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Case Study: Hospitals Leading the Way on Safer Chemicals & Products

Hackensack University Medical Center

“It is our obligation as public health professionals to evolve with the changing healthcare landscape while staying true to our core principles of putting our patients’ best interests first. Embracing sustainability is integral to that effort.”

– Robert C. Garrett, President and Chief Executive Officer, Hackensack University Health Network

Chronic diseases and conditions — such as heart disease, stroke, cancer, diabetes, obesity, and arthritis — are among the most common, costly and preventable of all health problems.¹ In the United States, chronic diseases and conditions and the health risk behaviors that cause them account for most healthcare costs. Eighty-six percent of all healthcare spending in 2010 was for people with one or more chronic medical conditions.²

As chronic disease management statistics continue to grow, healthcare is focused on reversing that trend. We now know certain types of cancer, learning and developmental disabilities, Alzheimer’s and Parkinson’s, reproductive health and fertility problems and asthma are some of the chronic diseases that can be linked in some way to the harmful chemicals we are all exposed to. There is overwhelming scientific evidence that some of the 80,000 chemicals on the market today link to one of these chronic diseases, yet only five have been regulated. We feel that meaningful reform of the Toxic Substances Control Act is necessary to help us better understand the chemicals in commerce today and lead us to greener, safer chemistry. Comprehensive chemical policy change must happen in order for us to truly begin creating healthier communities.



HackensackUMC began its journey toward environmental health and sustainability more than a decade ago with the help of The Deirdre Imus Environmental Health Center® (“the Center”). The Center established one of the first hospital-based programs whose mission is to identify, control and ultimately prevent toxic exposures in the environment that threaten our children’s health.

In 2001, HackensackUMC was one of the first hospitals in the country to implement green cleaning practices, beginning with the Greening The Cleaning® program, which promotes the use of safer cleaning chemicals. Since then, the Center continues to advise HackensackUMC on environmental materials and processes that contribute to the health and well-being of our patients, as we believe even a hospital environment should be healing.



1, 2: <http://www.cdc.gov/chronicdisease/overview/>

HackensackUMC has built a strong foundation by implementing a safer chemicals policy and including safer chemicals as a standing agenda item at the Environment of Care committee meetings.

Purpose: To ensure that all materials/products brought into the medical center have been screened for the use of hazardous chemicals that pose a threat to the health of patients, staff and the community environment

Healthcare institutions have a particular ethical responsibility to use materials/products, both clinical and non-clinical, containing chemicals that pose less risk to human health. A growing number of hospitals are committed to eliminating known and likely chemical hazards and to switching to safer alternatives with equal or greater efficacy. Benefits of this approach can include reduced disposal costs, reduced liability, and a healthier environment for patients and employees.

Objectives:

- 1 - Develop a practical system that addresses the identification of materials/products containing hazardous chemicals prior to purchase so that an informed decision can be made regarding possible alternatives
- 2 - Purchase materials/products that minimize the risk of hazardous chemical exposure for patients, visitors and employees
- 3 - Comply with Hazardous Materials Management Plan #H-01 Information about the dangers of all hazardous materials/products used by the medical center are known by all affected employees and are communicated according to legal requirements

Implementation of a Specific Flame Retardant-Free Purchasing Policy

Purpose: Establish guidelines and criteria for the purchase and use of interior finishes and furnishings that may contain or display properties of hazardous materials; ensure there is minimal risk to patients, personnel, visitors, and the community environment

Objectives:

- 1 - Develop a practical system that addresses the identification of products containing hazardous materials prior to purchase so that an informed decision can be made regarding the purchase of the product
- 2 - Purchase and use products that minimize the risk of contributing to the easy ignition of a fire
- 3 - Purchase and use products that minimize the risk of exposure of patients, visitors and employees to the effects of toxic chemicals potentially emitted by interior finishes and furnishings under fire conditions
- 4 - Comply with the Hazardous Materials Management Plan Objective that information about the dangers of all hazardous materials used by the medical center are known by all affected employees and communicated according to legal requirements
- 5 - Comply with Flame Retardant-Free Purchasing Policy #F-04

Formation of a Purchasing Department Green Team

In partnership with our Neonatal Intensive Care Unit (NICU) green champions, the Purchasing Department is working on completing a transformation to a DEHP-free NICU.



HackensackUMC advocacy efforts:

- Advocacy on Capitol Hill
- Joining the American Sustainable Business Council to support advocacy efforts - healthy chemical legislation will translate to healthier patients and a stronger economy
- Educating HackensackUMC team members on the Safer Chemicals Program and how it is in line with HackensackUMC's mission
- Leadership in Healthcare Without Harm and Practice Greenhealth Market Transformation group to move the market towards safer products in the healthcare sector

HackensackUMC believes the following principles are essential for an effective Safer Chemicals policy:

- Ensuring that chemical manufacturers demonstrate the safety of their products
- Taking immediate action on the most toxic chemicals (PBTs)
- Requiring chemical manufacturers to provide full information on the health and environmental hazards associated with how they are being used, and the ways the public or workers may be exposed

Environmental Health Research – Published Studies

Safe, (non-pesticide) Effective Head Lice Treatment

A new study conducted by The Deirdre Imus Environmental Health Center® at Hackensack University Medical Center, challenges the long-held assumption that pesticide-based lice treatments are the best way to eradicate infestations. The study concludes that dimethicone – a colorless, odorless silicone-based liquid – could be the answer for an effective, safe treatment option in pediatric patients. The study appears to be the first in the U.S. to partner with school nurses in a clinical trial on head lice. Six schools across New York and New Jersey enrolled students in a two-week trial on the dimethicone product LiceMD. The study found that after only one day of treatment, 98.3 percent of children were lice-free. The study was published in BMC Pediatrics June 2015 edition.

