

WHITEPAPER

The Strategic Use of Telehealth in Hospitals



Foreward

The right care in a timely manner can mean the difference between life and death.

The challenges that healthcare organizations have faced to manage patient throughput, enhance ED care delivery, improve patient outcomes and reduce readmissions have been exasperated by the COVID-19 Public Health Emergency, forcing organizations to overhaul their workflow and provide streamlined care delivery across the entire healthcare continuum.

While major transformations like connectivity and interoperability in healthcare used to be forthcoming, they are now upon us. Organizations that fail to leverage these innovations will find it difficult to maintain quality operations. Alternatively, organizations that adopt telecommunications will thrive.

In this Whitepaper, you will learn about the advancements made possible by telehealth. We will look at the different tele-disciplines, review key considerations, and identify metrics that support the benefits and ROI of evolving operations through telehealth.

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A Healthcare Revolution

It has been long-anticipated that the tech-savvy millennial generation would bring about healthcare reformation. However, traditional, institutional barriers stood between a shift in consumer demand and the healthcare community's agility to respond.

Some of those foundational barriers have been disrupted in light of COVID-19, and the market is now experiencing hyper-change that will have a defining impact for decades.

Perhaps most profoundly, changes in policy landscape created an intense proliferation of telehealth. An estimate in the *Lancet* is that there has been a ten-fold increase in the number of virtual patient consultations since the COVID-19 pandemic began.

Deloitte outlined in their 2020 Survey of US Physicians¹ three market trends that physicians believe will have the greatest impact on care delivery in the coming years:

Technological development is one of the top trends that physicians expect to have a significant impact on care delivery in the coming years.

Survey question: **In the coming years, which of the following market trends will have the greatest impact on care delivery?**

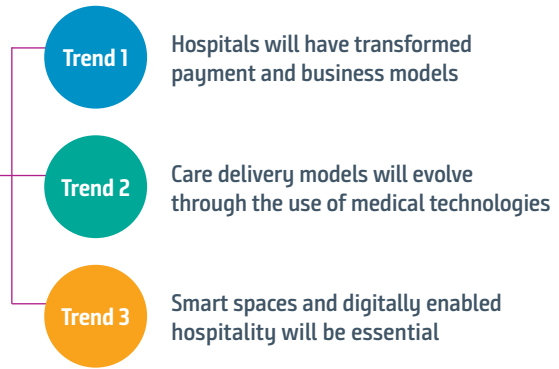


Strategic Considerations For Change

When considering how to evolve into the new industry landscape, it's crucial that administrators identify their organizational goals, based on fundamental market shifts.

Three key trends to pay attention to³:

Once strategic direction has been determined, telehealth solutions should be mapped to shorter-term organizational goals to support the advancement of the organization to the desired future state.



Additional considerations:

- Can this solution be scaled to meet future demand needs?
- What is the investment required to operationalize this solution? How quickly will this solution pay for itself?
- Does your staff have the technical knowledge and skills to support this project or would you need to hire outside contractors?
- Does your state provide reimbursement for the type of solution you are considering?

