



# SUSTAINABILITY

at The Ohio State University Wexner Medical Center



**THE OHIO STATE UNIVERSITY**

WEXNER MEDICAL CENTER





Dear Ohio State community and partners,

The Ohio State University Wexner Medical Center is committed to being a responsible steward of our resources through efficient operations, innovative research and ideas, and to “first, do no harm.” Great health starts with a healthy environment, which is why the well-being of our patients, employees and community members inspires us to work harder. From waste to energy to the food we serve, we have a responsibility to demonstrate health in our operations.

This sustainability accomplishments report highlights the progress of environmental initiatives at the medical center and shows how this work aligns with our Strategic Plan and The Ohio State University’s resource stewardship goals. Fiscal year 2020 was unlike any other, as COVID-19 swept the globe and our community, but the Buckeye Spirit continues to inspire us to discover new, innovative solutions, even in the face of a global pandemic. We acknowledge and applaud the contributions of so many individuals across all levels of our organization — staff, faculty and students — who have improved the health of our community while reducing our environmental impact, leading up to and throughout this pandemic.

As one of America’s top-ranked academic health centers, our mission is to improve people’s lives in Ohio and across the world through innovation in research, education and patient care. We must lead by example with sustainability and our environment at the forefront. The health care delivery model is shifting to a population health approach and our approach to operations is following suit. Just as preventive medicine can save money and improve overall health, sustainable operations often save money and improve the health of our community.

Sincerely,

**Frank Aucremanne, PE, MSCE, CHFM**

Associate Vice President of Space and Facility Planning, The Ohio State University Wexner Medical Center

**David P. McQuaid, RPh, MBA, FACHE**

Chief Operating Officer, The Ohio State University Wexner Medical Center;  
Chief Executive Officer, The Ohio State University Health System

