

Chubb Environmental Advisory

Sweeping Healthcare Changes Renew Focus on Environmental Risks of Construction

Gerry Rojewski & Patrick Dorris

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Sweeping regulatory changes, increasing competitive pressures and rapid technological advances are transforming the healthcare industry. On the regulatory front, the Affordable Care Act (ACA) touches nearly every aspect of healthcare from insurance eligibility to which treatments are offered and how they are delivered. The traditional healthcare service model itself is rapidly evolving as hospitals move to provide more care on an outpatient basis and in neighborhood clinics. In addition, technology continues to advance in many areas of medical care, impacting both patient care and facilities requirements.

To meet the demands these challenges impose on their physical space, hospitals and other healthcare providers are seeking to build new facilities or renovate existing ones. As they embark on construction projects, healthcare organizations should be aware of the potential environmental risks that can jeopardize patient health and lead to significant financial losses. A proactive approach to risk management for construction and facilities maintenance can help to address these exposures, but healthcare organizations should also consider seeking expert help

where appropriate to minimize the risk of pollution problems. In addition, they should recognize that without an insurance policy that specifically addresses the environmental exposures that arise from construction and daily operations, they may have significant gaps in coverage.

Health law drives construction decisions

As they seek to adapt to the changes brought by the ACA, healthcare organizations are taking a new look at their facilities. About half of hospitals were considering ACA requirements as part of their construction and design plans, according to a survey by Health Facilities Management and the American Society for Healthcare Engineering.¹ Among construction plans, there is an increased focus on ambulatory care and emergency department projects, according to the survey, conducted in late 2013. New medical office buildings and neighborhood outpatient facilities also were receiving greater attention, the survey showed.

Move to ambulatory care

The increased focus on outpatient facilities is part of a long-term trend. Since the first ambulatory surgery center was established in 1970, the number of such centers has risen to more than 5,300, and such centers perform more than 23 million surgeries a year.² By early 2013, the number of ambulatory surgery centers was nearly on par with the number of hospitals nationwide.³ About two-thirds of all surgery visits were on an outpatient basis in 2006, up from half in 1996, according to the Centers for Disease Control, and outpatient surgery visits to freestanding centers increased threefold over the same time period.⁴ For healthcare organizations, ambulatory care centers and community care clinics may offer greater flexibility and cost savings in construction and maintenance when compared to acute care hospitals.⁵

Increasingly, healthcare systems are seeking to provide a broader menu of services at outpatient centers, offering primary and specialist care, procedure rooms, radiology services and cancer therapies. Larger integrated sites that provide multiple types of care are attractive to patients because they offer a full suite of services and support at a single location, including medical testing and pharmacies. Integrated facilities also facilitate healthcare by tying into a common electronic health record system.

Another factor in the move to ambulatory care has been the increasing competition that hospitals face from walk-in clinics, particularly at drugstore and big retail chains. Today, clinics staffed by nurse practitioners and physicians assistants offer a wide and growing variety of medical services. There were about 1,600 such clinics at drug and retail stores nationally in early 2014, and that number may double in the next few years.⁶ Hospitals also face competition on price as walk-in clinics may offer services at significantly lower costs than emergency rooms and physicians' offices.⁷

Modernization spurs construction at existing inpatient facilities

For inpatient facilities, construction is being driven by the need to modernize and upgrade existing buildings. Enhancements may include more single-patient rooms to improve infection control and to meet the consumer preference for private rooms. New rooms are being designed for ease of use by patients as well as increased efficiency for healthcare workers and other staff. Another driver for construction is the "two-midnight" rule, under which Medicare provides reimbursement at inpatient rates for patients who require a stay of at least two nights in a hospital and at outpatient rates for those kept under observation for shorter periods of time. That change is leading hospitals to incorporate observation units for patients who do not need the heightened level of care of a medical-surgical floor, where there will be a much higher nursing ratio and a higher level of expenses.

Mergers and acquisitions drive facilities changes

In addition, the hospital landscape is being reshaped by consolidation as larger hospitals acquire smaller ones to seek economies of scale. Mergers and acquisitions among hospitals have been trending up since 2009 with the value of deals reaching \$18.6 billion in 2013, with much of that due to two multi-billion-dollar deals, according to a study by PricewaterhouseCoopers, LLP.⁸

A major driving factor in mergers and acquisitions in the healthcare industry is the need to invest in new and existing facilities. Larger systems with access to greater financial resources may be better placed to make these investments than stand-alone facilities. Another contributing factor may be a change in payments to a focus on outcomes rather than procedures under the ACA that will pressure reimbursements.⁹

Evolving technology demands flexibility

Along with the regulatory and competitive challenges, the healthcare industry also is dealing with rapid advances in technology that have greatly improved patient care and outcomes, but which also place significant demands on the facilities themselves. When it comes to construction projects, the physical design of the facilities needs to be flexible enough to accommodate changes in technology and equipment, such as CAT scan and magnetic resonance imaging (MRI) machines.

