Recommendations for Federal Health Care Facilities: Low-carbon, sustainable operations and procurement

Sustainable procurement has the power to address social determinants of health by supporting local economies, strengthening institutions in the event of natural disasters and social crises, and creating wealth for current and future generations. The purchasing power that large facilities and organizations have at their disposal can be used to create sweeping changes, and the health care sector, with its mission to "do no harm," is in prime position to lead a shift in markets and supply chains. The global health care sector collectively spends $7.2 trillion annually or 10% of world GDP. In the U.S., health care is 18% of GDP and the federal government spends over $25 billion on general health care, drugs, and medical supplies, with additional billions of dollars to support the operation of buildings and purchasing products such as meat and poultry. This directly translates to substantial greenhouse gas emissions with the health care sector responsible for 8.5 percent of all U.S. greenhouse gas emissions, for which hospitals generate over one-third of those emissions. The health care sector can therefore have an outsized impact, not only from leveraging its purchasing power, but also from the role that health care facilities often have as anchor institutions within communities.

Health Care Without Harm (HCWH), an international nonprofit founded in 1996, aims to transform health care worldwide so that it reduces its environmental footprint, becomes a community anchor for sustainability and a leader in the global movement for environmental health and justice. HCWH's membership organization, Practice Greenhealth, provides sustainability guidance and support for healthcare that benefits patients and employees, communities, financial security, and the environment. HCWH and Practice Greenhealth have spearheaded programs that have changed the way thousands of hospitals operate their facilities and purchase products, and this network has transformed markets.

Currently there are over 200 VA and U.S. Army Medical Command (MEDCOM) hospitals in our membership program. Last year, ~175 of these federal facilities provided sustainability data Practice Greenhealth for the organization's annual awards and benchmarking programs. While this represents one of the most comprehensive data sets available, tremendous benefit could be derived from increasing participation further, especially given the merger of health care facilities under the Defense Health Agency. Additional benefit could also come from getting more participation and consistency in capturing key metrics across facilities. For instance, of our federal facilities that submitted data, tracking of Scope 3 emissions, including meat purchases, was quite limited.

The Biden-Harris administration has a significant opportunity to develop policies and programs that will accelerate this work in federal health care facilities that in turn will help move the entire health care sector. Below are our key recommendations to move forward.

Decarbonize, detoxify, and build climate-resilient facilities and supply chains

HCWH works with hospitals across the country in a three-pillar framework for climate action - mitigation, resilience, and leadership. We convene the U.S. Health Care Climate Council, a leadership body of 18 health systems that implement innovative climate solutions, inspire and support others to act, and use

their trusted voice and purchasing power to move policy and markets to drive the transformation to climate-smart health care. We recommend that the Biden-Harris administration take steps to decarbonize its federal health care operations and ensure the climate resilience of its facilities in order to provide uninterrupted health care to the nation's military and veterans, and set a standard for other health systems across the nation. We recommend that the administration implement low-carbon, sustainable practices and procurement criteria that support regional economies, renewable energy, and sustainable and regenerative agriculture. Criteria should focus on non-toxic products and technologies that move toward a circular economy and assure the resilience of supply chains.

1. Develop a health care decarbonization strategy for federally operated health care facilities (Defense Health Agency, Veterans Health Administration, Indian Health Service), in line with our nationally determined contribution to the Paris Agreement to reduce net greenhouse gas emissions by 50-52 percent below 2005 levels by 2030 and to achieve net zero emissions by 2050. Systematically track facilities' progress across all scopes of emissions towards achieving these goals and provide needed funding and technical assistance.

2. Require federal health care facilities to track all measurable Scope 3 emissions in 2022, and commit to including additional Scope 3 categories as data becomes available.

3. Ensure the "social cost of carbon" (per E.O. 13990)--and specifically the impacts on human health--are considered when determining health care delivery protocols and new environmental and resilience mandates for federal health care facilities.

4. Continue to drive down energy demand (and energy-related greenhouse gas emissions) in federal health care facilities by strengthening reduction targets while increasing the use of clean, renewable energy sources.

5. Ensure any new construction or existing building renovation to federal hospitals, medical treatment facilities (MTFs), and health facilities (including the Department of Defense's Sustainable Building Policy and Unified Facilities Criteria, and the VA's Sustainable Design Manual (including new lending for veterans housing):
    - Uses the most recently published consensus-based building codes and climate-informed standards for energy efficiency, flood, and wildfire risks;
    - Increases the use of clean, renewable energy;
    - Provides for energy resilience with clean, renewable power sources and storage for sustained power outages for critical public health, health care and lab facilities;
    - Integrates of redundant water and power supplies for hospitals and other critical health care facilities.