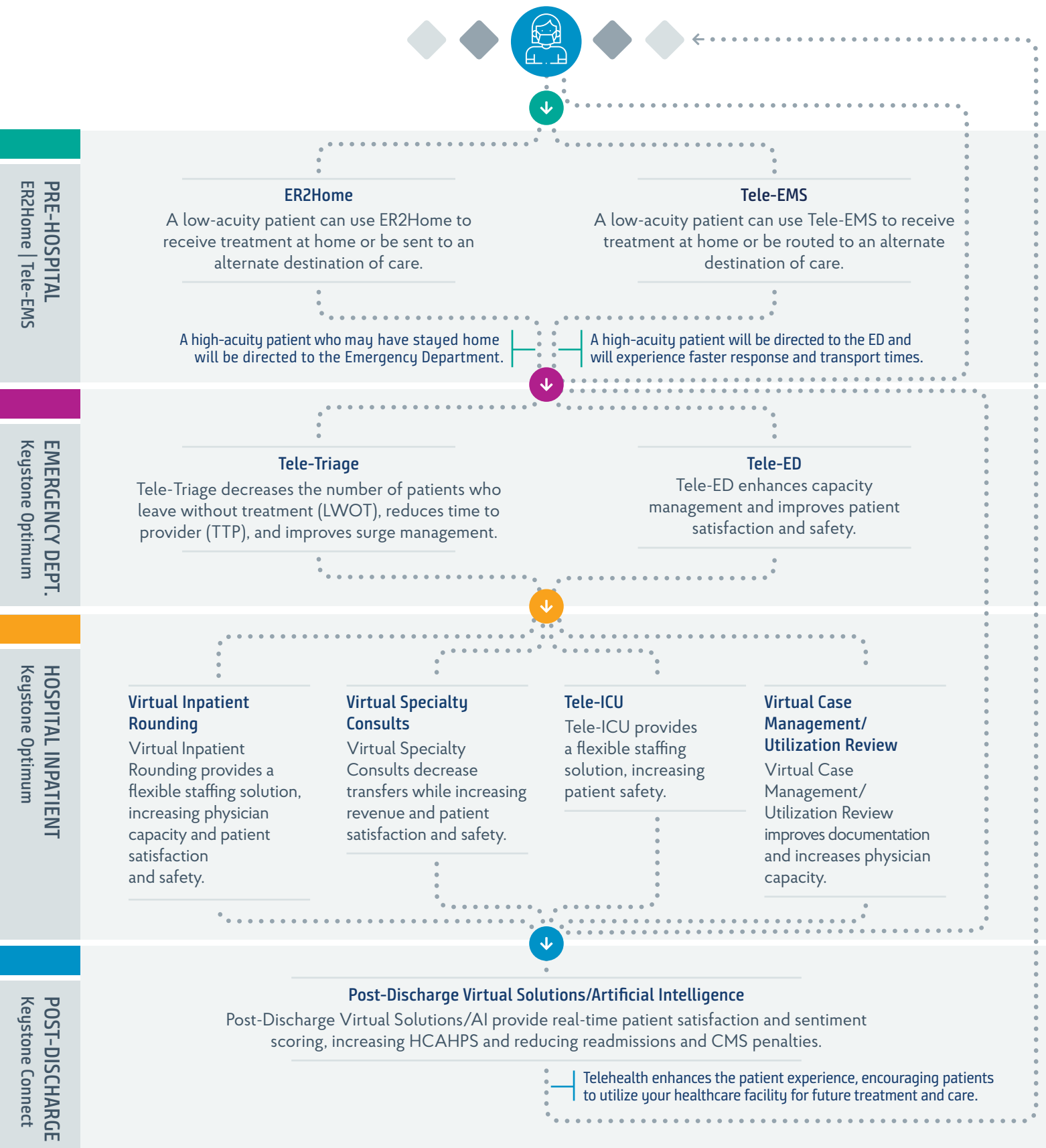
Strategic Use of Telehealth

This overview shows a variety of telehealth solutions, each of which has been aligned to a sample organizational goal that supports the strategic direction and response to industry changes.

Telehealth Discipline		Organizational Goal	Delivery Mode	Patient Interface
Pre-Hospital	Tele-EMS	Customer and digital transformation	Synchronous	Direct-to-Consumer Application
	Direct-to-Consumer Virtual ED Visits		Synchronous	EMS Provider
Emergency Department	Tele-Triage	Patient affordability and operational excellence	Synchronous	Nurse / APP
	Tele-ED	Mitigating regulatory risk	Synchronous	Nurse / APP
Hospital Medicine	Virtual Inpatient Rounding	Patient affordability and operational excellence	Synchronous	Nurse / APP
	Virtual Specialty Consults		Synchronous / Asynchronous	APP / Physician
	Tele-ICU		Synchronous / Asynchronous	Nurse / APP
	Virtual Case Management / Utilization Review	Mitigating regulatory risk	Asynchronous	EHR
Post-Discharge	Patient Engagement AI	Customer and digital transformation	Asynchronous	Direct-to-Consumer Application

Telehealth & Patient Flow

This diagram shows an example of how Keystone Healthcare™ uses telehealth to optimize patient flow from Pre-Hospital through Post-Discharge.



