



SOCIETY FOR
Healthcare Strategy & Market DevelopmentSM
of the American Hospital Association



Scenario Planning for Hospitals and Health Systems



Helping Organizations Plan for the Future

Scenarios are forecasts about the future based on current trends, usually in the form of stories. They aren't predictions, but instead are "what if" stories that help organizations build or test their plans. This can be especially valuable for health care strategists in today's volatile environment.

The value of scenarios is that:

- They draw on the power of storytelling to capture imaginations and creativity.
- They vividly build a shared picture of the preferred endpoint to inspire people to work toward the future.
- They help us as decision-makers to foresee the impact of ongoing changes.
- They provide a safe, authorized way to explore the worst that can happen.
- They force us to see how different sources of change interact and to understand the total impact of a change.
- They help us think about the long-term future instead of focusing just on the next quarter.
- Essentially, they tell us what conditions the future might hold so we can make better decisions in the present.

In the health care sector, hospitals and health systems might use scenarios about:

An aging population, in order to plan future service lines and population health needs. These scenarios might include variables in the health and lifestyles of older adults, transportation needs and the transportation market, changes in Medicare reimbursements, telehealth, and competition in health care for specialist clinicians. For these purposes, the hospital might measure its current strategy against the possible futures and adapt as needed.

The future of local population health. To inspire a communitywide investment in population health, a hospital might focus on creating an undesired future, showing the possible outcomes of communitywide neglect of population health; a preferred future, showing the benefits of investment; a standard future that shows the future of current levels of investment; and a wildcard future that assumes major changes in local employment patterns.

The adoption of telehealth. A hospital or health system might develop scenarios about the impact of telehealth on facility planning, technology capital investment, population health and reimbursements.

A few out-of-industry examples follow for comparison:

- A road construction company could use scenarios to assess the future of transportation, whether it's about reducing fossil fuels through more electric vehicles, investing in highway infrastructure or modernizing roads or bridges.
- A municipality could develop scenarios on the future of work in order to plan education, municipal services and the most desirable industries to attract.
- A new clothing manufacturer might create scenarios about what consumers will value most in clothing and lifestyles in order to develop its brand.
- A utilities company could prepare scenarios to be ready for changes in government and public funding of and attitudes towards different kinds of energy sources. These scenarios could include the impact of different federal administrations, pending technological or scientific breakthroughs, perceptions about climate change, and growth in different types of energy production.



How do organizations develop and use scenarios?

Scenarios can be one or two paragraphs long or 10 pages long and can take a day or several months to develop. Generally, the more ambiguity and complexity in a situation, the more effort the scenarios require.

Almost all scenario exercises are based on groups of different scenarios. This gives you a set of options to consider but doesn't overwhelm with too many possibilities.

Preferred futures approach

Typically, these include at least two of the following:

- A preferred future (the future you want to see happen).
- An undesired future (the one you don't want to see).
- A standard future (this assumes minimal change, like a control group in an experiment).
- A wildcard future (something that isn't necessarily likely to happen, but if it does, would upend your entire environment).

Allina Health used scenario planning in order to make its planning process more concrete and creative and to bring stakeholders with different perspectives and needs to the same understanding of possible futures for the system. "It makes you do planning a bit differently. It's more concrete and it requires more specific strategies," Nancy Rehkamp, former president, HealthSpan Home Care and Hospice, at Allina Health in Minneapolis, Minnesota, commented on the process. "It's something that works really well with employees who aren't part of the strategic planning team. It helps them to ask questions from their perspective and get engaged."

Allina developed scenarios by doing traditional research to gather data about trends affecting the health care sector, hospitals and the community; gathering feedback from patients; and convening meetings during which small groups from across the hospital discussed what they saw as the big issues for the hospital. These groups included

<h3>Preferred</h3> <ul style="list-style-type: none"> • The future you want • Assumes decisions turn out well 	<h3>Undesired</h3> <ul style="list-style-type: none"> • The future you don't want • Assumes decisions don't turn out well
<h3>Standard</h3> <ul style="list-style-type: none"> • Assumes minimal change • Acts as control group 	<h3>Wildcard</h3> <ul style="list-style-type: none"> • Unlikely but possible • Abruptly changes the business model

physicians, nurses, materials managers, pharmacists and supply chain professionals. This combination of data from a variety of sources and analysis from a range of stakeholders gave the strategists the information and broad range of perspectives that the strategic planning team needed to draw up the scenarios.