# Sustainability Goals

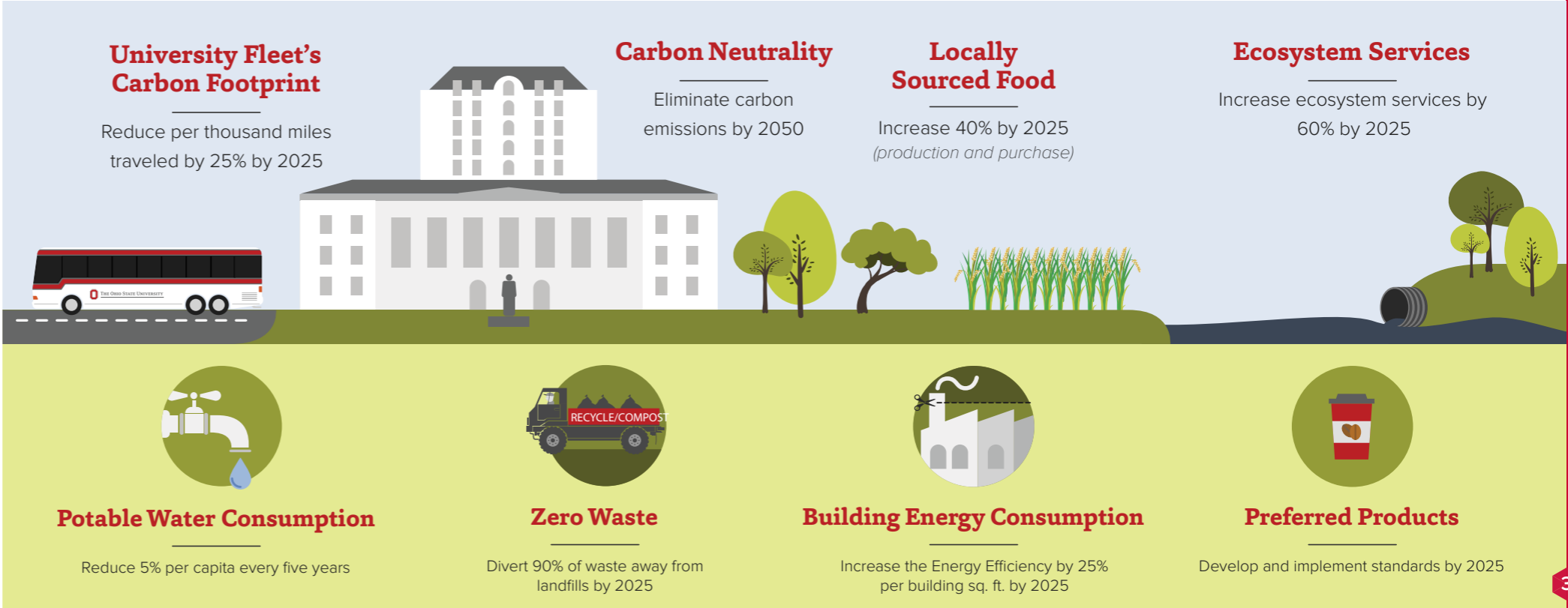


All of our sustainability efforts align with our Strategic Plan and The Ohio State University's resource stewardship goals. The progress of sustainability initiatives at the medical center is extraordinary, in part because of our ambitious long-term goals and the considerable targets we must meet along the way.

## SUSTAINABILITY



### Resource Stewardship Goals



# Awards, Recognition and Leadership



The Ohio State University is the third-largest university in the country, with both a major health system and seven health sciences colleges all located on one campus. This allows us to leverage the resources across our system and integrate them with sustainability efforts. The Ohio State University Wexner Medical Center is committed to sustainable practices and sharing best practices with other institutions to advance sustainability initiatives across the nation. The medical center's commitment and successful integration of sustainability practices have been recognized locally and nationally by:

- [Practice Greenhealth's](#) Emerald Environmental Excellence and Climate Circles of Excellence awards
- [Ohio Hospital Association's John Chapman](#) and [Melvin Creeley awards](#)
- [Ohio EPA's Encouraging Environmental Excellence \(E3\) Achievement Award](#)
- Arbor Day [Tree Campus Healthcare](#) Recognition
- Participation in leadership groups such as:
  - o [Vizient Environmental Leadership Council](#)
  - o [Healthcare Plastics Recycling Council Advisory Board](#)
  - o [Ohio Hospital Association's Environmental Leadership Council](#)
  - o American Society for Health Care Engineering (ASHE) Sustainability Taskforce



## SUSTAINABILITY PROGRAM:

# Waste



Hospitals produce an average of 29 pounds of waste per patient stay. Health care's complex waste stream is also expensive, with regulated medical waste costing 10 times as much as solid waste. The medical center is committed to first preventing waste upstream and managing it appropriately through landfill diversion, recycling, composting and ensuring that items end up in the correct waste stream.

- We increased the diversion rate to **33%** with efforts such as recycling expansion to all buildings, education through digital signage and posters, and zero-waste orientation sessions.
- Since 2014, we have reduced printing by **21%**, which has resulted in approximately **\$200,000** in savings annually.
- During COVID-19, the medical center collaborated with Battelle, a Columbus-based nonprofit research institute, on N95 mask collection and re-sterilization to preserve nearly **22,000 masks**, reduce waste and protect PPE.





## SUSTAINABILITY PROGRAM:

# Energy



Hospitals use about 2½ times more energy per square foot than an office building of the same size. From research, we know that emissions from fossil fuels are linked to a multitude of health conditions — which is why the Ohio State Wexner Medical Center is working to improve energy efficiency and transition to more renewable energy sources.

- In partnership with the Ohio State Energy Partners, we completed investment grade audits for multiple buildings and as a result are implementing energy reduction projects.
- We source **16%** renewable electricity locally from Blue Creek Wind Farm.
- Our Information Technology team's data center projects have reduced power usage by **32%**.

