



## IntelliCare – Redefining Healthcare & Efficiency



DIGITAL TRANSFORMATION ARCHITECT

GLOBAL MANAGED IT SERVICES

MASTER SYSTEMS INTEGRATOR

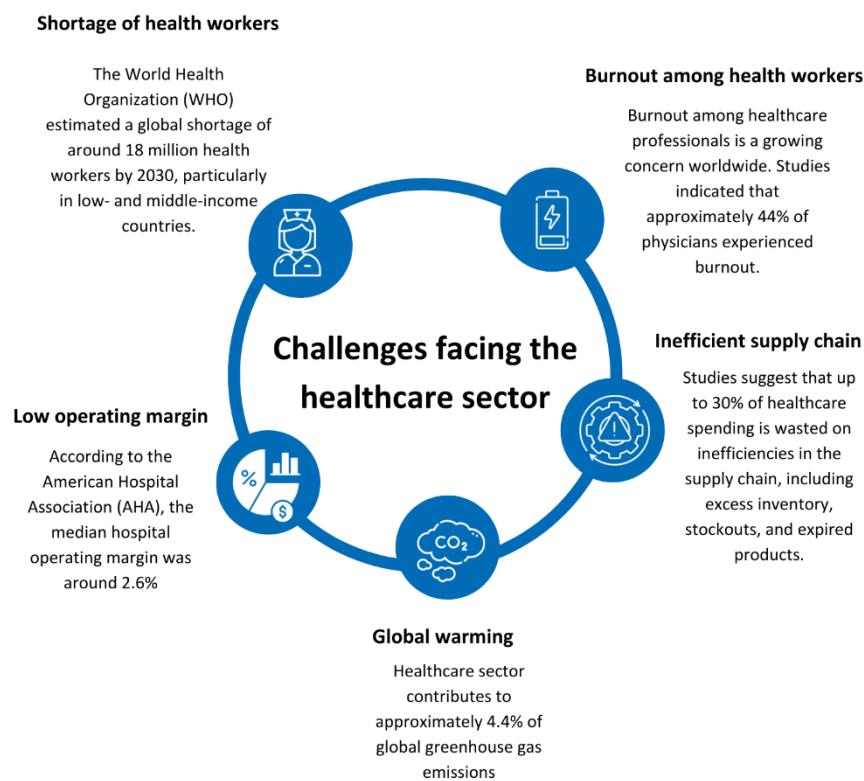
Delve into the future of healthcare with our white paper on the transformative concept of the 'Smart Hospital'. By harnessing a comprehensive capability framework, we unveil a vision that optimizes every facet of operational performance, revolutionizing patient care and staff efficiency.

Our white paper isn't just a vision; it's a blueprint for the future, offering actionable insights to kickstart your Smart Hospitals' strategy today where cutting-edge digitalization empowers hospital infrastructure with smarter capabilities, elevating patient well-being while driving a compelling business case.

Experience the dawn of a new era in healthcare excellence.

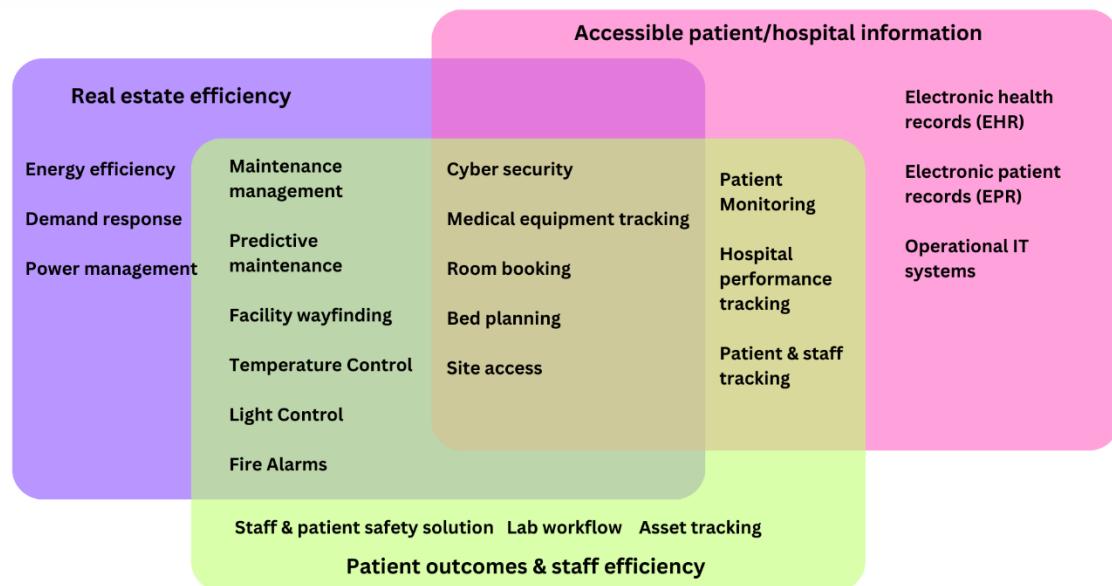
## Hospitals face an array of operational challenges