Rehkamp recommends finding ways to represent the scenarios visually, where possible.

"We learned that from working with architects. Images can make things more concrete."

A hospital or health system might engage in scenario planning by looking at the aging of baby boomers.



Standard future	Preferred future	Undesired future
<ul style="list-style-type: none"> • Most boomers will retire as they reach the age when they're eligible for Social Security retirement benefits. • Boomers will retire fully. 	<ul style="list-style-type: none"> • Organizations have different pathways to retirement for different needs. • Organizations have different pathways to advancement for Generation X and millennial workers. • Boomers successfully transfer accumulated experience and wisdom to younger workers. 	<ul style="list-style-type: none"> • Many middle- and lower-income boomers will be unable to retire, despite wanting to. These boomers will be disengaged. • Generation X and millennial workers will leave organizations where they can't advance. • Organizations lose the accumulated experience and wisdom of the boomers who do retire.

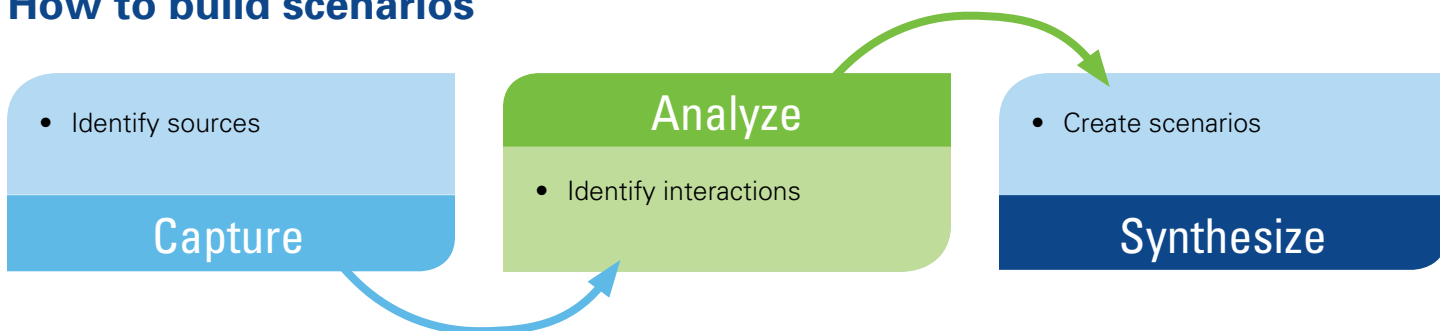
Multiple variables approach

Shell Corporation was one of the first large corporations to systematically develop and use scenarios for its strategic planning. Shell credits scenario planning for helping it anticipate and navigate change, including preparing for the oil embargo in 1973, planning for increased competition due to population growth, and understanding better the mutual dependencies of energy, water and food.

However, organizations can also use scenarios to look at the different possible outcomes of a particular event, such as a political election, economic shift or technology breakthrough. These sets of scenarios help organizations understand potential shifts and be ready to pivot their strategy. After they develop scenarios, they can decide what signals to look for that indicate one possible future

is more likely than the others. When enough of these signals accumulate, the company may choose to optimize its strategy for those future states. For example, a coastal health system might create multiple scenarios about ocean levels rising at different rates and extents and different community responses (such as slow and moderate rise coupled with an aggressive community response, which would call for fewer changes than a scenario of fast and extensive rise coupled with no significant community response) and change its plans based on the most likely outcomes. This would give the hospital an advantage over organizations that are less attuned to the signals and are slower to respond. Similarly, the hospital could measure its strategy against each possible scenario and pick the most robust strategy, the one that will serve it well under any of the possibilities.

How to build scenarios



Scenario planning involves three key steps: capture, analyze and synthesize. It's important to involve as many perspectives as possible in each phase, although typically strategy staff guide the process and create the final scenarios.



Typical tasks and time frames

Task	Typical contributor(s)	Typical time allocated
Capture		Year-round for general planning, one week to one month for specialty topics.
Select framework	Planning specialists	Typically one hour.
Identify sources	Diverse group of subject matter experts	Typically one-hour meeting or via email.
Identify trends	Diverse group of subject matter experts, staff at all levels and planning specialists	Typically an ongoing process, with a one- to two-hour group discussion.
Analyze		Typically two to four weeks.
Discuss implications and interactions	Diverse group of subject matter experts, staff at all levels and planning specialists	Typically one- to three-hour group discussion.
Synthesize		
Write scenarios	Planning specialists	Varies widely, between one and two hours for a very brief exercise to six to eight weeks for a longer and more detailed product.