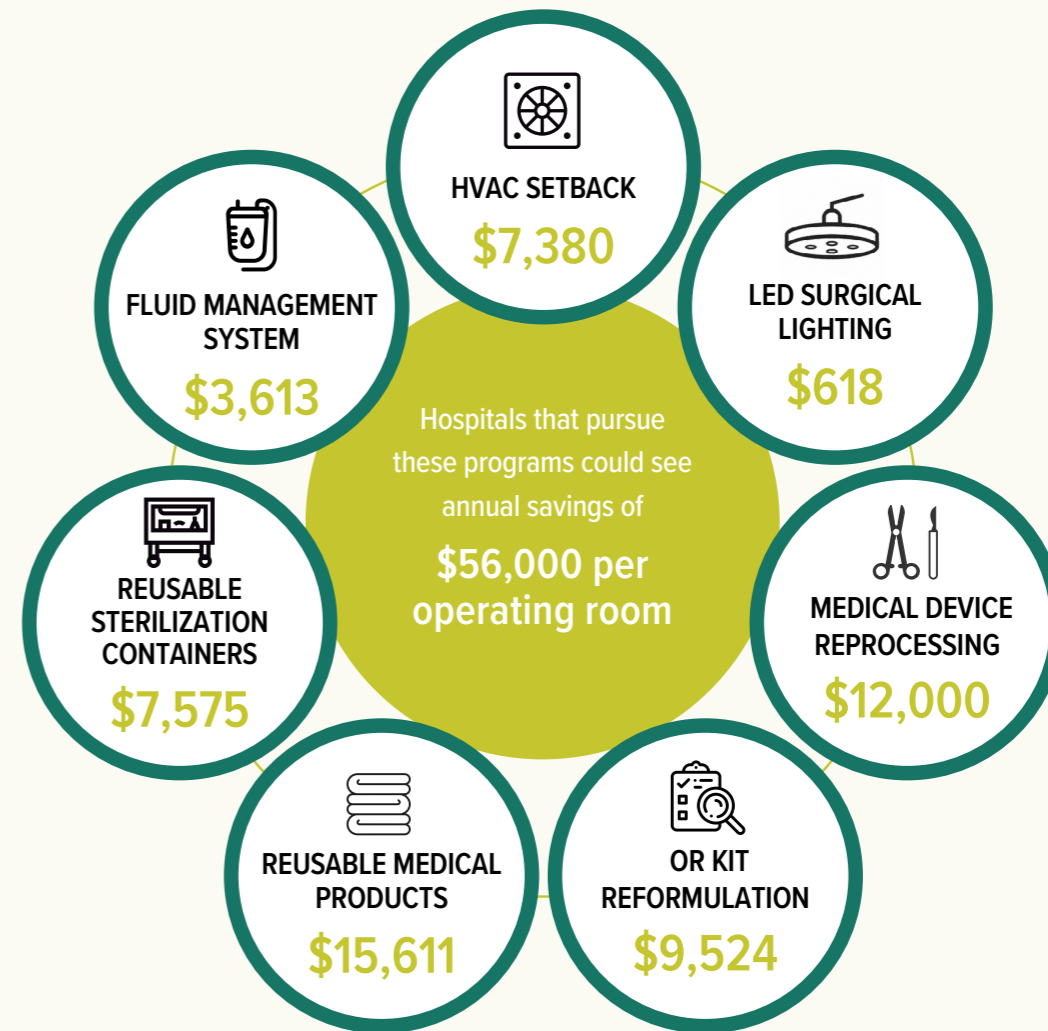
## SUSTAINABILITY PROGRAM:

# Greening the OR



On average, operating rooms drive up to 60% of a hospital's revenue while producing more than 30% of a facility's waste and two-thirds of its [regulated medical waste](#), and consuming nearly three to six times more energy per square foot than anywhere else in the facility. The Ohio State Wexner Medical Center formed a Greening the OR task force to look at best practices and implement new procedures to improve efficiency and reduce waste.

- One goal of the task force was to lower the environmental impact of gases associated with anesthesia, with a special focus on reducing the use of the anesthetic desflurane, which has 10 times the global warming potential as sevoflurane, which is a similar alternative to desflurane. The task force achieved a **46% reduction** of desflurane across the health system, realizing nearly **\$185,000 in cost savings**.
- Collection of blue sterilization wrap (used to keep instruments sterile) at the Eye and Ear Institute and Jameson Crane Sports Medicine Institute resulted in more than **2,000 pounds** diverted from landfills.





**9+ years**  
of partnerships



**\$6.7M spend**  
2011-2019



**189K pounds**  
from the landfill  
2012 - 2019



**450K**  
of reprocessed  
devices

*Picture source: Stryker Sustainable Solutions*

SUSTAINABILITY PROGRAM:

# Sustainable Procurement



Hospitals purchase an enormous amount of goods and services, which presents an opportunity to make sustainable purchasing decisions that positively impact our community and the environment.

