tons of carbon dioxide emissions reduction. In nonprofit healthcare, a \$1 savings in energy equals \$20 in new revenue,⁶ so this cost avoidance is equivalent to \$860 million in revenue for Ascension.

Environmental Stewardship at Ascension — An Overview

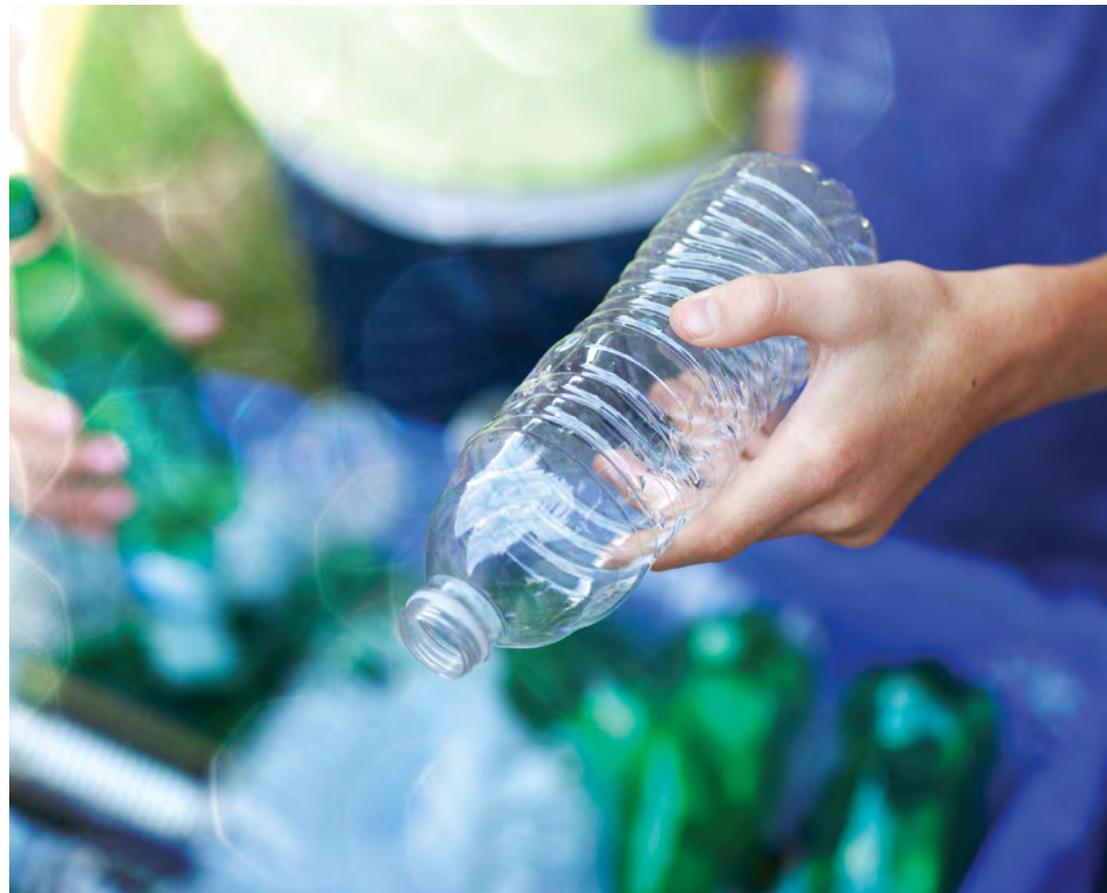
Resiliency

Agility

Change

Based on what has been accomplished in the Environmental Stewardship Program with limited resources applied, it can be said to be a success. But it seems as though we are now at a plateau. Roughly a third of the Health Ministries are fully committed to the program and concept, a third are partially involved and a third are not involved at all. In FY14, 49 percent of Ascension Health hospitals did not collect and submit required reporting for the Environmental Stewardship Program.

The majority of what has been accomplished can be attributed to the commitment and activities of individual associates in a limited number of Health Ministries. It will take people and resources to advance the program; therefore, a necessary next step is to assess the organization's commitment to environmental stewardship. What is the relative priority throughout Ascension for environmental stewardship and where does it fit among all the other priorities in our work?





Making Progress in Environmental Stewardship — 2014 Activities

Dell Children's Medical Center of Central Texas,
W.H. and Elaine McCarty South Tower

After initial success with energy efficiency, the Environmental Stewardship Program expanded to nine categories and was formally launched in July 2011. Several Health Ministries have employed sustainable practices for 125 years, employing the idea of “waste not, want not” from the Sisters of St. Joseph, another founding entity.

To develop the program, resources from several organizations have been utilized:

Within the Environmental Stewardship Program, each Health Ministry creates a Mission and vision statement and sets four yearly goals. In addition, each hospital completes a survey of environmental stewardship practices every year. That information is compiled into a widely distributed annual report. This report for FY2014 highlights activity across Ascension's ministry in FY14 to summarize what has been accomplished and foster ideas for expanded efforts.





Dell Children's Medical Center of Central Texas, W.H. and Elaine McCarty South Tower, LEED for Healthcare Platinum plaque.

Pictured left to right:
Deb Brown, VP, Patient Care Services and COO, Dell Children's Medical Center of Central Texas;

Sister Helen Brewer, D.C., Immediate Past Chair and Current Vice Chair of the Seton Healthcare Family Board of Trustees;

Robert Bonar, Jr., former President and CEO, Seton Family of Hospitals and former CEO, Dell Children's Medical Center of Central Texas

ONE

Leadership & Infrastructure

In healthcare, a growing recognition that sustainability is inextricably linked to human health has motivated many healthcare organizations to begin integrating sustainability into organizational strategy. Hospitals have quickly learned that sustainability extends far beyond having recycling containers in the waiting areas — touching many if not every department in the hospital.

