Patient-Centered Climate Action and Health Equity

Destructive heat waves, floods, and wildfires, all made more likely because of climate change, have already contributed to an estimated average $148 billion in damages annually over the last 5 years in the US. In the health care sector, while some progress has been made to eliminate the 8.5% of all US greenhouse gas emissions that come from the provision of health care and to advance climate resilience in health care, more is needed. To date, of the 50 largest health care systems in the country, which provide half the hospital beds in the country, only 19 have set targets for emissions reductions. To accelerate progress, climate action must align with foundational goals of health care and be patient-centered and advance health equity.

Climate action in the health care sector often means taking steps to become more resilient to floods, fires, and extreme heat through, for example, installing redundant power systems, fire barriers, and flood walls. As helpful as these measures are for keeping facilities operational, what if patients and staff cannot access care facilities, as often happens when extreme events occur? Regarding decarbonization, only 18% of health care facilities, as often happens when extreme events occur? Regarding decarbonization, only 18% of health care’s total carbon footprint can be traced to health care's operational energy use—most of the carbon footprint stems from the pharmaceuticals, and disposable supplies, among other sources. This means that health care can only go so far in reaching decarbonization targets by powering buildings with renewable energy sources.

An equitable, patient-centered approach to climate action could enable health care to meet its climate change obligations and its responsibilities to deliver high-quality care for the betterment of all. Patients served at frontline facilities typically encounter disproportionate climate change-related health burdens in every aspect of daily life, including the air they breathe and the water they drink. For example, in the US, Black people and Hispanic people breathe air that is 46% and 39% more polluted, respectively, than air breathed by White people. Toxic substances in drinking water and waterborne diseases predominantly affect rural US residents who rely on private wells for drinking water that are more prone to chemical and microbial contamination from heavy downpours and intense hurricanes that change climate has made more likely. In 2017, an estimated 223,000 people in Texas lost access to safe drinking water after Hurricane Harvey, with many low-wealth communities of racial minority individuals waiting longest after the storm to have safe water returned. Power outages from extreme events can also put electric-powered rural wells (and larger municipal water treatment plants) out of commission.

Investments in equitable patient-centered climate action can jointly ensure care access as well as contribute to decarbonization. For example, 84 FQHCs in Puerto Rico were converted to solar power after Hurricanes Maria and Irma in 2017. Eighty of these centers remained operational with minimal care disruptions after an island-wide blackout from a failed circuit breaker in April 2022. Solar power with backup battery storage has also proven to be a lifeline to clinics enduring increasingly frequent blackouts from heat waves and fires. The free Downtown Clinic in Laramie, Wyoming, which received a grant from the Rocky Mountain Power Utility with funds from customer donations to install solar power with battery backup, has remained operational through several power outages. Interventions at health clinics have also protected potable water supplies. Solar-powered water pumps and filters, which are increasingly part of clinic operations in low- and middle-income countries, are also becoming more common in some parts of the US, with the Hope Clinic in Houston, Texas, a leading example.

Health systems can invest in renewable energy sources to reduce greenhouse gas emissions and promote health through reductions in air pollution but should take note that installing renewable energy or entering into renewable power purchase agreements can yield disparate health and climate benefits depending on where they are made. For example, the health and climate benefits of installing renewable energy in the Great Lakes and Upper Midwest, where the electricity grid is more reliant on coal, are 4 times higher than in places like California and the Southwest.
that a health system may save more lives and contribute more to health equity through investing in solar and wind in Pennsylvania than in Florida, while achieving comparable carbon reductions. Because Black individuals and Hispanic individuals in the US breathe more air affected by fossil fuel air pollution and experience more related adverse health effects, they may benefit most from health-based renewable investments.

Many patient-centered climate actions could advance health equity regardless of where they occur. Disease prevention, minimization of test and treatment overuse, protection of at-risk patients from climate extremes, and high-quality care all can help contribute to reduction of health care greenhouse gas emissions that stem from care provision. With 20% to 40% of premature deaths and as much as 25% of all health care expenses resulting from modifiable risk factors, every time health care clinicians achieve lower rates of cardiovascular disease among their patients through healthier diets, reduced tobacco consumption, and preventive medications, greenhouse gas emissions decline. Notably, an estimated one-fifth of prescriptions, one-fourth of tests, and one-tenth of procedures, as well as roughly 17.4% of supply-chain expenditures, are thought to be potentially unnecessary. Building on the Choosing Wisely campaign, which has already reduced unnecessary care in many fields of care nationwide, care could be improved, costs lowered, and greenhouse gas emissions prevented.

With a recent call for health sector climate action from the US Department of Health and Human Services (HHS) and the National Academy of Medicine’s Action Collaborative on decarbonizing health care, the nation is poised to make equitable patient-centered climate action a reality, and many funding sources could support it. Without new congressional appropriation, HHS could establish a revolving loan fund to finance equitable patient-centered climate action with access based on a system’s revenue. Innovations in value-based payments could align patient care outcomes with climate goals and bolster currently limited health promotion programs. The FQHCs, DSHs, and CAHs could work with state and local governments to obtain grants through the Federal Emergency Management Agency’s Building Resilient Infrastructure and Communities (BRIC) program, which in 2022 will distribute grants totaling more than $1 billion across all 50 states. Public utilities could raise funds through voluntary contributions or compulsory rate charges for renewable energy systems with battery backups for care facilities. Most states already have directed public utilities to raise funds this way, although proceeds may not be prioritized to benefit health care facilities in at-risk communities.

Major logistic and financial challenges in health care, including record staffing shortages, higher labor expenses, and revenue shortfalls, make the need for health care to pursue climate goals ever more important. An equitable, patient-centered approach to climate action could enable health care to meet its climate change obligations and its responsibilities to deliver high-quality care for the betterment of all.

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REFERENCES


