Nurses for Environmental Sustainability in Health Care

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Background

In the field of environmental psychology, renowned researchers Rachel and Stephen Kaplan study how people who suffer from fatigue are too burned out to save the planet (R. Kaplan & Kaplan, 1977). This notion certainly applies to health care workers who are surrounded by stressful work environments, but changes in organizational structure can lighten environmental stresses so practitioners can take better care of patients and the planet.

The health care sector contributes 8% of the nation’s greenhouse gas emissions (Chung & Meltzer, 2009), but it has the intelligence, scale, and power to become a leader in the environmental movement. By using policies and practices that reduce the health care industry’s impact on the natural environment where employees and patients live, there is opportunity to promote community well-being. In return, healthier communities will ease skyrocketing health care costs and address growing nursing workforce demands.

Current Condition

Sustainability in corporate America, let alone the health care sector, is an emerging field that has yet to define many key benchmarks (Cowan et al., 2010). In 1998, the American Hospital Association and the United States Environmental Protection Agency signed a Memorandum of Understanding that listed methods for health care providers to prevent pollution. Today, Health Care Without Harm (HCWH) and Practice Greenhealth (PGH) are established organizations that connect a network of international health care facilitates to share knowledge and track that progress. Our facility not currently a member, but is qualified to join those organizations in order further our journey towards sustainability. Our mission statement includes providing just care—it may seem like it is not a hospital’s responsibility to care for the planet,
but justice as an ethical principle drives us to maximize limited resources to provide care for the most people.

Imagine a 145-pound block of plastic next to each patient bed. That is equivalent to the amount of plastic that a reusable sharps container program can divert from a landfill annually by the average PGH award-winning facility (Sustainability benchmark report, 2010). Purchasing and processing reusable sharps containers was found to be more environmentally friendly than disposable sharps containers and can reduce plastic waste. There exists technology that can redirect the sharps waste stream from the landfill to crushed road construction material (Grimmond & Reiner, 2012).

Out of any other occupation, the highest occurrence of asthma is found in nursing professionals (Kogevinas, et al., 2007). Toxic chemicals in the workplace can further raise their risk. Ironically, there are some clinical settings that expose patients and health care workers to the very same endocrine disruptors, carcinogens, and reproductive toxins that contribute to the conditions these clinics treat. A study of 20 doctors and nurses from across the country found each participant had 24 out of 62 potentially hazardous chemicals in their bodies (Wilding, Curtis, & Welker-Hood, 2009). Reducing plastics disposal and chemical exposure are just two of the hundreds of initiatives our facility can implement to improve our overall health and ease our environmental burden.

Target Condition

Establishing a “Green Team” of a wide variety of experts and stakeholders within our organization is a key component of this process. According to a PGH survey of their award-winning facilities, 75% of them have a sustainability officer (Sustainability benchmark report, 2010). Nurses spend the most time with patients than any other discipline and a nurse leader who
also has an environmental science or organizational studies background can be a strong
candidate for a “Green Team” leader.

Our facility not only needs short-term projects, or “low hanging fruit” such as cardboard
and battery recycling, but also long-term plans to shift culture such as environmentally preferred
purchasing policies that fit within patient care needs.

Root Cause Analysis

As soon as we realize that there is not only an ethical case to be made, but also a business
one, more stakeholders can agree that environmental initiatives are worth the investment. Health
care systems can fulfill the triple-bottom line and address high quality patient care, focus on the
health of the environment, and be profitable. For example, 2010 PGH award winners saved a
total of $25 million in 2010 (Sustainability benchmark report, 2010) . They also prevented
greenhouse emissions equivalent to 144,468 barrels of oil or 1.4 million years of human labor
(McKibben, 2012).

Waste in the hospital setting largely comes from organizational structure. Individuals are
not as aware of damage to the environment when institutional policy decides their actions.
Hospitals are machines with many concurrent moving pieces that sometimes are too focused on
providing the ideal inpatient experience. There is a greater life-cycle impact of our practices that
follow patients back to the community after discharge. Pharmaceuticals and hazardous waste can
be found in the water system and hospitals produce an average of 30 pounds of solid waste per
staffed bed per day (Chung & Meltzer, 2009). Such waste while US health care is ranked far
below the top in the world provides great opportunity for innovation and improvement (World
Health Organization, 2000).

Countermeasures
Following a national trend in health care systems, adopting the Lean model and A3 thinking to streamline processes will help us reach financial and pollution reduction targets. The A3 emphasizes an ideal state “that is waste & defect free, what the customer needs, dependent on where and when, safe for all (Yoder-Wise, 2011).” The Green Team can be oriented to those organizational ideas and use the Plan, Do, Check, Act cycle to focus their work.

Implementation Plan

After publicly declaring a movement towards a more sustainable culture, the Green Team will collect data on operational expenditures. Data collection will include walkthrough inspections, large-scale survey of patients’ and employees’ perceptions of priority actions, and a thorough review of regulatory restrictions. It is important to engage and educate the community at all levels from non-supporters to experts early in the steering process. In the analysis phase, we will compare our data with other hospitals, assess differences between life-cycle costs of ownership versus first costs of acquisition, and determine return on investment of proposed projects.

The Green Team will identify concrete projects and one example can be HCWH’s Healthy Food in Health Care Pledge. Ideas include expanding the local food supply chain, financially feasible alternatives to Styrofoam containers, composting, and planting a garden. These food programs would serve as a stepping stone to future changes in energy conservation, waste management/recycling, environmentally preferred purchasing, building environment and grounds, cleaning and chemicals, and parking and transportation departments (Eleby & Peterson, 2012).
Within one year, the Green Team will collect data using the same indicators and check if the problems have decreased or targets have not been met. If the data is inconclusive, reevaluation is needed.

Conclusion

In the documentary “Waste Land” about garbage pickers who collect recyclables in a Brazilian landfill, one stated, “People sometimes say ‘But one single can?’ One single can is of great importance. Because 99 is not 100, and that single one will make the difference. (Walker, 2010)” The US health care sector’s immense size should not deter nurses and other health care leaders to make positive changes—in fact, it should be a motivating reason to do so.
References