Capture

The capture phase is often called “environmental scanning.” Every professional performs environmental scanning, whether they know it or not. It’s simply observing what’s happening that’s likely to affect you or your organization. The trick is being deliberate and systematic about it, carefully identifying valuable and diverse sources of information and making sure you’re covering all the important factors and understanding how they interact.

Most organizations use a framework based on macrofactors in their environment. The most common frameworks look at demographic, societal, environmental, social, political, scientific and technological factors, and depending on the organization’s special interests, may add legal, ethical or cultural factors.

Some of the most common frameworks are:

DEGEST: Demographic, economic, geopolitical, environmental, social and technological.

PESTLEH: Political, economic, social, technological, legal/regulatory, environmental and health.

STEEP: Social, technological, economic, environmental and political.

In these examples, “environmental” refers to the overall business environment factors such as competitors or the workforce.

Many health systems use a framework like PESTLEH that emphasize law/regulations and ethics as important forces shaping their future, so we’ll use PESTLEH for the rest of this resource.



Populating the framework

The next step is identifying the subtopics for each major driving force and finding information resources to track changes. Here are some that typically affect a hospital or health system:

Political: Federal, state and local government policies and regulations; political parties; political contributions; political influencers; and government payment models.

Economic: Local economy; local employment and compensation; donors and funders; taxes; investments; transportation access; major employers; value and affordability of health care; and commercial payment models.

Social: Socioeconomic factors; age distribution or different generations; racial and ethnic distribution; social determinants of health; and consumerism.

Technological: Technology use; cybersecurity; artificial intelligence and machine learning; automation; electronic health records; social networks; Internet of Things; and technology disruptors.

Legal: Legislation; torts; and tort reform.

Environmental: Potential and existing collaborators; emerging industries; leadership and management trends; competitors; workforce; and transportation.

Health: Medical advances; access to medical care, climate change and health; gene editing; and inequality and disparities in care.

Some of these subtopics, such as socioeconomic factors or major employers, could appear in more than one category, so put them in whatever category makes the most sense to you. Which category they appear in isn't as important as the fact that they appear in one.

Sample Scanning Sources

- Industry publications
- Behavioral observations
- Admissions data
- Google search trends
- Consumer surveys
- Government data
- Local media
- Human resources data
- Expert interviews
- Financial data
- Business publications
- Social media engagement

Decide what topics matter most and how often to monitor them, based on how often they change.

Next, decide what sources to tap into and who will be responsible for each source or topic. Where possible, include as many diverse sources as possible. For example, business magazines targeted to a specific demographic group add a particular perspective on leadership and management trends, and publications about health care costs targeted to payers provide additional insights about their concerns and needs.



Analyze

The next step is looking at the trends under a particular topic. Trends can include:

- Growth, declines or plateaus (e.g., more competition for physician extenders, lower unemployment but higher underemployment, the rise in opioid overdoses).
- New or dramatically changed factors (e.g., a different political party takes over the White House, a competitor drops a line of business, a new provider enters the market).

This will tell you the impact of each trend.

Synthesize

Combine the trends and their impacts to create scenarios. In some cases, you use the trend and impacts to create two to three scenarios based on different possibilities, if you want to create a story to share what the future might look like.

In a different case, you might want to use scenarios to help guide decision-making to lead an organization to a preferred future and help it avoid an undesired future. For contrast, you can include a standard scenario in which nothing much changes.

This exercise is most valuable when you are facing a challenge or opportunity and need to start making decisions under a high degree of uncertainty. You know the possible endpoint, but you don't necessarily know how it might come about. The idea here is to consider possible future states that aren't necessarily right on the details – you're not trying to make predictions – but give a picture of a plausible future.

- **Preferred:** The best possible and most realistic outcome within the scene.
- **Undesirable:** The worst possible and least realistic outcome within the scene.
- **Standard:** The status quo is maintained. Useful for getting those expectations out on the table.
- **Wildcard:** Something possible but unexpected happens. Can be optional.

Telling a story with scenarios

Storytelling relies on three C's: Character, context and conflict.

Character: The characters can be individuals or they can be your hospital or health system in its entirety. Whichever way you choose, your audience needs to be able to see themselves or their colleagues within these characters. To build your characters, start with listening. Understand your audience so that when you start telling, the characters will be authentic.

