HCA Healthcare’s Sustainability Report has been updated annually since 2012. The 2021 Sustainability Report includes the collective impact made in 2020 along with plans for the upcoming year.
Purpose

HCA Healthcare seeks to protect and preserve the environment through a broad range of practices memorialized in our Sustainability Report.

Overall Policy

HCA Healthcare is a responsible and concerned citizen of all communities where it operates and is driven by our mission statement: Above all else, we are committed to the care and improvement of human life.

- Encourage the recycling of materials where recycling is commercially practical and the minimization, consistent with the law, of waste streams which require additional processing.
- Facilities will consider the effect on the indoor environment before introducing a new product into the facility.
- Encourage the continued reduction of energy usage throughout its facilities.
- Evaluate, and where appropriate, incorporate environmentally-preferable alternatives when designing new construction and major renovations.
HCA Healthcare is also an active member of Practice Greenhealth (PGH), the nation’s leading membership and networking organization for healthcare institutions, and is committed to implementing sustainable, eco-friendly practices. As a PGH member, HCA Healthcare seeks to:

- Achieve virtual elimination of mercury in its facilities.
- Reduce the quantity and toxicity of healthcare waste – from manufacturing, purchase and use of products and materials, to improved end-of-life management.
- Minimize the use and exposure to hazardous chemicals, including persistent, bio-accumulative and toxic (PBT) substances.
- Reduce healthcare’s environmental footprint through resource conservation and other measurable environmental improvements.
- Integrate sustainable design and building techniques with environmentally-sound operational practices to create true healing environments.

Organizational Structure

**Sustainability Steering Committee** – The Sustainability Steering Committee provides the overall guidance for HCA Healthcare’s sustainability program. The committee is chaired by the senior vice president and chief ethics and compliance officer, a member of the executive leadership team. The committee includes representatives from Operations; Quality; Finance; Engineering (Facilities Management and Engineering); Clinical Operations Group; HealthTrust (our group purchasing organization); Design and Construction; Public Relations; Human Resources; Diversity, Equity and Inclusion; the HCA Healthcare Foundation; and Risk and Insurance.

**Task forces** – Four task forces have been established to work on environmental issues with enterprise-wide application. The task forces are Waste Stream, chaired by Anna Ward, director of sustainability; Energy and Water chaired by Brian Weldy, VP of engineering; Construction and Major Renovation, chaired by Bryan Seely, AVP of design and construction; and Environmentally Preferable Purchasing, chaired by Domini Pelkey, director of supply expense management. These task forces identify and research ideas within their areas of responsibility.

**Sustainability coordinators** – Our program is supported by sustainability coordinators, who are expected to be appointed at all hospitals. They are responsible for the implementation of the program at their facilities. A job description to help the sustainability coordinators onboard to their role is available on our intranet.
We collaborate to raise the bar and improve sustainability across the healthcare sector.

HCA Healthcare is a member of PGH, a founder of HHI and a founding sponsor of the Greening the OR initiative.

Practice Greenhealth – HCA Healthcare and all facilities are members of Practice Greenhealth (PGH). As noted above, PGH is the nation’s leading membership and networking organization for healthcare institutions that are committed to implementing sustainable, eco-friendly practices. PGH provides webinars, checklists and other tools at no additional cost to its members.

Healthier Hospitals Initiative – HCA Healthcare is a founder of the Healthier Hospitals Initiative (HHI). In 2017, the three-year HHI initiative transitioned into Healthier Hospitals (HH), a free program of PGH. HH’s goals are the same as those under HHI— to use a coordinated approach to achieve sustainability throughout the healthcare sector, which will prevent environment-related illness, create extraordinary environmental benefits, and save billions of dollars in healthcare expenses. The basic tenets of the HH agenda are to improve environmental health and patient safety, reduce use of natural resources and generation of waste, and institutionalize sustainability and safety. HCA Healthcare has access to various sustainability tools from HH.

