



# 2019 Sustainability Benchmark Data





# Data tables

## Introduction and methods

Practice Greenhealth's Benchmark Report offers the nation's premier analysis of sustainability performance data for the health care sector. The data in this report is designed to assist hospitals in identifying key sustainability program opportunities by benchmarking their own program's performance against other Practice Greenhealth member hospitals. This report is divided into 10 distinct benchmarking profiles on different components of health care environmental stewardship programs.



Each section of the report highlights a mix of qualitative performance measures (actions hospitals have taken to implement sustainability programs) and key quantitative metrics (an assessment of how well the facility is performing on different programs it has implemented). The report also includes aggregate savings or impact for certain programs. For qualitative measures, the report presents the percent of respondents answering in the affirmative for a given question (e.g., the percent of hospitals that indicated they have a policy to address chemicals of concern, or have an energy manager on staff). For quantitative metrics, Practice Greenhealth reports median performance (50th percentile) and top performance (90th percentile) points across acute-care hospitals in the data set. In the case of most quantitative performance metrics, the report makes an effort to standardize the measurement of sustainability performance for each category through normalization of the data in order to support more informative comparisons among hospitals. Practice Greenhealth normalizes the data based on the most statistically significant factors, allowing hospitals of different size and scope to more accurately assess their sustainability performance. For example, instead of reporting total energy used by institutions of a certain size, it reports energy utilization per square foot.

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## Data cohorts

The report provides several distinct cohorts of hospital data to allow for the most useful comparisons. The table below highlights the different ways Practice Greenhealth distills data for maximum comparability.

Cohort	Description	Cohort size
<b>All</b>	All hospitals with overnight beds and operating rooms that responded to a given question on either the Partner for Change or the Partner Recognition award application	327 hospitals*
<b>Small</b>	Hospitals with fewer than 200 staffed beds. Hospitals in this cohort ranged in size from 10 to 199 staffed beds.	151 hospitals
<b>Large</b>	Hospitals with more than 200 staffed beds. Hospitals in this cohort ranged in size from 200 to more than 1,500 staffed beds.	162 hospitals
<b>Top 25</b>	Top 25 Environmental Excellence award winners. This set of hospitals are recognized for their outstanding overall leadership on sustainability (across all 10 categories of sustainability). They have earned the designation of the top performing all-around health care sustainability leaders in the country.	25 hospitals
<b>Circle</b>	Circle of Excellence award winners (the top 10 institutional performers for each category based on a range of metrics and key performance indicators). These hospitals are the leaders in the field, and their achievements represent the cutting edge of hospital environmental stewardship programs for each category.	Up to 10 hospitals per category
<b>90<sup>th</sup></b>	The 90th percentile is the value dividing the top 10% of high-performing hospitals from the data set. The 90th percentile informs hospitals on the long-term target, providing a data-driven determination of how well hospitals can actually perform on a given metric using valid data.	Varies

\*Fourteen hospital applicants did not indicate how many staffed beds the facility had and were not included in either the small or large cohort—but were included in the “all” cohort.

## Additional data sets

Practice Greenhealth provides environmental performance data for two other cohorts within the report. The performance metrics for academic medical centers and long-term care facilities are broken out in separate data sets. These two subsets of participating hospitals exhibit unique activity profiles that significantly impact their overall environmental performance.

Cohort	Description	Cohort size
<b>Academic medical centers</b>	An academic medical center is typically a hospital attached to a university medical school and/or a teaching hospital affiliated with a medical school. These hospitals are training grounds for residents, medical and nursing students, PhDs, and post-doctoral researchers. Some academic medical centers (126 of the 193) include on-site research facilities, which host laboratories and other research amenities that can add to their environmental footprint.	193 hospitals
<b>Long-term care</b>	Facilities with overnight beds but no operating rooms, including skilled nursing facilities, assisted living and memory care facilities, behavioral health facilities, long-term acute-care hospitals, and rehabilitation hospitals.	25 hospitals



# Data tables

## Methods and analysis

Data is from the 2018 calendar or fiscal year as reported on the 2019 Environmental Excellence Award applications. Hospitals completed the applications between November 2018 and March 2019. Practice Greenhealth reviews all data submitted by award applicants to identify outliers, which can sometimes indicate a mistake in reporting. Practice Greenhealth follows up with applicants where appropriate to inquire about outliers and to correct or remove data from the data set as necessary.

Throughout the report, the “N” (or sample size) for each group varies. This is because the “N” represents how many hospitals answered that question and can differ based on the number of hospitals reporting on that metric — not all hospitals respond to every question or provide data for every metric. Typically, the more hospitals that report on a metric (the larger the N), the more robust the data is.

Practice Greenhealth reports median values for quantitative measures, as these values typically provide a stronger basis for comparisons and benchmarking than averages and standard deviations. Averages and standard deviations can be influenced by outliers or incorrect data and can result in misleading conclusions. Median values (the middle value, or the 50th percentile) provide hospitals the chance to compare their sustainability performance, while the 90th percentile informs hospitals on the long-term target to reach for, providing a data-driven determination of how well hospitals can actually perform on a given metric. This data is then paired with analysis of the programmatic actions utilized by best performing hospitals to support improvement in these key metrics and identifying potential opportunities for action.

## Normalizing data

Normalizing data is an important step to allow comparisons of performance between hospitals and groups of hospitals, regardless of size or number of patients. Practice Greenhealth normalizes the data to help identify comparable metrics for each category. To normalize data is to determine how different characteristics are affected by other variables. For example, instead of looking at waste generation by tons alone, one would look at what variables might impact the amount of waste generated by a facility and then try to normalize or standardize data by those variables (e.g., tons per patient per day). Normalizing data not only helps compare metrics between hospitals, but also helps a hospital compare their own data over a number of years, adjusting for variations in patient volume each year. Through the use of multiple regression techniques, Practice Greenhealth uses statistical analysis to determine which variables have the greatest impact on characteristics of interest that reveal which variables best correlate with each characteristic. The variables that emerge as important influences on each characteristic are called normalizing factors. Practice Greenhealth analyzes each of the following normalization factors (in alphabetical order) for all of the major areas of environmental impact.

Practice Greenhealth wishes to thank the hundreds of individuals, hospitals, facilities, and health systems that participated in providing data for this analysis. The Practice Greenhealth Environmental Excellence Awards are open to all members of Practice Greenhealth.



# Data tables

## Normalization factors

Normalizer	Definition	Median (50th percentile)
<b>Adjusted patient days</b>	Adjusted patient days (APD) take into account inpatient and outpatient activity and are generally calculated as: $APD = (\text{total patient days}) \times (\text{total patient revenue} / \text{inpatient revenue})$ ; where total patient revenue = inpatient + outpatient revenue.	98,680
<b>Cleanable square feet</b>	Cleanable square feet denotes the space routinely cleaned by environmental services. To calculate cleanable square feet when a measured value is not available, the facility can estimate that cleanable square feet = gross square feet minus walls (1.5% of gross square feet) minus square footage of non-cleanable areas (i.e., electrical closets, mechanical rooms, storage rooms).	625,580
<b>Gross square feet / gross floor area</b>	The gross floor area (GFA) is the total property square footage, measured between the outside surface of the exterior walls of the building(s). This includes all areas inside the building(s), including supporting areas. GFA is not the same as rentable space, but rather includes all area inside the building(s), including lobbies, tenant areas, common areas, meeting rooms, break rooms, atriums (count the base level only), restrooms, elevator shafts, stairwells, mechanical equipment areas, basements, and storage rooms. Not included in GFA: exterior spaces, balconies, patios, exterior loading docks, driveways, covered walkways, outdoor courts (tennis, basketball, etc.), parking, the interstitial plenum space between floors (which house pipes and ventilation), and crawl spaces (per ENERGY STAR Portfolio Manager glossary).	744,560
<b>Licensed beds</b>	The maximum number of beds a hospital is licensed to staff.	256
<b>Operating rooms</b>	An operating room is defined as a room in the surgical suite that meets the requirements of a restricted area and is designated and equipped for performing surgical operations or other invasive procedures that require an aseptic field. This is in contrast to a procedure room, which is defined as a room for the performance of procedures that do not require an aseptic field but may require the use of sterile instruments or supplies.	10
<b>OR procedures</b>	A count of total surgical cases with a primary surgical procedure(s) performed in an operating room. This count should not include the number of procedures that occur during a single surgical case, but rather the total number of surgery cases. This would be a total count of patient in OR to patient out of OR events. This count should include surgeries performed in hospital-based ORs and operationally affiliated ambulatory surgery center ORs.	5,885
<b>Outpatient visits</b>	A count of outpatient visits annually. An outpatient visit/use/event is any visit made during the person's reference period to a hospital outpatient department, such as a unit of a hospital (or a facility connected with a hospital) providing health and medical services to individuals who receive services from the hospital but do not require hospitalization overnight. Examples of outpatient clinics include well-baby clinics/pediatric OPD; obesity clinics; eye, ear, nose, and throat clinics; family planning clinics; cardiology clinics; internal medicine departments; alcohol and drug abuse clinics; physical therapy clinics; and radiation therapy clinics. Hospital outpatient departments may also provide general primary care.	272,916
<b>Patient days</b>	A unit of measure denoting lodging facilities provided and services rendered to one inpatient between the census taking hour on two successive days. (Synonymous terms include inpatient day, inpatient service day, census day, bed occupancy day, occupied bed day.) Staffed beds are those in-service and patient-ready for more than half of the days in the reporting period. Staffed beds does not include beds ordinarily occupied for less than 24 hours, such as those in the emergency department, clinic, labor (birthing) rooms, surgery and recovery rooms, and outpatient holding beds.	47,004
<b>Staffed beds</b>	The number of beds available for use by patients during the reporting period. A bed means an adult bed, pediatric bed, birthing room, or newborn bed maintained in a patient care area for lodging patients in acute, long-term, or domiciliary areas of the hospital.	212
<b>Total on-site full-time equivalents (FTEs)</b>	Total on-site FTEs is the sum of full-time equivalent employees plus FTE physicians, FTE medical students, and FTE contracted full-time employees (such as environmental services, food service, and pharmacy). The number of full-time equivalent workers should be computed as the total number of hours worked by all workers in a week divided by the standard hours worked by one full-time worker in a week. Workers may include employees of the property and volunteers who perform regular on-site tasks. Workers should not include visitors to the property such as clients, customers, patients or subcontractors.	1,872



# Engaged leadership

Leadership for environmental stewardship	All	Small	Large	Top 25	Circle
Any member of the executive leadership team actively implemented or led strategies to improve environmental performance or address sustainability considerations	79%	78%	85%	100%	100%
Has appointed or hired someone to lead sustainability efforts at the facility level	79%	75%	83%	96%	100%
<b>Of the 257 facilities indicating a sustainability lead, the position is:</b>					
Full-time: Facility level	37%	32%	43%	58%	40%
Part time: Facility-level	5%	5%	5%	0%	0%
Other duties within existing job assignment	58%	62%	51%	42%	60%
<b>Of the 287 facilities indicating a sustainability lead on the system level, the position is:</b>					
Full-time: System level	89%	88%	88%	95%	92%
Part-time: System level	3%	2%	5%	0%	8%
Other duties within existing job assignment	8%	10%	7%	5%	0%
Identified clinical champion(s) to lead efforts on clinical engagement and education	71%	68%	75%	96%	100%
Leadership commitment	All	Small	Large	Top 25	Circle
Established an organizational environmental commitment statement/principles/charter for integrating environmental sustainability that is approved by top leadership	83%	84%	82%	92%	100%
Developed a minimum of three publicly available sustainability goals	57%	60%	59%	92%	100%
Created a strategic sustainability plan that aligns with other organizational priorities or embeds sustainability objectives or goals within the overall strategic plan	71%	75%	66%	96%	100%
Human resources	All	Small	Large	Top 25	Circle
Added sustainability measures into performance objectives/evaluations for leadership staff	52%	56%	51%	76%	80%
Added language to job descriptions on the organization's commitment to the environment and the role that each employee plays	44%	48%	43%	52%	47%
Included an overview of organizational sustainability goals in new employee orientation	77%	78%	77%	92%	93%
Included questions about sustainability/environmental stewardship program in its employee engagement/satisfaction survey in 2018	29%	32%	30%	52%	67%
Finance	All	Small	Large	Top 25	Circle
Formulated a sustainability program budget	63%	66%	63%	80%	73%
Developed a green revolving fund	36%	40%	35%	56%	53%



# Engaged leadership

Reporting	All	Small	Large	Top 25	Circle
Implemented annual sustainability reporting to the Board of Directors/Trustees	75%	82%	72%	84%	93%
Reported sustainability initiatives within its Community Benefit Report to the IRS (for non-profit organizations) through IRS Schedule H, Form 990	37%	35%	36%	48%	67%
Wrote a publicly available annual report that details environmental stewardship accomplishments at least every two years	63%	64%	63%	80%	93%
<b>Of those the 204 facilities indicating "yes," these report types were identified:</b>					
Annual sustainability report	40%	38%	45%	60%	43%
Annual sustainability report using GRI framework	9%	6%	13%	5%	0%
Annual report that specifically highlights environmental stewardship	36%	35%	40%	90%	86%
Community benefit report that specifically highlights environmental stewardship	18%	16%	21%	60%	79%
Other report highlighting environmental stewardship	34%	40%	30%	50%	79%
Communication and community connections	All	Small	Large	Top 25	Circle
Developed education and communication strategies to convey the organization's sustainability initiatives	89%	87%	93%	100%	100%
<b>Of the 290 facilities indicating "yes," these strategies were identified:</b>					
Internal webpage for staff	84%	87%	81%	100%	100%
Public webpage	57%	47%	64%	92%	100%
E-learning modules	48%	48%	50%	68%	73%
Newsletter	73%	68%	78%	88%	93%
Poster campaign	61%	57%	61%	88%	93%
Other	60%	59%	60%	84%	93%
Educated the community on environmental topics	69%	66%	72%	100%	100%
Shared its environmental sustainability successes in a media story in 2018	52%	56%	52%	96%	100%
Featured a sustainability topic connecting health and the environment in at least one grand rounds event	22%	23%	24%	52%	60%
Presented publicly on the organization's sustainability efforts in 2018	51%	54%	53%	96%	100%
Provided mentoring to other health care facilities either within health system or externally in 2018	60%	62%	64%	100%	100%
Worked with city government or local organizations to promote sustainability locally or plan local events in 2018	54%	50%	63%	92%	93%

