Why Green Your Health Care Facility?

The health care sector consumes a massive amount of energy, releasing large amounts of dirty carbon into the atmosphere. Hospitals require round-the-clock energy consumption to power ventilators, heating and cooling systems, lighting, and medical equipment. They also generate greenhouse gas (GHG) emissions associated with food service, waste disposal, and transportation. The U.S. health care sector is ranked second in energy use after the food industry; it spends about $9 billion annually on energy costs[i] and research has found that the sector accounted for 8% of the country's total carbon dioxide output in 2007.[ii] The United Kingdom's National Health Service, public health and social care system was responsible for nearly 40% of England's public sector emissions in 2012.[iii,iv] Hospitals also produce a substantial amount of waste, from single-use disposable medical items to wastewater. Health care sector-related transportation emissions are also incredibly high, and a major contributor is pharmaceutical distribution. In a literature review on the energy burden and environmental impact of health services, Brown and colleagues estimate that "although reducing health-related emissions alone would not solve all of the problems caused by GHGs and climate change, it could make a meaningful contribution: a 10% reduction in emissions from just the US health system would have the same atmospheric impact as a 10% reduction in emissions from the entire Australian economy."[v]

Adopting environmentally-sustainable practices at your facility can reduce costs. By encouraging recycling of plastic items, the University of Chicago Medical Center cut waste costs from $55,000 to $35,000 a month. More importantly, carbon and other pollutant emissions pose a serious threat to human health. Reducing your facility's electricity and transportation associated emissions can yield substantial human and environmental health co-benefits such as reductions in respiratory diseases.[vi] Further, use of telehealth reduces travel-related emissions, recapture and use of waste anesthetic gases could reduce pollution and exposure-related illness, and better procurement activities could lead to lower distribution-related carbon emissions.[vii] Physician offices can take action by adjusting thermostats during closing time, installing energy efficient lighting or using natural light, and other energy use reduction strategies; using fewer paper goods; and encouraging staff to use public transit, walk, or cycle to work. Reducing your facility's carbon footprint takes leadership, but a concerted effort could yield major benefits that will help to mitigate the threat of climate change on human and environmental health. The NHS in England succeeded in lowering its carbon footprint by 11% from 2007-2015 after mounting an aggressive effort to reduce its carbon emissions.[viii]

Health Care Without Harm, an organization that guides health sector leaders around the world to become more environmentally sustainable, has identified the following action areas for health care facilities:

- Transportation

- Energy – Operations
- Energy – the Built Environment.
- Waste
- Food Service

As professionals invested in improving human health, physicians and other health care professionals, facility managers, support staff and others must work together to reduce the health sector's carbon footprint. This toolkit provides more detail on each of these action categories as well as case studies to highlight facilities that are leading the way to a healthier, sustainable future.

General Resources:

Health Care Climate Council. https://climatecouncil.noharm.org/

World Health Organization and Health Care Without Harm: Healthy Hospitals, Healthy Planet, Healthy People. https://www.who.int/publications/m/item/healthy-hospitals-healthy-planet-healthy-people

My Green Doctor: http://www.mygreendoctor.org/

Health Care Without Harm/Practice Greenhealth: Addressing Climate Change in the Health Care Setting: Opportunities for Action https://practicegreenhealth.org/pubs/toolkit/reports/ClimateChange.pdf

United States Global Change Research Program – The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment: https://nca2018.globalchange.gov/chapter/14/

World Health Organization - Health in the Green Economy: Co-benefits to health of climate change mitigation. https://www.who.int/publications/m/item/health-in-the-green-economy-co-benefits-to-health-of-climate-change-mitigation---household-energy-sector-in-developing-countries

World Health Organization – Climate Change and Health https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health

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[i] U.S. Department of Energy. Better Buildings Alliance: Healthcare. Washington, DC: U.S. Department of Energy. Accessed at www4.eere.energy.gov/alliance/sectors/private/healthcare on 11 January 2016.
[ii] University of Chicago Medicine. Health care accounts for eight percent of U.S. carbon footprint. Press release. November 10, 2009. Accessed at http://www.uchospitals.edu/news/2009/20091110-footprint.html
[iii] World Health Organization. Did you know: by taking action on climate change you can strengthen public health. 2015. Accessed at http://www.who.int/globalchange/publications/didyouknow-health-professionals.pdf?ua=1
[iv] Public Health England and NHS England. NHS, Public Health and Social Care Carbon Footprint 2012. January 2014. Accessed at http://tinyurl.com/glcs4cw
[v] Brown LH, Buettner PG, Canyon DV. The Energy Burden and Environmental Impact of Health Services. *Am J Public Health.* 2012;102(12):e76-82. Accessed at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3519304/
[vi] World Health Organization and Health Care Without Harm. Healthy Hospitals, Healthy Planet, Healthy People: Addressing climate change in health care settings. Discussion Draft. 2009. Accessed at http://www.who.int/globalchange/publications/healthcare_settings/en/ on April 4, 2016.

[vii] World Health Organization - Health in the Green Economy: Co-benefits to health of climate change mitigation. http://www.who.int/hia/hgebrief_health.pdf

[viii]Sustainable Development Unit. NHS carbon footprint. Accessed at http://www.sduhealth.org.uk/policy-strategy/reporting/nhs-carbon-footprint.aspx