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Central Ohio Hospitals Work to be Good Energy Stewards

Hospitals closing in on 10-percent energy-reduction goal

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Central Ohio is fortunate to have four strong hospital systems – Mount Carmel Health System, Nationwide Children's Hospital, OhioHealth and The Ohio State Wexner Medical Center – where excellent care is available 24 hours a day, every day of the year. Our hospitals remain strong partly because there is healthy competition among us to offer the most up-to-date treatments in the best equipped buildings.

Over the past seven years, our hospital systems have also been competing over the use of natural gas and electricity, but not in the way you might think.

In 2017, the Central Ohio Hospital Council – a roundtable of hospital system CEOs that meets regularly to address pressing regional health issues – created the Hospital Energy Efficiency Collaborative. Our CEOs charged us, as our systems' energy leaders, to reduce the amount of

energy our hospitals use by 10 percent by 2025, a seven-year project that we call the “10 x 25 Initiative.” Starting in 2017 and every quarter since, each central Ohio hospital submits the amount of energy used per square foot and compares that data with other collaborative hospitals. We’ve steadily reduced our energy usage and are close to reaching our goal of a 10 percent reduction in energy usage before the end of 2025.

To give you an idea of the scale of our work, the median-sized home in Franklin County is about 1,660 square feet, for which the owner spends about \$160 per month for electricity and natural gas. The average Franklin County hospital is 1.3 million square feet in size and spends \$408,000 per month for energy. Some hospitals are larger, some smaller, but on average we manage the equivalent of more than 2,500 homes at once.

Of course, unlike homes, hospitals have unique energy demands. We operate 24 hours a day, seven days a week. We continually humidify and exhaust a lot of air to reduce the risk of airborne infections. We sterilize thousands of surgical tools daily. Some of our equipment requires extraordinary amounts of power. For example, one MRI imaging machine uses as much electricity in a year as 260 houses.

How did we improve our energy efficiency so much over the past seven years? The answer is by adopting many of the same behaviors we follow at home, and by installing updated controls like many residents have in their homes, but on a much larger scale. Lights now turn off and on automatically in some areas based on whether there is anyone present. Smart thermostats in rooms, offices and public areas operate on timers and have pre-set high and low temperature limits for different times of the day. We replace incandescent and fluorescent light bulbs with energy-efficient LED bulbs wherever we can; not only do they use less electricity, they also last 25-50 times longer than incandescent bulbs and 5-10 times longer than fluorescent bulbs. This means our staff spends less time changing light bulbs, and we generate less landfill waste.

Using central computer databases at each of our hospitals, we can see how well areas inside and outside our buildings are performing and make adjustments accordingly. These data come from smart devices located throughout our structural systems that continuously collect and report readings. We and our engineers and technicians monitor these readings by zone, by floor, and sometimes even by room 24/7.

We’ve learned from each other many best practices on lowering energy consumption. Our collaborative meets quarterly, facilitated by representatives from COHC and the Ohio Hospital Association. At every meeting, we discuss our latest projects and talk about future plans. We’re at a point today where we feel we’ve accomplished the easiest and most impactful projects to improve our buildings. Now, we’re shifting our focus to more complicated challenges and incorporating what we’ve learned into major new construction projects. We’ll continue to share ideas and progress with one another.

When we improve the energy efficiency of our hospitals, we improve community health and conserve valuable resources. Energy use creates carbon emissions, which contribute to poor air

quality, which in turn worsens asthma and other breathing disorders in our city. Reducing our hospitals' energy consumption directly improves the health of some of our most vulnerable fellow citizens.

Also, as leading non-profit organizations in our community, we feel it's our duty to be good stewards of valuable public resources such as energy. We also are committed to looking at every avenue available to lower costs, in this case by reducing energy usage. Our commitment to delivering high-value, low-cost care demands that we not waste resources, and explore every opportunity to operate more efficiently.

As we celebrate Earth Day this year, we're proud of the accomplishments of the Hospital Energy Efficiency Collaborative over the past seven years. We look forward to the years ahead and the new ideas in energy conservation we can bring to our hospitals and the people of central Ohio.

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