Environmental stewardship can mean long-term savings for the bottom line. Hospital after hospital has found that these programs can derive significant financial value for the organization — from reducing waste disposal and energy costs to improving operational efficiency, to driving employee engagement, to assisting in the recruitment and retention of healthcare staff.⁸

Ascension Health Ministries are active in several organizations, participating in national conferences and gaining recognition as leaders in healthcare sustainability.

ONE

Leadership & Infrastructure

FY14 ACCOMPLISHMENTS INCLUDE:

Catholic Health Association webinar

Environmental Stewardship: Connecting Catholic Social Teaching, Triple Bottom Line and Triple Aim

Presentations at the Practice Greenhealth CleanMed Conference in 2014

Healthy Environment, Healthy Community: Community Benefit + Environmental Stewardship at Ascension

Chilled Beams in Recuperative Patient Rooms: Innovative HVAC for New and Existing Facilities/ Ministry Health + AEI

Practice Greenhealth 2014 Environmental Excellence Awards

- Ministry Saint Joseph's Hospital, Marshfield, Wisconsin, Partner for Change
- Our Lady of Lourdes Memorial Hospital, Binghamton, New York, Partner Recognition

American Society for Healthcare Engineering (ASHE) of the American Hospital Association, Energy Efficiency Commitment (E2C)

- Saint Thomas Rutherford Hospital in Murfreesboro, Tennessee, reduced energy use by 10 percent
- Saint Thomas West Hospital in Nashville, Tennessee, reduced energy by 15 percent
- Saint Thomas Midtown Hospital in Nashville, Tennessee, reduced energy use by 25 percent

Dell Children's Medical Center of Central Texas

- The W.H. and Elaine McCarty South Tower of Dell Children's has earned the first-ever Leadership in Energy & Environmental Design for Healthcare (LEED-HC Platinum designation from the U.S. Green Building Council (USGBC). This is the second record-breaking LEED designation for Dell Children's, which became the world's first LEED Platinum Certified hospital in 2008.

ONE

Leadership & Infrastructure



Each month, the Green Team at St. John Health System (Tulsa, Oklahoma) awards the Environmental Stewardship Award to an associate who demonstrates conservation practices at work.

“The Environmental Stewardship Program keeps us focused on valuable resources in our leadership roles. Often (like every day!), we are all pulled in many different directions but we must keep our priorities in line with our values. This program makes this happen. When our leadership makes the commitment to attend Environmental Stewardship meetings and to make this a priority, it provides associates the initiative to keep environmental stewardship in our focus. Our ministry CEO, Moody Chisholm, and Ascension Health Facilities Resource Group leader, Bob McCoolle, have set the standard high.”

Dee McKrow
System Vice President of Support Services
St. Vincent’s Medical Center — Riverside
Jacksonville, Florida

TWO

Education & Communication

Education and communication, both internally (with staff and caregivers) as well as externally (with the patients, visitors and local community), play a significant role in the level of engagement and success of an environmental stewardship program.⁹

Ascension Health hospitals use many tools to educate and engage associates about sustainability and green practices.

- Alexian Brothers Health System (Chicago): The safety and security portion of new hire orientation includes a review of the green team, its current efforts and contact information for questions or suggestions.
- Lourdes Medical Center (Pasco, Washington): Environmental stewardship information is included in Lourdes Health Network orientation and TouchPoint food and environmental service associate new hire packets.

- St. John Health System (Tulsa, Oklahoma): A slide presentation is included in employee orientation.
- On Earth Day 2014, a new Environmental Stewardship page was launched on Setonville, Seton Healthcare Family's intranet website used by 12,000 Seton associates. The page provides several educational resources about the Ascension Environmental Stewardship Program, recycling, hospital green teams, local external resources, Practice Greenhealth and other organizational resources.
- Recycling programs at the hospital and in the community are reviewed with associates at Ministry St. Joseph's Hospital (Marshfield, Wisconsin), Borgess Medical Center (Kalamazoo, Michigan), Our Lady of Lourdes Memorial Hospital (Binghamton, New York) and Seton Healthcare Family (Austin, Texas).



Left: The popular plant giveaway at the Green Fest at St. John Health System (Tulsa, Oklahoma)

Right: A work session at the Enterprising Health business accelerator at St. John Providence Health System (Detroit, Michigan)

TWO

Education & Communication



Distribution of tree seedlings at the Green Fest at St. John Health System (Tulsa, Oklahoma)

The goal of a robust education and communication program is to create awareness, improve adoption of practices and share success stories. This is accomplished with bulletin boards, websites, daily electronic announcements, special events, signage in building lobbies, information presented at daily huddles and local news stories.

An emerging trend in healthcare is to report Community Benefit to the IRS as part of the Affordable Care Act, demonstrating commitment to

community service through organized and sustainable programs that increase access to healthcare and improve community health.¹⁰ In FY14, 47 percent of Ascension Health hospitals reported Community Benefit activities involving sustainability. Two examples are the Green Fest, held at St. John Medical Center in Tulsa each year, and the Enterprising Health business incubator based in Flint, Michigan. These projects illustrate both ends of the spectrum of community benefit — a single day Green Fest, and a multi-year, very complex social enterprise initiative.

The Green Fest at St. John Medical Center (Tulsa, Oklahoma) introduces community residents to conservation and recycling and encourages practices that reduce energy usage and waste to create a cleaner and safer community. The St. John Green Team hosts the event, which provides education and offers a plant exchange and free tree seedling. This year the event drew 700 people during a two-hour program.