6. Consistent with the recommendations in the health sections of the House Select Committee report Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and a Healthy, Resilient, and Just America for Veterans Health Systems (pages 333-334), we additionally recommend the VA:

- Update its 2014 Climate Adaptation Plan and address the likely effects of climate change on its health care operations, including staffing models and projections of veteran mental health needs.
- Study and assure the resilience of supply chains, allow the VA to stockpile supplies and medicines at VA facilities, and allow longer storage and sharing of supplies among DOD, VA, IHS, and communities.
- Overturn the prohibition of the use of reprocessed medical devices. Reprocessed medical devices are safe and in widespread use, even by other DoD healthcare facilities. Switching to reprocessed medical devices results in considerable cost and emissions savings.

7. Ensure that federally-funded health care facilities (including safety net hospitals, rural hospitals, critical access hospitals and federally qualified health centers):
   - Incorporate climate resilience and consider climate as an aspect of emergency management program preparation
   - Set organizational GHG reduction targets and track progress.

8. Reduce greenhouse gas emissions and pollution from transportation:
   - Reduce federal fleet-wide per-mile GHG emissions by 50% by 2025;
   - Replacement of federal fleet with zero emission (ZEVS) by 2035;
   - Development of (and funding for) EV charging stations at all federal health care facilities for use by staff, patients, and visitors to support a low-carbon economy;
   - Require all existing alternative-fuel vehicles in the federal fleet to use only alternative fuels by 2023;
   - Have GSA incentivize all suppliers/distributors/carriers to become EPA SmartWay partners to drive down transport-related GHG emissions for supply chain; and
   - Mandate a no-idling policy on all federal health care campuses.

9. Require federal health care facilities utilize medical products and systems that reduce greenhouse gas emissions and prevent waste:
   - All vendors should be asked the following questions starting in 2022 and then required to meet the criteria to be eligible for a government contract in 2024:
     - Does your organization conduct a greenhouse gas (GHG) inventory (annual or otherwise)?
     - Has your organization set a science-based target for GHG emissions reduction in line with limiting warming to 1.5^0C?
   - By 2025, reduce the greenhouse gas emissions specific to anesthetic gases in federal health care facilities by 50% from a 2020 baseline through a combination of reducing or eliminating the use of desflurane, reducing the use of nitrous oxide, utilizing lower fresh gas flow rates, considering total intravenous anesthesia (TIVA) or alternatives to

inhalational agents, and other strategies as recommended by the American Society for Anesthesiologists Environmental Task Force.

- Accelerate the elimination of greenhouse gas emissions from anesthetic agents by adopting technologies for the sequestration, distillation and reuse of waste anesthetic gases, as approved by the FDA. The U.S. Food and Drug Administration should review all available evidence and, as appropriate, fast-track approval of these technologies. Anesthetic gases account for 51% of an operating room's carbon footprint.
- Phase out the use of hydrofluorocarbons (HFCs) as propellants for inhalers through protocols that recommend prescribers consider using powder-based inhalers (DPIs) when clinically appropriate; by providing incentives to manufacturers for alternative, safer propellants; and by exploring ways to safely integrate the step down of clinical usage of HFCs specifically into the EPA's plan to phase out the use of all HFCs. HFCs have a global warming potential 1000 to 3000 times that of CO_2. HFC-propellant inhalers were responsible for over 3% of the carbon footprint of the NHS.
- Preferentially select reusable rather than disposable medical products (such as reusable isolation gowns, reusable surgical linens, reusable blood pressure cuffs, reusable sterilization containers, reusable pitchers and basins, etc.) where deemed equally effective, safe, and protective per infection prevention science to reduce GHG emissions while enhancing supply chain resilience.

10. Foster healthier buildings and people by removing hazardous chemicals from products and processes:
    - Incorporate into agency-specific design and procurement guides to not use materials or products that contain endocrine-disrupting chemicals and carcinogens, mutagens and reproductive toxicants where other environmentally preferable products are available for use in clinical care, operations, construction, repair or end-of-life replacements. Recommend the Standardized Environmental Criteria, co-created by HCWH and Kaiser Permanente, be utilized when environmentally preferable product criteria or ecolabels are not available for specific product categories.
    - Prohibit the purchase of intravenous therapy (IV) tubing, bags and exam gloves that contain Polyvinyl Chloride (PVC) and Di(2-Ethylhexyl) Phthalate (DEHP);
        - For other medical devices containing plastic components, give preference to medical devices without PVC or DEHP, and
        - Require that vendors disclose whether PVC or DEHP are present in the product.
    - Give preference to carpet, flooring, and furniture that meet HCWH's product criteria which includes elimination of priority chemicals of concern that impact human health and the environment.
        - Add the Greenhealth Approved seal to EPA's Recommendations of Specifications, Standards, and Ecolabels for Federal Purchasing for identifying compliant carpet, flooring, and furniture.
    - Update VA Directive 7713 (and any other existing federal directives for DOD, IHS, etc.) to acknowledge reclassification of ethylene oxide as a human carcinogen due to inhalation,