Greening the Operating Room – HCA Healthcare is a founding sponsor of the Greening the OR initiative. Greening the OR seeks to identify key interventions that can reduce waste, energy usage, worker exposure to hazardous chemicals and costs. This initiative is an attempt to collect data on these interventions and share them as a means to encourage widespread adoption across the healthcare sector. HCA Healthcare is the first health system to recommend that all of its hospitals commit to Greening the OR. We continue to support this program and are an active participant in the PGH Greening the OR cohort.

Climate Corps fellow – In 2019, in conjunction with the Environmental Defense Fund, HCA Healthcare sponsored its 10th consecutive Climate Corps fellow to work on energy-related matters. The graduate students worked on projects that were designed to save money and reduce resource usage. Lighting options, environmental attributes and purchasing, an energy performance improvement standard, food waste, efficiencies with regulated medical waste (RMW) management, and energy usage have been the focus of past projects. In 2020 and 2021, due to COVID-19, HCA Healthcare engaged with the Environmental Defense Fund Climate Corps program rather than hosting a fellow onsite, and supported efforts HCA Healthcare pioneered in food waste management, a topic impacting greenhouse gases (GHG).
Leadership and Communications

Caring like family in response to the COVID-19 pandemic.

We helped source critical PPE, N95 masks and FDA reprocessable devices – and shared our learnings with the healthcare industry to further support the needs of patients, clinicians, colleagues and communities.

Taking action and knowledge sharing – In response to the 2020 global COVID-19 pandemic and the needs of our colleagues in the healthcare community, the corporate sustainability program partnered with Clinical Operations Group, HealthTrust, and others in our organization and the industry. We aided in the unprecedented identification and management of personal protective equipment (PPE), N95 respirators, masks, and FDA reprocessable devices to help clinicians and those on the front lines as they care for patients and interact with families and other colleagues. We are honored to share our knowledge, experience and learnings with the healthcare industry for the benefit of patients, clinicians, colleagues and communities.

In 2020 and 2021, we continued our opioid capture and mitigation efforts with the Clinical Operations Group. We also supported our organization’s role in consumer drug take back days taking place at HCA Healthcare facilities in 18 states in 2020, and consumer drug take back days scheduled to take place in Q4 2021.

Recognitions and awards – Our HCA Healthcare hospitals have received 170 Practice Greenhealth (PGH) Environmental Excellence Awards. In 2020, 59 facilities received 60 PGH awards and in 2021, each of the 27 facilities that participated in the award process received a PGH award. In addition, the HCA Healthcare facilities winning the Making Medicine Mercury Free Award were 25 of the 27 winners in this category. Another nationally recognized award program is the Arbor Day Foundation’s Tree Campus Healthcare recognition. One HCA Healthcare hospital received this recognition in 2020 based on qualifying in 2019 as a Tree Campus Healthcare Location.

Strengthening environmental choices – HCA Healthcare continues to review products and environmental initiatives through the Environmentally Preferable Purchasing Task Force. In addition, through a strong partnership with HealthTrust, HCA Healthcare continues to be a leader in establishing uniform environmental attribute questions for contracts with healthcare entities. These standardized questions were published and disseminated industry-wide in conjunction with other healthcare entities and PGH. In 2020 and 2021, we continue to serve on HealthTrust’s Environmental Sustainability Council (ESC), which works at a national level with industry leaders and educates vendors about expectations related to environmental choices. In 2021, to represent the increased efforts that have taken place with environmental sustainability and supply chain, the group known as the Environmental Sustainability Network in previous years officially changed its structure and became the ESC. Our organization actively participates with HealthTrust in addressing the availability of local or sustainable foods through our participation in the ESC.

In 2021, 27 hospitals received national awards for their achievements in environmental sustainability.