Enterprising Health was a business accelerator located in midtown Detroit that provided seed funding and mentorship to social entrepreneurs who were developing or expanding an innovative health-related business. Special emphasis was placed on businesses that address infant mortality, diabetes/obesity and access to care. The program was sponsored by St. John Providence Health System and co-sponsored by the Ascension Innovations Accelerator Team, which nurtures innovative solutions and relationships that had the potential to accelerate achievement of the Ascension Strategic Direction.

TWO

Education & Communication

“Ascension’s Environmental Stewardship Program has provided a very engaging foundation for supporting related activity at the Health Ministry level. The program offers ready access to individual expertise from across the System and a robust data set for tracking performance and supporting meaningful local conversations. The System Green Team provides the positive influence of success on a broad spectrum of environmental efforts and initiatives ranging from kitchen waste composting to LEED Platinum buildings, and from Integrated Pest Management to Mission Integration. When applied, this program provides stories that inform and inspire our associate education processes and broadens opportunities to connect with our communities. The output drives progress in ministry operations to be safer, more cost effective and ever more focused on improving the patient experience.”

Eric J. Buzzell
Vice President, General Services
& Property Management
Borgess Medical Center
Kalamazoo, Michigan

THREE

Energy Efficiency

Implementing energy efficiency efforts can help hospitals reduce costs and protect scarce resources. However, hospitals are energy-intensive facilities, operating around the clock and using complex medical systems and equipment critical to patient care. Data from the U.S. Energy Information Administration states that large hospitals make up just 2 percent of commercial floor space in the United States but use about 5.5 percent of energy delivered to the commercial sector. Healthcare organizations spend more than \$6.5 billion on energy costs every year, representing a tremendous opportunity for savings.¹¹

Ascension's Environmental Stewardship Program started with energy efficiency. Facilities Resource Group tracks energy use at all acute care hospitals with the Environmental Protection Agency's (EPA) ENERGY STAR Portfolio Manager database. From 2008 through 2014, Ascension has demonstrated 13.8 percent energy use reduction, \$43 million in cost avoidance and 718,900 tons of carbon

dioxide emissions reduction. This is well beyond the 9.1 percent reported a year ago and reflects the increased focus on energy efficiency across all Ascension Health hospitals. In 2012, Ascension Health became a founding partner of the Department of Energy Better Buildings Challenge with a goal to reduce energy use 20 percent by 2020 across our portfolio of acute care hospitals. We are at 70 percent of the goal six years in advance.

Facilities Resource Group is pursuing an aggressive goal of reducing acute care utility expenditures by 20 percent (approximately \$30 million per year) by the end of FY18. Ascension Health requires commissioning (for new construction) and retro-commissioning (for existing buildings), which is a quality-control process to optimize the operations and maintenance of heating, ventilation and air conditioning (HVAC) systems. Retro-commissioning targets "low-hanging fruit" and usually delivers less than a one-year simple payback. Of the dozen facilities

retro-commissioned in FY14, most have seen 15–20 percent utility savings at a comparatively low cost. Sacred Heart Hospital on the Gulf (Port St. Joe, Florida) achieved over 30 percent savings with a four-month payback.

Other savings may be gained by deeper capital investments in state-of-the-art building control systems and installing newer, higher efficiency equipment. These improvements allow precise regulation of temperature and airflow as well as the capability to turn some systems off during unoccupied hours while still ensuring comfortable conditions as occupants arrive.

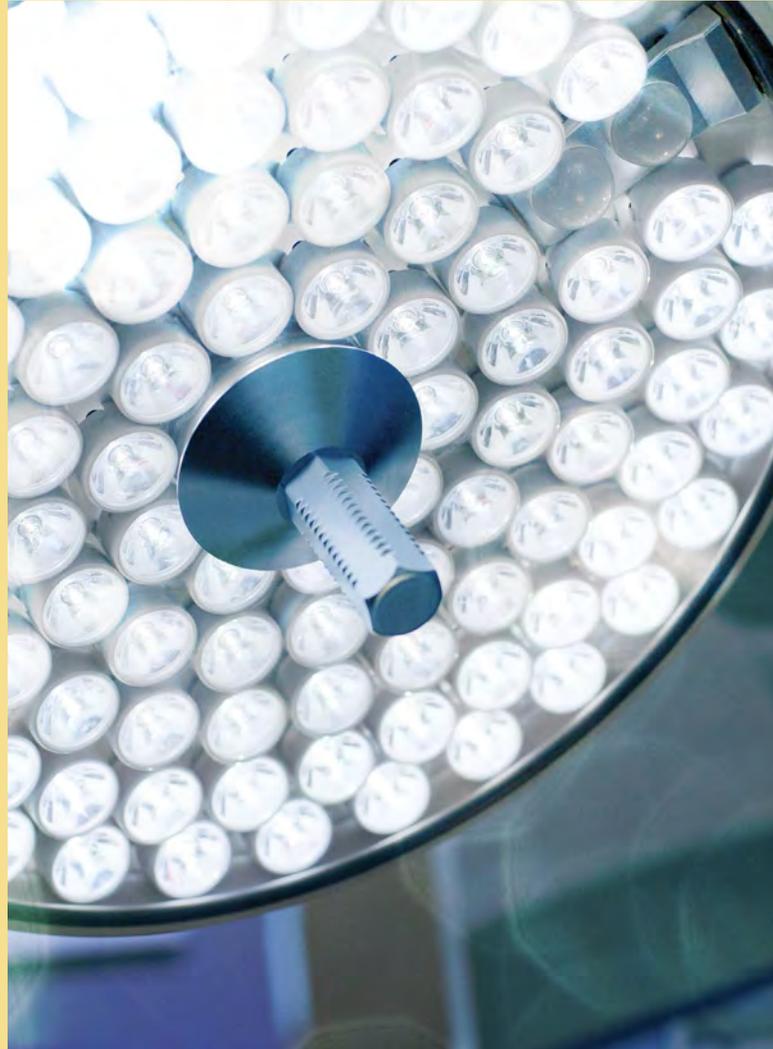
A common barrier to improving infrastructure in healthcare facilities is a lack of dedicated capital for replacement, renewal and improvement of existing equipment and other building components. In the competition for capital dollars, plant equipment, roofs and windows are often unfunded. Recognizing this, Ascension Health created the Facilities Infrastructure

