



HEALTHTRUST[®]
UNIVERSITY CONFERENCE

July 26, 2021

Supply Chain & Sustainability: A Collaboration for Success

Moderator: Zoë Beck, MBA

Domini Pelkey RN, BSN, MBA, Anna Ward, JD, CHC & Kyle Tafuri

| Disclosures / Potential Conflicts of Interest

- The presenters have no real or perceived conflicts of interest related to this presentation

Note: This program may contain the mention of suppliers, brands, products, services or drugs presented in a case study or comparative format using evidence-based research. Such examples are intended for educational and informational purposes and should not be perceived as an endorsement of any particular supplier, brand, product, service or drug.

Learning Objectives

At the end of this session, participants should be able to:

1. Describe best practices for establishing collaboration among supply chain and sustainability teams within a healthcare organization
2. Identify the type of supply chain cost savings and standardization goals that are typically shared with an organization's sustainability team
3. Explain how supply chain can use environmental health data to make informed purchasing decisions
4. Outline strategies on how to report environmental impact that reflects the total value of collaborative work

Sustainability – What does it mean?

Audience Poll Question: #1 of 1

What does sustainability mean to you? Choose the word that resonates most with you.

- a. Renewable
- b. Reliable
- c. Feasible
- d. Viable
- e. Stable
- f. Durable
- g. Continual
- h. Livable
- i. Resilient

| Sustainability

Definition from the Oxford University Press

- **sus·tain·a·bil·i·ty**

/səˌstānəˈbɪlədē/

noun

- the ability to be maintained at a certain rate or level.
 - “the sustainability of economic growth”
- avoidance of the depletion of natural resources in order to maintain an ecological balance.
 - “the pursuit of global environmental sustainability”

Panelists



Domini Pelkey, RN, BSN, MBA

Director, Supply Expense Management, HCA Healthcare



Anna Ward, JD, CHC

Director, Sustainability, HCA Healthcare



Kyle Tafuri

Director, Sustainability, Hackensack Meridian Health

HealthTrust Moderator



Zoë Beck
Manager, Sustainability



Supply Chain & Sustainability: A Collaboration for Success

*Domini Pelkey RN, BSN, MBA, Director,
Supply Expense Management &*

Anna Ward, JD, CHC Director, Sustainability

Healthcare & The Environmental Footprint

Healthcare – Environmental Footprint

Background - Prior to the COVID-19 Pandemic

- **5 Million Tons of Waste** were produced by **Hospitals** each year prior the COVID-19 Pandemic
 - Healthcare generates ~ 29 LBS of Waste each day/per bed
 - Operating Rooms contribute to 30% of the waste within a Hospital
- **Medical Waste is Biohazardous**
 - 5.2 Million people die each year from diseases associated with exposure to poorly managed medical waste
- **\$8 Billion spent annually on Energy within U.S. Healthcare**
 - Greenhouse Gas Emissions
 - Climate Crisis
- **7% of Water Consumption is attributed to U.S. Healthcare**
 - By 2030, experts predict Global Water Supply will only support 60% of the Population

Healthcare – Environmental Footprint

Background – Throughout the COVID-19 Pandemic

- **“Single-use” disposable product utilization** drastically **Increased** throughout the Pandemic
 - Wuhan China reported an average of 247 tons of medical waste per day during the peak of the pandemic
 - Pre-COVID average = 45 tons per day
 - Healthcare Institutions
 - Masks
 - Gloves
 - Face Shields
 - Gowns
 - Households & Businesses
 - Waste Management is an ongoing concern
- **Wastewater Quality Deteriorated**
 - Disinfectants
- **Air and Water Resource Quality Improved** during the Pandemic and Quarantine



Enhance and Optimize Patient Care

- Support Patients, Families and Communities
- Eliminate unnecessary medical waste
- Reduce Carbon Footprint
- Reduce Financial Strain



HCA Healthcare & Sustainability

The Positive Impact of Our Scale

Through HCA Healthcare's more than 2,000 sites of care, we strive to deliver on our mission every day. The centerpiece of that mission—of who we are—is that we always have the patient's best interests in mind. Our scale enables us to conduct leading-edge research, share best practices and support services across our facilities, and most importantly, deliver the type of care our patients need, when and where they need it.