- Since 2011, we have diverted **nearly 100 tons** of single-use devices from the landfills through a reprocessed medical device program and saved **\$6.7 million**.
- The medical center developed sustainable procurement guidelines and integrated sustainability criteria into the request for proposal (RFP) scoring matrix.
- In fiscal year 2020, **75%** of the medical center's spending through its group purchasing organization, Vizient, had at least one environmental attribute, such as a product containing forest stewardship certified wood or a plastic that is recyclable.
- We achieved the goal of purchasing **more than 30%** of furnishings that meet the [Healthier Interiors](#) criteria through Practice Greenhealth.



# The James Cancer Hospital and Solove Research Institute



## SUSTAINABILITY PROGRAM:

# Food



Food is at the heart of the health of our patients and community. The medical center recognizes the impact of the food we purchase and serve our patients, faculty, staff and visitors. Further, we see food as another way we can keep our communities healthy.

- **In fiscal year 2020, 16%** of all food purchased by the medical center was sourced locally, thereby supporting local businesses and farmers.
- In fiscal year 2019, the medical center diverted 164 tons of pre-consumer food waste by using a digester (a machine that converts food to a liquid that drains to a wastewater line), donated 22.1 tons and composted 13.5 tons of pre-consumer food waste, which resulted in a total of **170** tons of food diverted from landfills.
- Nutrition Services and The James Mobile Education Kitchen responded to the needs of our community during COVID-19 and provided meals to more than **1,500** community members.

## SUSTAINABILITY PROGRAM:

# Employee Engagement, Education and Research



Employees who believe they have the opportunity to make a direct social and environmental impact through their job report higher satisfaction levels, according to a [Net Impact survey](#). Attracting and retaining the top talent in clinical care, research and education is a priority for the medical center. Acquiring top talent allows us to accelerate the pace of discovery, quickly translate research findings into treatments and prevention methods and ensure that we have well-trained and engaged health care providers in the years ahead.

- One way for faculty and staff to make a direct impact is through the Green Team, a group of volunteers who support sustainability initiatives throughout the organization. The Green Team was created in 2018 and now has more than **650 employees** eager to make a difference.
- Green Team members organize events and educational opportunities such as Earth Day Fairs, Take Back Days, educational webinars, grand rounds and film series.
- Over **40** departmental leaders participate in the Sustainability Council by leading sustainability initiatives within their respective departments and participating in monthly education and sharing calls.



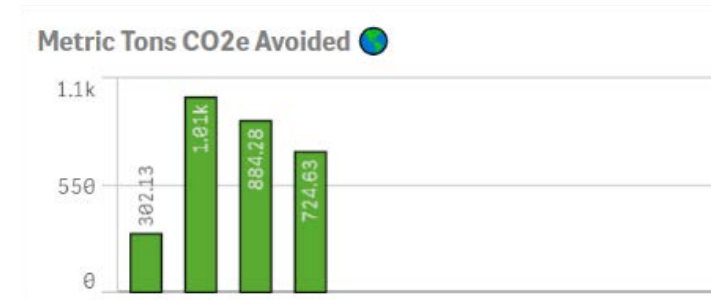
- In fiscal year 2020, new employees were introduced to sustainability through a new employee email and by participating in zero waste (diverting at least 90% of waste from the landfill) in-person orientation sessions.
- In collaboration with Ohio State's College of Engineering, the medical center's Ambulatory Surgical Services and the Greening the Operating Room Task Force initiated a research project to study the occupational exposure of anesthetic gases within the operating room and to analyze the environmental impacts of the most common gases. This groundbreaking work employs an innovative methodology not being used in any other operating room in the nation and won first place in the Advanced Health Systems Sciences Quality Improvement Poster Award.