THREE

Energy Efficiency

Pool (FIP) in 2010 to address the growing need for improving facilities operations and conditions. Since its inception, FIP has allocated over \$218 million for these projects. Requests are reviewed and prioritized using a matrix of key factors such as life safety, equipment obsolescence and energy efficiency. FIP has funded projects as diverse as a complete reworking of the essential power system at St. Vincent's in Birmingham, Alabama; a new chiller plant at Providence Hospital in Mobile, Alabama; and simple fire pump and medical vacuum system replacements across the System. Each project is designed to comply with Ascension standards for life safety, reliability and energy efficiency.

In FY 14, 20 percent of Ascension Health hospitals reported leveraging capital dollars by capturing energy conservation rebates from local utilities to pay for retro-commissioning fees, LED lighting retrofits, chiller and cooling tower replacements and photovoltaic renewable energy installations.



Left: An energy saving LED surgical light

Upper Right: A boiler burner retrofit project to improve energy efficiency at St.Vincent Indianapolis Hospital, Indianapolis

Lower Right: Mechanical room, courtesy of ccrd Engineering

THREE

Energy Efficiency

“Ministry Health Care, under Ascension’s Environmental Stewardship Program, has carried out numerous improvements incorporating our value of stewardship and desire for sustainable development. We’ve benchmarked our entire portfolio of hospitals and determined measures to close the gaps between low performance and Energy Star status while setting specific reduction targets at sites like St. Elizabeth Hospital, which aims to decrease energy usage by 30 percent through the deployment of energy conservation measures (ECMs). In addition, we thoroughly explored renewable energy for a patient bed tower and reviewed best practices within Ministry Health Care and at the Ascension System Green Team national level. We continue this effort of energy reduction without losing sight and delivering on our promise of Person-centered Care.”

Gary Kusnierz
VP, Performance Excellence
Ministry Health Care
Appleton, Wisconsin

Rooftop solar panel installation
at Dell Children’s Medical Center
of Central Texas, Austin Texas



FOUR

Water Conservation

Large U.S. hospitals consumed an estimated 133 billion gallons of water in 2007, totaling \$615 million in expenditures — about 43 million gallons and \$200,000 per building. Water conservation can help hospitals save operating costs and energy. Decreasing consumption also provides environmental benefits by decreasing the strain on municipal water supplies and reducing the energy needed to treat and deliver water. Hospitals using newer water technologies can also reap clinical benefits, such as better infection prevention that comes with faucets that reduce splashing in hand-washing stations. Hospitals rely on water quality and availability to protect patient health, and should prioritize these needs while reducing wasteful or unnecessary water consumption.¹¹

Beginning in FY14, water and sewer use and cost will be tracked automatically in ENERGY STAR Portfolio Manager at all Ascension Health acute care hospitals through an engagement with Schneider Electric and Cass Information Systems. This will allow data to

be tracked accurately and consistently with the ability to retrieve up-to-date reports. For the first time, we will have the ability to compare water costs and usage across all facilities in order to evaluate comparative rates and efficiency.

Ascension Health hospitals have employed many practical and innovative water conservation projects, including:

Fixtures: Hands free and low-flow faucets, low-flow showers and toilets

Maintenance: Water leak testing and inspection

Kitchens: Air cooled ice makers, water efficient kitchen equipment retrofits and new equipment purchases

Hospital Equipment: Water efficient sterilizer retrofits and new equipment purchases

Landscaping and Building Exteriors: Weather-controlled irrigation systems, low-water

landscaping, soil-moisture irrigation sensors, rainwater catchment systems including rain barrels, bioswales (landscape elements designed to remove silt and pollution from surface runoff water) and water retention ponds, rain gardens and permeable paving to allow rainwater to return to ground

Graywater and Municipal Reclaimed Water Systems: Recycling graywater (wastewater generated from handwash basins, showers, baths and clothes-washing equipment drains) for uses such as landscape irrigation and constructed wetlands; offering reclaimed and recycled wastewater to municipalities for industrial uses such as cooling towers



FIVE

Waste Management & Reduction

Medical Device Reprocessing

Ascension began working with Stryker Sustainability Solutions in June 2013 to reprocess medical devices. Reprocessing is a process regulated by the U.S. Food and Drug Administration (FDA) that renders patient-ready a used, reusable or single-use device (SUD) or an unused product that has been opened. A reprocessed SUD is an original device that has been cleaned, sterilized, recalibrated and remanufactured for use on other patients.

A Stryker medical device reprocessing report covering July 2013 through January 2014 documents \$2.2 million in savings and 94 tons of total waste reduction, representing 26 percent to goal for device cost and waste savings across Ascension Health hospitals. This demonstrates the tremendous potential for additional financial savings and landfill diversion in this program alone, and can be the impetus for all hospitals and Health Ministries to employ medical device reprocessing. As Scott Caldwell, CEO of The Resource Group, states in promoting the reprocessing program, "We are stewards of all God's resources, not just those that are financial in nature."