Mapping Contaminants Associated with Autism:

A Public Health Pilot in New Jersey

The Deirdre Imus Environmental Health Center® published a research study, funded by the CDC, entitled “Mapping Contaminants Associated with Autism: A Public Health Pilot in New Jersey” in the Journal of Geographic Information System. The publication, for the first time, details New Jersey maps of eight of the most prevalent toxins potentially linked to autism spectrum disorders. Read more here.

Environmental Chemicals and Estrogen Metabolism in Children: A Pilot Study

A recent study conducted by The Deirdre Imus Environmental Health Center® at Hackensack University Medical Center revealed detectable levels of various environmental chemicals in children. In a study of 50 healthy, prepubescent patients, 100 percent of subjects had detectable levels of at least five endocrine disrupting environmental chemicals in their urine. Almost three-quarters of these children had detectable levels of eight or more chemicals. The study was published in BMC Endocrine Disorders December 2015 edition.

Using this information, HackensackUMC will help educate the public about how to prevent potential health issues through eliminating toxic exposures.

In progress – Environmental Chemicals in Fetal Cord Blood and Maternal Urine: A Pilot Study

This research study explores the presence of environmental chemicals linked to endocrine disruption and certain cancers in maternal/fetal pairs among patients undergoing cesarean sections at HackensackUMC. These chemicals have become ubiquitous and are present to varying degrees in cosmetics, personal hygiene products, food additives, detergents, medications, and an array of plastics including baby bottles and children's toys. As exposure to these chemicals continues to rise, so does the concern over their potential adverse health effects. The study is a collaboration between The Deirdre Imus Environmental Health Center®, the Division of Maternal-Fetal Medicine at HackensackUMC, the Environmental and Occupational Health Sciences Institute at Rutgers University, and the New Jersey Institute of Technology.





About HackensackUMC

HackensackUMC, a nonprofit teaching and research hospital located in Bergen County, NJ, is the largest provider of inpatient and outpatient services in the state. Founded in 1888 as the county's first hospital, it is the flagship hospital of Hackensack University Health Network, one of the largest health networks in the state comprised of 1,717 beds, more than 10,000 team members and 3,300 credentialed physicians. HackensackUMC was listed as the number one hospital in New Jersey in U.S. News & World Report's 2015-16 Best Hospital rankings - maintaining its place atop the NJ rankings since the rating system was introduced. It was also named one of the top four New York Metro Area hospitals. HackensackUMC is the only hospital in New Jersey, New York and New England to be named one of Healthgrades

America's 50 Best Hospitals™ nine consecutive years, and to receive the Healthgrades Distinguished Hospital Award for Clinical Excellence™ 13 years in a row. The medical center is one of the top 25 green hospitals in the country according to Practice Greenhealth, and received 24 Gold Seals of Approval™ by the Joint Commission - more than any other hospital in the country. It was the first hospital in New Jersey and second in the nation to become a Magnet® recognized hospital for nursing excellence; receiving its fifth consecutive designation in 2014. HackensackUMC is the Hometown Hospital of the New York Giants and the New York Red Bulls and is Official Medical Services Provider to The Barclays PGA Golf Tournament. It remains committed to its community through fundraising and community events.



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About American Sustainable Business Council

The American Sustainable Business Council (ASBC) advocates for policy change and informs business owners and the public about the need and opportunities for building a vibrant, sustainable economy. Through our national member network we represent more than 200,000 businesses and more than 325,000 entrepreneurs, executives, managers and investors from a wide range of industries.

ASBC has worked since inception to advance safer chemicals and products through market and policy work on the national and state levels. To advance this work, we formed Companies for Safer Chemicals [<http://asbcouncil.org/action-center/campaigns/companies-safer-chemicals>], which represents thousands of entities like the Hackensack University

Medical Center. ASBC and its members have worked to reform the Toxic Substances Control Act and advance safer chemicals legislation at the state level. Through case studies, reports (see Making the Business & Economic Case for Safer Chemistry) [http://action.asbcouncil.org/p/salsa/web/common/public/signup?signup_page_KEY=9204], and polling of business owners [<http://asbcouncil.org/sites/default/files/files/tscasides.pdf>] ASBC advances the education and action needed to move away from toxic substances toward safer chemicals and products that will drive innovation, create jobs, and protect our workplaces and communities.

www.asbcouncil.org