Context: The context is where you paint all the details from your environmental scan, the results from your capture, analysis and synthesis. It has to resonate with your audience as possible and plausible.

Conflict: The conflict has to be something your audience cares about. Understand what matters to them, such as delivering excellent care or the sustainability of your hospital or health system. Make sure that the conflict represents a threat to those stakes or threats overcome.

Combining these three C's will give you scenarios that inspire your audience to thought and to action.

Once you develop these scenarios, the next step is "backcasting." As the name indicates, it's the opposite of forecasting. You take the endpoint and make a list of the decisions and strategy that brought your hospital to that particular future state.



Exercise: Backcasting for technology company disruptions

As an exercise, here are two scenarios that a hospital might create of technology companies disrupting health care. Read these and consider the backcasting questions. At the end of the exercise, synthesize the answers and analyze the actions you should take. This is also a good team exercise: Ask one team to analyze the preferred future and the other to analyze the undesired future.

Preferred future

“Powered by partnerships” is the slogan of the Any Health System. Through those partnerships, the system knows more than ever before about its community needs and has multiplied its efficiency and effectiveness in meeting those needs. Every staff member and volunteer sees themselves as a vital component of partnerships, both internal and external. Those partnerships couldn’t happen without the data that flows seamlessly throughout their systems. One stream of data pulls information about the community from health records, claims data, community demographic data and data from the system’s community partnerships. That stream is focused on social determinants of health, population health, and identifying candidates for the system’s programs for disease and complex condition prevention and management. Another stream of data flows among the fundraising, marketing and communications teams to help them identify the most compelling messages for their different segments, deliver personalized messages and measure the impact of each message and campaign. Planners can see short- and long-term forecasts that are adjusted in near-real time for service line, facility and workforce planning. This makes it easy for the system to understand community needs and opportunities and decide what to provide independently, what to refer consumers to and what the system needs to tackle in partnership with other organizations.

Backcasting questions:

- What decisions did the hospital make that led to this future?
- Who was involved in those decisions?
- What strengths of its own did the hospital leverage?
- What strengths did it leverage through partnerships?

Undesirable future

The Any Health System was treading water. Clinicians were spending twice the time on electronic health records as clinicians in other hospitals and getting less out of them. Several said that it felt like a choice between maintaining the EHRs and providing good care. In exit interviews, several said that they were going to hospitals where they could do both. The marketing department was doing what it could to reach consumers but didn’t know which strategies were effective and which were not. Planners were doing their best with data that was either estimated, years old, or both. The system was located near one of the best technology schools in the region but it wasn’t attracting their graduates. Those who were idealistic about technology and what it could do for health wanted to work on more exciting challenges than fixing things that kept breaking, and the system couldn’t afford the ones who were more motivated by money.

Backcasting questions:

- What decisions did the hospital make that led to this future?
- Who was involved in those decisions?
- What weaknesses didn’t the hospital resolve in time? What strengths did the new providers deploy to out-compete the hospital?
- Looking back, what should the hospital have done differently?



Next steps and conclusion

Just like strategic planning, once you have your scenarios, it's vital to make them part of a process, not just a product. If you use scenarios as a tool to tell compelling stories about possible futures in order to guide progress toward the preferred future, keep telling the stories. You can use them as frameworks for other decisions – such as identifying which approach will better avoid the undesired future and build progress toward the preferred future – and use them in progress updates to maintain and build on a unified vision.

If you use scenarios to understand possible outcomes and build an adaptive or robust strategy, then you can review them periodically to help detect early signals of change and adapt your plans accordingly.

Scenario building draws on several of the skills and attributes outlined in the report by the Society for Healthcare Strategy & Market Development titled [Bridging Worlds: The Future Role of the Health Care Strategist](#). Some of the most applicable include storytelling, foresight, integrative thinking and data synthesis. You can learn more about these skills and attributes by ordering a free copy of [Bridging Worlds](#).



An Illustration

Driverless cars scenario for health care

Let's use this framework to build scenarios for health care organizations about the rise of driverless cars.