That flexibility is important not only for spaces dedicated to equipment, but also for patient rooms as well. Future patient rooms may be designed with technology and monitoring equipment embedded in walls and surfaces to improve patient care and comfort and to enhance efficiency.¹⁰ Hospitals also are keeping in mind the same considerations as they seek to meet those goals in emergency room and acute care settings.

The technological considerations aren't limited to patient care. The move to electronic health records mandated by the ACA also is increasing pressure on healthcare providers to significantly increase their data storage capabilities. The proportion of hospitals with at least a basic electronic health records system had nearly tripled to 44 percent in 2012 from 2010, according to a 2013 report by the Robert Wood Johnson Foundation.¹¹

As technology plays an increasing role in healthcare services, organizations also need to dedicate more space to house the computer equipment that runs electronic systems. Such server "closets" must be designed to provide adequate space for proper ventilation as well as with sophisticated cooling systems to prevent overheating. In many cases, older server rooms may not provide enough space for the cooling and ventilation needs of up-to-date equipment.

Healthcare organizations should recognize that without an insurance policy that specifically addresses the environmental exposures that arise from construction and daily operations, they may have significant gaps in coverage.

The environmental risks of construction

To deal with the regulatory, technological and competitive challenges, hospitals and other healthcare providers are continually investing and re-investing in their facilities. For construction projects at healthcare facilities, special consideration should be given to pollution risks that could further jeopardize the health of patients. A major challenge in healthcare construction is renovating occupied buildings, such as patient floors or operating rooms. This requires a multi-disciplinary approach with input from medical professionals, infectious disease specialists, plant and facilities managers, design professionals and the construction team.

Because of the nature of the work itself, as well as the materials, equipment and supplies, construction poses a wide range of environmental risks. Without the proper precautions, construction, renovation and even maintenance projects can spread a variety of contaminants that may impact patients, staff, workers and visitors health through heating, ventilation, air conditioning and water systems. Potential issues include mold spores, bacteria, dust, welding fumes and silica dust from concrete block. Testing for contaminants such as mold and legionella pneumophilia, the bacteria that causes Legionnaire's disease, before work begins is an important step in mitigating these risks.

Other common construction activities also bring risks. Healthcare organizations also should be aware of the potential danger of fuel leaks or spills from construction equipment and vehicles. Offsite, it is important to recognize that liabilities may arise from improper transportation or disposal of construction material and debris.

Whatever the project, proper consideration should be given to the measures needed to prevent the spread of contaminants. One key step is the Infection Control Risk Assessment (ICRA) to identify the steps that will be taken to protect patients, staff, workers and visitors from contaminants while construction is under way. Measures may include ventilation to the outside, the use of HEPA filters, portioning off work areas and including "clean room" style dressing areas where workers can put on and safely dispose of protective clothing, masks and cloth boots.

To protect patients, staff and visitors during construction, containment systems should be put in place to seal off work sites, and those systems should take into consideration the building design to avoid the inadvertent spread of contaminants. Besides the potential for bodily injury in patient and staff areas, mold and other pollutants can cause significant damage to data centers.

By taking proper care ahead of time, healthcare facilities can minimize the chances that they will face potentially significant costs for remediation, bodily injury and wrongful death claims. Remediation, which may require shutting portions or even all of a facility, can be both extensive and expensive. Problems that require immediate attention may be particularly costly as an emergency response is likely to entail significantly greater expense. In addition to the remediation costs, there is also the potential for long-term damage to the facility's reputation by negative news coverage of a pollution problem.

A broad-based approach to risk management that includes comprehensive coverage for environmental exposures along with consulting and engineering services to help identify and mitigate problems is crucial.

A broad-based risk management strategy

To mitigate the pollution risks associated with construction, healthcare organizations should consider bringing in outside experts from the planning stage to develop strategies to identify and mitigate the environmental exposures. Organizations considering acquisitions may want to consult with environmental experts to evaluate the environmental risks that may be associated with a transaction.

As they work to mitigate environmental risks, healthcare organizations should recognize that their traditional general liability policies may leave significant gaps in coverage. Most general liability policies include an absolute or total exclusion of pollution risks or may provide only limited coverage on a sudden and accidental basis for bodily injury or property damage. General liability policies typically will not cover the costs of remediation.