Over the years, our hospitals have won 170 PGH awards.
Conferences and education – HCA Healthcare colleagues frequently present at sustainability conferences and create materials to support the healthcare sector. In 2019, an HCA Healthcare colleague presented at a supply management industry conference. Three other HCA Healthcare colleagues presented in 2019 at the national CleanMed conference. We also frequently provide documents for posting and sharing on the PGH website and as part of Healthier Hospitals. In 2020, momentum continued with planning presentations to support education efforts of conferences that were previously scheduled. In 2021, we presented sustainability and collaborating with the Supply Chain at the HealthTrust University Conference.

Through 2019, 10 college students have learned about environmental sustainability in healthcare through a summer program at our HCA Healthcare corporate offices in Nashville. The program’s framework remains in place and we anticipate working with college students again when this on-campus program resumes.

Intranet websites – All HCA Healthcare colleagues have access to two intranet websites related to the sustainability program. ECHO (Environmentally Conscious Healthcare Operations) contains an overview of sustainability activities and results for the organization. It also contains links to external resources. The PharmWaste intranet site contains tools and education on implementing an appropriate pharmaceutical waste disposal program at hospitals and other settings including surgery centers, physician practices and imaging centers.

Program and project communications – Sustainability coordinators periodically receive emails regarding programs or events. In addition, we created a library of more than 20 HCA Healthcare Webex resources for sustainability coordinators. HCAFi is an additional internal method of communication available to facilities and provides information on facility infrastructure and energy management.

Colleague and program communications – In 2020, articles featuring the sustainability program and contribution from our facility sustainability coordinators were published in various HCA Healthcare print mediums sent to our more than 275,000 colleagues, and also featured on HCA Healthcare social media channels. The communications showcased sustainability as a core part of our organization’s culture. In 2021, we continue to amplify the efforts of our sustainability program through stories highlighting our commitment to greening hospital practices, promoting conservation, decreasing waste and exercising environmentally conscious purchasing.
Data Collection Efforts

Carbon Reduction Commitment – The United Kingdom requires any company of HCA Healthcare’s size to calculate its energy usage, which is then translated into greenhouse gas equivalents. This effort has started for HCA Healthcare UK facilities and greenhouse gas information for energy used at the facilities (scope 1) and energy purchased by the facilities (scope 2).

Greenhouse gas data – Under consideration is the means and need to establish a methodology to identify and collect greenhouse gas information enterprise-wide for scopes 1 and 2. If this data is collected, the data would be published with year-to-year comparisons.

Waste stream data – Data on the various dispositions of solid waste is being collected for U.S. hospitals as part of the Integrated Waste Management contracts. In addition, construction debris data is being collected for new construction projects. As part of the HH Less Waste Challenge, the solid waste and construction debris data is shared with an external organization for the benefit of the healthcare sector. The most recent reporting of information for the Less Waste Challenge took place in 2021, reflective of the 2020 year. We also share data about reprocessed devices kept from landfills with the same organization.

Sustainability Task Forces

Four task forces identify and research opportunities and ideas.

The four task forces also collaborate on initiatives across our organization.

In 2020, 58.4 million pounds of materials were kept from being deposited into landfills due to HCA Healthcare’s waste stream, construction and reprocessing programs.
Waste Stream

As of 2021, 99 of our hospitals have been recognized with a PGH Making Medicine Mercury Free Environmental Excellence Award for their efforts.

Solutions for COVID-19 – As part of our response to the unprecedented COVID-19 pandemic we partnered with the Clinical Operations Group and the Supply Chain to identify solutions and to develop guidelines for managing the availability of personal protective equipment (PPE), N95 respirators and masks. We helped to ensure that PPE stayed in circulation, while reducing waste and saving materials. We also developed a common standard with our suppliers using packaging materials for these items that meets COVID-19 precautions, while still avoiding unnecessary waste.

Mercury reduction – Facilities have significantly reduced mercury-containing devices and, as of 2021, 99 hospitals have received awards for being virtually mercury-free. Waste contracts address the proper disposal of items, such as fluorescent bulbs. In 2019, two new organization policies were adopted and standards solidified; the policies also served to provide additional education on mercury reduction in 2020 and 2021.