FIVE

Waste Management & Reduction



Comprehensive Waste Management

In FY14, Ascension engaged Stericycle to manage five categories of waste in the Integrated Waste Stream Services (IWSS) engagement:

- Solid Waste (trash)
- Recycling, with many subcategories including composting, single stream recycling where available, reusable sharps containers and reprocessed medical devices
- Regulated Medical Waste, or red bag waste
- Hazardous Waste, which includes chemotherapy waste
- Pharmaceutical Waste

As part of the IWSS program, goals in waste management and reduction are:

- Keep trash out of landfill via the Four R's (Reduce, Reuse, Repurpose, Recycle)
 - Reduce trash at the source by asking vendors to minimize packaging and create products from materials that can be recycled. Avoid the use of Styrofoam and polystyrene in products and packaging as it is not commonly recycled.
 - Donate medical supplies, medical equipment, furniture and construction materials rather than disposing of those items.
 - Employ single stream recycling programs for office waste and construction materials to minimize the need for

separate dumpsters and compactors on the hospital loading dock.

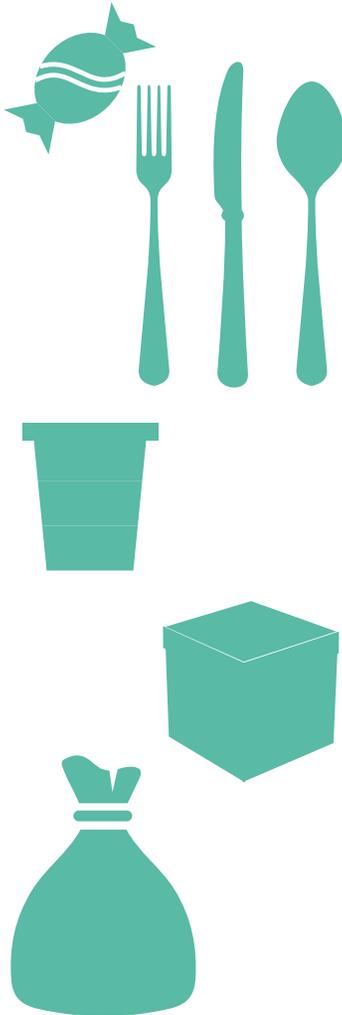
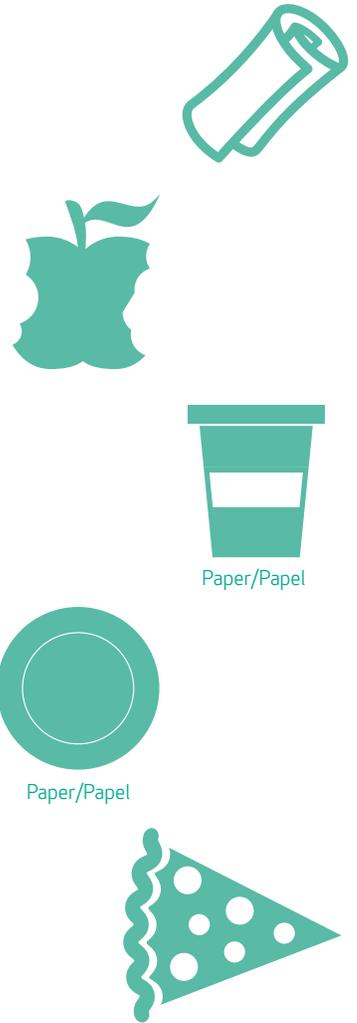
- Initiate composting programs where local vendors are available to turn food waste into mulch off-site, thus turning what would be trash into a useful product.
- Sell items that have value such as cardboard, metal, precious metal from medical equipment and silver from x-rays.
- Safely dispose of items in the less expensive categories of solid waste and recycling instead of Regulated Medical Waste.
- Train clinical and environmental services staff to comply with OSHA and regional regulations for waste management.
- Track volumes and costs to manage waste programs effectively.

FIVE

Waste Management & Reduction

Recycling

- Seton Healthcare Family implemented a comprehensive recycling program including live educational sessions, electronic educational announcements and container deployment at eight facilities in April 2014 to comply with the City of Austin Universal Recycling Ordinance.
- Ascension joined the Healthcare Facility Advisory Board of the Healthcare Plastics Recycling Council in order to help medical plastics manufacturers understand the hospital perspective on issues around recycling in acute care hospitals.

 TRASH/BASURA	 RECYCLING/RECICLAJE	 COMPOST/ABONO
	 <p>#1-7♻️</p> <p>Empty before recycling. Vaciar antes de reciclar.</p>   <p>Non-confidential only Solamente no-confidencial</p>	 <p>Paper/Papel</p> <p>Paper/Papel</p>
 Seton Healthcare Family	Creating a Healthy Environment	Creando un Ambiente Saludable

FIVE

Waste Management & Reduction

“The Environmental Stewardship Program provides a tremendous amount of information and support to Ascension Health hospitals through the webinars, monthly meetings, conferences, and the website containing all of our data.

One of the directives given to Ascension Environmental Stewards is to reduce the amount of waste produced by our hospitals. Without changing any processes, the first step is to identify what wastes hospitals generate and identify differing disposal methods. By working with the members of the Environmental Stewardship Program, I was able to identify different practices that worked well with my hospital and my limited resources. This included working with vendors and charities to take patient and waiting room furniture as it

was replaced, at no cost to either party; developing a cardboard program that generates revenue; working with facilities to segregate and sell scrap metals; as well as composting from the cafeteria and patient rooms. By separating out heavy, non-hazardous and useful items from our waste stream, we reduced our disposal costs, developed a revenue stream and helped our local community.

