RESILIENT WORKERS, RESILIENT SYSTEMS⁴³

Health. Water. Climate Change. Community colleges like Merritt are connecting the dots. And the international climate community, too often focused on energy solutions alone, has begun to take note of these critical relationships as well. Christiana Figueres, executive secretary of the U.N. Framework Convention on Climate Change, was succinct in her summary for the World Health Organization in Geneva this summer: "Changes to rainfall patterns is causing a scarcity of clean, safe water to some places and floods to other places, with the respective host of health problems and food insecurity to each. And global temperature increase is expanding the range of vector- and water-borne diseases."⁴⁴

Five years ago, The Lancet named climate change "the biggest global-health threat of the 21st century." Organizations like Healthcare Without Harm are stepping up to the challenge, arguing that the healthcare sector needs to reduce the carbon footprint of its facilities, build resilient health systems based on community services delivered in distributed clinical settings, and pursue a mitigation agenda by factoring health costs into energy policy.⁴⁵ Elsewhere in this paper we have discussed climate and health in the context of community health workers, hospital preparedness, hazardous materials management, and the disproportionate vulnerability of low-income communities to climate-related health conditions, like asthma and heat stroke. Here we lift up an example of innovation in healthcare worker training and career advancement as a strategy for resilience.

Imagine a modern, resilient hospital. Most people think of highly skilled doctors and nurses striding through gleaming techno-centers, not housekeepers managing the spread of infectious disease with dry mops, or hospital workers managing potentially hazardous oil depots for back-up generators. But training front-line service workers in hospitals may be one of the best bulwarks of resilience, both by ensuring practice that could make healthcare facilities leaders in climate adaptation and mitigation,

and by providing solid opportunities for economic and educational advancement to low-income workers. Community colleges have played a significant role in doing just that, through collaboration with innovative labormanagement partnerships around the country.

The Healthcare Career Advancement Program (H-CAP) is a national network of Service Employee International Union (SEIU) locals and healthcare employers who are partnering on workforce education and training. The affiliated H-CAP Education Association comprises 15 labor/ management and labor-based training organizations that include over 900 employers and more than 600,000 workers. Beginning with a USDOL grant in 2010, H-CAP partnered with community colleges to develop a green health care program focused on workers whose jobs rank fairly low in the hierarchy of health care occupations and who are not typically viewed as agents of transformation. The pilots, which established career pathways for hospital environmental services (EVS, or housekeeping) and frontline Building Services Department (BSD) workers, ran for more than two years in Los Angeles, Seattle, DC/ Maryland, and New York City.

H-CAP's EVS Green Careers Project does not employ the language of resilience. But it embodies the concept fully in its attention to health care's triple bottom line: people (patients, workers and the community), planet, and profits (institutional viability). And impressive project outcomes demonstrated that EVS workers, with the right training, are ideally positioned within hospitals to make the triple bottom line concrete.

The Project provided training to incumbent frontline workers in 7 modules, totaling 12-14 hours, as well as 6 hours of additional customized training determined by the particular goals of different hospitals. Worker and supervisor pairs were then taught to co-lead the training modules on water and energy efficiency, waste reduction, and lowering the incidence of Hospital Acquired Infections

(HAIs). H-CAP enrolled close to 3,000 workers in the training pilots. Roughly 95 percent were people of color. Half were women. And several hundred were immigrants from non-English speaking countries (ranging from Albania to Vietnam).

The EVS Green Careers Project also wanted to create a college-level "Sustainability in Health Care" certificate program as a means to more fully train workers in sustainable health-care practices and to provide them with a credential that they could use for career or academic advancement. The course was developed under the leadership of North Seattle College, with input from labormanagement committees and college partners in the four regions around the country. The first class ran in May of 2011 at North Seattle and later in the year at colleges in Los Angeles, New York and DC/Maryland. Seventy workers have since earned the certificate. Each course used project-based learning to help workers gain the skills to develop, lead, and support systems change projects at their hospitals. Students analyzed current practices in their hospitals to identify areas of inefficiency, waste, or potential exposure to hazardous materials, and by doing so increased their problem-solving abilities, job-relevant knowledge, and sustainability skills. Students in the pilot put this analysis into practice within the labor-management committees of their respective hospitals, where many then led related projects. Completing the course was a pre-requisite for the project's newly negotiated green lead positions, and served as an on-ramp to post-secondary pathways for related occupations.