To protect themselves from environmental claims, healthcare facilities should consider a pollution liability policy that specifically covers environmental risks and the costs of remediation, decontamination and other expenses such as expert help in crisis and reputation management. As part of a proactive risk management strategy, healthcare organizations may want to take a more comprehensive approach. An owner-controlled CPL (contractor's pollution liability) insurance program, for instance, can provide

pollution coverage for all construction activities at a specific facility or company-wide, and for the transportation and disposal of construction materials and waste. Policies specifically targeted for healthcare facilities can provide coverage for emergency response, catastrophe management and decontamination for a wide variety of environmental exposures, including mold and bacteria. Healthcare facilities should consider coverage for business interruption expenses and diminished value of damaged property.

As regulatory, technological and competitive pressure drive fundamental changes in the healthcare system, it is crucial to recognize the risk management challenges that this transformation brings. As they adapt existing facilities and build new ones to fit this new, evolving model of care, healthcare organizations need to make sure that they take the appropriate steps to protect their patients, their businesses and their reputations. A broad-based approach to risk management that includes comprehensive coverage for environmental exposures along with consulting and engineering services to help identify and mitigate problems is a crucial part of this strategy.

About the Authors:

Gerry Rojewski is Senior Vice President, Chief Underwriting Officer and North America Product Line Manager for the Chubb Environmental Risk Contractors Program. Based in Philadelphia, Mr. Rojewski has a background in engineering and construction as well as extensive experience writing pollution and professional liability insurance. He holds a BS in Mechanical Engineering and an MBA and is a licensed insurance producer.

Patrick Dorris is Associate Vice President for Real-Estate Design & Construction for Penn Medicine, based in Philadelphia, PA. For over 35 years, Mr. Dorris has worked in the healthcare industry in a variety of operations management roles. He holds a BS in Biology and an MBA in Health Care Administration.

Endnotes:

- 1 "2014 hospital construction survey," Health Facilities Management. Feb. 3, 2014, See: http://www.hfmmagazine.com/display/HFM-news-article.dhtml?dcrPath=/templatedata/HF_Common/NewsArticle/data/HFM/Magazine/2014/Feb/0214HFM_FEA_CoverStory
- 2 Ambulatory Surgery Center Association, See: <http://www.ascacconnect.org/ASCA/AboutUs/WhatisanASC/History/>
- 3 "Ambulatory surgery centers catching up to hospitals," Dallas Business Journal, Jan. 29, 2013, See: <http://www.bizjournals.com/dallas/news/2013/01/29/ambulatory-surgery-centers-catching-up.html>
- 4 "U.S. outpatient surgeries on the rise," Centers for Disease Control, Jan. 28, 2009, See: <http://www.cdc.gov/media/pressrel/2009/r090128.htm>
- 5 "Ambulatory Care Facilities: The Evolution of Healthcare," Medical Construction Design, April 15, 2014, See: <http://mcdmag.com/2014/04/ambulatory-carefacilities-the-evolution-of-healthcare/#.U87U8FZM6DU>
- 6 "Drugstores play doctor," Wall Street Journal, April 7, 2014, See: <http://online.wsj.com/news/articles/SB10001424052702304819004579487412385359986>
- 7 "The rise of the pharmacy clinic," Business Insider, July 11, 2013, See: <http://www.businessinsider.com/the-rise-of-the-pharmacy-clinic-2013-7>
- 8 "Report: Significant Hospital M&A Activity Likely to Continue This Year," Becker's Hospital Review, March 27, 2014, See: <http://www.beckershospitalreview.com/hospital-transactions-and-valuation/report-significant-hospital-m-a-activitylikely-to-continue-this-year.html>
- 9 "M&A activity among for-profit hospitals to continue as healthcare reform progresses," Moody's Investor Services, Oct. 22, 2013, See: https://www.moody.com/research/Moodys-MA-activity-among-for-profit-hospitals-to-continueas-PR_284944?WT.mc_id=NLT-TLE_YYYYMMDD_PR_284944
- 10 "What would the ideal hospital look like in 2020?" Wired, July 19, 2013, See: <http://www.wired.com/2013/07/hospital-of-the-future/>
- 11 Hospitals, physicians make major strides in electronic health record adoption, The Robert Wood Johnson Foundation, July 8, 2013, See: <http://www.rwjf.org/en/about-rwjf/newsroom/newsroom-content/2013/07/hospitals-physicians-makemajor-strides-in-electronic-health-re.html>

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