

Challenges and Opportunities Healthcare Facilities are Facing Today

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The challenges faced by healthcare facilities due to aging infrastructure, workforce shortages, and siloed technologies - proposing proactive strategies for a more resilient future.



For the last two years, the rising cost of labor and the soaring profits of pharmaceutical companies have often grabbed front-page headlines. Lurking underneath those headlines is a different set of challenges that hospitals and healthcare facilities operators are facing. Financial, operational, and staffing hurdles threaten the balance between patient care, operational efficiency and financial stability.

Working with and talking to countless facility managers and hospital leadership teams has led to our awareness that a traditional and reactive maintenance approach is no longer sufficient. Healthcare must embrace a more proactive strategy, leveraging data, innovation, and technology to navigate this complex environment. Let's start by highlighting the four challenges that we see most often and some of the staggering statistics that will help you visualize their impact.

1. **Aging infrastructure** creates a significant burden

A 2022 report by Definitive Healthcare found the average U.S. hospital exceeds 13 years old, with over 15% surpassing 20 years [1]. Upgrading these aging electrical systems, plumbing, and HVAC requires substantial capital investment while ensuring ongoing care is not disrupted. This deferred maintenance backlog is a national concern, estimating 35% of hospitals in the US resorting to expensive emergency repairs due to deferred maintenance [2].

2. **Workforce shortages** pose a growing threat

An aging workforce and a shrinking pipeline of new graduates exacerbate the issue. According to a 2020 compensation and job satisfaction survey by HTM-industry magazine 24x7, the average biomedical equipment technician in the US is 52, with a looming retirement wave on the horizon [3].

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Lack of qualified personnel was ranked No. 1 on the list of hospital CEOs' top concerns in 2021, according to the American College of Healthcare Executives' annual survey of top issues confronting hospitals. 85% of the respondents identified a critical shortage of healthcare technicians right after Registered nurses [4].

These combined shortages lead to delays in preventative maintenance and equipment repairs, ultimately impacting facility operations and patient care.

3. **Integrating new technologies** with existing infrastructure presents additional obstacles

A 2022 Frost & Sullivan report estimates the global healthcare IT integration market will reach \$18.8 billion by 2027, highlighting the significant financial investment required [5]. Moreover, many facilities still rely on outdated and siloed systems, making data exchange and integration difficult. A 2021 HIMSS Analytics study found that 42% of healthcare providers report challenges integrating data from different systems [6]. This lack of interoperability hinders operational efficiency and limits the potential benefits of new technologies, hindering the ability to deliver modern, data-driven care.

4. **Shifting care models** further complicates matters

The rise of outpatient care and telehealth means underutilized space within facilities. Studies by the journal "Health Facility Management" suggest hospitals can achieve occupancy rates as high as 85% through strategic space optimization techniques [7].

Building a More Resilient Future with Proactive Strategies

While these challenges are daunting and can seem insurmountable, there are paths forward that can help your entity stand out from the others. These strategies necessitate a shift toward proactive facility management and force us to rethink the status quo.

- Consider implementing predictive maintenance. Utilize data from Building Management Systems (BMS) and sensors along with machine learning algorithms to anticipate equipment failures before they occur, allowing for proactive interventions and minimizing disruptions.
- Leverage data-driven decision making: Gather insights from facility system data to optimize resource allocation and prioritize maintenance tasks based on risk and equipment usage, potentially leading to 30% cost savings.
- Embrace targeted preventative maintenance with GenAI: Move beyond one-size-fits-all approaches of preventative maintenance. Integrate GenAI into facility workflows, which can understand the specific condition and usage patterns of your equipment. This allows for targeted scheduled maintenance, extending equipment lifespan, minimizing downtime (potentially reducing disruptions by up to 20%), and avoiding costly repairs.
- Plan capital expenditures strategically: Develop data-driven plans for prioritizing capital expenditures, utilizing cost-benefit analysis to determine the most impactful upgrades. Prioritized implementation plans can help manage budgets and minimize disruptions.
- Invest in your workforce: Upskill existing staff and attract new talent through targeted recruitment strategies in partnership with trade schools and technical colleges.

By implementing these proactive strategies, healthcare facilities can build resilience and navigate the ever-changing healthcare landscape. Improved patient care, enhanced operational efficiency, financial stability, and a future-proofed facility are all within reach. Forward-thinking healthcare executives can lead the way in creating a more sustainable and efficient healthcare ecosystem.

Vytal Assets is here to help. Learn more about the solutions we offer and the problems they've been designed to address

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