and set a timeline for discontinuing the use of ethylene oxide as a sterilant at federal health care facilities while incentivizing healthcare original equipment manufacturers to find safer alternatives for sterilization of reusable medical equipment.

Procure sustainable and healthy foods and adopt other food service strategies that reduce carbon and support equity and resilience

In the United States, the four leading causes of death – and largest sources of health care expenditure – are directly linked to food: stroke, diabetes, cancer, and cardiovascular disease. Industrial agriculture is one of the biggest contributors of carbon emissions. The Intergovernmental Panel on Climate Change estimates that agriculture and associated land use changes are responsible for 24% of global greenhouse gas emissions – greater than emissions from industry, and greater than the combined emissions of transportation and buildings. In addition, livestock production is responsible for approximately 14.5% of global greenhouse gas emissions. Industrial meat production methods lead to water, air, and soil contamination and degradation.

By shifting our diets toward delicious foods produced in just and sustainable ways, we can improve human and environmental health. Health is a top concern for veterans immediately after military service. Three-to-six months after service, 53% of veterans had chronic physical conditions. By increasing the amounts of fruit and vegetables (plant-forward eating) in our diets, we can prevent and improve a myriad of health conditions while reducing the massive GHG emissions of our food and agriculture system. Additionally, by using procurement strategies which align social, health, economic and environmental values, we can support sustainable and regenerative production practice, support local farm economies, and ensure equitable access for Black, Indigenous and People of Color-owned farms and food businesses to markets, while providing the resources they need to grow viable enterprises and create community wealth and resilience.

Currently, there is limited federal guidance, existing directives, targets or reporting requirements for federal health care facilities or federal agencies specific to sourcing locally, sustainably and equitably produced foods and beverages or reducing food supply chain-related greenhouse gas emissions. Additionally, the EPA has a food waste reduction goal but federal facilities and agencies are not currently required to meet those targets for food waste diversion from landfill.

We recommend:

1. Federal health care facilities set a baseline, plan, implement, track, and publicly disclose progress toward a goal of reducing greenhouse gas emissions associated with food and beverage procurement by 25% by 2030, consistent with the Cool Food Pledge. (Example tool: World Resource Institute's Cool Food Pledge)

2. Federal health care facilities meet the EPA's target of 50% diversion of food waste from landfill for all food served and sold (cafeteria, vending and patient food & nutrition). (Example tool: ReFED Food Waste tracking)

3. Federal health care facilities conduct a comprehensive assessment of:

- Current implementation of local, sustainable and equitable food and beverage purchasing, baselining this purchasing using available programs and tools being used by some institutional entities and municipalities (example tool: Good Food Purchasing Program);
- Progress made and barriers encountered in implementing the current Food Services Guidelines for Federal Facilities in both selling (in cafeteria) and serving (in patient service) food.
- Use the information collected through the assessments above to establish criteria and set goals and targets related to local, sustainable and equitable food and beverage purchasing, and establish a tracking system with mandated regular reporting on progress.

4. CDC's Division of Nutrition, Physical Activity and Obesity revise and prioritize update the current Food Services Guidelines for Federal Facilities (they are due to make changes related to the new 2020 Dietary Guidelines for Americans) to better address and incorporate health equity and sustainability (climate) considerations, and to include stronger guidance for food and beverages both *sold* and *served*

5. Once Food Services Guidelines for Federal Facilities are updated, create a mandate to ensure all federal agencies (including federal health care facilities) adopt them and report on them for food that is both *sold* and *served* in federal food service operations (both self-operated and contracted). Additionally, incentives in the form of augmented food budgets should be made for facilities implementing at the "innovation" level of the standard.

   Note: This action would impact all federal food service operations including federal health care facilities, correction facilities, and military dining facilities as well as federal cafeterias and vending operations where food is sold (e.g., in a federal office building). Additionally, the Guidelines specify that "The guidelines in this document may also serve as a model for concession and vending operations at state, local, and tribal government and private worksite facilities." So modeling implementation and tracking in the health care setting can provide examples of best practice to the food service sector more broadly.

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