Telehealth Solutions Deep Dive

Telehealth offers many advantages at each stage of the patient flow from Pre-Hospital to Post-Discharge. By increasing access to physicians and specialists, telehealth ensures patients receive the right care, at the right place, at the right time. Read on to learn about the telehealth solutions that Keystone Healthcare™ offers at each stage of the patient flow.

Pre-Hospital Emergency Care

Emergency Medicine

Hospital Medicine

Post-Discharge

Pre-Hospital Emergency Care and Emergency Medical Services

Tele-EMS

Tele-EMS is an innovative platform that allows virtual ED providers to connect on-demand with local EMS or Mobile Urgent Care providers. This program is aimed at using technology to triage, treat and transport patients to the ED or to an alternate destination of care within your hospital system.

Benefits:

- Enhanced EMS capacity management
- PPE conservation
- Improved patient satisfaction
- Improved patient safety

Direct-to-Consumer Virtual ED Visits

Direct-to-Consumer Virtual ED Visits allow patients to virtually connect from home to your ED providers. It is aimed at providing a seamless transition from home into the ED when necessary.

Benefits:

- “Stay home, stay safe” community messaging for low acuity patients
- Captures high-acuity patients who may have stayed home

Emergency Department Telehealth Solutions

Tele-Triage

Tele-Triage positions a virtual provider in triage to reduce patients leaving the department prior to being seen. Other performance metrics are also impacted, including improved patient flow, patient satisfaction, patient safety, and an increase in capacity within the ED for providers and nursing staff.

Benefits:

- Reduced TTP & LWOT
- Improved patient flow
- Improved patient satisfaction
- Improved patient safety
- Enhanced capacity management
- Additional hospital admits

Tele-ED

Tele-ED positions a virtual provider in the ED exam room to support an APP in-room with the patient. The intention is to improve patient care by ensuring a physician consult on clinical care and decisions while also improving efficiency and PPE resources. This solution can also accommodate a variety of staffing patterns to reduce costs.

Benefits:

- PPE conservation
- Improved patient flow
- Improved patient satisfaction
- Improved patient safety
- Enhanced capacity management

Hospital Medicine Telehealth Solutions

Virtual Inpatient Rounding & Tele-ICU

Virtual Inpatient Rounding and Tele-ICU allows hospitals flexibility to manage multiple inpatient scenarios and could accommodate a variety of staffing patterns, including night-shift solutions, to reduce costs and physician burnout.

Benefits:

- Flexible staffing solutions
- Improved patient satisfaction
- Improved patient safety
- Enhanced capacity management

Virtual Specialty Consults

Virtual Specialty Consults expand a hospital or health system's capabilities by providing access to specialists virtually. The intention of the program is to increase revenue by avoiding unnecessary transfers while also providing specialized care and accelerating response times for emergencies.

Benefits:

- Increased revenue
- Reduced transfers
- Improved patient satisfaction
- Improved patient safety

Virtual Case Management / Utilization Review

Virtual Case Management/ Utilization Review allows ED providers real-time access to virtual case managers. Case managers assist ED providers with their inpatient admissions and ensure documentation and status is appropriate at the time of admission from the ED.

Benefits:

- Improved documentation
- Increased physician capacity

Post-Discharge Virtual Solutions

Patient Engagement Artificial Intelligence (AI)

Artificial Intelligence programs send texts to discharged patients from any of our programs. The goal of Keystone Connect is to provide administration and program directors stratified patient satisfaction data points in real time and give them an opportunity to intervene. This customizable program does allow the option for dissatisfied patients to connect back to our Utilization Review Team.

Benefits:

- Reduce readmissions
- Real-time interference for patient satisfaction and sentiment scoring
- HCAHPS improvement
- Reduce CMS penalties

ROI Deep Dive

Each telehealth solution has a unique set of considerations from a financial perspective and must be carefully reviewed prior to initial investment. Keystone Healthcare™ works closely with each of our hospital partners to determine projected ROI and timelines associated with telehealth solutions to ensure the investment is beneficial.