Pharmaceutical waste disposition – Our organization’s pharmaceutical waste program is implemented in all clinical settings at our affiliates. The program addresses identification of the proper disposition of pharmaceutical waste through environmentally sustainable waste stream management in addition to regulations – there are specific rules on the disposal of regulated pharmaceutical wastes and best practices that discourage sewering for all others. Educational materials have been developed to assist hospitals, surgery centers, physician practices and other outpatient settings. The continuing education course for pharmaceutical waste, updated in 2020, includes an interprofessional focus for pharmacists and nurses.

Integrated waste management – The weight of various waste streams is tracked under this project. Training on proper disposal and recycling practices is also provided. In 2020, more than 34.5 million pounds of non-construction waste were recycled.

Rechargeable battery recycling – We use two programs that recycle rechargeable batteries - integrated waste management and a mail-back program. In 2020, more than 63 thousand pounds of rechargeable batteries were recycled through the programs rather than being landfilled.
Cardboard recycling – Most facilities recycle cardboard to some extent. The other facilities are encouraged to recycle cardboard and a checklist is available to explore the feasibility of doing so. In 2020, 10,800,907 pounds of corrugated cardboard were recycled through integrated waste management.

Polystyrene reduction/increased composting – In conjunction with the Environmentally Preferable Purchasing Task Force, alternatives to polystyrene for takeout food containers are being considered. The Waste Stream Task Force will work to identify alternative products, commercial composting off-site and on site, and where it makes sense – encourage local governments and vendors to participate in commercial composting.

Duplex printing – Printing on both sides of a sheet of paper has been implemented as a default printer option at HCA Healthcare’s corporate offices in Nashville. Printing in this manner cuts paper use by nearly 50%. The organization remains committed to working on identifying other opportunities to reduce paper use and increase duplex printing in non-clinical settings.

Integrated pest management – HCA Healthcare is the first health system to develop specifications designed to decrease the amount and toxicity of chemicals used to control pests. We developed these specifications in conjunction with a vendor and environmental services consultant. These specifications have been made available to other health systems and shared through the Practice Greenhealth website.

Energy and Water

Energy Services – Our organization’s Energy Services team monitors building systems for HCA Healthcare’s portfolio of facilities in order to identify building system optimization opportunities and alert facility managers to energy and cost-saving actions. In 2020, efforts began to isolate campus level utility data into building specific data to better understand where energy is being used and find targets for energy conservation measures. In 2020, a reduction of 11.7 million kWh from 2019 was achieved. In addition to building level utility monitoring, 85 facilities have real-time submetering on electric and mechanical systems and 120 hospitals have been upgraded with the new Building Automation System (BAS) software and hardware allowing the Energy Services team to remotely monitor and operate building systems.

In 2020, our energy operations center helped achieve energy reductions of about 11.7 million kWh from 2019.

In 2020, 34.5 million pounds of non-construction waste items were recycled from our hospitals.

This includes cardboard, aluminum, paper and batteries.
**Energy performance** – HCA Healthcare saw vast swings in building utilization due to COVID-19. Along with the variations in patient care, utility use fluctuated resulting in lower spend in 2020 that will likely return in 2021. In 2020, compared to 2019, electric use was reduced by 11,732,000 kWh. Natural gas consumption was flat across acute care facilities. Water consumption decreased by 185 million gallons. Due to the inconsistency in energy reduction from changes in building utilization, further savings numbers will be expressed as calculated values.

**LED retrofits** – In service to commitments to reduce energy use and removing mercury from our facilities, HCA Healthcare has started a long-term effort to replace fluorescent lighting in hospitals with higher efficiency, mercury-free LED lighting. In 2020, 63,000 fixtures were removed and safely discarded in a process that captures mercury vapor. The 19 hospitals that received LED retrofits in 2019 are expected to reduce electricity usage by 21.7 million kWh annually. HCA Healthcare continues to support this program in 2021 while looking for ways to expedite achieving replacement across the enterprise.