Hospitals grapple with a spectrum of operational challenges, including the availability of quality medical staff, increased workloads for doctors leading to potential burnout, and the burden of rising utility costs. Addressing these challenges is crucial amid growing demands for improved patient experience.



# Driving Visible Change

"Smart hospitals offer a visionary roadmap, optimizing operational performance across multiple dimensions, where efficiency meets excellence, and innovation paves the path towards unparalleled patient care."



Healthcare transformation can be divided broadly into two areas:

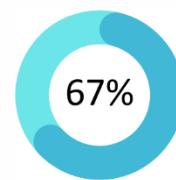
## A. Patient Experience

**Smooth Registration:** Implementing a seamless registration process leveraging digital channels is crucial.



Globally, nearly 59% of healthcare consumers prefer digital channels for scheduling appointments and registering for healthcare services, according to *Accenture's Healthcare Consumer Survey*.

**Digitalized Process:** Upgrading hospital management information systems (HMIS) to be ABHA compliant enhances data security and privacy, addressing concerns prevalent worldwide.



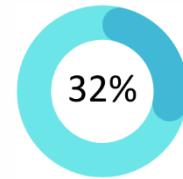
According to a *HIMSS Analytics survey*, 67% of healthcare organizations prioritize data security as a top concern in their digital transformation initiatives.

**Real-time Updates:** Transparency and communication are vital for patient satisfaction.



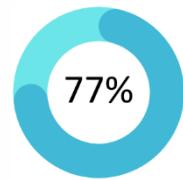
Research shows that hospitals providing real-time updates experience a 25% increase in patient satisfaction scores, as reported by the *Journal of Hospital Medicine*.

**Reduced Stress:** Integration of hospital systems reduces discharge times, easing stress for patients and families.



Globally, hospitals with integrated systems experience a 32% reduction in discharge time, according to a study published in the *Journal of Medical Internet Research*.

**Help at the Fingertips:** Easy-to-use patient devices facilitate communication with staff.



77% of patients globally expect to use digital services to manage their healthcare, as per *Deloitte's Global Healthcare Outlook*.

**In-home Comfort:** Remote patient monitoring enhances comfort and reduces hospital visits.



The global remote patient monitoring market is expected to reach \$31.3 billion by 2027, driven by the demand for in-home healthcare solutions (*Grand View Research*).

## B. Efficiencies and Cost Control

**Optimizing Nursing Staff:** Real-time monitoring enables nurses to respond promptly to critical conditions.



Potentially reducing adverse events by 30%, as reported by the *Agency for Healthcare Research and Quality (AHRQ)*.

**Operating Cost Savings:** Optimizing operating theater times can result in significant cost savings.



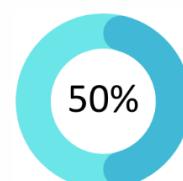
Hospitals that implement scheduling optimization systems report a 15% reduction in operating costs, according to a report by *McKinsey & Company*.

**Timely Care:** Advanced analytics facilitate remote patient management.



Reduces hospital readmissions by up to 50% and enabling proactive interventions, according to a study published in the *Journal of Medical Internet Research*.

**Laboratory Workflow:** Streamlining laboratory processes improves efficiency and reduces turnaround times.



Implementing laboratory information systems can reduce report turnaround times by up to 50%, as reported by the *College of American Pathologists*.

**Smart Buildings:** IoT-based control technologies optimize utility usage,



with smart buildings reducing energy consumption by up to 30%, according to a study by the *International Energy Agency*.

**Pricing Models:** Offering flexible pricing models enhances affordability.



Value-based care models have been shown to reduce healthcare costs by 5-10% while improving patient outcomes, according to the *Health Care Payment Learning & Action Network*.

**Service Integration and Aggregation:**

Integrating services improves cost savings and quality governance.



Hospitals that implement service integration frameworks report a 20% reduction in operational costs, according to a study by *Deloitte*.