The support and information I receive from my fellow stewards through this program has been instrumental. The Environmental Stewardship Program has helped identify vendors such as Stryker to assist with the Greening of our OR initiative. Stryker takes our used Single Use Medical Devices and reprocesses them for resale. Not only does this help the environment by reducing Regulated Medical Waste slated

for incineration, but it reduces our cost as well. Regulated Medical Waste is one of the most expensive waste streams we have. Stericycle, another vendor operating in conjunction with the Environmental Stewardship Program, has come on board with a HealthCare Waste management format and has provided great assistance with establishing a very effective pharmaceutical waste program. Our goal is to keep what doesn't belong in expensive waste streams out, such as cardboard boxes and glass vials found in the pharmaceutical waste collection boxes.”

Dr. Juliet Berling
Director of Green Initiatives
Lourdes Hospital
Binghamton, New York



SIX

Food Systems

TouchPoint is engaged to provide food service to all Ascension Health hospitals, including patient food and cafeteria food. The Environmental Stewardship Program and the System Green Team are working actively with The Resource Group and TouchPoint to explore opportunities that will provide Triple Bottom Line benefits to patients, visitors, staff and the communities in which our hospitals are located. Those initiatives include the following:

- Training in food preparation techniques such as TrimTrak methods to prepare food efficiently and minimize waste.
- Working with a consortium of the Healthier Hospitals Initiative, Practice Greenhealth, Health Care Without Harm, major food suppliers and several health systems to reduce the use of non-therapeutic antibiotics in poultry, beef and pork, and to eliminate the use of rBGH growth hormones in dairy products.
- Composting to reduce solid waste volumes and costs, keep trash out of landfills and to create green jobs by producing a useful product from what would otherwise be trash.
- Reducing the use of Styrofoam and polystyrene in food service.
- Renovating cafeterias based on the TouchPoint Balance Kitchen concept introduced at Saint Thomas West in Nashville and planned for 20 Ascension Health hospitals.

SEVEN

Sustainable Site & Transportation

Several Ascension Health facilities have used the Leadership in Energy and Environmental Design (LEED) certification process on new construction and addition projects.

- Dell Children's Medical Center of Central Texas (Austin) was the first hospital to achieve LEED Platinum with the original building in 2009 and also was the first LEED for Healthcare Platinum project with the third Bed Tower addition in 2013. Dell Children's occupies a former airport site and is connected to an innovative combined heating and cooling plant that serves the entire district.
- Seton Medical Center at the University of Texas (Austin), St. Vincent Fishers Hospital (Indianapolis) and St. Elizabeth Hospital (Appleton, Wisconsin) are registered for certification under LEED BD+C: Healthcare v3 - 2009. In addition, St. Vincent Fishers achieved an ENERGY STAR rating of 85.

The Borgess Health Park Battle Creek ambulatory care facility, opened in July 2014, was designed and constructed using as many sustainable and energy-efficient elements as possible, although the team did not pursue LEED certification. Retention ponds hold snowmelt and rainwater on-site and naturally filter the water through limestone before being discharged into waterways. Beautiful native plantings will

require minimal irrigation, fertilizer, herbicides or pesticides. Interior spaces are designed to include abundant daylight and natural interior finishes such as walnut stair treads, limestone and glass tiles. All of the interior and exterior lighting is LED. The project incorporated electric vehicle charging stations, bike racks and multiple energy efficiency features. The project was presented at the Michigan Hospital Association/Michigan Department of Natural Resources conference to share the project success story with a broad audience.

Green buildings easily demonstrate Triple Bottom Line benefits:

Environmental: Energy- and water-efficient buildings have a reduced environmental impact.

Social: Many innovative and high-paying jobs have been created through renewable energy technologies such as solar, wind and geothermal, including many new products and services developed specifically for green construction.

Financial: An energy- and water-efficient building will reduce operating costs for the life of the building, freeing up money to be spent on the core mission of healthcare services.

SEVEN

Sustainable Site & Transportation

“The Ascension Environmental Stewardship Program provides a foundation and a framework for applying the principles of environmental sustainability and stewardship to the delivery of healthcare. As Seton’s Manager of Environmental Stewardship, I believe the purpose of this program is to advance the integration of sustainability as a philosophy into the operations of our health ministry. The program performs several critical functions. It establishes a language with which to educate associates, patients and our communities. It identifies areas of focus and specifies indicators. It provides metrics for tracking indicators and tools for goal setting and reporting to measure progress. It references best practices and proven standards from respected sources.

And finally, it vertically and horizontally unifies and aggregates efforts across departments and divisions.

The Sustainable Sites and Transportation category directs our design and construction efforts toward integrated environmentally responsible practices and standards. We apply these to new and renovated facilities, and we see real results like energy and water savings which reduce operational costs. These practices and standards improve the patient and visitor experience by improving the quality of the hospital interiors. Healthy, non-toxic materials and green cleaning procedures improve indoor air quality. Environmentally responsible operations and maintenance practices reduce the

use of precious resources (energy, water and funding). Alternative transportation infrastructure like electric vehicle charging stations and preferred parking for low-emitting vehicles demonstrates to our community that we prioritize and promote environmental stewardship. These efforts not only minimize negative environmental impact, but they contribute positively to our health ministry’s bottom line and to the experience of our patients and associates.”