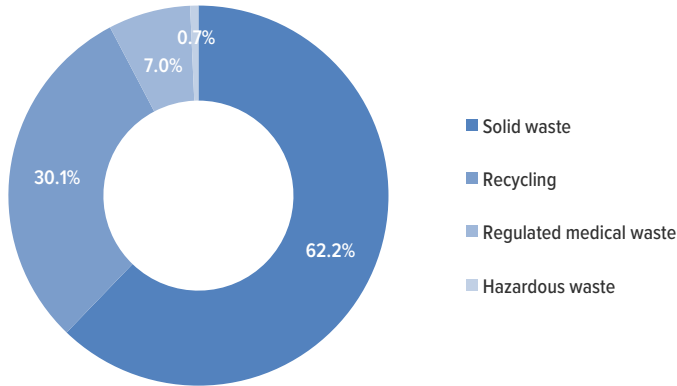


# Less waste

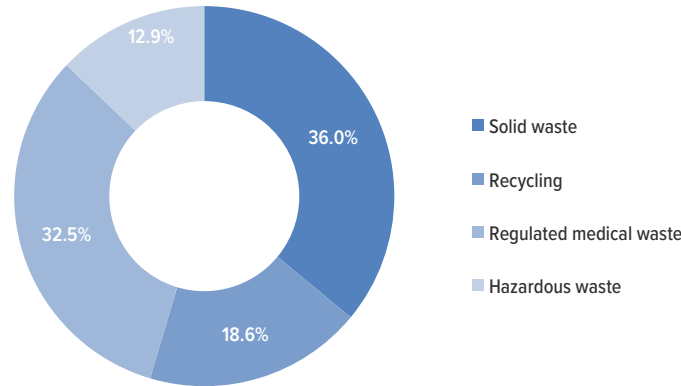
Median tons of waste by type as a percent of total waste	All	Small	Large	Top 25	Circle
Solid waste	65%	64%	64%	54%	53%
Recycling	28%	29%	26%	38%	41%
Regulated medical waste	6.1%	5.5%	7.0%	5.3%	4.3%
Hazardous waste	0.4%	0.4%	0.4%	0.6%	1.1%

Median cost of waste disposal by type as a percent of total waste	All	Small	Large	Top 25	Circle
Solid waste	32%	33%	33%	32%	33%
Recycling	16%	18%	15%	19%	17%
Regulated medical waste	36%	33%	34%	34%	32%
Hazardous waste	10%	9%	10%	11%	13%

Average tons of waste by type as a percent of total waste



Average cost of waste generation by type as a percent of total waste



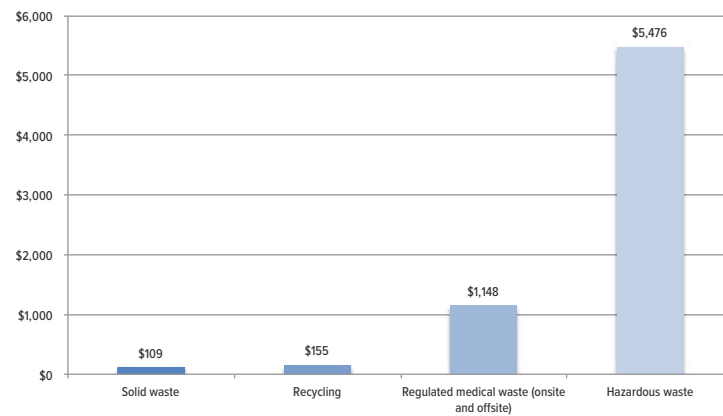




# Less waste

Median cost per ton	All	Small	Large	Top 25	Circle
Solid waste	\$109	\$117	\$107	\$161	\$145
Recycling	\$155	\$180	\$140	\$168	\$167
Regulated medical waste (onsite and offsite)	\$1,148	\$1,217	\$1,064	\$1,864	\$1,898
Hazardous waste	\$5,476	\$6,443	\$4,480	\$4,729	\$3,937
Total waste	\$251	\$266	\$252	\$298	\$272
Note: Total waste is the sum of solid waste, recycling, regulated medical waste, and hazardous waste. Pharmaceutical and food waste are counted as subsets of those four waste streams.					

Cost per ton of different waste types



Solid waste medians	All	Small	Large	Top 25	Circle
Solid waste as a percent of total waste (tons)	65%	64%	64%	54%	53%
Solid waste as a percent of total waste (cost)	32%	33%	33%	32%	33%
Median cost of solid waste per ton	\$109	\$117	\$107	\$161	\$145

Disposal mechanism for solid waste (non-pharmaceutical)	All	Small	Large	Top 25	Circle
Landfill	81%	82%	80%	88%	70%
Municipal waste incinerator	3%	4%	3%	0%	0%
Waste-to-energy incinerator	13%	13%	14%	8%	20%



# Less waste

Solid waste reduction and prevention	All	Small	Large	Top 25	Circle
Developed an internal reuse program or strategy for office supplies, clinical products and equipment, and furniture before making these materials available for external donation	91%	92%	91%	96%	100%
Developed an equipment and supplies donation program (domestic or abroad) for materials, equipment and furniture that can no longer be used internally	83%	81%	85%	84%	80%

Donation	All	Small	Large	Top 25	Circle
<b>Of the 270 facilities that developed a donation program, these are the item categories that are routinely donated:</b>					
<b>Percent of facilities that routinely donate certain materials:</b>					
Unexpired/unopened consumable clinical supplies	64%	60%	66%	71%	75%
Expired/opened consumable clinical supplies	44%	39%	48%	67%	75%
Capital medical equipment	66%	67%	65%	86%	88%
Electronics	63%	65%	62%	62%	63%
Furniture	76%	74%	77%	90%	88%
Linens	32%	34%	32%	57%	50%
Other supplies	45%	45%	45%	81%	75%

Paper reduction	All	Small	Large	Top 25	Circle
Implemented a paper reduction program	93%	95%	93%	100%	100%
<b>Of the 303 facilities that indicated they had a paper reduction program, these are the programmatic activities pursued:</b>					
Reduced network printers	84%	89%	80%	88%	80%
Made double-sided printing the default on printers/copiers	77%	74%	80%	84%	90%
Reduced number of automatically printed reports	74%	66%	81%	100%	100%
Implemented EMR/EHR system	63%	59%	66%	80%	90%
Created digital signage	30%	23%	39%	76%	80%
Increased electronic meetings	36%	27%	47%	60%	70%
Engaged supply chain around paper reduction	26%	17%	36%	60%	90%
Other	27%	28%	27%	80%	80%



# Less waste

Recycling medians	All	Small	Large	Top 25	Circle
Recycling as a percent of total waste (tons)	28%	29%	26%	38%	41%
Recycling as a percent of total waste (cost)	16%	18%	15%	19%	17%
Median cost of recycling per ton, includes universal waste	\$155	\$180	\$140	\$168	\$167
Median cost of recycling per ton, not including universal waste	\$144	\$179	\$132	\$155	\$152

Normalized recycling metrics	All	Small	Large	Top 25	Circle
Total recycling pounds per adjusted patient day (APD)	5.4	5.5	5.2	6.1	7.8
Total recycling pounds per total full-time equivalent (FTE) per year	280	320	260	320	280
Total recycling tons per operating room per year	27	23	30	48	48
Total recycling pounds per square foot	0.8	0.73	0.88	1.12	1.24
Total recycling tons per staffed bed	1.45	1.63	1.28	2.58	2.90
Total recycling pounds per staffed bed/day	8.0	9.0	7.0	14.1	15.9
Total recycling pounds per patient day (PD)	12.4	16.2	10.2	16.8	18.4

Recycling of medical plastics	All	Small	Large	Top 25	Circle
Recycled clinical/medical plastics	71%	66%	75%	92%	100%
<b>Of the 233 facilities recycling clinical/medical plastics, the items recycled include:</b>					
Irrigation bottles	72%	74%	75%	70%	100%
Basins	59%	65%	59%	70%	100%
Trays	58%	62%	58%	74%	100%
Rigid inserts	48%	54%	48%	61%	90%
Skin prep solution bottles	40%	42%	41%	61%	90%
Blue wrap	39%	36%	43%	48%	70%
Urinals/bedpans	26%	30%	25%	52%	70%
Overwraps	20%	12%	27%	35%	60%
Tyvek	9%	5%	13%	26%	70%
Other	19%	17%	22%	52%	50%



## Less waste

Top 10 recycled materials (by weight in tons) in 2018	All
Paper-HIPAA	49,114
Cardboard	17,015
Paper-mixed (includes newspaper)	8,619
Food waste composting	7,183
Metals mixed (brass/copper/steel, not C&D)	4,587
Computers & electronic waste	3,391
Paper-white	2,443
Motor oil	1,982
Cooking oil	960
Steel (not C&D)	873
Aluminum cans	790

Food waste disposal	All
Percent of facilities composting food waste	29%
Total tons of food waste composted	7,274
Median cost per ton food waste composting	\$172
Median cost per ton solid waste	\$109

Aggregate recycling totals	All
Total solid waste recycling tonnage for all facilities	155,403
Total universal waste recycling tonnage for all facilities	8,947
Total recycling tonnage for all facilities	164,351
Total recycling costs for all facilities (reporting a net cost for their recycling program)	\$13,680,792
Total additional cost for solid waste recycling vs solid waste disposal to landfill	\$3,036,138
Note: The median cost per ton for solid waste recycling when including facilities that earned a rebate on certain materials is \$131/ton.	



## Less waste

Regulated medical waste minimization	All	Small	Large	Top 25	Circle
Disinfected/treated RMW using onsite technology	17%	11%	23%	12%	30%
Eliminated the standard use of red bag waste (RMW) containers in regular patient rooms	71%	74%	69%	96%	80%
Implemented a reusable sharps container program	72%	64%	78%	76%	100%
<b>Of the 109 facilities that provided data on reusable sharps container program savings:</b>					
Median reusable sharps container program cost-savings per facility annually*	\$8,577	\$4,896	\$21,833	\$12,083	\$22,223
Implemented a single-use device (SUD) reprocessing program with an FDA-approved third party reprocessor	65%	59%	69%	72%	90%
<p>Note: The median cost-savings from reusable sharps container programs was an analysis of reported savings data from hospitals in the data set. The average savings were higher at \$37,223 per facility annually. Practice Greenhealth also calculated potential cost-savings by looking at the tons of plastic container waste diverted from disposal through reusable containers and multiplying that tonnage by the median cost per ton of sharps disposal. This resulted in significantly higher potential cost-savings of \$56,508 per facility annually. What is not considered in this second analysis is any additional fees the facility may be paying a hauler to collect or utilize the reusable sharps containers through a turnkey service.</p>					

Regulated medical waste treatment technologies	All	Small	Large	Top 25	Circle
Incinerated a portion of its regulated medical waste (RMW)	62%	63%	67%	84%	80%
<b>Of the 204 facilities that indicated they incinerate a portion of RMW, the following medical waste streams are incinerated:</b>					
General RMW	25%	27%	23%	14%	25%
Path/chemo	92%	94%	91%	95%	100%
Sharps	23%	25%	20%	19%	25%
Non-RCRA pharmaceuticals	46%	39%	52%	57%	100%
Other	4%	4%	4%	5%	0%
Disinfects/treats RMW using onsite technology	17%	11%	23%	12%	30%
<b>Of the 55 facilities that treat RMW onsite, these treatment technologies are employed:</b>					
Autoclave	76%	82%	73%	67%	100%
Rotoclave	4%	0%	5%	33%	0%
Chemical disinfection	7%	0%	11%	0%	0%
Incineration	5%	12%	3%	0%	0%
Other	2%	0%	3%	0%	0%
<p>Note: While only 62% of all facilities reported incinerating a portion of RMW, it is Practice Greenhealth's belief that 100% of facilities are actually incinerating their anatomical/pathological/trace chemotherapeutic waste per standard treatment practice in the United States--and that this discrepancy represents a lack of understanding of the application question or incomplete knowledge of the treatment options being utilized by haulers.</p>					

Regulated medical waste medians	All	Small	Large	Top 25	Circle
RMW as a percent of total waste (tons)	6%	6%	7%	5%	4%
RMW as a percent of total waste (cost)	36%	33%	34%	34%	32%
Median RMW cost per ton	\$1,148	\$1,217	\$1,064	\$1,864	\$1,898



# Less waste

Comparison of median cost per ton of regulated medical waste (RMW) for facilities treating RMW onsite and offsite	All	Small	Large	Top 25	Circle
RMW cost per ton - onsite treatment	\$1,098	\$1,297	\$981	\$1,035	\$1,209
RMW cost per ton - offsite treatment	\$1,138	\$1,209	\$1,080	\$1,939	\$1,977

Normalized regulated medical waste metrics	All	Small	Large	Top 25	Circle
Total RMW pounds per OR procedure	20.8	15.4	25.4	18.2	15.8
Total RMW tons per operating room (OR) per year	6.1	4.3	8.3	5.4	5.1
Total RMW pounds per total full-time equivalent (FTE) per year	64	53	75	47	43
Total RMW tons per staffed bed per year	0.32	0.31	0.34	0.35	0.32
Total RMW pounds per staffed bed/day	1.8	1.7	1.9	1.9	1.8
Total RMW pounds per patient day (PD)	3.0	2.8	3.0	2.4	2.2
Total RMW pounds per adjusted patient day (APD)	1.3	1.1	1.6	1.3	1.0
Total RMW pounds per square foot per year	0.20	0.20	0.20	0.20	0.20

Pharmaceutical waste and cost as percent of total waste	All	Small	Large	Top 25	Circle
Pharm waste as a percent of total waste (tons)	0.54%	0.49%	0.60%	0.51%	0.88%
Pharm waste as a percent of total waste (cost)	9%	10%	10%	8%	10%
Median pharmaceutical waste cost per ton (RCRA and non-RCRA)	\$4,602	\$5,776	\$4,337	\$3,075	\$2,592

Note: Pharmaceutical waste is actually a subset of both RCRA-hazardous and either RMW or solid waste and thus is not shown in the breakdown by waste type above.