**Compliance Stress-buster:** Digitalization ensures compliance with regulatory standards.



Hospitals that implement digital compliance solutions report a 40% reduction in compliance-related costs, as reported by the *Ponemon Institute*.

**Smart Integration:** Integrating pharmacies, diagnostic centers, and insurance providers with HMIS improves billing accuracy and patient data exchange.



Globally, hospitals that adopt integrated systems report a 25% increase in revenue cycle efficiency, according to a study by *Black Book Market Research*.

**Single Screen View of Patient Records:** Advanced image conversion technologies facilitate easy access to patient records.



Hospitals that adopt picture archiving and communication systems (PACS) report a 30% reduction in record retrieval times, according to a study published in the *Journal of Digital Imaging*.

## Healthcare Ecosystem Catalysts

In the ever-evolving landscape of healthcare, several macro-enablers stand out as catalysts for transformation. These key factors are reshaping the industry, driving innovation, and fundamentally altering the way we approach healthcare delivery and patient outcomes.

**C. Enhanced Quality of Care:** Modern healthcare relies on AI, robotics, and

personalized prescriptions to tailor treatments, enhancing outcomes and

patient safety through precise interventions.

**D. Paradigm Shift towards Health Management:** Healthcare is evolving beyond treating illnesses to encompassing holistic health management, promoting wellness, prevention, and rehabilitation for long-term well-being.

**E. Distributed Health Services:** Healthcare delivery extends beyond hospitals to include clinics, pharmacies, and homes via telemedicine, enhancing accessibility and continuity of care across diverse settings.

**F. Patient-Centric Services:** Patients drive a shift towards personalized care, advocating for models that prioritize their individual needs, preferences, and active involvement in decision-making processes.

**G. Infrastructure Investments:** Global investments in healthcare infrastructure, such as digital records and remote care technologies, facilitate universal access to quality healthcare, bridging geographical gaps and ensuring equitable service delivery.

## Technology led transformation

### A. Maximizing Cost Efficiency

Efficient allocation of resources in hospitals is paramount for bolstering patient care and optimizing operational effectiveness. Here are ten strategies leveraging technology to achieve substantial cost savings

#### Electronic Health Records (EHR):

Integrating ABHA-compliant EHR systems streamlines administrative processes, minimizes paperwork, and eliminates physical storage needs. Enhanced accuracy and accessibility of patient data reduce transcription errors and expedite information retrieval, resulting in significant time and resource savings.

#### Telemedicine and Remote Monitoring:

Telemedicine platforms facilitate virtual consultations, reducing the necessity for in-person visits and associated overheads such as facility maintenance and staffing. Additionally, remote monitoring solutions enable proactive healthcare interventions, curbing costly hospital readmissions.

### **Supply Chain Management Solutions:**

Harnessing technology-driven supply chain management systems optimizes inventory levels, mitigates wastage, and fosters favorable negotiations with suppliers. Automated inventory tracking and replenishment mechanisms minimize stock discrepancies, translating into tangible cost reductions and operational efficiency enhancements.

### **Energy-Efficient Infrastructure:**

Implementation of energy-saving technologies like LED lighting and smart building automation curtails utility expenses. Energy management systems identify areas for improvement, leading to reduced operational costs while aligning with environmental sustainability goals.

### **Robotic Process Automation (RPA):**

RPA automates repetitive administrative tasks, liberating staff time and diminishing labor expenses. Software robots execute tasks with precision and speed, heightening efficiency and minimizing operational errors.

### **Predictive Analytics for Resource Allocation:**

Predictive analytics tools forecast patient admission rates and resource utilization patterns, empowering hospitals to optimize staffing levels and equipment allocation. This proactive approach

minimizes unnecessary expenses and enhances resource allocation efficiency.

### **Cloud Computing and Data Storage:**

Adoption of cloud-based solutions for data storage obviates the need for costly on-premises infrastructure. Cloud computing offers scalability and cost-effectiveness, enabling hospitals to pay only for utilized resources and avoid upfront capital investments.