184

hospitals

104

freestanding emergency rooms

123

surgery centers

170

urgent care clinics

110+

outpatient behavioral health programs

1,300+

physician practices

96

Sarah Cannon cancer services locations

230

telehealth facilities

65

inpatient behavioral health programs

In 2019, HCA Healthcare provided healthcare services for:

~35M

patient encounters

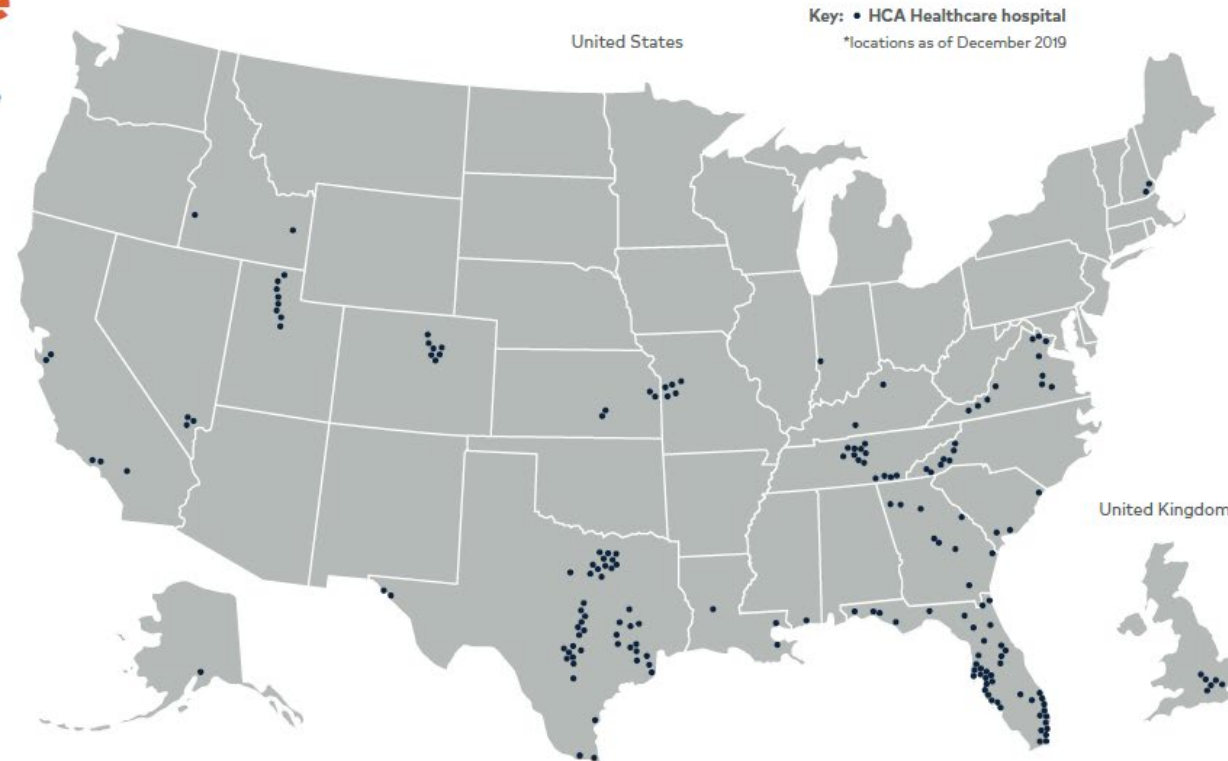
9.2M

emergency room visits

~220K

babies delivered

Source: HCA Management Services, L.P., 2021; Impact Report, 2020



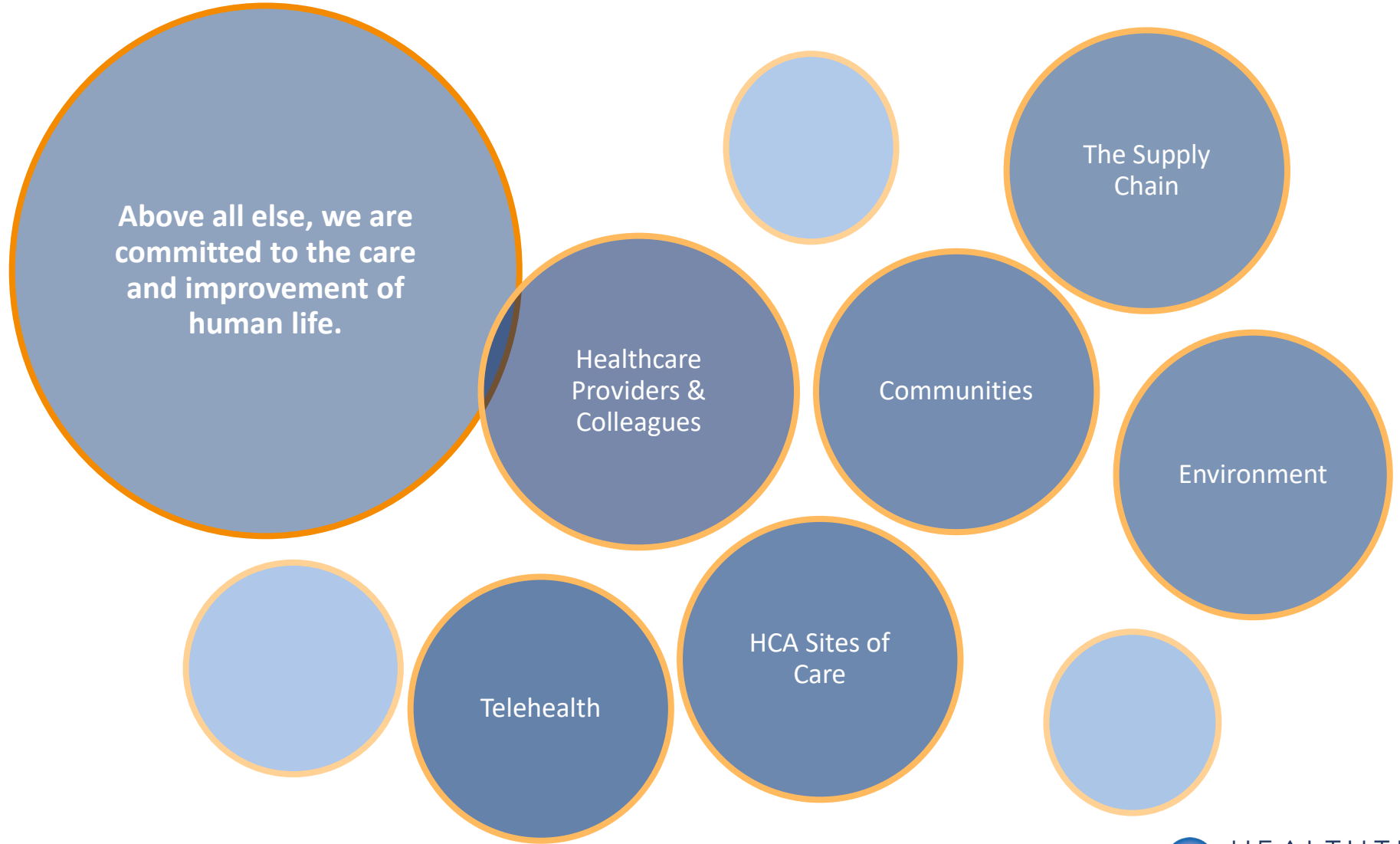
Our affiliated lines of business:

Parallon, one of the largest premier revenue cycle partners in the country, serves hundreds of hospitals and thousands of physician practices by providing deep operational knowledge, industry expertise and proven revenue cycle solutions.

HealthTrust is a healthcare performance improvement company committed to strengthening provider outcomes and clinical excellence by leveraging scale, innovation and operator expertise.

HCA Healthcare – The Mission

At HCA Healthcare, we are driven by a single mission



The Supply Chain

Sustainability Goals & COVID-19



Source: Power BI, Stryker Sustainability Report 2020, Battelle Report 2020

| Sustainability

Relationships

Sustainability Touches Everyone and **Relationships** are
the **Foundation**.



HCA HealthCare Sustainability Steering Committee

Sustainability Steering Committee

- The committee is chaired by the senior vice president and chief ethics and compliance officer, a member of the executive leadership team
- The committee includes representatives from across the company. This includes: Group and Division Presidents, Hospital CEOs, Hospital CMO, Non-Acute Care, Supply Chain
- Four taskforces address environmental concerns
- Sustainability initiatives are driven from within each task force's areas of responsibility.
- Solutions and operational actions are shared across the taskforces.