# Less waste

Pharmaceutical waste disposal methods	All	Small	Large	Top 25	Circle
<b>Disposed of pharmaceutical solid waste</b>					
Landfill	81%	82%	80%	88%	70%
Municipal waste incinerator	3%	4%	3%	0%	0%
Waste-to-energy incinerator	13%	13%	14%	8%	20%
<b>Currently handling waste pharmaceuticals that are not regulated as Hazardous Waste (such as antidepressants, statins, antibiotics, etc.)</b>					
Treat all pharm waste as RCRA-hazardous to better protect human health and the environment	45%	40%	50%	88%	80%
Pharm waste is being disposed of in red bags or sharps containers	13%	14%	13%	12%	0%
Pharm waste is going down the drain	3%	1%	5%	4%	0%
Pharm waste is going into clear trash bags	4%	3%	4%	4%	0%
Other	31%	33%	31%	24%	10%
Don't know	2%	3%	1%	0%	0%
<b>Taken any measures to reduce the generation of pharmaceutical waste</b>					
Staff education	72%	78%	72%	76%	90%
Inventory management	64%	68%	67%	88%	100%
Implemented a samples policy	25%	29%	23%	40%	50%
Monitored dating and utilized stock rotation for emergency syringes	38%	42%	38%	48%	40%
Prescription review	30%	32%	30%	32%	30%
Primed and flushed chemotherapy IV lines with saline solution	27%	26%	29%	28%	20%
Replaced prepackaged unit dose liquids with patient-specific oral syringes	21%	18%	26%	28%	30%
Other	21%	23%	20%	40%	40%
<b>Hazardous waste and cost as percent of total waste</b>					
Hazardous waste as a percent of total waste (tons)	0.4%	0.4%	0.4%	0.6%	1.1%
Hazardous waste as a percent of total waste (cost)	10%	9%	10%	11%	13%
Median hazardous waste cost per ton	\$5,476	\$6,443	\$4,480	\$4,729	\$3,937



# Less waste

Universal/hazardous waste recycling	All	Small	Large	Top 25	Circle
Established a contract with a certified electronics waste/recycling vendor that is certified to e-Stewards (or subcontractors that use e-Stewards-certified vendors) for legal and environmentally responsible electronics (or e-waste) management and recycling.	62%	58%	66%	76%	90%
<b>Handling of fluorescent lamps</b>					
Ship to recycler	87%	88%	88%	96%	100%
Crush onsite	5%	4%	7%	0%	0%
Dispose in dumpster	1%	1%	0%	0%	0%
Other	5%	6%	4%	4%	0%
Recycled its batteries	98%	98%	100%	100%	100%

Battery Recycling (by type)	All
Of the 321 facilities that indicated they were recycling batteries, the following types of battery recycling were indicated:	
Ni-Cd	94%
Lead-acid	92%
Lithium ion	94%
Alkaline	77%
Mercuric oxide	44%
Ni-MH	75%
Other	14%

Hazardous waste reduction	All	Small	Large	Top 25	Circle
Has a laboratory on-site	99%	100%	100%	100%	100%
Of the 324 facilities that have onsite laboratories, percent of facilities that did work to green their laboratories:	59%	52%	64%	96%	100%

Solvent distillation	All	Small	Large	Top 25	Circle
Recycled, reprocessed or distilled solvents, alcohols, or other chemicals from the lab (such as xylene, alcohols or formalin)	28%	21%	36%	52%	80%
Median total cost savings per hospital (among facilities that reprocess solvents)	\$16,579	\$3,580	\$18,847	\$25,288	\$23,166
Total gallons distilled annually	58,141	6,640	51,501	15,334	7,022
Total annual savings from avoided virgin solvent purchase	\$579,561	\$92,433	\$487,128	\$168,000	\$137,215
Total annual savings from reduced disposal costs	\$393,402	\$126,092	\$267,310	\$31,813	\$27,472
Total savings from solvent reprocessing	\$972,963	\$218,525	\$754,438	\$199,813	\$164,687





## Less waste

Total waste tons and cost	All
Median tons of total waste generated per year per facility	1,046
Median total cost of waste disposal and treatment per facility in 2018	\$247,223
Total waste tons generated by all hospitals per year	510,707
Total waste disposal and treatment cost for all hospitals in 2018	\$85,324,200

Normalized total waste metrics	All	Small	Large	Top 25	Circle
Total waste pounds per adjusted patient day (APD)	22.0	21.0	23.0	20.0	19.0
Total waste pounds per patient day (PD)	46.0	51.1	42.0	48.3	51.1
Total waste tons per licensed bed	4.8	4.9	4.7	5.5	5.6
Total waste tons per operating room (OR)	106.9	91.2	118.9	111.1	100.2
Total waste pounds per total full-time equivalent (FTE)	1123	1154	1084	870	831
Total waste tons per staffed bed	5.7	5.9	5.3	6.3	6.5
Total waste pounds per staffed bed per day	31.3	32.3	29.1	34.3	35.4
Total waste pounds per OR procedure	335	297	354	318	287
Total waste pounds per square foot	2.80	2.40	3.20	3.20	3.40



# Safer chemicals

Chemical policies	All	Small	Large	Top 25	Circle
Contracted for, or performed internally, a hazardous chemical/material audit by hospital department and update at least annually	89%	90%	89%	100%	90%
Have chemical or purchasing policies that identify and avoid specific chemicals of concern contained in products that may be hazardous to human health and the environment	85%	88%	82%	96%	100%

Chemicals of concern	All	Small	Large	Top 25	Circle
<b>Of the 277 facilities that have chemical or purchasing policies, the policies include these chemicals of concern:</b>					
Mercury	92%	94%	91%	100%	100%
Latex	75%	80%	72%	96%	100%
Lead	74%	77%	74%	79%	100%
Volatile organic compounds (VOCs)	65%	64%	65%	75%	89%
Formaldehyde	66%	70%	60%	58%	89%
Flame retardants, including chlorinated, brominated, and phosphate-based flame retardants	57%	52%	59%	54%	78%
Persistent, Bioaccumulative, and Toxic substances (PBTs)	56%	57%	58%	71%	100%
Polyvinyl chloride, or PVC	58%	50%	63%	63%	78%
Perfluorinated compounds	54%	50%	56%	63%	89%
Phthalates (DEHP, BBP, DnHP, DIDP, DBP, DINP, and DiBP)	51%	46%	54%	58%	89%
Triclosan	52%	51%	54%	54%	89%
Bisphenol A and its structural analogues	43%	40%	49%	46%	78%
Triclocarban	47%	45%	51%	46%	78%
Polystyrene	26%	26%	28%	33%	44%
CA Proposition 65 listed chemicals (carcinogens and reproductive toxicants)	18%	17%	20%	21%	0%
Other prioritized chemical constituents	12%	11%	14%	29%	11%



# Safer chemicals

Green cleaning	All	Small	Large	Top 25	Circle
Conducted an inventory of all products used at the facility for cleaning and disinfection of surfaces	96%	99%	96%	100%	100%
Actively worked on the transition to third-party certified green cleaning chemicals, in alignment with Practice Greenhealth's Green Cleaning Goal	55%	56%	59%	80%	100%
Utilized any Green Seal or UL ECOLOGO-certified cleaning products	90%	91%	90%	100%	100%
Environmental services collaborated with the infection control committee to identify areas where use of disinfectants can safely be minimized or eliminated	86%	87%	86%	96%	100%
Utilized automatic scrubbing machines that use only water for floor cleaning	76%	70%	81%	88%	78%
Reduced or replaced other cleaning chemical use as a result of automatic scrubbing machines	88%	88%	89%	100%	100%
Utilized ultraviolet germicidal irradiation (UVGI) technology for surface disinfection in any area of the organization	54%	56%	56%	76%	67%
<b>Of the 174 applicants that utilized ultraviolet germicidal irradiation (UVGI) technology for surface disinfection, these are the clinical areas where this technology was used:</b>					
All patient rooms	53%	54%	52%	58%	50%
Isolation rooms	84%	93%	76%	74%	100%
OR	82%	86%	80%	68%	83%
Other	47%	38%	53%	74%	83%
Replaced any cleaning product types with a chemical-free method, such as ionized water or ozone	27%	19%	37%	60%	78%
<b>Of the 87 applicants that utilized a chemical-free cleaning method, the following methods were indicated:</b>					
Ionized water	71%	68%	73%	73%	71%
Ozone	14%	11%	15%	20%	0%
Other	18%	25%	15%	20%	29%
Percent green spend for cleaning chemicals	All	Small	Large	Top 25	Circle
<b>Of the 210 facilities indicating they purchased products in the five target categories (general purpose, window/glass, bathroom, carpet/rug cleaner and floor cleaners) and provided green cleaning spend data:</b>					
Median percent of green spend on 5 target cleaning chemical categories	49%	45%	54%	46%	97%
<b>Of the 215 facilities that provided green cleaning spend data:</b>					
Median total percent of green spend	47%	42%	48%	46%	97%



# Safer chemicals

Safer hand hygiene	All	Small	Large	Top 25	Circle
<b>Of the 207 facilities reporting hand hygiene data:</b>					
Median percent total hand hygiene spend on products that do not contain triclosan or triclocarban	100%	100%	100%	100%	100%
Actively working on the elimination of hand hygiene products that contain triclosan and triclocarban, in alignment with Practice Greenhealth's Safer Hand Hygiene Goal	78%	79%	82%	84%	89%
Completely eliminated the purchase and use of antimicrobial hand hygiene products that contain triclosan or triclocarban throughout the facility	80%	85%	77%	88%	100%
Eliminated the purchase and use of hand hygiene products that contain any antimicrobial in non-clinical areas	61%	61%	63%	64%	89%
Sterilization and disinfection	All	Small	Large	Top 25	Circle
Eliminated the use of the high-level disinfectant glutaraldehyde and moved to safer alternatives (as defined by the ICRA process involving infection prevention and control and employee health)	91%	94%	90%	100%	100%
<b>Of the 296 facilities that have eliminated the high-level disinfectant glutaraldehyde, these alternatives are used:</b>					
OPA (ASP cidex OPA, metrex metricide OPA)	77%	78%	75%	88%	89%
Hydrogen peroxide	68%	68%	69%	80%	78%
Peracetic acid	16%	13%	20%	20%	0%
Other	17%	21%	12%	16%	0%
Eliminated the use of the sterilant ethylene oxide (EtO) onsite	81%	87%	77%	88%	100%
<b>Of the 264 facilities that have eliminated the use of EtO, these alternatives are used:</b>					
Steam sterilization	86%	87%	85%	91%	89%
Ozone plasma	2%	3%	0%	0%	0%
Low temperature hydrogen peroxide gas plasma	29%	27%	33%	41%	44%
Peracetic acid	17%	19%	16%	27%	22%
Other	9%	9%	8%	5%	0%
Integrated pest management (IPM)	All	Small	Large	Top 25	Circle
Reduced or eliminated the use of chemical pesticides by implementing an IPM program	88%	94%	85%	92%	89%
Developed a written IPM plan/policy for the facility that includes attention to both indoor and outdoor (buildings and grounds) pest habitats and issues, which focuses on prevention as the primary means of pest management (see checklist for prevention strategies)	78%	83%	75%	92%	89%
Required EVS or other relevant staff to be trained in IPM (In particular, are staff trained to monitor and prevent pest problems by spotting conditions that are conducive to pest infestations)	75%	72%	78%	84%	89%



# Safer chemicals

DEHP/PVC reduction	All	Small	Large	Top 25	Circle
Actively worked to reduce the purchase of medical products containing PVC and DEHP, in alignment with Practice Greenhealth's PVC and DEHP Reduction Goal	38%	28%	50%	68%	89%
<b>Of the 120 applicants that worked to reduce PVC and DEHP in medical products, the facility:</b>					
Encoded this commitment in policy, program, guideline, or purchasing specifications	54%	55%	54%	47%	75%
Eliminated both PVC and DEHP from at least two product lines	53%	52%	57%	80%	89%
<b>Of the 172 applicants that have eliminated PVC and DEHP from at least two product lines, the product lines include:</b>					
Breast pumps and accessories	42%	45%	41%	65%	63%
Enteral nutrition products	31%	27%	35%	50%	25%
Enteral tubes	23%	17%	28%	35%	38%
General urological	20%	19%	22%	35%	63%
Gloves	58%	58%	59%	90%	75%
Parenteral infusion devices and sets	19%	13%	24%	20%	13%
Respiratory therapy products	15%	14%	15%	15%	13%
Vascular catheters	30%	28%	31%	60%	25%
Other	18%	12%	24%	10%	13%

PVC and DEHP in the NICU	All	Small	Large	Top 25	Circle
<b>Of the 112 applicants that indicated their facility had a NICU:</b>					
Actively worked to achieve a DEHP-free NICU	61%	50%	62%	91%	100%
Actively worked to achieve a PVC-free NICU	37%	28%	39%	73%	80%

Healthy interiors	All	Small	Large	Top 25	Circle
Actively worked to purchase furnishings and furniture that eliminate the use of all of the following target chemicals of concern: flame retardants, formaldehyde, perfluorinated compounds, PVC (vinyl) and antimicrobials in alignment with Practice Greenhealth's Healthy Interiors Goal	54%	52%	60%	96%	100%
<b>Of the 152 facilities that are working on healthy interiors and provided spend data:</b>					
Median percent total spend on furnishings and furniture that eliminate 5 target chemical categories of concern (of those that reported green spend)	74%	75%	72%	78%	90%
Total dollars spent on furnishings that avoid target chemicals of concern (for all facilities)	\$121,084,402	\$20,624,309	\$100,448,355	\$ 46,814,700	\$ 2,547,797



# Safer chemicals

Mercury elimination	All	Small	Large	Top 25	Circle
Percent of facilities that have won the Making Medicine Mercury Free Award (MMMF) at some point	41%	36%	46%	80%	67%
<b>For the 135 facilities that have already won the Making Medicine Mercury-Free award:</b>					
Periodically inventory purchasing practices to make certain that mercury-containing devices are not purchased and re-entering the facility	81%	84%	83%	90%	83%
Conducted an inventory of mercury-containing products within the institution in last five years	59%	67%	57%	80%	67%
<b>For the 184 facilities that have not yet won the Making Medicine Mercury-Free award:</b>					
Established a mercury-free purchasing policy (a stand-alone policy or included in a broader policy with other constituents of concern)	65%	70%	62%	100%	67%
Established protocols and written procedures for safe handling of any mercury remaining onsite	68%	66%	74%	100%	100%
Included proper mercury disposal language in demolition contract templates	38%	37%	40%	80%	67%
Included mercury-free language in building and renovation contract templates	43%	41%	47%	100%	67%
Inventoried (and labeled where possible) all mercury devices/sources within the organization and have a plan in place to substitute non-mercury devices	54%	57%	52%	80%	67%
Replaced all clinical thermometers with mercury-free patient thermometers	84%	87%	84%	100%	100%
Eliminated the use of mercury-containing blood pressure devices (sphygmomanometers)	81%	81%	85%	100%	100%
Eliminated the use of mercury-containing clinical devices (e.g., bougies, miller-abbott tubes, cantor tubes, dilators)	80%	81%	82%	100%	100%
Purchased mercury amalgam separators for installation at all dental chairs (out of those that have dental chairs)	91%	96%	85%	100%	100%
<b>Specified and purchased, where possible, these laboratory items free of mercury:</b>					
Thermometers	82%	85%	82%	100%	100%
Solutions	76%	82%	72%	80%	100%
Equipment	71%	72%	73%	80%	100%
Spoke with the lab manager to inventory mercury-containing laboratory chemicals	68%	72%	66%	100%	100%
Eliminated the use of B5 fixative in the laboratory	70%	72%	69%	100%	100%
Eliminated the use of zenkers solution in the laboratory	72%	76%	71%	100%	100%
Identified other product substitutions in the lab that eliminate mercury	35%	37%	34%	60%	33%