Trends within a PESTLEH framework:

Political implications

- Social and political participation will increase among people with disabilities and older adults.
- The transportation sector will lose driving jobs (truckers, cab and ride sharing drivers). There will be tremendous political turmoil about how to respond, with major lobbying efforts among the leaders of the driverless car initiatives. Some politicians will actively fight to keep driving jobs, others to advance driverless cars, and others for reskilling and other ways to ease the transition for those affected. The job losses may also bring the concept of universal basic income closer to the spotlight.
- As driverless cars reduce the rate of human error (including impaired driving), hospitals may be called upon to advocate for the elimination of human driving. However, this also raises the question of freedom – should humans still be allowed to drive, even though driverless cars save lives?

Economic implications

- Space that was dedicated to parking will be potentially freed up for other uses, assuming that fewer people will own cars and that passengers will be willing to wait for cars to come to them. In areas where land is expensive and in demand, this newly available space will reduce land prices or at least will slow increases.
- Governments will need to optimize traffic systems for driverless cars. While these may be less expensive over the long term, they will be a significant short-term expense.
- There will be winners and losers in manufacturing driverless cars. Some traditional automakers will likely fail, while some new entrants will likely become new

powerhouses.

- The demand for skills in artificial intelligence, sensor and processor design and engineering, smart materials manufacturing, and other related areas will increase, while traditional blue-collar jobs in transportation will decrease.

Social implications

- Suburban living will become more popular as long commutes will be less arduous.
- However, the workday (or at least the psychological workday) will become longer for many workers as they will now concentrate on work while commuting and will be expected to do so.
- Seniors and people with disabilities will be more socially active, reducing loneliness and isolation and associated health problems. With less need to design cars for human drivers, car design will become more accessible.
- Road rage and associated stresses will decline, though other stresses may increase if commuters spend more time working and separated from family and friends.
- Lifestyles will become even more sedentary as driverless cars reduce the need for public transportation and drop drivers right at their destinations.

Technological implications

- Self-driving cars will be built on new sensor and processing capacity and this will overflow into health care. Workers in smart ambulances will be able to access a patient's health records from the moment he or she calls the ambulance, ask the patient about their symptoms in any language, and page the appropriate clinicians before the patient even arrives. EMTs might even be replaced or supplemented with nurses or physician assistants, or even physicians, now that the ambulances will allow for running more tests and providing more care.
- Ambulances and other emergency vehicles will be able to travel faster than before, with other vehicles automatically yielding or even being rerouted to accommodate ambulances. This and the rise of smart ambulances will reduce morbidity and mortality.



Legal implications

- While there will be a whole new set of issues related to liability and automobile accidents, these will likely only have a tangential effect on hospitals and health systems.
- “Smart ambulance” services will have a different relationship with hospitals and other health care providers as they will provide more diagnostics and care. Ambulances may instead be owned by car manufacturers or high-tech firms, which will also change the relationship.
- Alternatively, hospitals may choose to own and operate their own ambulance fleets as they develop their capabilities for providing care.

Environmental implications

- Population distributions may change, making suburbs denser and cities less dense. Cities and suburbs will compete to offer more amenities.
- Self-driving cars will likely be more energy-efficient, but the number of cars and their energy consumption may increase, creating more pollution.
- Shopping centers either will become more compressed as the land dedicated to parking is available for building, or will add open green space, depending on the local demands.

Health implications

- There will be fewer car accidents, reducing injuries and mortality. This may also exacerbate the shortage of donated organs and tissues.
- People with disabilities will access medical care more easily and will be less likely to miss or skip appointments because of being unable or unwilling to drive.
- Pollution from emissions may increase, affecting respiratory diseases.

Related Bridging Worlds Skills and Attributes

- *Improvisation*
- *Systems Thinking*
- *Foresight*
- *Model Thinking*
- *Storytelling*
- *Integrative Thinking*



Preferred and undesired futures scenarios

Now, let's look at how these implications might play out for a hospital system. Because this is a look at the major impact of just one trend, it is shorter than a full scenario about multiple trends. However, it still takes other factors into account, such as the growth of sensor technology and the Internet of Things.

Preferred future

The hospital system is like a nerve center for community health and well-being. It constantly receives and processes data about individual and population health and can make decisions based on that data in near-real time. In a health emergency, it can send an ambulance immediately, and that ambulance would receive priority over any non-emergency vehicle on the road. Once on the scene, the emergency medical technicians can access the patient's health records, use cameras to show the emergency department clinicians any injuries, and receive real-time instructions. In non-emergency cases, the hospital system can send transportation to bring patients into the nearest setting for care or send health care professionals to the patient's home or even to some workplaces, thanks to agreements with employers.