Tele-Triage

Reducing LWOT

Inpatient Revenue

Increasing Capacity

Patient Safety & Risk

ROI DEEP DIVE

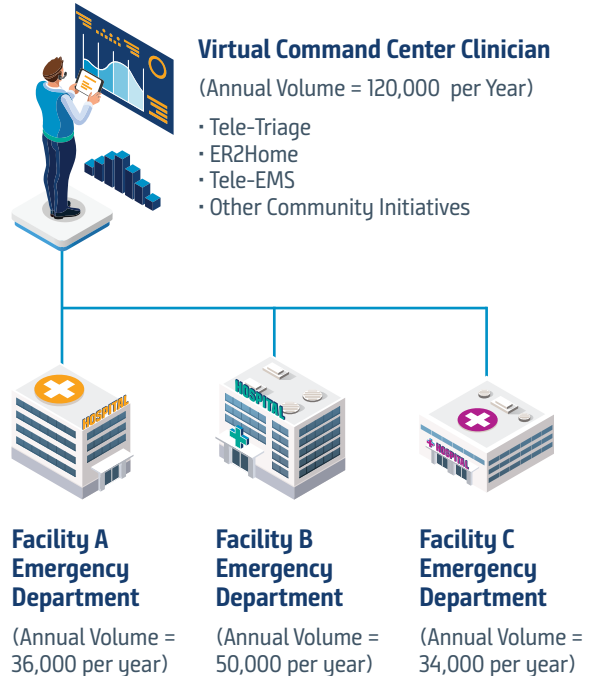
ROI through Tele-Triage

When executed properly, tele-triage dramatically impacts patients leaving without treatment. It also drastically improves patient flow, patient satisfaction, patient safety, and increase in capacity.

A good virtual triage provider on average spends about 90 seconds interacting with the patient and placing orders in the EMR. These providers can work within one hospital or even in multiple hospitals for the purpose of rapidly triaging ED patients and sharing costs. They can triage 9-12 patients per hour. One virtual provider can triage for annual hospital ED volumes between 120-140,000.

That doesn't mean you need to have 130,000 annual ED visits to justify tele-triage. If you only have a hospital that sees 40,000 annual visits, it simply means your virtual tele-triage provider could be shared with other facilities and you would benefit in cost savings because your costs would align with your shared portion of the total annual visits the provider can see.

Emergency Department Telehealth



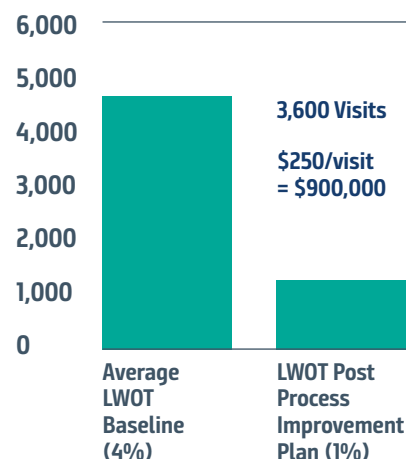
ROI DEEP DIVE

ROI through Reducing LWOT

Using a hypothetical ED system with 120,000 combined annual ED visits, this chart demonstrates the financial benefit of reducing LWOT. By reducing your LWOT rate from 4% to 1%, this scenario captures an additional 3,600 patients would have left prior to treatment. If the ED Technical Revenue amounts to \$250/patient, the Total System ED Technical Revenue gained would amount to \$900,000.

\$900,000 ROI THROUGH LWOT

LWOT Financial Impact – ED Technical Revenue



ROI through Inpatient Revenue

Applying a 25% admission rate to those 3,600 patients, who would have otherwise left but are now staying because of the rapid tele-triage, the system would capture an additional 900 patients. At an ESI Level 3 and average net inpatient revenue per patient of \$7,000/patient, we can extrapolate that the incremental Inpatient Revenue post improvement process plan would total **\$6.3 million**.