# Healthy food

Sustainable food policy and practices	All	Small	Large	Top 25	Circle
Had a clinical champion outside of the food service department that supports increased access to healthy, local, and sustainable foods for patients, staff, and the community	60%	55%	65%	80%	90%
Developed and implemented a sustainable food service policy	59%	62%	61%	84%	90%
Developed and implemented contract and/or request for proposal (RFP) language that includes local and sustainable food purchasing and other environmental stewardship goals with food vendors	67%	64%	69%	84%	80%
Outsourced its food services department or management	30%	26%	29%	20%	20%

Less meat: Meat reduction strategies and outcomes	All	Small	Large	Top 25	Circle
Committed to the World Resource Institute (WRI) Cool Food Pledge in an effort to reduce GHG emissions from food production	19%	18%	21%	16%	30%
Actively worked to reduce the amount of meat and poultry purchased for cafeteria/retail and patient food service, in alignment with Practice Greenhealth's Less Meat Goal	69%	65%	72%	100%	100%
<b>Of the 225 facilities actively working to reduce meat, the following strategies were implemented:</b>					
Decreased portion size	58%	50%	62%	64%	80%
Meat-free day(s)	39%	36%	37%	40%	50%
Substituted with seafood	60%	57%	59%	84%	90%
Substituted with whole plant-based proteins (beans, nuts, seeds, soy, etc.)	67%	64%	68%	72%	100%
Meat blending strategies	34%	30%	33%	40%	30%
Station layout to highlight salad bar or plant-based options	52%	44%	56%	76%	70%
Increased offering of vegetarian and vegan dishes	68%	64%	70%	72%	100%
A la carte menu	40%	41%	43%	48%	40%
Other	7%	6%	8%	20%	0%

Less meat metrics	All	Small	Large	Top 25	Circle
<b>Of the 116 facilities reporting meat reduction data for current and previous year:</b>					
Median percent change in meat/poultry (by weight) from previous year (for all facilities)	1.7%	-0.3%	2.1%	-0.7%	-5.2%
<b>Of the 65 facilities achieving meat reduction from previous year:</b>					
Median percent meat reduction (by weight) from previous year (for those facilities achieving a reduction)	7.6%	7.9%	7.0%	8.0%	10.7%
Median percent meat reduction (by weight) from baseline year (for those facilities achieving a reduction)	14.3%	15.8%	11.3%	11.3%	23.3%
Note: The "all facilities" number includes those hospitals that saw a meat increase or a decrease. The median percent reduction was calculated using only those facilities that actually achieved a reduction--and did not include those whose meat use increased. In 2019, Practice Greenhealth eliminated the use of the per meal normalizer, because it was being tracked inconsistently from facility to facility. The organization instead was looking at absolute meat reduction, but there are still some challenges in that it does not account for increases of meat due to patient census or other new activities at the site.					



# Healthy food

Less meat-by-category totals and emissions	All	Small	Large	Top 25	Circle
<b>Aggregate pounds of meat and poultry purchased (by all facilities reporting meat-by-category data)</b>					
Tracked their meat/poultry purchases by category	64%	65%	61%	68%	80%
Median percent change in GHG emissions from meat from previous year (for all facilities)	-0.1%	-1.0%	0.8%	3.6%	0.5%
<b>Of the 57 facilities providing data for meat-by-category for current and previous year:</b>					
Median percent reduction in GHG emissions from meat from previous year (for the 28 facilities achieving a reduction)	10%	7%	10%	10%	14%
Note: The "all facilities" number includes those hospitals that saw either an increase or a decrease in meat use and who provided both current and previous year data. The median percent reduction was calculated using only those facilities that actually achieved a reduction in meat and poultry use--and did not include those whose meat use increased.					

Better meat: Sustainably-produced meat and poultry	All	Small	Large	Top 25	Circle
Preferentially purchase sustainably-produced (better) meat and poultry in alignment with Practice Greenhealth's Better Meat Goal	69%	66%	70%	92%	100%
<b>Of the 224 facilities that preferentially purchase sustainably-produced meat, the following certifications or label claims were used to verify that meat and/or poultry items purchased were raised without routine, non-therapeutic antibiotics</b>					
Regenerative Organic	2%	1%	4%	0%	0%
Certified Humane (Raised and Handled)	37%	32%	37%	39%	40%
Certified Organic	29%	22%	29%	57%	60%
Global Animal Partnership	31%	30%	26%	13%	0%
American Grassfed Certified	27%	21%	27%	30%	30%
Certified Grassfed by A Greener World	8%	2%	5%	0%	0%
Certified Grassfed by Food Alliance	9%	4%	7%	4%	20%
100% Grassfed Certified by PCO	7%	1%	4%	4%	10%
Certified Responsible Antibiotic Use (CRAU) chicken and turkey standard	31%	25%	31%	39%	20%
USDA Process Verified Program (PVP) Label Claims such as Raised Without Antibiotics or No Antibiotics Ever	73%	74%	71%	96%	100%
Other	24%	30%	20%	17%	20%

Better meat metric	All	Small	Large	Top 25	Circle
<b>Of the 165 facilities that provided spend numbers for sustainably-produced meat/poultry:</b>					
Median percent spend on sustainably-produced meat/poultry	17.8%	14.2%	21.1%	36.6%	61.0%





# Healthy food

Local food purchasing	All	Small	Large	Top 25	Circle
Encouraged their food suppliers (including distributors and GPOs) to improve tracking and traceability of local and sustainable foods and beverages in their ordering, invoicing, and reporting systems	85%	85%	84%	96%	100%
Purchased locally grown and produced foods and beverages	79%	77%	82%	100%	100%
<b>Of the 258 facilities indicating they purchased local food and beverages, these are the methods used:</b>					
On contract with GPO	57%	55%	62%	68%	60%
On contract with food service management company	31%	37%	29%	28%	20%
Greenhealth Exchange	2%	3%	2%	4%	20%
Food hub or aggregator	9%	2%	8%	12%	30%
Farm-direct purchasing	14%	10%	19%	40%	80%
Farmer cooperative	8%	8%	8%	20%	40%
Local produce vendors	52%	39%	60%	76%	90%
Other	12%	11%	14%	20%	0%

Local food metric	All	Small	Large	Top 25	Circle
<b>Of the 110 facilities providing data for local food purchasing:</b>					
Median percent spend on local food purchases	7.9%	7.5%	9.0%	17.9%	20.7%
Total dollars spent on local food and beverage purchasing in 2018 (by all facilities reporting spend data*)	\$30,068,291				
Note: 160 facilities provided local food purchasing data, but only 110 were used in the analysis because they indicated they were successfully able to separate spend numbers for local and sustainable food and beverage purchases.					

Sustainable food purchasing	All	Small	Large	Top 25	Circle
Encouraged their food suppliers (including distributors and GPOs) to improve tracking and traceability of local and sustainable foods and beverages in their ordering, invoicing, and reporting systems	85%	85%	84%	96%	100%
Purchased sustainably grown and produced foods and beverages	70%	68%	73%	100%	100%
<b>Of the 230 facilities indicating they purchased sustainably grown and produced food and beverages, these are the categories purchased:</b>					
Produce (All forms: fresh, whole or minimally-processed; frozen; canned)	63%	54%	75%	92%	100%
Meat and poultry	68%	76%	67%	92%	100%
Seafood	41%	41%	45%	52%	70%
Dairy (including fluid milk)	52%	53%	54%	72%	50%
Eggs (shelled, fluid and hard boiled)	42%	38%	49%	52%	80%
Grocery/dry goods	22%	23%	22%	44%	30%
Beverages	30%	28%	33%	32%	50%



# Healthy food

Sustainable food metrics	All	Small	Large	Top 25	Circle
<b>Of the 106 facilities providing data for sustainable food purchasing:</b>					
Median percent spend on sustainable food purchases	12.9%	8.6%	15.0%	19.3%	22.3%
Total dollars spent on sustainable food and beverage purchasing in 2018 (by all facilities reporting spend data*)	\$37,902,985				
Note: 139 facilities provided sustainable food purchasing data, but only 106 were used in the analysis because they indicated they were successfully able to separate spend numbers for local and sustainable food and beverage purchases.					

Food and beverage environments: Education & promotion	All	Small	Large	Top 25	Circle
<b>Strategies utilized to market healthy local and sustainable food options:</b>					
Communication of healthy local and sustainably produced foods through menu labeling	49%	42%	54%	68%	70%
Pricing incentives on healthy local and sustainable food options	31%	26%	31%	32%	40%
Placement of healthy local and sustainable food options	56%	51%	59%	80%	70%
Sampling of healthy local and sustainable food options	41%	33%	46%	56%	30%
Other promotions	46%	46%	47%	76%	80%
We do not yet promote local and sustainable foods	15%	16%	15%	0%	0%
Conducted a facility-wide education campaign that improves the visibility of healthier, sustainable food	76%	75%	77%	96%	100%
<b>Methods used to educate on healthier/sustainable food:</b>					
Cafeteria signage	83%	78%	87%	96%	100%
Internal newsletters	57%	54%	57%	84%	90%
Featured events	59%	51%	64%	84%	70%
Catering	22%	18%	28%	36%	60%
Patient trays	38%	35%	37%	52%	50%
Other	30%	26%	36%	48%	60%



# Healthy food

Tap water access and healthy beverages	All	Small	Large	Top 25	Circle
<b>The following activities have been implemented to increase access to tap water and to promote the purchasing of healthier beverages:</b>					
Eliminated bottled water from patient menus and cafeterias	18%	22%	14%	20%	30%
Installed filtered water stations, 'spa water' and/or installed water bottle filling stations throughout the facility or in cafeterias	75%	74%	75%	92%	100%
Provided free 'spa water' or pitchers at functions and meetings instead of bottled water	55%	48%	59%	76%	70%
Provided and promoted reusable beverage containers	56%	49%	62%	80%	90%
Changed the relative price of healthy vs. unhealthy beverages to make healthy choices more affordable and desirable	36%	32%	36%	52%	80%
Prioritized the placement of healthier beverages in coolers and at fountain stations	40%	36%	41%	40%	40%
Other	20%	17%	22%	48%	30%
None of these have been implemented	5%	7%	4%	0%	0%
Actively worked to increase healthy beverage options in alignment with Practice Greenhealth's Healthier Beverages Goal	77%	70%	85%	100%	100%
<b>Of the 253 facilities working to increase healthy beverage options, the following areas were indicated:</b>					
Cafeteria	85%	81%	88%	88%	100%
Patient trays	72%	75%	74%	84%	80%
Vending	46%	40%	55%	60%	60%
Catering	57%	39%	67%	68%	90%
Kiosks	21%	9%	30%	24%	30%
Gift shops	23%	13%	32%	32%	20%
Other retail outlets	11%	8%	14%	28%	10%
Healthy beverage metric	All	Small	Large	Top 25	Circle
<b>Of the 177 facilities reporting beverage purchasing data:</b>					
Median percent healthy beverage spend	62.5%	67.8%	58.5%	71.2%	73.9%



# Healthy food

Healthy food access and community benefit	All	Small	Large	Top 25	Circle
<b>Strategies to increase access to healthy food:</b>					
Hosted local farmers market	50%	38%	60%	80%	90%
Hosted on-site community supported agriculture (CSA) food box program for patients, employees, and/or community residents	28%	23%	33%	56%	90%
Supported on-site hospital farm and/or food-producing garden	19%	19%	20%	40%	40%
Supported off-site community garden or farm	22%	23%	20%	28%	50%
Developed and offered a fruit and vegetable prescription program	14%	12%	18%	44%	30%
Conducted food insecurity screenings	28%	25%	31%	60%	60%
Created food based interventions as part of community benefit program (nonprofit hospitals)	12%	7%	17%	28%	70%
Other	27%	25%	32%	48%	50%
<b>Strategies to utilize community benefit to promote healthy food access/healthy food systems in the community:</b>					
Financial investments	14%	13%	17%	36%	60%
Grants	12%	9%	16%	32%	60%
Staff time	44%	42%	49%	68%	90%
In-kind support	23%	17%	30%	36%	90%
We do not have a community benefit requirement	9%	9%	9%	12%	0%
We do not engage in these activities	11%	10%	13%	16%	0%
Do not know	18%	24%	14%	8%	10%



# Healthy food

Food serviceware: Purchasing and disposal	All	Small	Large	Top 25	Circle
<b>Areas where reusable food serviceware was used:</b>					
Cafeteria dine-in	35%	40%	33%	60%	70%
Cafeteria to-go	18%	21%	17%	36%	40%
Patient tray	83%	85%	86%	92%	100%
Catering	33%	29%	40%	48%	60%
Other retail outlets	4%	5%	4%	0%	0%
Virtually eliminated polystyrene (Styrofoam) purchase and usage in food service	53%	52%	58%	80%	80%
Offered the option to recycle in the cafeteria as part of a commingled or other recycling program	78%	76%	80%	96%	100%
Removed plastic straws from retail and catering outlets	28%	24%	34%	52%	70%
Purchased certified commercially compostable single-use food serviceware (such as certified by Biodegradable Products Institute (BPI))	46%	38%	57%	72%	90%
<b>Of the 152 facilities that purchased compostable food serviceware, the following are methods being used for disposal:</b>					
On-site digestion	8%	9%	8%	17%	22%
On-site compost	5%	7%	3%	0%	11%
Off-site digestion	5%	7%	4%	6%	0%
Off-site compost	27%	28%	27%	50%	56%
Landfill	64%	69%	61%	44%	33%
<b>Less food to landfill</b>					
Actively worked to reduce food waste, in alignment with Practice Greenhealth's Less Food to Landfill Goal	75%	70%	80%	92%	100%
Have a food waste reduction plan or policy that is implemented and tracked	54%	52%	57%	83%	90%
<b>Of the 246 facilities actively working to reduce food waste, the following types of food waste were being tracked:</b>					
Pre-consumer food waste	47%	39%	57%	78%	90%
Cafeteria waste/post-consumer food waste	26%	25%	29%	65%	90%
Patient trays/post-consumer food waste	32%	27%	39%	65%	80%
Catering waste	19%	11%	27%	52%	90%



# Healthy food

Food waste prevention metrics	All	Small	Large	Top 25	Circle
<b>Of the 29 facilities that provided food waste prevention data for previous and current year:</b>					
Median percent change in food waste from previous year (for all facilities)	20.0%	16.7%	23.1%	34.3%	8.0%
<b>Of the 25 facilities that provided food waste prevention data for previous and current year:</b>					
Median percent food waste reduction from previous year (for those facilities achieving a reduction)	26.2%	23.0%	27.8%	34.3%	8.0%
<b>Of the 19 facilities that provided food waste prevention data for baseline and current year:</b>					
Median percent food waste reduction from baseline year (for those facilities achieving a reduction)	43.6	34.8	45.6	75.9	11
Note: The "all facilities" number includes those hospitals that saw either an increase or a decrease in food waste and who provided both current and previous year data. The median percent reduction was calculated using only those facilities that actually achieved a reduction in food waste and did not include those whose food waste increased.					

