

# Sustainability in Health Care – It Starts with Leadership

## Leadership Talks, Walks and Envisions a Healthier Future



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*Magee-Womens Hospital of UPMC is committed to providing superior health care to the families of western Pennsylvania and is a leader in advancing environmentally sustainable practices in health care, linking all aspects of our mission to greening initiatives and environmental health, safety, and stewardship.*

### Leadership Talks:

Sustainability is intimately connected to supporting healthy families and healthy communities. Green hospitals reduce carbon emissions, waste and air pollution. They reduce air contaminants that may contribute to asthma and hospital acquired infections. Patients exposed to green spaces heal faster and go home more quickly. And studies have shown an increase in employee morale, and a decrease in nursing errors for staff working in Green hospitals.

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As we celebrate our 100 year anniversary, we are reminded that respect for the healing aspects of the environment have long been a tradition at Magee.

Below is the passage from an article written by Dr. Charles Ziegler, the first medical director of Magee, published in May, 1914 in *The Modern Hospital*. The article is titled "The Elizabeth Steel Magee Hospital of Pittsburgh."

*"The new institution will be exceptionally well equipped for the care of the class of*

*patients admitted and peculiarly adapted for teaching and research purposes having an operating and teaching amphitheatre, examining rooms, operating rooms, labor and delivery rooms, research laboratories, a medical library, a museum, and the necessary offices and other rooms for the medical director and his assistants.*

*"There will also be a number of "screened-in" open air porches, sun parlors, and roof gardens and the hospital will be surrounded by separated and isolated gardens for private patients, ward patients, physicians, nurses, and servants, respectively."*

### Leadership Walks

Magee-Womens hospital has an active "Green Team" with representation from most hospital departments. Our Coordinator of Environmental Initiatives oversees the team and supports all of the environmental health initiatives at Magee. Three of our major accomplishments are:

#### **The production of a film "Baby Steps to Green Parenting."**

This film is a resource for healthcare providers who counsel childbearing families around environmental health issues. It is also available on our website and is shown on our antenatal and postpartum units three times daily. It gives families evidence based information on chemicals in our environment that have been linked to adverse health effects and advises simple lifestyle

changes to help families avoid exposures. Our educators have distributed the film to healthcare professionals who practice both in the UPMC system and in the community. We have educated professionals who work in underserved and minority communities. And we have presented the film at national conferences. (AWHONN, CleanMed and Lamaze/ICEA.) Knowledge is power and assists families in making healthier choices. This information has the potential to reduce diseases linked to chemical exposures such as cancer, obesity, diabetes and developmental delays. The potential savings in terms of human health and healthcare dollars is tremendous.'

#### **The establishment of organic and healing gardens in 3 indoor courtyards at Magee.**

Two of the gardens furnish organic vegetables and herbs which are utilized by our dietary staff in healthy meals for both staff and patients. The third garden is a sensory garden which provides a relaxing space for staff, patients and visitors. We recently toured dietary staff of other UPMC facilities who are interested in following our lead.

The use of pesticides is linked to cancer, endocrine disruption and developmental delays. We advise our families to avoid pesticide use. It was a logical step to model that behavior. The gardens also serve as venues for both staff and patient education.

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Nursing students from Carlow College volunteer to help with harvest and garden maintenance. The environmental impact of the garden can be seen in the biodiversity present there. Honeybees, birds, and a variety of pests and predators have been observed. The gardens are visible from patient rooms, most notably, the women's cancer unit and the Woman Care Birth Center. Many patients and their families have remarked on the benefits of the gardens including stress reduction and a general sense of well-being. It is hard to document the cost savings of the gardens. However, numerous studies show that access to outdoor spaces reduces both length of hospital stay and amount of pain medication required.

### **A 50% reduction of regulated medical waste over the past year.**

This was accomplished through audits, the realignment of waste containers and staff education. This reduction not only benefits the environment but creates a significant cost savings. RMW is irradiated at a local facility and then transported and placed in landfill. Reducing this waste then reduces concurrent costs both monetary and environmental. Fewer trips to the disposal site translate to fewer fuel emissions and fewer greenhouse gases released into the environment. As waste decays in landfills, it produces methane, a potent greenhouse gas. So the goal of a sustainable health system should include the reduction of all waste.

At Magee about 20% of our waste stream is recycled materials. This includes medical equipment donations to our community partner, Global Links. Staff at Magee are continually looking at ways to increase recycling compliance.

### **Leadership Envisions**

We are presently involved in a construction project which will add needed space to our existing hospital. We are following green building principles and will be seeking LEED certification. All aspects of the building

are being reviewed for sustainability. This includes building materials, furniture, waste management, daylighting and education.

We will continue our commitment to linking the clinical aspects of our practice to environmental health principles. We consider this one of the core strengths of our initiatives. We will expand on already existing education for staff, patients and community. In April, 2012 we will be presenting the 4th annual symposium for environmentally literate healthcare providers. The focus of our 2012 Environmental Health Seminar will be educating providers, staff and patients on the importance of critically evaluating what they eat. Obesity is a National Epidemic with a host of causative factors. In addition many clinical illnesses are markedly impacted by what we eat. Unfortunately few health care providers have been trained to provide "down to earth" patient education and support. We will use our 2012 program to kick off an educational program to teach providers "how to teach" their patients "how to eat healthy and environmentally responsible"

Another major goal is the "greening" of the OR. This initiative is led by Dr. Noe Copley-Woods and will look at all aspects of the OR in regards to waste reduction. In collaboration with the University of Pittsburgh School of Engineering, Dr. Woods will be conducting life cycle analysis.

As always our goals include continuing our leadership role inside the UPMC system and beyond. We stand as a model of green practices and are committed to sharing those practices with other health care facilities and helping them to engage in their own "green journey". We plan to accomplish this through workshops and private consultation.

In the future the health care industry and in particular Health Care Systems such as UPMC will become increasingly responsible for the overall Health of our community. So much of that health is related to the environment in which our patients live. As the

future fiduciaries of our Community's health Magee and UPMC are well positioned to be able and willing to participate in community education and advocacy for health. Our current work in our Perinatal patients, our neonatal patients, our operating rooms and our hospital's physical plant is helping us prepare and build our environmental health program for the future.