The story of Washington State is particularly instructive. The green health care program at North Seattle College emerged in the larger context of the state's Hospital Employee Education and Training Program (HEET). Created by the state legislature in 2008, the competitive HEET grants fund labor, management, and college partnerships to advance the careers of health care workers.

HEET's most essential and unique feature is the partnership at the center of any project. Labor, management, and education come together to develop projects that help the diverse health care workforce gain the skills they need to move into more advanced roles. The partnership is essential in that HEET explicitly requires real partnership of labor, management, and education. HEET partners meet regularly to design, implement, monitor, and restructure the project when required. The partnership is unique in that it creates shared ownership over innovation. This contrasts with the education system's more traditional advisory/approval relationship with industry as well as labor and management's standing training fund resources, which help individual workers with educational expenses. To be sure, these systems are essential: they connect existing pieces of the system in meaningful ways. But they do not transform the system. In contrast, HEET partnerships are a force for innovation, consistently generating new ideas, approaches, and strategies beyond the boundaries of those traditional systems.

HEET partnerships provide the foundation for programmatic innovation and success. New strategies to train workers — changing course time or location, customizing content or developing new modes of delivery, altering entrance requirements and student supports, to name just a few — grow from that base. In HEET partnerships, colleges have designed tools and strategies tailored to the needs of workers in the health care industry. And they have been able to count on the partnership of labor and management to make changes within worksites that support success as well.

Over the course of six years, with roughly \$2M invested each year, *more than 20 community colleges* have engaged in the work, building new partnerships with dozens of employers and unions across the state. While some partnerships lasted for only a year, some projects and partnerships have evolved across the entire period. And the product of these partnerships — changes to assessment and entry-standards, integration of basic and occupational

DOE, DOL, AND NSF PROJECTS RELATED TO CLEAN ENERGY

Renewable energy and energy efficiency are sectors central to resiliency. They are not by any means the whole story, as this *Guide* demonstrates. But they are areas where federal, state, and local policy initiatives are expected to drive industry expansion, and with it, a demand for technical education and training.

The US Department of Energy has compiled a series of useful tables of related grant-funded initiatives at energy.gov/eere/education/federal-energy-and-manufacturing-workforce-training-programs

The US Department of Labor offers an online database of TAACCCT grantees, searchable by programs of study at www.careeronestop.org/taaccct/taaccct.aspxd

The National Science Foundation posts Advanced Technological Education Grantees by topic and in award maps at www.nsf.gov/ate

skills, worksite delivery of education, scheduling of work and training so that workers can engage in both, case management and personal support, cohorts of co-workers moving through classes, greater use of simulations at all levels of skill — are impressive.

HEET has built the skills of hundreds of health care workers. More than 800 students have enrolled in some 1200 classes since the first HEET grant. Workers have moved from entry-level to nursing positions across the course of the grant. The full-time equivalents (FTEs) in the community college system have averaged 65 per year. HEET students are overwhelmingly female, substantially more racially diverse than the state population, and many are well-established in their work and family lives (the median age of HEET students is around 38). Half of these workers have never completed education past high school.

Improving and diversifying the healthcare workforce, in ways green and not, and transforming skill delivery, with or without explicit reference to climate change, bolsters resiliency. Insofar as they provide new and accessible opportunities for education and advancement to low-income workers, particularly women of color, and improve public health, these initiatives are creating communities of workers and families better prepared to face — even thrive in — a climate of uncertainty.

Other examples of SEIU innovation in healthcare suggest directions for community college initiatives and potential partnerships. In New York, a union and front-line workerbased Disaster Response, Recovery and Resilience Building Pilot Program for Healthcare is being implemented in areas affected by Hurricane Sandy. Funded by an Award from the National Institutes of Health/National Institute for Environmental Health Sciences, the program is led by the SEIU Education and Support Fund, the Service Employees International Union, and SEIU's United Healthcare Workers East local union representing almost 250,000 healthcare workers at acute care hospitals, clinic, nursing homes and home care employers in the region.⁴⁶ The program recognizes that training for resiliency includes training front-line workers for disaster management, starting with their own health and safety. The notoriously high rates of occupational injuries in healthcare increase in the hazardous conditions typical of emergency response. Not only are injured or ill workers unable to provide needed patient care during a disaster, but these workers also add to the community patient surge in times of emergency. Other healthcare sectors, too, are critical. Numerous pandemic plans, for example, identify the critical role of home health workers; few include provisions for related education and training.