Food waste diversion from landfill	All	Small	Large	Top 25	Circle
Undertaken any efforts to divert food waste from the landfill or incinerator	48%	41%	57%	80%	100%
<b>Of the 153 facilities that have undertaken efforts to divert food waste from the landfill and incinerator, the following activities were utilized:</b>					
Composting	52%	52%	53%	65%	60%
Digestion	16%	15%	17%	20%	0%
Donation	35%	27%	40%	35%	60%
Animal feed	10%	15%	8%	15%	30%
Other	21%	19%	22%	20%	0%
Had a food waste donation policy/plan that is implemented and tracked	34%	24%	39%	57%	50%

Food waste diversion metrics	All	Small	Large	Top 25	Circle
<b>Of the 114 facilities providing any data for food waste diversion:</b>					
Median food waste diverted from landfill (tons)	27.3	5.5	45.9	103.2	169.3
<b>Of the 78 facilities providing data for composting:</b>					
Median food waste compost (tons)	32	5	87	110	169
<b>Of the 16 facilities providing data for biodigestion:</b>					
Median food waste digested (tons)	18	13	20	44	N/A
<b>Of the 37 facilities providing data for food donation:</b>					
Median food donated (tons)	3	1	4	3	1
Median dollar (\$) value of food donated	\$12,725	\$2,000	\$15,307	\$9,267	\$11,268
<b>Of the 13 facilities providing data for animal feed:</b>					
Median food diverted for animal feed (tons)	5	1	5	18	3



# Greening the OR

Waste segregation, management and recycling in the OR	All	Small	Large	Top 25	Circle
<b>Processes in place to reduce and divert waste in the operating room:</b>					
Diverted pre-incision (prior to case) waste from regulated medical waste stream into solid waste or recycling stream	66%	63%	73%	92%	100%
Segregated non-infectious solid waste from the regulated medical waste stream during the procedure	64%	69%	65%	88%	90%
Segregated non-infectious solid waste from the regulated medical waste stream after the procedure	57%	65%	55%	80%	70%
Recycled clinical/medical plastics in the OR	50%	50%	53%	76%	90%
None (The facility is not segregating waste in the OR at this time.)	6%	6%	6%	0%	0%

Fluid management	All	Small	Large	Top 25	Circle
Utilized a fluid management system that does not use disposable suction canisters as a means of collecting and disposing fluid medical waste (i.e., mobile cart, reusable canister systems, or direct-to-drain system)	67%	66%	73%	92%	100%
<b>Of the 218 facilities that utilized a reusable canister fluid management system:</b>					
Being utilized for fluid management in more than 75% of ORs	85%	88%	84%	91%	90%

Avoided annual waste and cost savings from reusable canister fluid management systems	All	Per facility (median)	Per OR (median)	Per facility (average)	Per OR (average)
Avoided waste (tonnage)	8,038	10	1	122	6
Avoided waste disposal fees from disposable canisters	\$2,467,852	\$12,982	\$1,350	\$40,457	\$2,543
Avoided purchase cost of disposable canisters	\$2,019,218	\$16,251	\$1,733	\$32,568	\$2,147
Avoided purchase cost of chemical solidifiers (if applicable)	\$778,629	\$10,386	\$866	\$25,117	\$1,455
Total cost savings from fluid management system	\$5,265,699	\$27,700	\$3,665	\$78,593	\$4,975



# Greening the OR

Clinical plastics recycling	All	Small	Large	Top 25	Circle
Recycled clinical/medical plastics in the OR	50%	50%	53%	76%	90%
<b>Of the 160 facilities that recycled clinical plastics in the OR:</b>					
Tracked the weight of clinical/medical plastics recycled in the OR	29%	25%	31%	58%	56%
<b>Of the facilities that recycled clinical plastics in the OR, the following types of plastics are recycled:</b>					
Irrigation bottles	84%	81%	86%	84%	78%
Basins	67%	57%	74%	68%	100%
Trays	59%	57%	59%	84%	89%
Blue wrap	52%	47%	58%	63%	78%
Rigid inserts	50%	51%	50%	63%	89%
Skin prep solution bottles	45%	43%	47%	68%	67%
Overwraps	33%	27%	40%	21%	33%
Peel pouches	24%	23%	26%	32%	33%
Urinals/bedpans	22%	23%	22%	37%	44%
Blister packs/shrink wrap	21%	19%	23%	16%	22%
IV bags, tubing and outer plastic wrap	20%	19%	21%	11%	22%
Medication vials and caps	17%	11%	22%	21%	22%
Syringe casings	15%	9%	21%	32%	44%
Other	15%	17%	13%	26%	22%
Light handle covers	14%	11%	17%	26%	22%
Tyvek	12%	11%	14%	11%	0%
Oxygen tubing	6%	4%	7%	0%	11%
Corrugated respiratory tubing	4%	1%	6%	0%	11%
Perfusion tubing	3%	3%	3%	0%	0%
Respiratory face masks	2%	3%	2%	0%	11%
Medical device reprocessing	All	Small	Large	Top 25	Circle
Implemented a medical device reprocessing program with an FDA-approved third party reprocessor	66%	61%	70%	72%	70%





# Greening the OR

Medical device reprocessing aggregate data	Total
Total weight of devices collected (lbs.)	1,816,702
Total weight of devices collected (tons)	908
Total avoided waste disposal costs	\$396,740
Total dollars spent on purchase of reprocessed devices	\$32,299,448
Total dollars saved annually through medical device reprocessing purchasing program	\$38,668,954
Total dollars saved through SUD reprocessing including both avoided waste disposal costs and reduced purchasing cost	\$39,065,694

Medical device reprocessing metric data	All
Pounds of reprocessed devices collected per OR procedure (lbs.)	0.87
Pounds of reprocessed devices collected per OR (lbs.) per year	522.7

Annual cost-savings from medical device reprocessing	Per facility	Per OR
Median cost-savings from purchasing reprocessed devices	\$114,356	\$8,096
Median cost-savings from avoided waste from devices collected for reprocessing	\$2,223	\$156
Median cost-savings on reprocessed devices from both purchasing reprocessed devices and avoided waste disposal	\$98,848	\$6,970



# Greening the OR

Reprocessed devices: rate of collecting and purchasing	Collect only	Purchase only	Collect and purchase
Pneumatic tourniquet cuffs	19%	0%	51%
DVT sleeves/Sequential compression	32%	3%	39%
Pulse oximetry probes and sensors	29%	1%	37%
EP catheters	9%	1%	32%
Bits/burs/blades	41%	4%	31%
Ligasure sealers/dividers	40%	0%	29%
Ultrasonic scalpels	35%	2%	28%
Arthroscopic wands and shavers	44%	2%	28%
EP cables	10%	2%	21%
Trocars	48%	1%	21%
EP diagnostic catheters	12%	3%	19%
Laparoscopic scissors/scissor tips	39%	3%	16%
Lateral transfer device (Hovermatt)	17%	1%	16%
Laparoscopic needle drivers/suture passers	42%	4%	13%
Ultrasound catheters	10%	2%	13%
Catheter introducer sheaths	17%	3%	12%
Laparoscopic dissectors	36%	2%	12%
Laparoscopic graspers	34%	2%	12%
ECG leads and cables	21%	3%	11%
EKG cables and lead wires	17%	2%	9%
External fixation devices	23%	4%	8%
Multiclip appliers	31%	2%	6%
ICE catheter	4%	1%	5%
Chisels	14%	2%	4%
Fall alarms	16%	2%	4%
Reamers	20%	3%	4%
Cold biopsy forceps	18%	2%	3%
Hot biopsy forceps	12%	3%	1%
Note: This table is sorted by the percent of facilities that both collected and purchased different devices for reprocessing.			



# Greening the OR

OR kit reformulation	All	Small	Large	Top 25	Circle
Reformulated custom procedure packs--removing supplies not typically used--to reduce purchase and disposal fees for excess supplies, and decrease the environmental impact of manufacture and disposal of those supplies	82%	81%	81%	96%	100%
Had a process in place to regularly compare, review and update surgeon preference cards for the same type of procedure	80%	79%	79%	96%	100%
<b>Of the 267 facilities that indicated they reformulated OR kits:</b>					
Median percent of kits reformulated*	100%	100%	100%	100%	100%
Note: A median of 100% for OR kit reformulation is an indication that hospitals that chose to reformulate kits tended to reformulate all of them.					

Annual cost-savings from OR kit reformulation	Per facility	Per OR
Median avoided purchase costs	\$22,049	\$3,232
Median avoided waste disposal costs	\$2,250	\$138
Aggregate annual cost-savings from OR kit reformulation (for all facilities providing data)	\$2,511,429	



# Greening the OR

Reusable items	All	Small	Large	Top 25	Circle
Purchased and used reusable surgical items where environmentally and clinically preferable	81%	81%	83%	92%	100%
<b>Of the 261 facilities that use reusable surgical items, the following items are indicated as being used more that 75% of the time:</b>					
Patient positioning devices	69%	74%	68%	83%	90%
Patient linens (gowns, sheets, bath blankets, pillow cases)	67%	72%	65%	83%	80%
Safety belts	41%	41%	42%	65%	40%
Surgical basins, pitchers and medicine cups	35%	37%	35%	57%	80%
Laryngoscope blades/handles	34%	33%	38%	61%	40%
Blood pressure cuffs	33%	32%	36%	65%	50%
Pulse oximetry sensors	30%	30%	31%	35%	40%
Surgical towels	28%	27%	31%	57%	80%
Light handles	21%	24%	20%	35%	20%
Trocars	21%	16%	26%	30%	30%
Velcro straps	21%	25%	18%	43%	40%
Pneumatic compression tourniquets	20%	20%	21%	35%	30%
Surgical gowns	17%	13%	22%	30%	60%
Cautery handles and cords	16%	15%	18%	26%	10%
Patient warming devices	16%	15%	18%	35%	40%
Grounding pads	15%	16%	15%	9%	10%
Other	14%	12%	17%	22%	50%
Laryngeal mask airways (LMA)	13%	11%	16%	35%	40%
Isolation gowns	10%	10%	11%	30%	30%
Sterilization wrap	10%	9%	11%	13%	30%
Surgical drapes	8%	4%	12%	22%	20%
Anesthesia circuits	7%	5%	10%	4%	10%
Back table covers	7%	6%	9%	17%	20%
Mayo stand covers	6%	6%	6%	9%	10%
Visitor jump suits	5%	2%	7%	9%	10%
Endotracheal tubes (ETT)	3%	2%	4%	0%	0%



# Greening the OR

Annual cost-savings from reusable surgical supplies	All
Median cost-savings from reusable surgical supplies per facility	\$16,750
Median cost-savings from reusable surgical supplies per OR	\$2,126
Aggregate cost-savings from reusable surgical supplies (for all facilities reporting data)	\$1,215,247

Rigid sterilization containers	All	Small	Large	Top 25	Circle
Utilized reusable sterilization containers for surgical instrumentation and reduction of disposable sterile wrap	87%	89%	86%	100%	100%
<b>Of the 159 facilities using reusable rigid sterilization containers who provided data:</b>					
Median percent of kits utilizing reusable sterilization containers	70%	72%	70%	75%	70%
Note: The median of 70% indicates that of those facilities utilizing rigid sterilization containers; the median is 70% of their instrument trays in reusable sterilization containers.					

Annual cost-savings from rigid sterilization containers	All
Median cost-savings for avoided disposable bluewrap purchase per facility	\$22,633
Median cost-savings for avoided waste disposal fees per facility	\$1,456
Median cost-savings from rigid sterilization containers per facility	\$22,375
Median cost-savings from rigid sterilization containers per OR	\$1,527
Aggregate cost-savings from rigid sterilization containers (for all facilities reporting savings)	\$2,856,765

Energy management in the OR	All	Small	Large	Top 25	Circle
Programmed the HVAC system to reduce air changes per hour (HVAC setback) when the ORs are unoccupied to reduce energy consumption	47%	44%	52%	64%	70%
<b>Of the 154 facilities that utilized HVAC setback, these mechanisms were used:</b>					
Occupancy sensors	42%	34%	49%	69%	71%
Mushroom button	7%	6%	8%	6%	29%
Scheduling system	38%	39%	38%	38%	86%
Building automation system	73%	69%	76%	81%	86%
Other	8%	9%	8%	13%	29%
Utilized LED surgical lighting	81%	77%	86%	92%	100%
Set back or turned down ambient lighting to reduce energy consumption when the OR is unoccupied and not in use	77%	86%	73%	92%	90%



# Greening the OR

Energy metrics in the OR	All	Small	Large	Top 25	Circle
Median percent of ORs with HVAC setback	100%	100%	92%	100%	100%
Percentage of ORs in the dataset that have HVAC setback in place	33%	31%	34%	43%	59%
Median percent of ORs with LED surgical lighting	100%	100%	100%	100%	98%
Percentage of ORs in the dataset with LED surgical lighting	63%	59%	65%	71%	88%
Note: A median of 100% for HVAC setback and LED surgical lighting means that if facilities utilized these technologies they tended to use them for 100% of their ORs. That said, Practice Greenhealth suspects the HVAC setback numbers may be overreported--as many hospitals tend to keep 1-2 emergency ORs online and ventilated at full air changes for emergency cases at night.					