Environmentally Preferable Purchasing (EPP)

~ 1M pounds

of devices **diverted** from **landfills** through Reprocessing Programs

Product Conservation and Preservation

Construction and Major Renovation

In 2020, HCA Healthcare achieved the first two of any **LEED v4** for Healthcare certified projects in the U.S.

Increase recycled content in building materials

Waste Stream

57.4M pounds of cardboard, paper, aluminum, wood, batteries, and construction materials recycled

Enterprise-wide pharmaceutical waste program

Manage Waste
Solutions and Guidelines

Energy and Water

11.7M kWh reduction in energy usage in 2020 compared to 2019

Reduce Energy Consumption
Increase water-saving measures

Environmentally Preferable Purchasing Task Force

Environmentally Preferable Purchasing Task Force

Supply Chain & Sustainability: A Collaboration for Success

Product Initiatives that Impact the Environment and Human Health

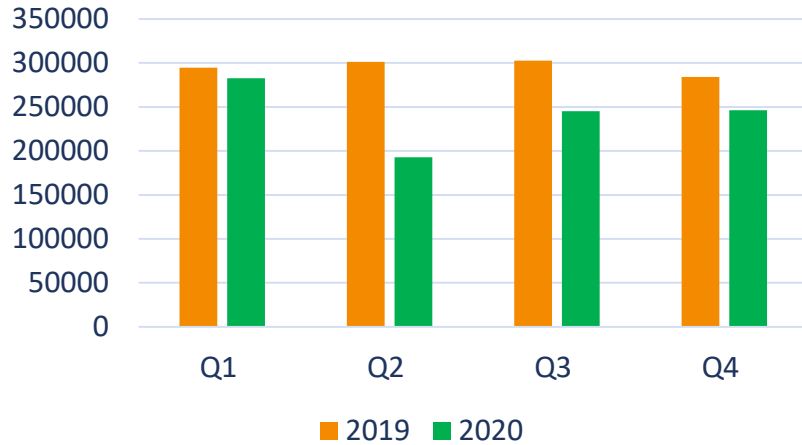
- Third-Party Reprocessing or “Remanufacturing” Single-Use Devices
 - Identification of New Supplies
- FDA Emergency Use Authorizations (EUAs) during COVID for N95 Masks
- Product Initiatives to Reduce Waste and Enhance Patient Care
 - Standardizations
 - Formularies
- Purchasing Sustainable Electronics
 - Electronic Product Environmental Assessment Tool (EPEAT) used to identify electronics that are ranked by sustainability attributes.
 - Gold (optimal), Silver, Bronze, non-rated
- Recycling Programs
 - Ink & Toner
- Re-usable Supplies
- Greening the Operating Room



HCA Healthcare's EPP Task Force Metrics

Supply Chain & Sustainability: A Collaboration for Success

LBS of Waste Diverted from Landfills

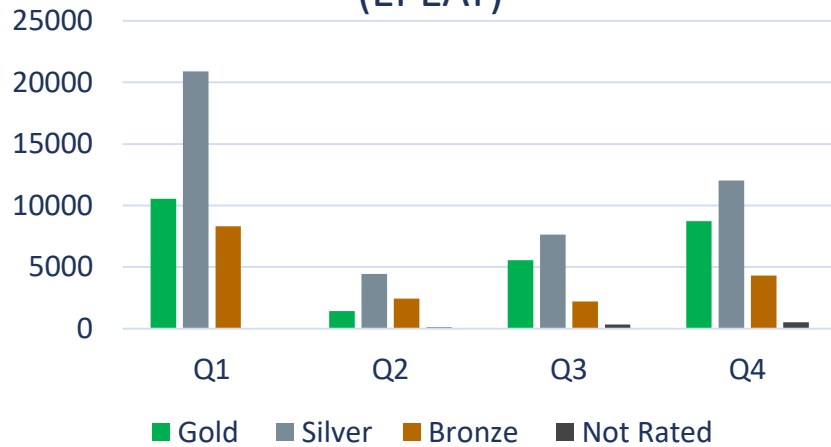


Third Party Reprocessing (“Re-manufacturing”)

