

Unit 2. Sustainable Healthcare Facilities

Theme №5: Role of the Physical Environment in Green Building and Health Lecture 5

Lecture outline:

- High-Performance Healing Environments
- Green Guide for Health Care.
- Green Hospital Building.

Because modern healthcare facilities are large consumers of resources, they provide an opportunity to make changes or reduce the consumption of these resources. Despite financial pressures, they are dedicated to helping people and can be models for other institutions, said Craig Zimring of the Georgia Institute of Technology. According to Zimring, there are two agendas for green health care: the green agenda and the design-as-quality-support (DQS) agenda. The green agenda is a multilevel analysis of socioeconomic health impacts at multiple scales, ranging from a building's occupants to society as a whole. The DQS agenda converges with the green agenda but differs, according to Zimring, in some important ways. Similar to the green agenda, the DQS agenda advances social and economic goals, but it focuses on using design to improve quality and safety outcomes, such as error and infection reduction, staff turnover, length of stay, and patient and family satisfaction. In this agenda, design is viewed as a tool that can affect healthcare outcomes for patients, staff, and the institution as a whole.

As construction technology advanced during the past century, the design of hospitals changed from daylit, naturally ventilated, pavilion-style buildings to high-rise buildings with mechanically conditioned air, said Robin Guenther of Guenther 5 Architects. Bellevue Hospital in New York City is a prime example of this change. It was built on a site near nature, overlooking the East River, before the expertise was available to build high-rise buildings or provide mechanical ventilation. At that time, hospitals needed access to clean air and fresh water to heal people. The facility has continued to expand and based on blueprint calculations, Guenther reported that Bellevue Hospital now has 60,000 square feet of floor space, an acre and a half footprint, and less than 10 percent of the building has a window.

Exercise 5.

Survey and work in groups:

- Explore how you can rethink hospitals and transform their design to show that design is a tool for improving quality, safety, and experience.
- Uncover the problem and pay attention to the effect of indoor air toxicity on patients.