Annual cost-savings for energy reduction in OR	All
Median energy cost-savings from HVAC setback per OR	\$2,585
Median energy cost-savings from HVAC setback per facility	\$33,604
Median energy cost-savings from LED surgical lighting per OR	\$166
Median energy cost-savings from LED surgical lighting per facility	\$4,380
Aggregate cost-savings for energy reduction in OR (HVAC+LED) (for all facilities reporting cost-savings)	\$12,279,382

Inhaled anesthetic use	All	Small	Large	Top 25	Circle
Purchased or had in-house pharmacy prepare pre-filled syringes (not including boxed bristojets) to minimize waste of unneeded pharmaceuticals	74%	74%	78%	92%	100%
<b>Of the 240 facilities that that utilize pre-filled syringes, the following types are purchased:</b>					
Atropine	50%	46%	56%	57%	60%
Calcium chloride	45%	42%	50%	48%	40%
Ephedrine	50%	49%	51%	74%	70%
Epinephrine	52%	51%	55%	57%	30%
Ketamine	32%	34%	32%	43%	40%
Lidocaine	49%	45%	55%	48%	60%
Phenylephrine	55%	47%	63%	74%	80%
Succinylcholine	40%	37%	43%	61%	60%
Propofol	14%	12%	15%	22%	20%
Other	49%	50%	49%	83%	70%
Purchased the smallest pharmaceutical vials possible to minimize pharmaceutical wastage	83%	83%	86%	100%	100%



# Greening the OR

Reduction strategies for anesthetic gases	All	Small	Large	Top 25	Circle
Removed desflurane vaporizers from the operating room to minimize use	35%	32%	38%	56%	63%
Removed desflurane from its formulary	21%	21%	21%	36%	20%
Provided or held anesthesia staff education on environmental impacts of inhaled anesthetics and reduction strategies for clinicians	60%	58%	65%	96%	100%

Capture systems for waste anesthetic gases	All	Small	Large	Top 25	Circle
Utilized a supplemental waste anesthetic gas capture system to prevent waste anesthetic gases from venting to the outside air	25%	22%	31%	16%	10%

Greenhouse gas emissions (GHGs) from inhaled anesthetics	Total	Median Per OR
<b>Volume of inhaled anesthetic agents purchased (mL)</b>		
Sevoflurane	40,223,840	9964
Isoflurane	9,521,750	713
Desflurane	15,477,040	3447
Nitrous oxide (pounds)	482,251	112
<b>Total GHG emissions from inhaled anesthetics in metric tons of carbon dioxide equivalent (MTCO2e)</b>		
GHGs from sevoflurane in MTCO2e	7,949	2.0
GHGs from isoflurane in MTCO2e	7,284	0.5
GHGs from desflurane in MTCO2e	57,698	12.9
GHGs from nitrous oxide in MTCO2e	65,187	15.2
Total GHG emissions from all inhaled anesthetics in MTCO2e	138,118	10.7
<b>Of the 44 facilities that achieved a reduction in GHGs from inhaled anesthetics:</b>		
Median % reduction in GHGs from inhaled anesthetics from baseline year	24%	



## Greening the OR

Median cost-savings for key Greening the OR programs	Per OR	Per Facility
Collection and purchase of reprocessed medical devices (SUDs)	\$6,970	\$98,848
Reusable canister fluid management systems	\$3,665	\$27,700
OR kit reformulation	\$1,786	\$19,098
Reusable sterilization containers	\$1,480	\$19,550
HVAC setback	\$952	\$33,604
Reusable surgical supplies	\$2,126	\$16,750
LED surgical lighting	\$146	\$4,380
Total annual cost-savings from Greening the OR initiatives (for all facilities reporting cost-savings)	\$53,316,828.29	





# Environmentally preferable purchasing

Infrastructure for EPP	All	Small	Large	Top 25	Circle
Engaged with supply chain leadership on environmentally preferable purchasing activities	79%	83%	80%	100%	100%
<b>Of the 258 facilities that engaged with supply chain leadership on EPP, the following is the level of engagement:</b>					
Health system-level	81%	83%	79%	92%	89%
Facility-level	69%	66%	72%	92%	100%
Group purchasing organization(GPO)	55%	55%	55%	88%	89%
Introduced supply chain staff to the standardized environmental questions for medical products	63%	64%	64%	92%	100%
Made the evaluation of purchases based on environmental criteria a responsibility or deliverable within an existing job role	56%	60%	54%	92%	44%
Trained supply chain, procurement staff and/or those responsible for purchasing on sustainable procurement	55%	58%	56%	92%	100%
Had an EPP or sustainable procurement policy that identified specific environmental attributes of concern to be considered when making purchasing decisions	80%	86%	75%	96%	100%
Wrote any internal or external articles or documentation describing EPP successes (such as EPP case studies)	13%	12%	15%	56%	56%
<b>Of the 263 facilities that have an EPP or sustainable procurement policy, the following are attributes of concern indicated in the policy:</b>					
Energy efficiency	94%	92%	97%	100%	100%
Water efficiency	84%	84%	84%	75%	78%
Excessive packaging	72%	71%	75%	75%	89%
Recycled content of product	86%	84%	89%	83%	100%
Recyclability	86%	83%	89%	71%	89%
Avoiding chemicals of concern	95%	94%	96%	100%	100%
Reusable (vs. single-use) products	76%	73%	81%	71%	89%
Waste minimization	87%	85%	88%	88%	100%
Whether the product becomes or generates hazardous waste	68%	68%	70%	63%	78%
End of life product management (e.g., take back)	76%	75%	79%	83%	100%
Green building products	70%	65%	74%	67%	78%



# Environmentally preferable purchasing

Contracting for environmentally preferable products	All	Small	Large	Top 25	Circle
Set any organizational EPP goals	53%	53%	57%	92%	100%
Created a formal process to review upcoming contracts for sustainable procurement opportunities	47%	46%	51%	76%	100%
Sustainability champion represented on contracts/procurement/value analysis review teams	54%	51%	61%	92%	100%
Contract team included scoring and weighting of sustainability criteria in at least one contract	50%	54%	48%	80%	44%
Assessed the total cost of ownership or life cycle costing to identify cost savings and award a contract	56%	57%	58%	80%	89%
Included environmental criteria in the sourcing process (such as through the RFI/RFPs, value analysis, or data provided by your GPO)	80%	76%	85%	100%	100%

Contracting for environmentally preferable products	All	Small	Large	Top 25	Circle
Set any organizational EPP goals	53%	53%	57%	92%	100%
Created a formal process to review upcoming contracts for sustainable procurement opportunities	47%	46%	51%	76%	100%
Sustainability champion represented on contracts/procurement/value analysis review teams	54%	51%	61%	92%	100%
Contract team included scoring and weighting of sustainability criteria in at least one contract	50%	54%	48%	80%	44%
Assessed the total cost of ownership or life cycle costing to identify cost savings and award a contract	56%	57%	58%	80%	89%
Included environmental criteria in the sourcing process (such as through the RFI/RFPs, value analysis, or data provided by your GPO)	80%	76%	85%	100%	100%

Incorporating environmental criteria into the sourcing process	All	Small	Large	Top 25	Circle
<b>Of the 260 facilities that indicated they are utilizing environmental criteria in the sourcing process, these were the methods utilized:</b>					
With product evaluation/value analysis team	47%	43%	51%	84%	100%
In one RFI/RFP in 2018	17%	19%	17%	20%	78%
In 2-5 RFIs/RFPs in 2018	18%	14%	24%	28%	67%
In more than 5 RFIs/RFPs	27%	27%	28%	60%	100%
In organization's product standards	42%	46%	40%	48%	78%
Ensured inclusion in a GPO contract or other contract in 2018	43%	46%	42%	64%	89%
In final contract language with identified goals and metrics	44%	50%	43%	40%	89%
In business review meetings to evaluate vendor's progress meeting EPP goals	47%	43%	51%	76%	100%



# Environmentally preferable purchasing

GPO purchasing	All	Small	Large	Top 25	Circle
Had a representative on a GPO Advisory Board or committee that makes contracting decisions (with an external GPO or your own GPO)	61%	58%	63%	84%	78%
Provided its GPO comments or regular feedback about its EPP needs (through a sustainability committee or other forum)	50%	50%	51%	96%	100%
<b>Of the 160 facilities that provided their GPO comments or regular feedback:</b>					
Feedback to its GPO resulted in any improved/additional EPP products or services offered	77%	70%	83%	92%	100%

Direct purchasing	All	Small	Large	Top 25	Circle
Engaged suppliers in its EPP work	71%	70%	73%	96%	100%
Purchased any environmentally preferable products or services	73%	74%	77%	100%	100%
<b>Of the 235 facilities that purchased environmentally preferable products or services, the following categories were purchased:</b>					
Building furnishings	36%	38%	35%	48%	78%
Building, facilities, maintenance	21%	23%	21%	36%	78%
Cleaners	37%	41%	34%	36%	44%
Computers, Telecom, IT equipment	29%	26%	31%	64%	56%
Dental	0%	0%	1%	0%	0%
Fleet	7%	7%	7%	12%	0%
Food	21%	23%	18%	32%	78%
Food service equipment and supplies	8%	5%	11%	24%	22%
Laboratory	5%	4%	6%	4%	0%
Landscape	3%	1%	5%	0%	0%
Medical supplies	24%	22%	27%	20%	22%
Office supplies and equipment	26%	23%	30%	44%	11%
Personal care	3%	4%	3%	0%	0%
Pharmaceuticals	6%	9%	2%	8%	0%
Sterile processing, sterilization, high-level disinfection	11%	14%	8%	16%	11%
Surgical/operating room	10%	8%	12%	12%	11%
Other	11%	12%	12%	16%	11%

Measuring performance	All	Small	Large	Top 25	Circle
Tracked and reported metrics regarding green spend (what is spent on environmentally preferable products)	71%	70%	71%	96%	100%
Worked with suppliers to reduce the environmental impact of supply transport and deliveries	68%	68%	71%	96%	78%



# Environmentally preferable purchasing

Paper purchasing	All	Small	Large	Top 25	Circle
Purchased copy paper made with post-consumer recycled content	75%	78%	76%	92%	100%
Limited options within its purchasing system/catalog to ensure that all white copy paper purchased contains at least 30% post-consumer recycled content	43%	38%	50%	68%	44%
<b>Of the 149 facilities that provided data on copy paper spend:</b>					
Median percent green spend on office paper	100%	100%	100%	100%	2%
Median percent green spend on office paper >=30% recycled*	100%	100%	100%	100%	2%
Note: Paper with less than 30% post-consumer recycled content is not considered a sustainable product.					

Electronics purchasing	All	Small	Large	Top 25	Circle
Purchased EPEAT-registered products in alignment with Practice Greenhealth's Greener Electronics Goal	80%	78%	82%	100%	100%
<b>Of the 263 facilities purchasing EPEAT-registered products, the following types of products were purchased:</b>					
EPEAT-registered computers, monitors, and laptops	91%	97%	90%	96%	100%
EPEAT-registered imaging equipment (copiers, printers, fax, MFD, scanners, digital duplicators, mailing machines)	84%	86%	81%	80%	100%
EPEAT-registered televisions	67%	75%	64%	48%	22%
EPEAT-registered mobile phones	30%	31%	32%	36%	44%

EPEAT spend metrics	All
Median percent green spend on EPEAT-registered computers, monitors and laptops	100%
Median percent green spend on EPEAT-registered imaging equipment (copiers, printers, fax, MFD, scanners, digital duplicators, mailing machines)	99.3%
Median percent green spend on EPEAT-registered televisions	100%
Median percent green spend on EPEAT-registered mobile phones	100%
Median percent green spend on all EPEAT-registered product categories	100%
Note: A median of 100% indicates that if the facility is purchasing EPEAT-registered electronics; they tend to be purchasing all EPEAT-registered products in a particular category.	

Dollars spent on EPEAT-registered electronics	All
Dollars spent on EPEAT-registered computers, monitors and laptops	\$109,204,413
Dollars spent on EPEAT-registered imaging equipment	\$19,348,308
Dollars spent on EPEAT-registered televisions	\$2,033,900
Dollars spent on EPEAT-registered cell phones	\$3,953,254
Total EPEAT spend by all facilities in 2018	\$134,539,875



# Environmentally preferable purchasing

Transport and deliveries	All	Small	Large	Top 25	Circle
Work with suppliers to reduce the environmental impact of supply transport and deliveries	68%	68%	71%	96%	78%
<b>Of the 219 facilities that work with suppliers, these strategies were used to reduce the environmental impact of supply deliveries:</b>					
Request vendors become an EPA SmartWay Shipper Partner	17%	15%	20%	42%	71%
Use alternative-fueled vehicles for supply delivery	28%	26%	30%	63%	29%
Use low emitting or fuel efficient vehicles for supply delivery	43%	50%	38%	67%	71%
Reduced days of delivery (e.g., no deliveries on Monday)	47%	43%	51%	79%	71%
Implemented a no idling policy	57%	66%	52%	79%	71%
Minimizing packaging for transportation efficiencies	42%	42%	45%	54%	71%
Other	11%	11%	11%	21%	29%



# Environmentally preferable purchasing

Summary of EPP activities	All	Small	Large	Top 25	Circle
Implemented a reusable sharps container program	72%	64%	78%	76%	89%
Established a contract with a certified electronics waste/recycling vendor that is certified to e-Stewards (or subcontractors that use e-Stewards certified vendors) for legal and environmentally responsible electronics (or e-waste) management and recycling	62%	58%	66%	76%	44%
Have chemical or purchasing policies that identify and avoid specific chemicals of concern contained in products that may be hazardous to human health and the environment	85%	88%	82%	96%	100%
Utilized any Green Seal or UL ECOLOGO-certified cleaning products	90%	91%	90%	100%	100%
Eliminated DEHP and PVC from at least two product lines	53%	52%	57%	80%	89%
Actively worked to purchase furnishings and furniture that eliminate the use of all of the following target chemicals: flame retardants, formaldehyde, perfluorinated compounds, PVC (vinyl), and antimicrobials, in alignment with Practice Greenhealth's Healthy Interiors Goal	54%	52%	60%	96%	100%
Implemented a single-use device (SUD) reprocessing program by an FDA-approved third party reprocessor	66%	61%	70%	72%	78%
Purchased reusable surgical items where environmentally and clinically preferable	81%	81%	83%	92%	89%
Preferentially purchased sustainably-produced meat and poultry	69%	66%	70%	92%	89%
Purchased locally grown and produced foods and beverages	79%	77%	82%	100%	100%
Purchased sustainably grown and produced foods and beverages	70%	68%	73%	100%	100%
Purchased certified commercially compostable food serviceware (such as certified by Biodegradable Products Institute (BPI)) where single-use/disposable items are necessary	46%	38%	57%	72%	33%
Generated or purchased renewable energy	43%	38%	48%	64%	44%
Purchased energy-efficient equipment that is ENERGY STAR labeled	67%	66%	73%	100%	100%
Purchased green vehicles for transportation purposes	46%	44%	51%	80%	44%
Integrated any green/sustainable aspects into Master Specifications for all new buildings/renovations	77%	83%	78%	96%	78%
Required its designers, builders and contractors to have experience with LEED or other green building rating systems	66%	68%	67%	84%	100%
Added language to contract specifications that building contractors will follow LEED or GGHC requirements and provide documentation	61%	59%	65%	84%	89%
Consciously selected flooring, wall coverings, paints, materials, finishes, furniture or exterior materials that avoid chemicals of concern	67%	66%	73%	96%	89%