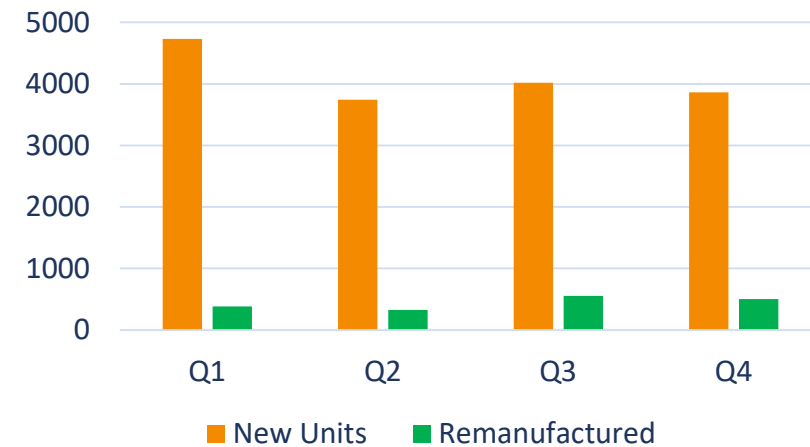
Savings



Electronic Product Environmental Assessment Tool (EPEAT)



Ink & Toner Cartridges



Source: BOBJ 450, 2019, 2020; EPEAT Report 2020, Stryker Sustainability, Medline, Sterilmed 2019 and 2020 Reports

Waste Stream

| Waste Stream Task Force 2021 highlights

Supply Chain & Sustainability: A Collaboration for Success

- Enterprise-wide Integrated Waste Contract
- Moving facilities into EPA Subpart P
- Operational efficiencies and options
- PPE and COVID-19 Vaccine Waste
- Greening the Operating Room Initiative
- Making Medicine Virtually Mercury Free
 - HCA Healthcare ENV.020 and ENV.021
- Data, Metrics and KPIs with ESG [Environmental, Social and Governance] frameworks and standards – SASB healthcare, etc.

HCA Healthcare Sustainability Goals

| HCA Healthcare – Sustainability Goals

Supply Chain & Sustainability: A Collaboration for Success

- Environmental Sustainability Goals
- Define
- Track
- Report
- Engagement



Supply Chain & Sustainability: A Collaboration for Success

Kyle Tafuri, Director, Sustainability

Hackensack Meridian Health

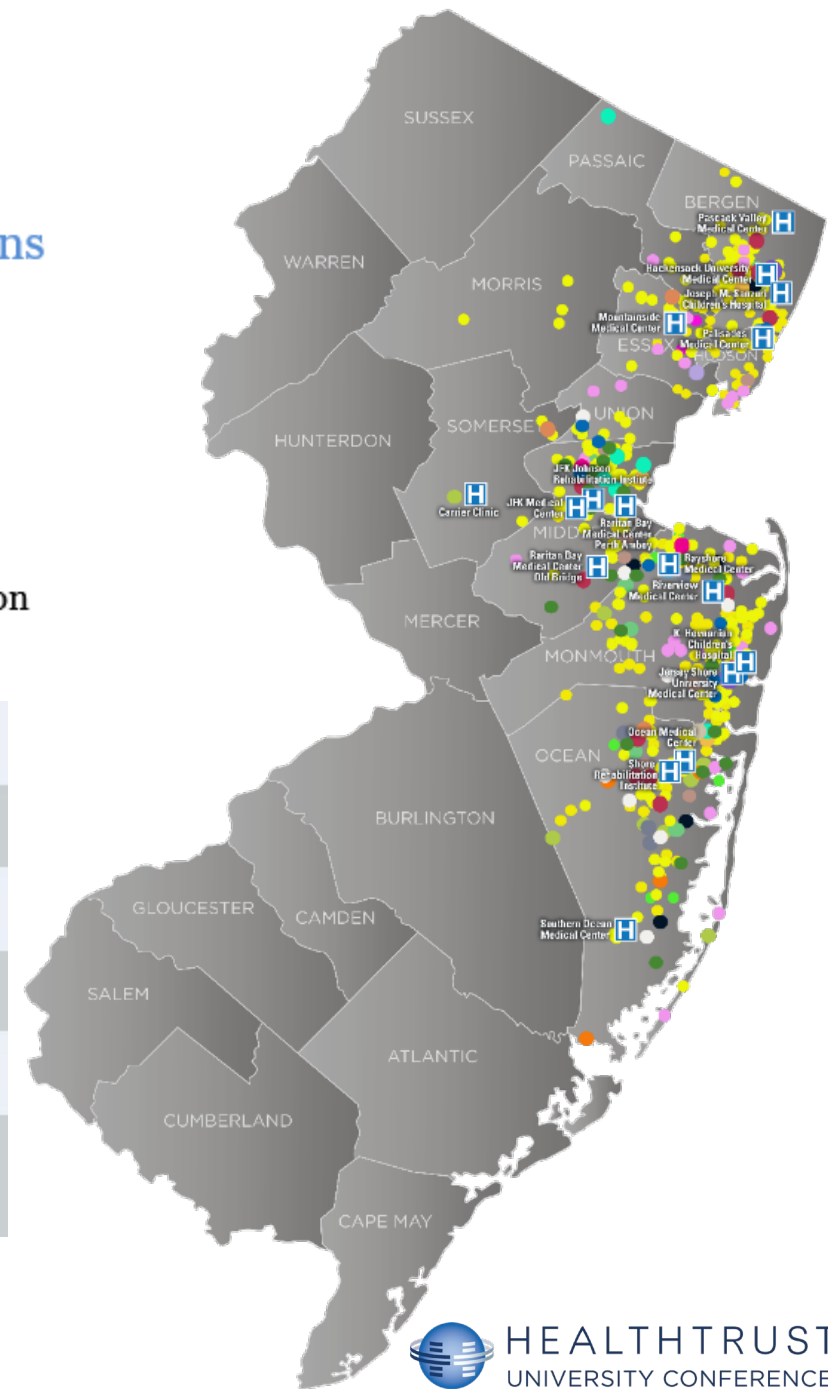
Hackensack Meridian Health (HMH) Overview