\$6.3 M

**ADDITIONAL
INPATIENT REVENUE**

20
MINUTE
LOS REDUCTION

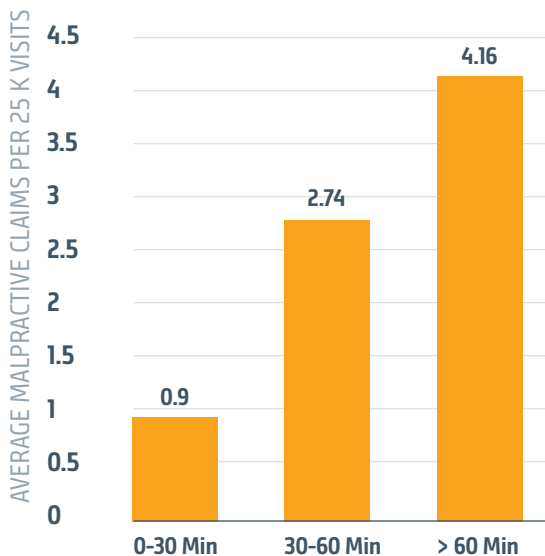
120K
ED VISITS

40K
HOURS ANNUAL
ED CAPACITY

ROI through Increasing Capacity

ROI is demonstrated not just by increasing revenues, but also increasing capacity. For example, if a 20-minute LOS reduction was applied to 120,000 ED visits, an additional 40,000 hours of annual ED Capacity would be generated.

Patient Safety and Risk



ROI through Patient Safety & Risk

Finally, ROI can also be demonstrated through patient safety and risk. It has been proven that as time-to-provider (TTP) increases, so too does the risk of malpractice claims. Virtual Tele-Triage will land your TTP in the < 30 minute category and will reduce risk and improve patient safety.

Frequently Asked Questions

What should we consider from a reimbursement perspective?

There is much to consider in the way of reimbursement when contemplating implementation of one or more telehealth solutions. But, at a high-level, it's perhaps most important to be aware of shifts in telehealth reimbursement considerations from pre to intra-COVID. The post-COVID final rules and regulations are still to be determined. Below are a few points to note. Prior to COVID-19:

- Patients had to be in a remote or rural coverage area. Now, there are no restrictions on coverage area.
- Providers were required to be located in a Medicare eligible place of service. Now, there are no restrictions on practitioners delivering telehealth services from their home. Additionally, pre-COVID-19, patients generally had to travel to the originating site. CMS has since waived restrictions on originating sites so the patient can now receive services in their home.
- Only a limited number of services were approved to be delivered via telehealth. CMS has since rapidly expanded the list that are temporarily allowable during the PHE. [Learn more on the CMS website.](#)
- Providers had to be licensed in the state where they are located at the time of service as well as the state where the patient is physically located. Medicare and Medicaid are temporarily waiving the requirement for providers to be licensed in the state where the patient is located, as long as they are appropriately licensed in another state. However, state restrictions may apply.
- Only patients who had already established a relationship with the provider could receive a telehealth visit. Now, new and established patients can be seen via telehealth.

How long does it take to get a telehealth solution up and running?

The size, scope, and delivery model for various telehealth solutions determine how quickly a telehealth solution can be deployed at a new hospital facility. Resourcing an engaged partner who has access to technology partners, physician resources, and is an expert in operational implications will vastly reduce the time to stand up a new telehealth solution. At Keystone Healthcare™, our average time to deploy a telehealth solution with a new partner is about 90 days.

Is it a one-size-fits-all approach?

The simple answer is no. Telehealth is definitely not one-size-fits-all. Telehealth is viewed as a way to bridge the gaps in access to care or providers you are experiencing. One of the amazing aspects of working with an organization such as Keystone Healthcare™ is that we have the ability and flexibility to work closely with our clients to make sure we are offering a solution that works for them. It could be as simple as assisting with coverage in gaps of specialty providers to ensure hospital doors remain open, especially in a rural setting, to providing a complete and comprehensive solution that focuses on strengthening partnerships with EMS agencies and/or providing post-discharge care to reduce readmissions and keep the community healthy. What one hospital or hospital system is experiencing is not the same as another one. Understanding the pain points and developing a solution specific to client needs is the key to a successful telehealth program.



About Keystone Healthcare™

Keystone Healthcare™ is a leading provider of Emergency Medicine and Hospital Medicine physician staffing and management services for hospitals. Headquartered in Tampa, Florida and with additional offices nationwide, Keystone Healthcare™ efficiently delivers high-quality, patient-centered care through strong physician leadership and involved management that drive our modern and integrated business model and performance metrics.

Visit [keystonehealthcare.com](https://www.keystonehealthcare.com).

References

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3. <https://www2.deloitte.com/us/en/insights/industry/health-care/hospital-business-models-of-the-future.html>



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