# Leaner energy

Energy demographics	All	Small	Large	Top 25	Circle
Generated or purchased renewable energy	43%	38%	48%	64%	70%
Put a combined heat and power/cogeneration project into place in the last five years	8%	5%	11%	16%	10%
Had an onsite laundry	23%	21%	26%	28%	30%
Had an onsite data center that requires a constant power load of 75 kW or more	38%	30%	48%	48%	60%

Energy efficiency and planning strategy	All	Small	Large	Top 25	Circle
Actively worked to reduce energy use, in alignment with Practice Greenhealth's Leaner Energy Goal	64%	58%	74%	92%	100%
Had a dedicated energy manager role	77%	78%	76%	80%	90%
Had a written plan to reduce energy use over time with timelines and goals	72%	73%	72%	96%	100%
Developed a strategic energy master plan	40%	38%	43%	64%	70%
Conducted a baseline energy audit for the institution in the past five years	69%	70%	69%	72%	90%
Engaged a retrocommissioning firm to optimize building performance	59%	60%	62%	80%	100%
Conducted continuous commissioning	55%	55%	57%	84%	100%
Purchased energy-efficient equipment in 2018 that is ENERGY STAR-labeled	67%	66%	73%	100%	100%
When an ENERGY STAR label is not available for a given technology, considered energy performance as a part of cost of operation for the product	76%	79%	77%	96%	90%

ENERGY STAR-labeled product purchases	All	Small	Large	Top 25	Circle
Total spend on top 3 categories of ENERGY STAR-labeled products	\$127,394,428	\$11,288,732	\$116,105,696	\$79,119,215	\$66,267,667
Median spend on top 3 categories of ENERGY STAR-labeled products	\$310,423	\$160,072	\$688,455	\$623,473	\$1,891,797

Energy tracking and monitoring	All	Small	Large	Top 25	Circle
Used ENERGY STAR Portfolio Manager	77%	70%	85%	96%	100%
<b>Of the 251 applicants that indicated they use ENERGY STAR Portfolio Manager:</b>					
Benchmarked using ENERGY STAR's Portfolio Manager	78%	79%	77%	96%	100%
Used other software to benchmark the facility's energy performance	49%	46%	57%	0%	N/A
Utilized submeters to better monitor energy efficiency opportunities	46%	48%	49%	64%	60%



# Leaner energy

Energy metrics	All	Small	Large	Top 25	Circle
Energy use intensity (EUI) in kBtus per sq foot	222	223	220	233	208
EnergyStar Portfolio Manager EUI	223	214	234	223	209
Weather-normalized EUI (from EnergyStar Portfolio Manager)	236	231	240	244	224
EnergyStar score	66	62	68	58	68
Percent reduction in energy use intensity from baseline year	10%	9%	11%	12%	16%
Percent reduction in energy use intensity from previous year	5%	4%	6%	9%	14%

Practice Greenhealth compared to 2012 CBECS climate zones data	Very cold/ Cold/Subarctic	Mixed-humid	Hot-dry/ Mixed-dry/ Hot-humid	Marine
CBECS number of hospitals reporting	118	110	100	15
Practice Greenhealth number of hospitals reporting	88	39	28	18
CBECS median energy use intensity (in kBtus/sq ft)	240	236	215	209
Practice Greenhealth median energy use intensity (in kBtus/sq ft)	234	227	185	191

Normalized energy use	All	Small	Large	Top 25	Circle
Total kBtus per square foot (EUI)	222	223	220	233	208
Total kBtus per adjusted patient day (APD)	1,491	1,704	1,366	1,343	1,343
Total kBtus per onsite FTE*	73,129	95,312	66,932	64,369	66,895
Total kBtus per operating room (OR)	15,860,826	15,807,066	16,168,534	15,880,776	13,298,346
Total kBtus per patient day	3,568	5,371	2,866	2,936	2,362
Total kBtus per licensed bed	715,348	943,451	657,499	746,962	673,823
Total kBtus per OR procedure	25,970	29,096	24,587	20,208	18,892
Total kBtus per staffed bed	868,807	1,228,325	715,348	882,194	778,011

Note: Total on-site full-time equivalents (FTEs) is the sum of FTEs, FTE physicians, FTE medical students, and contracted FTEs.

Energy reduction projects	All	Small	Large	Top 25	Circle
Percent of facilities reporting any energy efficiency projects	44%	42%	49%	88%	100%
Median energy savings per facility (in kBtus)	1,084,580				
Median energy cost savings per facility (in \$)	\$49,056				
Total energy efficiency savings in kbtus (79 facilities)	309,444,765				
Total energy savings in \$ (83 facilities)	\$12,055,229				





# Leaner energy

Energy project category	Median energy savings per project in kBtus	Median cost-savings per project	Number of projects reported with \$ savings
Heating	1,190,210	\$20,378	41
Cooling	1,505,130	\$24,868	48
Water heating	240,000	\$2,400	3
Lighting	341,300	\$15,182	69
Information technology	N/A	\$6,474	3
Medical technology	N/A	\$2,007	1
Other	1,876,355	\$15,764	30

Renewable energy	All	Small	Large	Top 25	Circle
Percent of facilities reporting any generation or purchase of renewable energy	43%	38%	48%	64%	70%
Percent of facilities reporting onsite renewable energy generation	19%	19%	20%	16%	30%
Percent of facilities reporting offsite renewable energy generation or purchase	13%	15%	13%	32%	40%
Median percent of energy portfolio from renewable sources	4%	4%	2%	6%	6%
Median percent of onsite renewable energy	1%	2%	0%	0%	0%
Median percent of offsite renewable energy	6%	5%	10%	6%	6%
Total avoided greenhouse gas emissions from use of renewable energy sources (in MTCO2e)	196,466				

Type of renewable energy	Number of reporting facilities with onsite renewable energy	Number of reporting facilities with offsite renewable energy or RECs
Solar or photo-voltaic	44	16
Geothermal heating and electric	3	1
Biomass	1	1
Wind	1	26
Bio-gas	2	1



# Leaner energy

Median energy-related greenhouse gas emissions by fuel type (in metric tons of carbon dioxide equivalent--MTCO <sub>2</sub> e)	Baseline year GHG emissions by energy type	Previous year GHG emissions by energy type	Current Year GHG Emissions by Energy Type
Electricity (location-based)	8,219	8,219	8,857
Natural gas	3,994	4,313	4,041
Fuel oil (#2)	63	43	46
District steam	6,429	7,746	7,613
District hot water	6,212	3,064	3,302
District chilled water-electric driven chiller	3,789	3,516	3,895
District chilled water-absorption chiller using natural gas	8,630	479	5,503
District chilled water-engine-driven chiller natural gas	N/A		479
Diesel	18	39	29
Propane	98	62	82
Scope 1 (direct) energy-related GHG emissions total	3,941	4,320	3,940
Scope 2 (indirect) energy-related GHG emissions total	9,432	9,419	9,524

Total energy-related greenhouse gas emissions from fuel type (aggregate for all facilities reporting in MTCO <sub>2</sub> e)	Baseline year GHG emissions by energy type	Previous year GHG emissions by energy type	Current year GHG emissions by energy type
Electricity (location-based)	1,784,017	1,643,936	2,014,032
Natural gas	921,646	897,205	1,054,966
Fuel oil (#2)	52,398	17,506	22,077
District steam	397,027	349,115	346,962
District hot water	14,002	12,678	13,697
District chilled water-electric driven chiller	63,878	66,368	71,604
District chilled water-absorption chiller using natural gas	8,630	13,483	11,007
District chilled water-engine-driven chiller natural gas	N/A	479	479
Diesel	8,629	9,135	10,732
Propane	1,654	1,011	2,864
Scope 1 (direct) energy-related GHG emissions total	984,327	924,858	1,090,640
Scope 2 (indirect) energy-related GHG emissions total	2,267,553	2,086,058	2,457,780



# Less water

Water planning and reduction strategy	All	Small	Large	Top 25	Circle
Submetered any departments and/or individual pieces of equipment	40%	45%	39%	72%	70%
Actively worked to reduce water use, in alignment with Practice Greenhealth's Less Water Goal	56%	54%	61%	92%	100%
Set measurable goals for the reduction of water use	48%	50%	49%	88%	100%
Had a written plan to reduce water use over time	41%	47%	40%	76%	100%
Conducted a water audit	32%	31%	34%	68%	60%
Benchmarked water usage	61%	64%	61%	76%	100%
<b>Implemented any of the following strategies or technologies for the reuse of non-potable water</b>					
Boiler blow-down collection for reuse	13%	11%	15%	20%	20%
Condensate collection for reuse	36%	33%	43%	60%	30%
Gray water reuse system	4%	3%	6%	16%	10%
Rainwater harvesting system	10%	9%	11%	24%	0%
Use of non-potable water for laundry	4%	4%	4%	8%	10%
Other	6%	7%	5%	12%	50%
<b>Purchased any of the following US EPA WaterSense-labeled devices and equipment</b>					
Bathroom sink faucets/accessories	53%	54%	56%	72%	90%
Flushing urinals	37%	38%	39%	52%	40%
Flushometer valve toilets	34%	35%	36%	72%	80%
Irrigation controllers	13%	11%	16%	20%	50%
Pre-rinse spray valves	5%	4%	7%	8%	30%
Showerheads	32%	34%	33%	64%	70%
Spray sprinkler bodies	4%	3%	6%	12%	30%
Toilets	38%	40%	39%	56%	60%
<b>Median water use and savings</b>					
Median water use intensity (gallons per square foot)	44.4	41.8	46.1	41.6	31.6
Cost of water per 1,000 gallons (kgal)	\$5.97	\$5.55	\$6.22	\$6.62	\$7.58



# Less water

Normalized water consumption	All	Small	Large	Top 25	Circle
Gallons per cleanable square foot	53.7	47.9	58.3	45.7	30.9
Gallons per gross square foot	44.4	41.8	46.1	41.6	31.6
Gallons per total onsite FTEs	15,831	19,284	14,604	13,038	10,694
Million gallons per operating room (OR)	3.0	2.8	3.0	2.8	3.1
Gallons per adjusted patient day (APD)	283	311	267	269	326
Gallons per patient day	659	815	548	557	588
Gallons per staffed bed	159,692	192,039	139,031	159,327	143,304
Gallons per OR procedure	4,267	4,113	4,296	4,113	5,789

Indoor water consumption	All	Small	Large	Top 25	Circle
<b>Out of the 159 facilities that provided actual or estimated irrigation water use:</b>					
Median indoor gallons per square foot	41.2	40.9	41.8	39.0	32.9
Median indoor gallons per cleanable square foot	49.3	43.4	54.9	41.5	35.4
Median indoor gallons per FTE	14,331	16,801	12,761	11,960	7,848
Note: Indoor water use could only be calculated accurately for those who either had no irrigation or for those who facilities that irrigated and also provided irrigation data (actual or estimated).					

Irrigated landscapes	All	Small	Large	Top 25	Circle
Irrigated some landscaped areas	63%	58%	70%	80%	90%
Used any alternative landscaping methods that reduce the need for irrigation	55%	54%	57%	80%	100%
<b>Of the 45 facilities that provided data on water savings from alternative landscaping methods:</b>					
Median water savings (gallons) from alternative irrigation	50,000	70,445	12,000	50,000	27,495
Total gallons of water saved through alternative landscaping (all facilities)	92,392,494	42,099,538	50,292,956	13,591,938	264,981

Water use compared to other industry cohorts	All
Median water use intensity (gal/sq ft) for Practice Greenhealth hospitals (2018)	44.4 gal/sq ft
Median water use intensity (gal/sq ft) for CBECS inpatient health care facilities (2012)	46.3 gal/sq ft
Median water use intensity (gal/sq ft) for Grumman/Butkus health care facilities (2017)	48.1 gal/sq ft
Note: CBECS is the Commercial Building Energy Consumption Survey which is administered by the federal government in 2017. Practice Greenhealth would like to thank Grumman Butkus Associates (GBA) for sharing their data. GBA is an engineering consultancy that has administered an annual energy benchmarking survey in the Midwest since 1995. Water costs and usage were added in 2006.	



## Less water

Water reduction metrics	All	Small	Large	Top 25	Circle
Percent reduction in water use intensity from baseline year:	19%	22%	16%	19%	31%
Percent reduction in water use intensity from previous year:	11%	11%	11%	12%	18%
Note: Percent reduction calculated using current year gallons per gross square foot compared to baseline or previous year gallons per gross square foot.					