- The state's largest integrated health network with more than 500 locations

- 17 Hospitals
- 12 Surgery Centers
- 15 Long-term Care and Assisted Living
- Ambulance Services & Air Transportation
- 6 Inpatient and Outpatient Behavioral Health Facilities
- Homecare and Hospice
- 48 Convenient Care Locations
- More than 340 Physician Practice Locations
- School of Medicine
- Center for Discovery and Innovation

Team Members	35,343
Physicians	7,202
Medical Residents	598
Licensed Beds	4,757
Admissions	184,845
Inpatient Days	994,814

Births	18,060
Inpatient Surgeries	46,117
Outpatient Surgeries	74,406
Emergency Visits	675,291
Outpatient Visits	2,225,434
Community Contributions	\$472,247,901



30,000 Foot Why

Effects of Chronic Diseases on the Cost of Healthcare

90% of the nation's \$3.8 trillion in annual health care expenditures are for people with chronic and mental health conditions.^{1,2}



In 2016, the total costs for direct health care treatment for chronic health conditions totaled **\$1.1 trillion**—equivalent to **nearly six percent of America's GDP**.

<https://www.cdc.gov/chronicdisease/about/costs/index.htm#ref1>
<https://milkeninstitute.org/report/costs-chronic-disease-us>

20,000 Foot Level

The Environment and Health Connection

WHAT IS THE STATE OF YOUR AIR?

American Lung Association 2017 Report



New Jersey: Ozone Grades



STATE OF THE AIR 2017

LEAD EXPOSURE IN SCHOOLS, DAYCARES

Number of times water supplied to schools and daycares tested for high levels of lead between 2012-2015.