**Retro commissioning** – The Energy Services team utilizes remote capabilities from the upgraded building automation system software to help facilities find faulty equipment that creates energy inefficiencies and to proactively modernize equipment operation through programming changes. In 2020 efforts began to update air handling unit programming to include efficiency measures that reduce lost fan and cooling energy. Through the end of 2020, 123 units have been modified representing around 1.64 million square feet or about four and a half average size hospitals. Conservative calculations estimate the savings of this program through the end of 2021 to be 1,537,000 kWh in electricity and 152,000 therms of natural gas. In 2021, efforts continue on air handling units and have expanded into cooling and heating plant operation.

**Minimum efficiency standards through MEP guidelines** – HCA Healthcare provides Mechanical, Electrical and Plumbing Design Guidelines that push the minimally-accepted efficiency standards for systems installed in renovations and new construction. A collaborative committee of Engineering and Construction & Equipment representatives works together to publish semi-annual updates to the document. For example, advances in LED lighting technologies lower cost and better energy efficiency is moving this form of lighting into HCA Healthcare’s design standards.
**Water usage** – Water consumption efforts continue with improvements in energy efficiency that reduce water used for cooling operations and installation of water-efficient fixtures. In 2020, water consumption decreased by 185 million gallons. Where water-saving measures have been implemented, more than 3,300 gallons of water is saved a year for each patient room. Engineering has undertaken a standardization initiative in our water treatment program to use less chemicals and reduce water systems losses through a quality management approach. We work with our facilities, including those in water-stressed areas, to make adjustments for the purpose of further conserving water through water management plans. We look at efficiencies in water distribution systems and include local stakeholders in our efforts to reduce water consumption while ensuring efficient operations for systems such as cooling towers.

**Alternative energy sources** – Five solar panel arrays have been installed at sites in Tennessee. At three locations, assessments were conducted on the feasibility of using wind energy. Wind energy was not economically feasible for these locations at the time. We continue to consider new technologies or approaches to expanding alternative energy within our portfolio.

**Energy Star** – Energy Star is a U.S. Environmental Protection Agency (EPA) voluntary program. To earn certification, a facility that applies must operate among the top 25 percent of similar facilities nationwide, with no sacrifices in comfort or quality. Two HCA Healthcare facilities have been Energy Star certified previously — one for 2016 and one repeat qualifier in 2017 and 2018. We continue to explore Energy Star certification for facilities.

**Construction and Major Renovation**

- **The first two LEED v4 for Healthcare certified projects in the United States are HCA Healthcare projects.**
  - TN is the largest worldwide and TX is the first Gold v4 for Healthcare in the U.S.

- **Pursuit of Leadership in Energy and Environmental Design (LEED) status** – The first two of any LEED v4 for Healthcare certified projects in the United States were achieved by HCA Healthcare in 2020.
  - TriStar Centennial Medical Center – Women’s Services vertical expansion (Tennessee) received the first LEED v4 for Healthcare certification in the U.S. This is also currently the largest LEED v4 for Healthcare certified project worldwide.
Sarah Cannon Cancer Center Hospital at Medical City Plano (Texas) received the first LEED v4 for Healthcare Gold certified project in the U.S. The facility was designed to save 678,000 gallons of water per year, through efficient landscaping, irrigation and plumbing systems. The project also has additional features to support water management and identify opportunities for further water savings through tracking water consumption. In addition, the building was designed as 26% more energy efficient compared to the energy code.