Water reduction projects	All	Small	Large	Top 25	Circle
Percent of facilities reporting any water reduction projects with gallons saved	16%	13%	20%	44%	60%
Median water cost-savings per facility from water reduction projects	\$3,821	\$728	\$12,343	\$650	\$1,310
Median gallons of water saved per facility through water reduction projects	343,250	328,660	513,500	212,530	241,675
Total gallons saved through water reduction projects (52 facilities)	296,816,287	43,483,025	253,333,262	14,291,156	1,942,657
Total cost-savings through water reduction projects (39 facilities)	\$1,781,927	\$249,097	\$1,532,830	\$159,523	\$48,887



# Green building

Green design and construction	All	Small	Large	Top 25	Circle
Designed and built any projects (>1000 sq ft) in the last five (5) years	60%	60%	65%	92%	100%
Integrated any green/sustainable aspects into Master Specifications for all new buildings/renovations	77%	83%	78%	96%	100%
Implemented a facility policy or commitment to design and construct all new buildings and/or major renovations to LEED (or another green building) design standard	72%	74%	73%	92%	100%
Required to build to a certain minimum LEED standard (certifiable) due to municipal, state, region or federal legislative requirements	38%	44%	35%	40%	14%
Required its designers, builders and contractors to have experience with LEED or other green building rating systems	66%	68%	67%	84%	86%
Used an integrated design process for all new building and major renovation projects	71%	74%	72%	88%	100%
Added language to contract specifications that building contractors will follow LEED or GGHC requirements and provide documentation	61%	59%	65%	84%	100%
Tracked loss days/productivity within green buildings	15%	15%	18%	36%	29%

Number of Leadership in Energy and Environmental Design (LEED)-certified projects completed	2018	Completed in past 5 years
LEED Platinum	1	5
LEED Gold	2	21
LEED Silver	6	34
LEED Certified	6	13
<b>Total LEED projects</b>	<b>15</b>	<b>73</b>

Green building project rating systems	2018	Completed in past 5 years
Designed to LEED but not certified	26	114
Followed GGHC	5	14
Green Globes	3	7
Followed other rating system	18	49

Innovative green building elements	All	Small	Large	Top 25	Circle
Educated occupants on the benefits of its green building elements	52%	52%	53%	88%	100%
Installed any garden and green spaces for patients, visitors and staff	66%	63%	74%	100%	100%
<b>Of the facilities that indicated yes, these areas were created:</b>					
Green or living roof	24%	17%	29%	36%	43%
Green or living wall	10%	7%	12%	16%	14%
Healing garden	81%	84%	79%	84%	43%
Food-producing garden	40%	44%	37%	64%	43%
Other	28%	33%	25%	52%	57%



# Green building

Avoiding chemicals of concern	All	Small	Large	Top 25	Circle
Consciously selected flooring, wall coverings, paints, materials, finishes, furniture, or exterior materials that avoid target chemicals of concern	67%	66%	73%	96%	100%
<b>Of the 216 facilities that reported consciously avoiding chemicals of concern in purchases, these selections were made and/or are included in specifications:</b>	Avoided chemicals of concern		Included in specs		
Wall coverings	45%		41%		
Paints	78%		68%		
Materials	51%		47%		
Finishes	49%		40%		
Furniture	63%		53%		
Exterior materials	21%		18%		

Energy and water-saving elements	All	Small	Large	Top 25	Circle
Implemented a building and renovation strategy that maximizes daylighting for patients, employees, visitors	72%	71%	76%	96%	100%
Installed water saving measures that will substantially reduce potable water use or reuse non-potable water	65%	62%	70%	96%	100%
Integrated design elements that will reduce or reuse process water	38%	35%	44%	80%	100%
Instituted other innovative green design and construction elements	47%	46%	51%	92%	100%
Installed energy systems that exceed ANSI/ASHRAE/IESNA Standard 90.1-2013	44%	40%	49%	72%	100%
<b>Of the 141 facilities indicating yes to installing systems that exceed ANSI/ASHRAE/IESNA standard 90.1-2013:</b>					
<10%	23%	23%	23%	17%	0%
10-25%	38%	33%	41%	44%	57%
>25%	23%	30%	18%	39%	43%

Construction & demolition debris	All	Small	Large	Top 25	Circle
Recycled construction & demolition debris (C&D)	73%	68%	81%	96%	100%
<b>Of the 327 facilities that recycled construction and demolition debris:</b>					
Achieved a minimum 80% construction and demolition debris recycling rate	23%	14%	31%	42%	57%



# Climate

Demonstrating climate leadership	All	Small	Large	Top 25	Circle
Made a formal external commitment to climate change or a signed a commitment	64%	64%	67%	100%	100%
<b>Of the 210 facilities indicating the formal external commitment to climate change, the commitments were:</b>					
Climate Registry	12%	6%	17%	4%	10%
Divestment from or frozen future investments in fossil fuels	2%	0%	4%	4%	10%
Health Care Climate Challenge	22%	22%	23%	20%	30%
Health Care Climate Council	37%	34%	39%	52%	60%
Local/state/regional commitment	27%	13%	38%	52%	80%
The Presidents' Climate Leadership Commitment	13%	13%	13%	16%	10%
We Are Still In	18%	11%	24%	44%	30%
Other	57%	56%	57%	56%	60%
Advocated for or promoted policies or regulations that protect public health from the causes of climate change (e.g. testifying or submitting comments at public hearings, OpEds, sign-on letters/statements, meeting with public officials to educate or lobby)	46%	44%	50%	92%	80%
<b>Of the 151 facilities that have promoted policies or regulations that protect public health from the causes of climate change, the following levels of policies were indicated:</b>					
At the local level	48%	34%	59%	78%	88%
At the state level	43%	28%	56%	52%	88%
At the federal level	69%	70%	70%	70%	88%
Provided education on the connection between climate and health to its staff, patients, clinicians and/or the community	50%	49%	54%	92%	100%
<b>Of the 160 facilities that provide education on the connection between climate and health to its staff,patients, clinicians and/or the community, the following groups were engaged:</b>					
Staff	98%	99%	96%	96%	100%
Patients	47%	43%	49%	52%	30%
Community	48%	45%	51%	70%	60%
Physicians	71%	68%	73%	78%	90%
Nurses	77%	76%	78%	83%	80%
Other health professionals	58%	50%	65%	78%	70%
None	0%	0%	0%	0%	0%
<b>Facilities that provided green employee benefits to support climate change solutions for their employees at home indicated the following strategies:</b>					
Employee home solar discounts	11%	7%	15%	12%	20%
Electric bicycle discounts	2%	1%	3%	8%	10%
CSAs	15%	14%	18%	40%	40%





# Climate

Demonstrating climate leadership	All	Small	Large	Top 25	Circle
Fossil fuel-free retirement options	2%	1%	2%	4%	20%
Alternative transportation discounts/stipends	44%	32%	56%	76%	90%
Other	25%	23%	28%	64%	50%
None	24%	30%	19%	0%	0%
Incorporated climate change language or a connection to climate change in activities of the Community Health Needs Assessment (CHNA) process for community benefit	15%	14%	17%	44%	60%
CEO or Board of Directors identified climate change as a business risk by requiring regular reporting on climate change mitigation and preparedness	24%	25%	26%	44%	50%

Climate mitigation	All	Small	Large	Top 25	Circle
Generated or purchased renewable energy	43%	38%	48%	60%	100%
Median percent of energy from renewable sources	3.5%	4.2%	1.6%	5.6%	11.7%
Set either a GHG reduction or renewable energy goal	39%	38%	41%	44%	70%

Goal type	All
<b>Of the 78 facilities reporting a goal, the following have set this goal type:</b>	
Carbon net positive	8%
Carbon neutral	22%
Greenhouse gas reduction	22%
Renewable energy	55%
Aggressive energy reduction	17%
Other	3%

Scopes 1 & 2 energy-related greenhouse gas emissions	All
Median metric tons of CO2e per facility	15,072
Median lbs of CO2e per square foot	44.36
Median lbs of CO2e per adjusted patient day (APD)	214.56

Current year emission reduction projects	All
Percent of facilities reporting any GHG reduction project	35%
Sum of all MTCO2e savings from GHG emission reduction projects for all hospitals	183,360
Sum of cost-savings from GHG emission reduction projects for all hospitals	\$8,470,898



# Climate

Percent reduction in emissions from anesthetic gases from baseline year	All	Small	Large	Top 25	Circle
Percent change from baseline year	18%	40%	14%	15%	13%

Climate resilience activities for all applicants	Yes	Started but not completed	Percent of facilities reporting any progress
Analyzed local disaster risks due to climate change and its role in addressing them.	39%	5%	44%
Reviewed the evidence of health risks from climate change (from local public health epidemiology/ vulnerability assessments: e.g. migration of vector borne diseases, extreme heat, etc.) that may impact its community.	29%	6%	35%
Participated in city, regional, or state climate resilience planning efforts.	34%	4%	38%
Engaged in long term activities that restore and improve functioning ecosystem services in order to foster more resilient communities (e.g. working to preserve or restore ecosystem services - forests, coastal zones, wetlands, river basins, fisheries).	21%	4%	25%
Developed a plan and included climate risks in both facility and regional emergency preparedness planning and implementation for addressing key health care service delivery needs during or following extreme weather events such as cold or heat waves, hurricanes, droughts, wildfires.	48%	5%	53%
Completed an assessment tool (such as the Building Health Care Sector Resilience Toolkit), and developed an action plan to address climate change-related building and infrastructure vulnerabilities.	13%	6%	19%

Transportation and alternative fuels	All	Small	Large	Top 25	Circle
Purchased green vehicles for fleet use	46%	44%	51%	80%	100%
Had fleet vehicles with at least one environmental criteria	80%	82%	66%	54%	32%
Actively worked to reduce the impact of transportation on the environment and the local community, in alignment with Practice Greenhealth's Transportation Goal	48%	45%	54%	84%	90%
Conducted an annual survey to collect mode of transportation by employees commuting to work	19%	9%	28%	40%	60%



# Climate

Alternative and conventional fuel use	All	Small	Large	Top 25	Circle
<b>Percent of facilities indicating a particular fuel type used for fleet vehicles:</b>					
Biodiesel (B20)	5%	4%	5%	18%	0%
Biodiesel (B100)	3%	1%	4%	5%	0%
Diesel	45%	43%	47%	50%	44%
Electricity	26%	19%	32%	45%	56%
E85 ethanol	37%	39%	36%	45%	22%
Gasoline	71%	75%	67%	86%	100%
Natural gas (CNG)	5%	4%	5%	5%	0%
Propane	1%	0%	1%	5%	11%
Other	10%	12%	7%	14%	11%

Transportation strategies	All	Small	Large	Top 25	Circle
<b>Participated in or has the facility implemented any of the following:</b>					
Provide bike racks, bike paths, walkways, and shower facilities for alternative commuters	64%	64%	70%	96%	90%
Offered telework, compressed work schedules to reduce employee commuting	44%	40%	51%	76%	90%
Provided or outsource shuttle/vanpool, carpool or ride-sharing services	43%	38%	51%	68%	90%
Adopted engine idling reduction practices and policies	40%	44%	40%	80%	70%
Provided vouchers or subsidies for public transit, ride- and bike-sharing services	39%	30%	49%	68%	90%
Provided preferred parking for carpool participants and low-emission, fuel-efficient vehicles (hybrids, smart cars)	38%	33%	46%	64%	80%
Installed electric vehicle charging stations	32%	18%	48%	60%	90%
Participated in regional transportation planning and/or maintain membership in a transportation management association	26%	22%	32%	60%	70%
Encouraged or required suppliers to become an EPA SmartWay Shipper Partner to drive down Scope 3 GHGs from freight transportation	20%	21%	21%	40%	30%
Paid employees daily/monthly stipend for using alternative transit modes	15%	18%	13%	28%	40%
Monitored air quality and notify vulnerable patient populations	14%	12%	17%	16%	10%
Other	4%	2%	6%	16%	40%







# Long term care

CATEGORY	METRIC	Median Value
	Recycling as a percent of total waste	35.0%
	RMW as a percent of total waste	1.2%
	RMW pounds per staffed bed/day	81.9
	% spend on 5 target green cleaners	47%
	% spend healthy interiors	91%
	% spend safer hand hygiene	99%
	% change in meat use (by weight)	13%
	% sustainably produced meat (by weight)	45%
	% of spend on sustainable	15%
	% of spend on local	11%
	% of spend on healthier beverages	64%
	Pounds of compost per meal	0.1 lbs.
	Energy use intensity (EUI)	165
	% change in EUI from baseline year	13%
	Energy Star score	97
	% onsite renewable energy*	2.2%
	% offsite renewable energy*	3.6%
	Total gallons per sq ft	39 gals/ft <sup>2</sup>
	% change in water use	23%
	Indoor gallons per sq ft	39 gals/ft <sup>2</sup>
	Gallons per FTE	14,608 gals/FTE
	% renewable energy	4%
	% change in total GHG emissions	7%
	% construction and demolition waste recycled	74%

Note: There were very few facilities (with overnight beds but no operating rooms) that had either onsite or offsite renewable energy. For the onsite renewable energy metric, N=7 and for the offsite renewable energy metric, N=4.



# Academic medical centers

CATEGORY	METRIC	Non-academic medical centers median	Academic medical centers with no on-site research median	Academic medical centers with on-site research median	All applicants
	Recycling as a percent of total waste	27%	27%	28%	28%
	RMW as a percent of total waste	5%	6%	7%	6.1%
	RMW pounds per staffed bed/day	1.42	1.75	2.51	1.77
	Total pounds waste/patient day	43.59	40.48	49.84	45.98
	Total tons waste/OR	83	100	131	106.9
	% spend on 5 target green cleaners	30%	22%	35%	47%
	% spend healthy interiors	71%	75%	76%	74%
	% spend safer hand hygiene*	100%	100%	100%	100%
	Note: A median of 100% on safer hand hygiene chemicals means that if facilities choose to purchase hand hygiene products made without triclosan or triclocarban, they tend to buy all hand hygiene products of that type.				
	% of OR kits reviewed*	100%	100%	100%	100%
	Pounds SUDs collected per OR procedure	1.11	0.75	0.56	0.87
	% of kits in reusable sterilization containers	72%	60%	73%	70%
	% of ORs with HVAC setback*	100%	98%	100%	100%
	Note: A median of 100% for OR kit reformulation is an indication that hospitals that chose to reformulate kits tended to reformulate all of them. A median of 100% for HVAC setback means that if facilities utilized these technologies they tended to use them for 100% of their ORs. That said, Practice GreenHealth suspects the HVAC setback numbers may be overreported—as many hospitals tend to keep 1-2 emergency ORs online and ventilated at full air changes for emergency cases at night.				
	% change in meat use (by weight)	22.1%	18.3%	9.7%	14.3%
	% change in GHG emissions from meat (from previous year)*	-0.6%	-2.2%	4.9%	-0.1%
	% of spend on healthier beverages	58.9%	53.1%	67.7%	62.5%
	% of spend on local	7%	7.8%	9.4%	7.9%
	% of spend on sustainable	8.2%	8.5%	15.7%	12.9%
	% sustainably produced meat (by weight)	16.0%	15.8%	23.6%	17.8%
	Note: A negative percent change for GHG emissions from meat indicates that GHGs have increased rather than decreased since previous year.				



# Academic medical centers

CATEGORY	METRIC	Non-academic medical centers median	Academic medical centers with no on-site research median	Academic medical centers with on-site research median	All applicants
	Energy use intensity (EUI) (in kBtus/sq ft)	234	220	213	222
	% change in EUI from baseline year	9%	10%	12%	10%
	Energy Star score	58	69	69	66
	% onsite renewable energy	1%	1%	0%	1%
	% offsite renewable energy	6%	9%	6%	6%
	Total gallons per sq ft	45	46	43	44
	% change in water use	55	54	53	53.7
	Indoor gallons per sq ft	21%	18%	19%	19%
	Gallons per FTE	17,870	15,645	13,601	15,831
	% renewable energy	5.0%	6.0%	4.0%	3.5%
	% of construction and demolition debris recycled	63%	73%	75%	73%



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