### **Workflow Optimization Tools:**

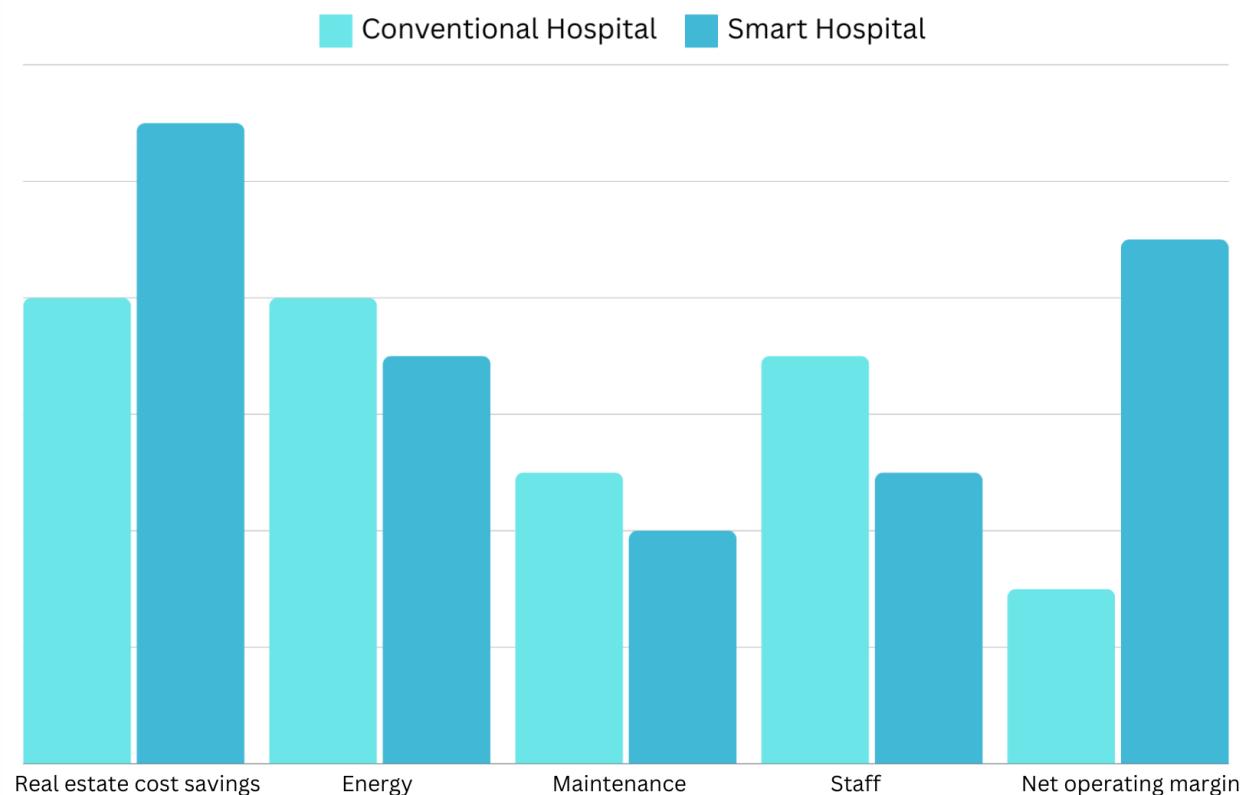
Utilization of workflow optimization tools and process reengineering initiatives streamlines clinical and administrative workflows, mitigating inefficiencies and redundancies. Standardized processes and task automation enhance productivity, thereby reducing operational costs.

### **Remote Work Solutions:**

Implementing remote work arrangements for administrative staff and non-clinical personnel mitigates overhead costs associated with office space and commuting. Enhanced employee satisfaction and retention contribute to sustained cost savings.

### **Preventive Maintenance for Equipment:**

Instituting predictive maintenance programs for medical equipment forestalls costly breakdowns and downtime. Proactive monitoring and scheduled maintenance tasks based on predictive analytics extend asset lifespan and diminish repair expenses.



## B. Embracing Transformative Technologies

Investing in cutting-edge technologies holds the key to elevating patient care and operational efficiency within healthcare facilities. Here's a comprehensive overview of trending technologies reshaping the healthcare landscape.

**Artificial Intelligence (AI) and Machine Learning:** Leveraging AI and machine learning algorithms facilitates precise diagnoses, outcome predictions, and personalized treatment plans by analyzing extensive healthcare datasets.

### Internet of Medical Things (IoMT):

Interconnected medical devices and applications enable remote patient monitoring and real-time data analysis, revolutionizing healthcare delivery and automation.

### Robotics and Automation:

Robotics and automation technologies enhance surgical precision, rehabilitation,

and logistical operations, optimizing patient care and staff productivity.

**Augmented Reality (AR) and Virtual Reality (VR):** AR and VR technologies aid medical training, patient education, and therapeutic interventions, offering immersive experiences for improved outcomes.