Other projects with LEED status in HCA Healthcare’s portfolio are:

- Nashville Data Center (Tennessee) - LEED certification
- Medical office building at Reston Hospital Center (Virginia) - LEED Silver certification
- Nashville Capitol View development (Tennessee) - LEED Silver certification
- Medical City Alliance (Texas) - LEED Silver certification
- HCA Houston Healthcare Pearland (Texas) - LEED Silver certification
- Medical City Dallas vertical expansion (Texas) - LEED certification
- Las Palmas Medical Center Women’s Services addition (Texas) - LEED certification

In addition, Oviedo Medical Center (Florida) and UCF Lake Nona Medical Center (Florida) are two facilities designed to be LEED accredited. Two more projects targeting LEED accreditation are in the design phase in Frisco, Texas, and Salt Lake City, Utah.

**Environmental building scorecards** – The LEED process or other building scorecards may be used to determine which sustainability options to incorporate in new buildings. For construction projects where LEED certification is not pursued, frequently the LEED scorecard is used as a guide; items from the scorecard that make economic and environmental sense will be implemented.

**Recycling of construction and demolition waste** – HCA Healthcare has a recycling program for new construction projects. In 2020, more than 11 million pounds of construction debris was recycled. Concrete was the largest contributor by weight accounting for 32% of the total and with metals drywall and wood accounting for 17%.

**Use of materials** – We have increased recycled content in building materials, including steel products, drywall, flooring and ceiling tiles. We are also using wood products from sustainable forest management providers.

**Alternative energy sources** – Solar, wind and combined heat and power energy systems can be incorporated into new construction. A free-standing emergency room completed in 2012 has been successful using geothermal energy to reduce the energy cost for heating and cooling. Results on this installation have been very good.
Environmentally Preferable Purchasing

Purchasing of reprocessed single-use devices – HCA Healthcare participates in a program to use Food and Drug Administration (FDA)-approved reprocessed single-use devices to reduce waste and save costs. In 2020, almost 1 million pounds of materials was diverted from landfills and cost savings were achieved through the program.

Solutions for COVID-19 – The global COVID-19-pandemic escalated the need for third-party manufacturers to begin seeking FDA approval for additional devices to be reprocessed. Devices currently under consideration include disposables that support video laryngoscope systems. In addition, Emergency Use Authorizations (EUAs) were approved by the FDA for decontaminating, sterilizing, and reprocessing N95 masks for reuse.

Purchasing of reusables – Contracts provide the ability to purchase certain reusable items rather than disposable items. This applies to, among others: gowns, basin sets, instrument cases, pulse oximetry probes, and patient grounding pads.

Identifying a greener alternative – As contracts are renewed, an effort is being made to ensure greener alternatives are made available for purchase.

Minimum standards for items to be purchased – An exploration of the minimally-acceptable sustainability attributes for purchased products is being done for necessary items. For example, almost all computer-related purchases must be Electronic Product Environmental Assessment Tool (EPEAT) certified. Similarly, most consumer electronics offered for sale under contract must meet Energy Star criteria. In 2020, 966,964 pounds of electronic wastes were diverted from landfills.

In 2020, more than 1 million pounds of materials was diverted from landfills through the reprocessing program used by our hospitals and surgery centers.
**Improved availability of information on green attributes** – HCA Healthcare has requested HealthTrust include the environmental health attributes and the ability to compare products based on these attributes in their product catalog, which is undergoing a redesign. In 2019, HealthTrust provided facilities with a dashboard to review product sustainability data. Using the dashboard, facilities are able to compare suppliers, product categories and products in terms of environmental health attributes and then use this information as part of the contract launch process within those facilities.

**HealthTrust sourcing process** – HealthTrust uses the principles of environmentally preferable purchasing (EPP) in its sourcing process and applies these principles at the product level.

HealthTrust has adopted the use of the standardized environmental questionnaire, developed for the healthcare industry by a group of health systems and GPOs in which HealthTrust participated. HealthTrust and HCA Healthcare, through HealthTrust’s Environmental Sustainability Council (ESC), work together to identify and develop new initiatives based on industry needs and input. HealthTrust works with its contracted suppliers to identify environmental health attributes for the products within each suppliers’ categories. This information is incorporated into the sourcing process.