The health system is fortunate to have enough staff to manage gathering, cleaning and analyzing the data that it constantly receives. Other organizations aren't as effective at recruitment and retention, but the system manages to keep ahead of its needs, using a mix of classic and innovative approaches.

The community is proactive too, and that helps. Other communities are struggling with the challenges of sprawl and pollution from more cars on the road, but theirs

takes advantage of the opportunities to improve overall quality of life and the environment. Their community also responds proactively to the potential loss of donor organs as traffic fatalities plummet. It's an interim solution until the technology for growing organs from the patient's own cells becomes both effective and affordable, but it still saves lives.

Undesired future

The hospital system is struggling to address community needs and maintain sustainable margins. Automation creates significant job losses in many industries, especially transportation, which alone accounted for four million jobs in the United States. While it creates many more jobs in artificial intelligence, engineering and data analytics, most of these new jobs require advanced education or training. As a result, income inequality and health inequality are increasing faster than the community's abilities to address them. Those with the worst health status have very limited means to pay for care, and the system's unreimbursed and under-reimbursed care is hindering its capacity to grow and to be proactive.

The lack of data and analytics talent is almost as big a drag on the system's productivity and growth. The best analytics professionals are drawn to either the higher paychecks or the more interesting and impactful challenges at other employers.

While the system is able to take advantage of the new capacities of smart ambulances and better respond to emergencies, and to take advantage of driverless cars to provide transportation for patients without their own vehicles, it hasn't maximized the advantages of driverless transportation the way that other hospitals and systems have. On the whole, driverless transportation has a negative impact on the system, even if there are some positives.



Scenario Case Example

Benson Health Services

While scenario planning often uses a mix of qualitative and quantitative data to inform subjective analyses, it is also effective for more objective analyses. Mary Ellen Wells, the interim CEO of Swift County – Benson Health Services (18 beds) in Benson, Minnesota, used scenario tools to create a set of quantitative analyses that emphasized quantified results.

Swift County – Benson Health Services is considering the relative advantages of remaining independent and joining a larger network as an affiliate. To better understand the implications of the decision, they first used a what-if tool from CliftonLarsonAllen LLP that shows financial performance projections under various possible factors, such as when inpatient procedures transition to outpatient procedures, when hospitals lose their critical access status, or when reimbursement rates drop. For each, they looked at the financial outcomes for a worst case, best case and most likely case.

At the same time, they created five different “buckets” for their major areas of operations: quality, availability of services, facilities and technology, people and financial services. Quality included aspects such as accreditation and safety, facilities and technology included considerations such as the need for new EMRs, and capital improvement and financial services included supply chain and cost report management. The final list included 122 elements.

Using the financial what-if data, they scored their processes on a scale from negative 7 to positive 5, for their current unaffiliated status and for the processes and capabilities if affiliated with the large network. A negative 7 represented a complete lack of process, positive 5 represented a fully optimized process and 0 represented a standard process. The final scores showed their relative future positions and helped the hospital and its leadership to understand the implications of both independence and affiliation. As Wells pointed out, “This helped create an objective and understandable analysis of a very complicated issue.”

Share your experiences

SHSMD encourages members to share their experiences with scenario planning and any completed scenarios at [My.SHSMD.org](https://www.shsmd.org) > [My Groups](#) > [Strategic Planning](#).



About SHSMD

The Society for Healthcare Strategy & Market Development (SHSMD), a professional membership group of the American Hospital Association, is the largest and most prominent voice for health care strategists in planning, marketing, communications, public relations, business development, and physician strategy. SHSMD is committed to leading, connecting, and serving its members to prepare them for the future with greater knowledge and opportunity as their organizations strive to improve the health of their communities.

SHSMD serves more than 4,000 members—professionals who work in all sectors of health care, including hospitals and health systems, physician groups, consulting firms, advertising and public relations agencies, and service providers. For more information, visit the website at shsmd.org.

© 2019 by the Society for Healthcare Strategy & Market Development of the American Hospital Association. This book or parts thereof may not be reproduced in any form without written permission from SHSMD

About AHA

The AHA is a not-for-profit association of health care provider organizations and individuals that are committed to the improvement of health in their communities. The AHA is the national advocate for its members, which include nearly 5,000 hospitals, health care systems, networks and other providers of care. Founded in 1898, the AHA provides education for health care leaders and is a source of information on health care issues and trends. For more information, visit the website at www.aha.org.