# Transportation

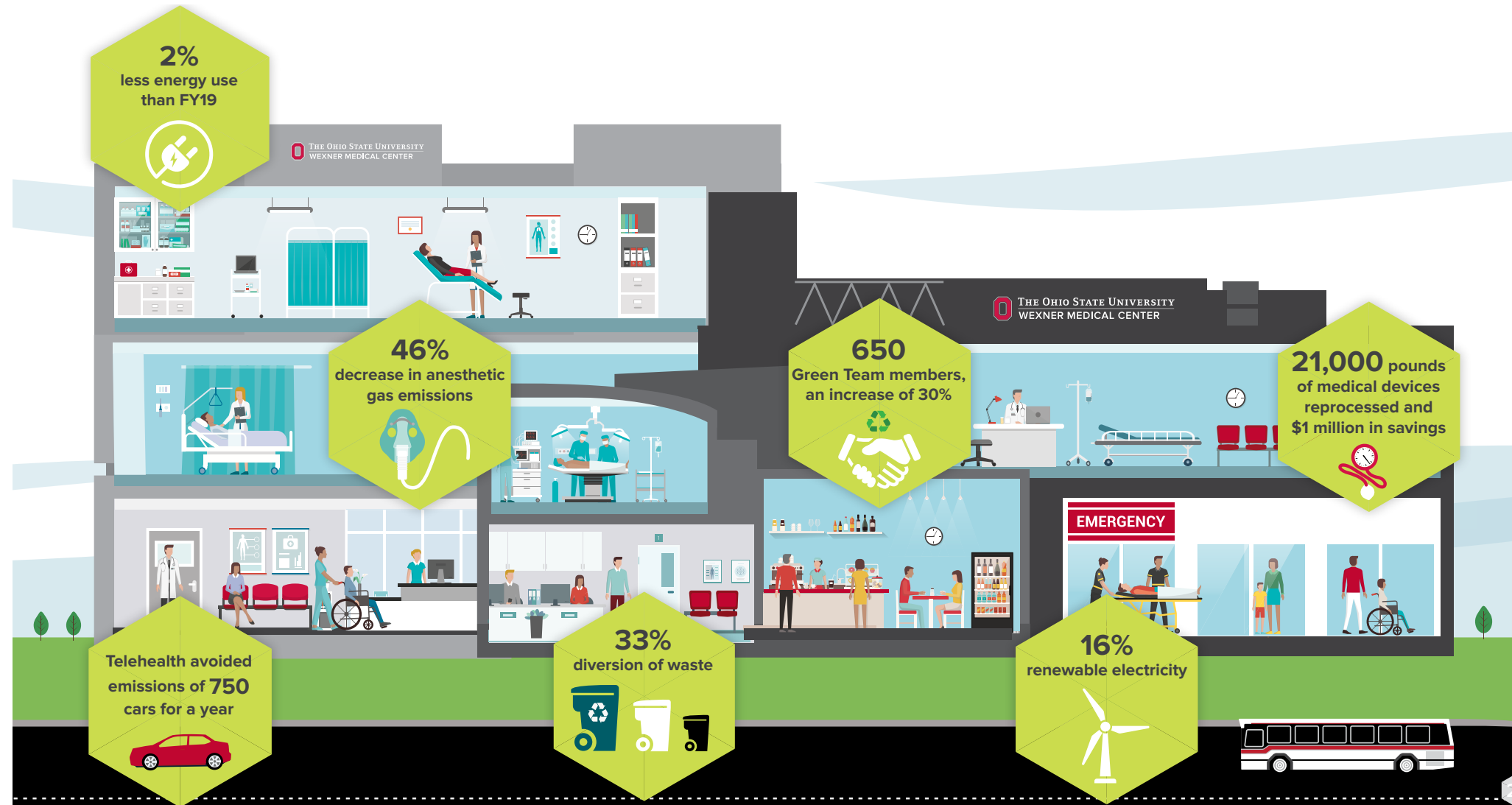


Transportation is the No. 1 contributor of the nation's greenhouse gas (GHG) emissions, according to the U.S. Energy Information Administration. As major employers with complex supply chain logistics, hospitals are well-positioned to reduce transportation GHGs by influencing employee commutes, transitioning to low- or zero-emission fleet vehicles and scrutinizing supply chain distribution practices.

- We saw an exponential increase of telehealth from 800 encounters in the first 9 months to 188,663 encounters in the last quarter. This saved our patients nearly 8.5 million miles driven, **400,000 gallons of gasoline**, and 2,917 metric tons of carbon dioxide — the equivalent of the energy required to power **683 homes** for one year!
- With many shared services employees working from home during the pandemic, the medical center saw a decrease in fuel usage for the shuttles of **42%** in the fourth quarter.



# FY20 Sustainability Results





**THE OHIO STATE UNIVERSITY**

WEXNER MEDICAL CENTER



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