Michele Van Hyfte
AIA LEED AP BD+C, Manager
Seton Healthcare Family
Austin, Texas

EIGHT

Chemical Management



It is impossible to live in today's world without being exposed to countless chemicals. Healthcare professionals, particularly nurses, are at increased risk for chemical and pharmaceutical exposure and so are patients. Reducing exposures is an important step as the healthcare sector fulfills its oath to "first do no harm."

Reducing the risk of chemical exposure is not an easy task and must be addressed at a number of levels. The healthcare sector recognizes the need to enact comprehensive chemical exposure policies. Health Care Without Harm, for example, has developed a number of materials to help hospital staff choose safer products and chemical alternatives. Chemicals can: mimic or block hormones, disrupt normal signaling pathways, interact with gene expression or interfere with sensitive periods of fetal development.

The chemicals listed below are identified specifically because they are emerging or known chemicals of concern, are known to be used in the healthcare setting, and have been associated with certain diseases, the incidences of which are on the rise.¹²

- Bisphenol A (BPA)
- Mercury
- Perfluorinated compounds
- Phthalates
- Polybrominated diphenyl ethers
- Triclosan

In the area of chemical management, Ascension Health hospitals have adopted the following practices:

- Virtually all hospitals have eliminated the use of Mercury, Ethylene Oxide (EtO) and Glutaraldehyde.
- Thirty-one percent have green cleaning plans that minimize chemical use and that use certified green cleaning products such as Green Seal, EcoLogo, and EPA Design for the Environment. Ascension Health is working with TouchPoint to employ best practices systemwide such as non-chemical wax stripping methods and microfiber mopping programs that require less water and cleaning chemicals and can help infection control.
- Thirty-five percent of hospitals reporting have reduced the use of chemical pesticides, herbicides and pest management; 37 percent use an Integrated Pest Management (IPM) program and several use on demand (rather than scheduled), non-chemical and organic pest management methods.
- Heat and preventive canine detection methods are used for bed bug treatment instead of chemicals at Borgess Medical Center in Kalamazoo, Michigan.

NINE

Environmentally Preferable Purchasing

Hospitals spend billions of dollars per year on products and services including medical equipment, food, cleaning services, waste management, office supplies, furnishings and construction materials, to name just a few. There is tremendous opportunity to use healthcare's purchasing volume to persuade suppliers to be more green with the products and services they offer. The goal is to purchase products that are durable, efficient and cost effective, while reducing the hospital's environmental impact.

Products

What products do we buy? Work with suppliers to eliminate chemicals of concern such as BPA and PVC in medical products. Work with food suppliers to reduce the use of antibiotics in meat and growth hormones in dairy.

Packaging

How are items packaged? Ask for packaging to be minimized.

Encourage innovation to reduce the use of plastics such as Styrofoam and polystyrene that are not recycled today.

Delivery

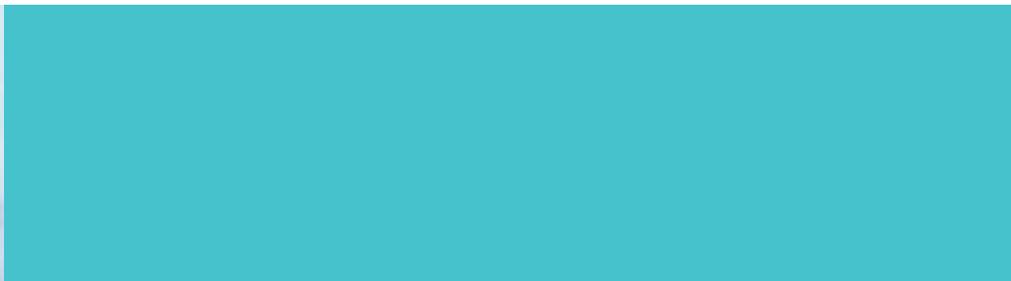
How are the products shipped? Suppliers can use electric vehicles, biofuels, propane and other alternative fuels, as well as EPA's Smartway transportation guidance to determine fuel efficient shipping methods.

Useful Life

Understand how products are used in a healthcare facility, including total cost of ownership and maintenance.

Disposal

When purchasing products, we have an obligation to understand how we will dispose of them. This issue also ties directly to Waste Management and Reduction.





NINE

Environmentally Preferable Purchasing

The Environmental Stewardship Program is partnering with The Resource Group to advance best practices in:

Battery Recycling	Call2Recycle
Computer Recycling	Dell, Cloud Blue
Confidential Paper Recycling	Cintas
Energy Procurement and Management	Schneider Electric, Cass Information Systems
Environmental Services	TouchPoint
Food Services	TouchPoint
Managed Print Services	Ricoh
Medical Device Reprocessing	Stryker
Office and Clinical Furniture	Steelcase
Office Supplies	Staples
Waste Management	Stericycle IWSS

Future Plans

This report has summarized significant accomplishments made by Ascension's Health Ministries. We applaud their efforts but more importantly we draw inspiration from them. Imagine what can be accomplished in the near future and for generations to come if we were to apply lessons learned across the entire Ascension organization.

The U.S. Conference of Catholic Bishops identifies Care for God's Creation as one of the seven themes of Catholic Social Teaching and states, "...we show our respect for the Creator by our stewardship of creation." ¹³

Investment in this program creates three areas of benefit for Ascension:

- The Environmental Stewardship Program directly serves our Mission because care for the environment often has the

greatest effect on people who are poor and vulnerable. The program improves the Ascension reputation and serves Corporate Social Responsibility as well as Community Benefit. It aids in employee recruitment and retention as prospective employees consider a company's environmental practices when choosing where to invest their career.