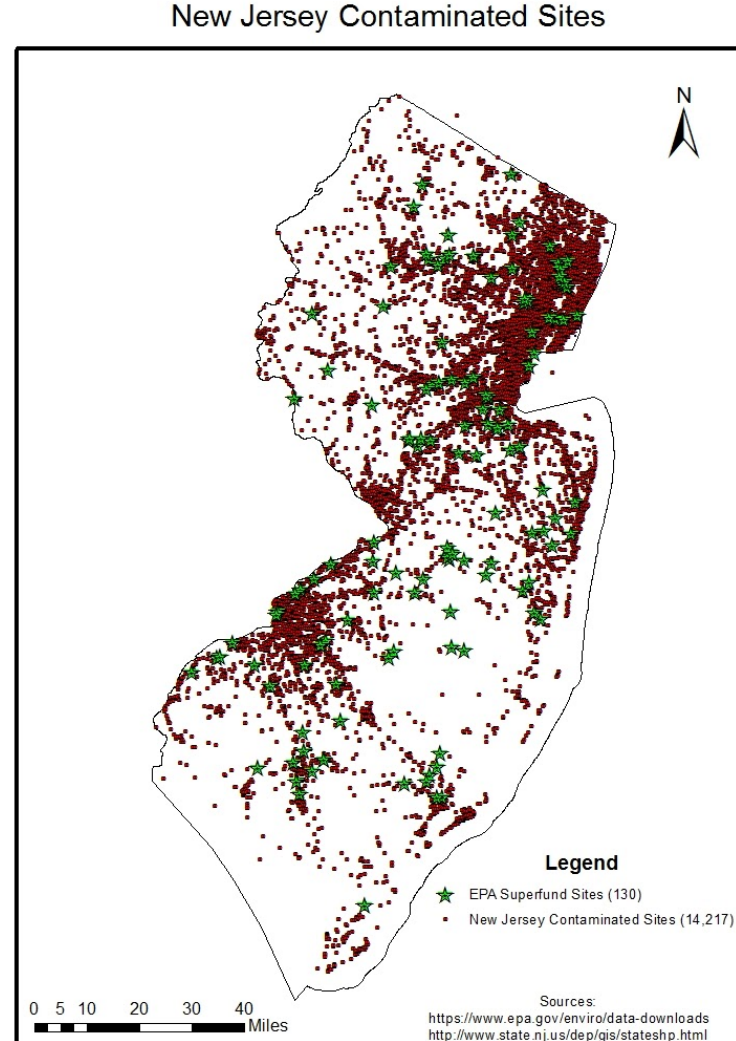
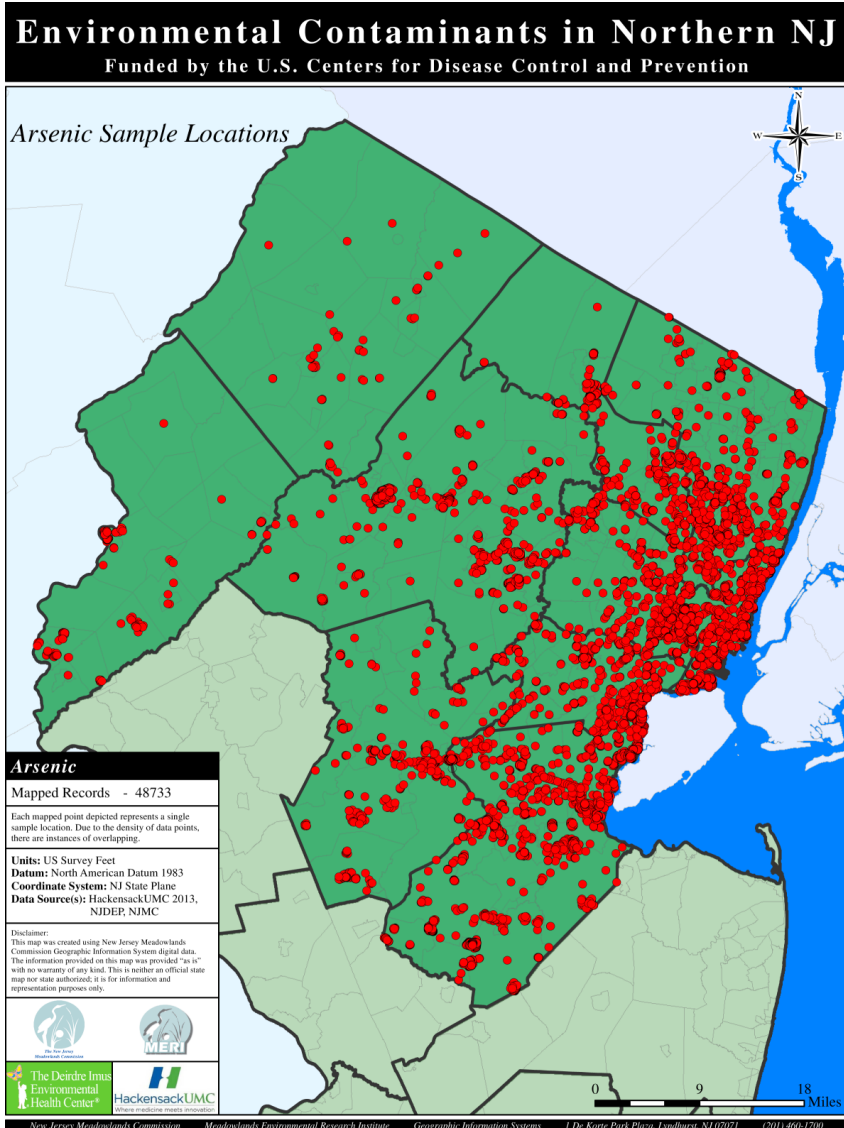


SOURCE: EPA data
KARL GELLES, USA TODAY



20,000 Foot Level

The Environmental and Health Connection



Supply Chain Touches Everything.....