### **3D Printing:**

3D printing technology enables the creation of customized medical devices, implants, and anatomical models,

revolutionizing patient care and surgical planning.

### **Big Data Analytics:**

Big data analytics tools derive actionable insights from vast healthcare datasets, empowering informed decision-making and resource optimization.

### **Cybersecurity Solutions:**

Robust cybersecurity measures safeguard patient data and prevent cyber threats, ensuring the integrity and confidentiality of healthcare systems.

## **Summary:**

The emergence of smart hospitals heralds a new era in healthcare, where patient-centricity, efficiency, and technological innovation converge to redefine the standard of care. These hospitals prioritize the enhancement of patient experience through personalized approaches facilitated by wearable devices and telemedicine solutions.

Efficiency lies at the heart of smart hospitals, where digitalization and automation streamline workflows and optimize resource allocation. Through electronic health records (EHRs) and AI-driven analytics, healthcare providers can access comprehensive patient information and make informed decisions swiftly.

Tech transformation drives the evolution of smart hospitals, empowering healthcare delivery with cutting-edge solutions. Artificial intelligence facilitates predictive analytics for early disease detection and personalized treatment strategies, while robotic process automation streamlines administrative processes. The Internet of Medical Things (IoMT) enables seamless connectivity among medical devices, facilitating remote monitoring and enhancing chronic disease management.

Through these transformative technologies, smart hospitals pave the way for a future where healthcare is not only efficient but also deeply personalized and accessible to all.

## About Allied Digital:

Allied Digital is a premier provider of comprehensive IT solutions crucial for the evolution of smart hospitals. With a strong focus on Cloud Enablement, Cyber Security, Integrated Solutions, Infrastructure Management, Software Services, and Workplace Services, Allied Digital offers tailored expertise to optimize healthcare operations.

From enabling seamless access to critical patient data through cloud technology to fortifying defenses against cyber threats with robust security measures, Allied Digital ensures the reliability, efficiency, and security essential for modern healthcare environments. Our integrated approach facilitates streamlined workflows, improved patient care, and enhanced operational efficiency, making them a trusted partner in the journey towards smarter, more resilient healthcare facilities.

## OUR OFFERINGS



### CLOUD ENABLEMENT

- ▶ AWS, AZURE, GCP, VMWARE
- ▶ IAAS, PAAS, SAAS
- ▶ Public / Private / Hybrid Cloud Services
- ▶ Cloud Engineering
- ▶ Data Factory, Data Lakes, Big Data
- ▶ Micro Services, Containers
- ▶ Cloud Migrations



### CYBERSECURITY

- ▶ AIM 360° Cyber Security Solutions
- ▶ Endpoint Security
- ▶ Managed Security Services and SIEM
- ▶ Identity & Access Management
- ▶ Threat Intelligence Solutions
- ▶ Ransomware Prevention / Network Security / Cloud Security
- ▶ Security consulting and Compliance
- ▶ SOAR, SASE, Zero Trust
- ▶ EDR, MDR, XDR



### INTEGRATED SOLUTIONS

- ▶ Master Systems Integration Projects
- ▶ Safe City / Smart City / Campus Solutions
- ▶ IBMS
- ▶ IoT Solutions
- ▶ Enterprise Physical Security Automation
- ▶ Operational Technology Integration
- ▶ Command / Control Systems



### INFRASTRUCTURE MANAGEMENT

- ▶ Proactive Monitoring of Server, storage, network, firewall etc
- ▶ Application support services, Office365, Exchange, Databases, SAP etc
- ▶ Enterprise Services – Backup, DR, Patching, Voice etc
- ▶ Data Centre Operations
- ▶ Infra Analytics



### SOFTWARE SERVICES

- ▶ ADiTaaS / ServiceNow Consulting, Implementation and Support
- ▶ FinoAllied
- ▶ Cloud DevOps Services
- ▶ RPA
- ▶ Generative AI / ML Solutions
- ▶ Multi-cloud Applications
- ▶ Blockchain
- ▶ Metaverse



### WORKPLACE SERVICES

- ▶ Desk side Break-fix/IMAC Services
- ▶ Multi-lingual, Multi-channel Service Desk
- ▶ Endpoint management solutions
- ▶ WFA solutions
- ▶ End User Analytics
- ▶ Global Logistics / Depot Services

## Meet Our Contributors



**Paresh Shah**  
Global Chief Executive Officer



**Dhara Shah Bhansali**  
Chief Marketing Officer



We Bring **“SMART”**  
in every sphere of life

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A story of Passion, Teamwork, Innovation

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