- Environmental stewardship activities have a direct impact on health outcomes for patients and the associates, visitors, and communities in which we are located.
- Sustainability programs save money and create value. Cost avoidance has been documented in the energy efficiency, waste management and reduction, and medical device reprocessing programs — three initiatives currently tracked in the Environmental Stewardship Program.



Future Plans

Facilities Resource Group would like to work with leaders and associates to move the program to the next level. The American Society for Healthcare Engineering has identified Steps to Environmental Sustainability:¹⁴

1. Make the commitment
2. Create a structure for supporting environmental sustainability
3. Support and finance environmental sustainability
4. Set goals and measure, report and evaluate change

5. Celebrate and share successes

6. Continue to assess and identify new opportunities

The Ascension Environmental Stewardship Program can become a leader in healthcare sustainability by providing a framework for hospitals and Health Ministries to demonstrate cost savings, reduce the carbon footprint of the organization and improve health outcomes for patients.

The compelling reason to do so is to implement the Catholic Social Teaching directives to care for the earth and serve

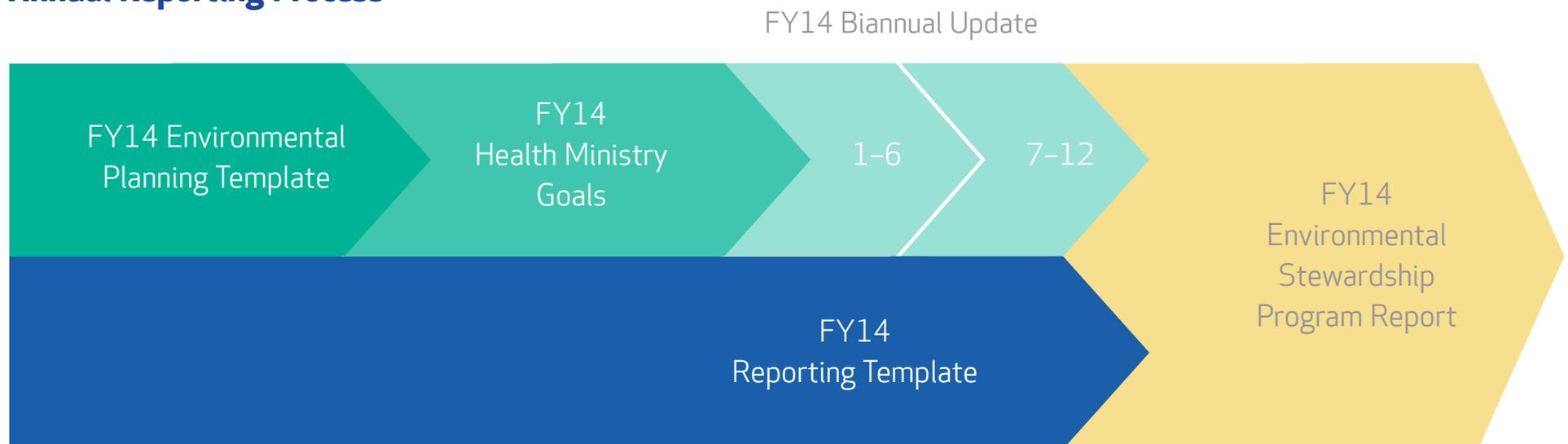
all persons with special attention to those who are poor and vulnerable. Stepping up to leadership in this area will benefit Catholic healthcare, demonstrate the Triple Bottom Line of ecological, social and financial benefits, and help to achieve the Triple Aim to provide better patient care, improve population health and reduce per capita cost.

How to Participate

Ascension is calling on you! The Environmental Stewardship Program is both a top-down and a bottom-up initiative. At the top of the organization, the program has executive endorsement and follows the Ascension Health Strategic Direction's Enabling Strength of Vital Presence. Ascension's System Office (St. Louis) demonstrates leadership by providing a staff position to manage the program, as well as participating in several healthcare and sustainability organizations with national memberships and board participation.

Each Health Ministry participates in the program by setting goals, with flexibility in selecting which of the nine reporting categories to emphasize. Goals in Energy Efficiency, Water Conservation and Education and Communication categories are required, as well as a fourth goal from any category. Each hospital completes an annual report documenting sustainability practices from the previous year. The annual reporting process is illustrated below:

Annual Reporting Process



How to Participate

Associates who care about our planet and believe in stewarding our resources make it easier to start a Green Team than you might think. Here are a few tips from Green Team leaders around Ascension:

- Seek out collaborators, considering Environmental Services (EVS), Facilities, Safety, Security, Property Management and Marketing.
- Identify a broad cross-section of associates for your team.
- Develop a statement of mission and vision; add goals, targets and guidelines while allowing flexibility; consider writing a formal charter for use in requesting empowerment.
- Identify an executive sponsor, establish priorities, formalize layers of communication, create a location for storing information about your efforts and obtain approval of a calendar of green events.
- Consider making the Green Team a part of an established effort, such as Environment of Care or Occupational Safety groups, for better reporting structure and visibility.

SUPPORT IS AVAILABLE
To learn what your department, hospital or Health Ministry is already doing, visit the [Environmental Stewardship Program Communities page](#)

How to Participate

For help starting a new Green Team, contact Lois Sechrist, Senior Analyst, Facilities Resource Group, Ascension, at Lois.Sechrist@ascensionhealth.org or 314.733.8071.

TALK TO GREEN TEAM MEMBERS FOR INSPIRATION

To find out what your colleagues are doing, contact a member of the System Green Team, made up of representatives from each Ministry Market and key departments from the System Office. The members provide leadership for the Environmental Stewardship Program across Ascension. Each Health Ministry is then asked to identify a leadership structure at the local level to implement the program.

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How to Participate

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