- Energy:
 - Procurement/Bill Miller
- Food
- EVS:
 - Implementing sustainability requirements in the contract to utilize Green Cleaning
- Safer Chemicals
- Green Building
- Waste Reduction
- Greening the OR



Green Cleaning with Meaning

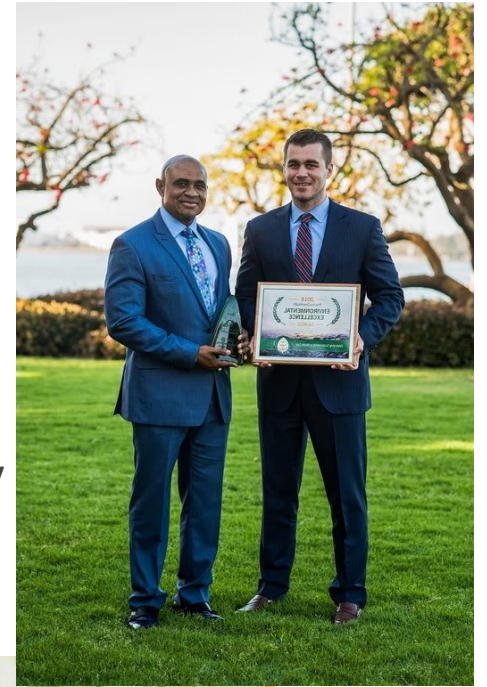
Supply Chain Touches Everything



Sustainability Structure

Key Leaders in Sustainability Program

- Director of Sustainability → CEO's Office
 - Sr VP, Supply Chain – Everything
 - Sr. VP, Hospitality – Sustainable Food Program, Safer Chemicals and Waste Reduction
 - Sr VP, Facilities and Real Estate – Green Building, Energy and Water Reduction, Clean Energy
 - Physicians
-
- Each Hospital Site
 - Executive Champion/Owner of Sustainability Committee
 - Main focus is on team member engagement
 - Main point of contact



Post-COVID

Revamping the Purchasing Green Team

- Healthy Interiors: Hospital Beds/Stretchers/Mattresses
 - Establish Baseline
 - Meet with current vendor
 - Identify opportunities
 - Execute plan
- Identifying Work we are already doing
 - Fridges/Freezers
 - Met with vendor and learned about elimination of refrigerants and energy efficiency
- Reducing Transportation Fleet Footprint
 - Purchasing hybrid only cars or downsizing
 - Completing Electrification Study
- Emissions Data
 - Scope 1 and Scope 2 Emissions
 - Utilities, Refrigerant Companies, Transportation, Anesthetic Gases

Lessons Learned on Moving Forward

- Shifting trend toward reporting sustainability: carbon footprint and ESGs
- Generations in the workforce
- We can impact so much positive change by just asking the questions

Thank you...

Zoë Beck, MBA

Domini Pelkey, RN, BSN, MBA

Anna Ward, JD, CHC

Kyle Tafuri

Take advantage of these valuable member resources

- Clinical Evidence Reviews
- Product Feature Summaries & Technology Reviews
- Clinical Question Documents
- Conversion Guides
- Live & On-demand Webinars
- Annual HTU Conference Education
- *The Source* magazine
- 10-Spot Video Recordings
- Collaborative Summits & Communities
- Service Line Consulting & Toolkits
- Innovation Center



Questions or more info:
clinical.research@healthtrustpg.com

www.healthtrustpg.com/clinical-resources/

All-member access to resources designed for clinical integration product discussions between facility supply chain leaders & clinicians

www.healthtrustpg.com/education

All-member access to live and on-demand education opportunities, in a variety of disciplines, throughout the year

www.healthtrustpg.com/thesource/

24/7 online access to HealthTrust's member magazine, *The Source*. Also published quarterly in print format

www.healthtrustpg.com/healthtrust-innovation-center

Members can invite suppliers with new technology to submit their innovative products for review

