



AHA & AVIA DIGITAL INNOVATION SURVEY

Executive Report

A summary of statistics and findings
from the 2017 AHA and AVIA survey
on digital innovation



American Hospital Association.

Executive Report

In December 2016, the AHA and AVIA conducted a first-of-its-kind survey on the state of digital innovation within hospitals and health systems. The increasing attention and urgency to innovate with digital solutions necessitated a deep look into provider actions. We are pleased to provide you with our findings. These results will help you benchmark your digital innovation capabilities relative to other providers and will help the AHA create educational programs for providers to extend their digital innovation capabilities.

The primary survey goal was to understand the current state of digital innovation priorities, activities, and barriers across a wide range of provider organizations. The survey yielded 317 responses from 44 CEOs and 273 other innovation leaders.

The responses reveal a contrast between digital innovation aspirations and on-the-ground results. Hospital and health system CEOs and leaders believe that the effective use of digital solutions is critical to future success. But substantial barriers to leveraging digital technologies remain, including resources, funding, and operational capacity.

One leader identifies this gap, reporting that **innovation isn't a core competency of many healthcare organizations. The industry needs help identifying options for advancing meaningful innovation and building the structure needed to support it.**

Provider organizations that have accelerated the digital innovation process have removed barriers and developed a clear path from identifying a need to launching a pilot to scaling a solution. These leaders also report an intense desire to improve collaboration, urging "we need to share and learn from one another as quickly as we can when an innovative solution has been successful."

Demographic Snapshot

This survey captured a comprehensive cross-section of American hospitals and health systems. The survey solicited responses from a varied and wide range of healthcare providers, with diversity across hospital types, geographies, and sizes.



Geographic mix
48 states represented



Geographic service areas
Respondents are 86% urban and 14% rural



AMC
16% of respondents are academic medical centers



Bed Size
39% under 200 beds, 31% between 200-399 beds, and 30% more than 400 beds

HIGHLIGHTS FROM THE SURVEY

- **More than 75%** of leader respondents believe that innovation must include partnering with other innovative organizations
- **More than 75%** of leaders believe that digital innovation is important because it has strong ties to long-term strategy and competitive differentiation
- **The Top 5 digital innovation priorities for health systems** are patient-generated data and customized services, network utilization and management, referral management and in-network retention, social community support, and convenient patient access (including telemedicine)

- **While digital innovation is a priority, obstacles remain.** More than 50% of leaders say that they are holding off on innovation due to lack of capital and fear of creating unintended operational burdens

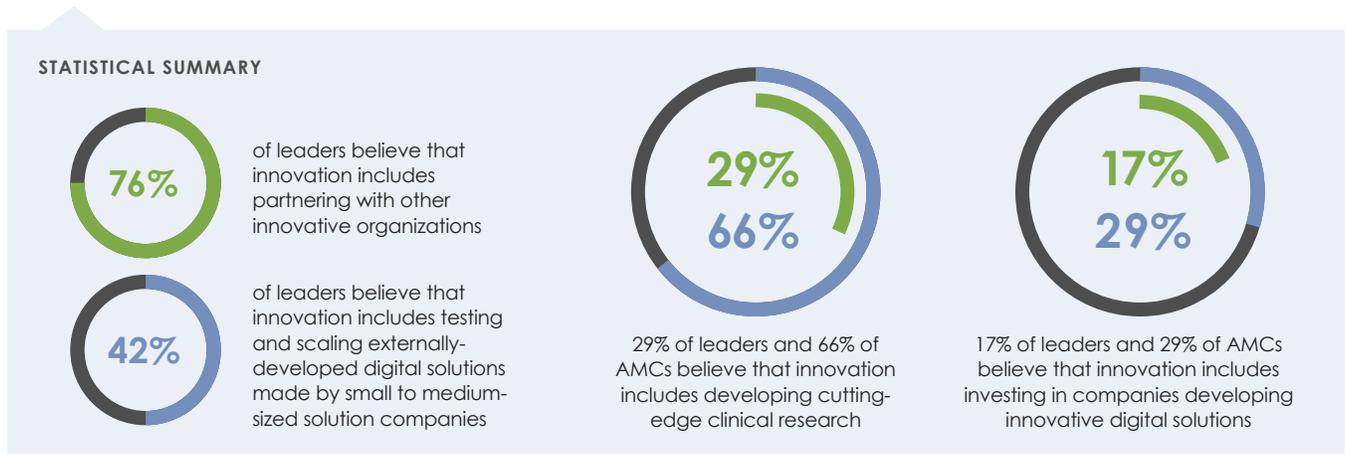
• **Four factors significantly accelerate digital innovation within hospitals and health systems:** providing sufficient IT resources, creating a flexible budget cycle, dedicating a funding pool, and reserving a portion of each service line leader's budget for digital innovation. **When all four factors are present, hospitals and health systems execute innovation 52% faster, shortening the time to impact by a full year**

Main Themes

The View from the Corner Office: How the C-Suite Defines Innovation

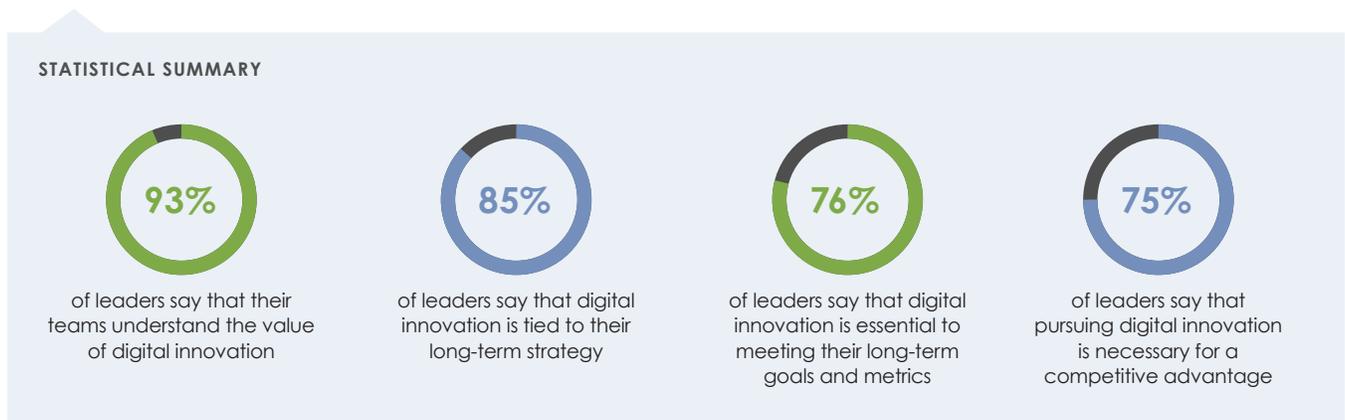
The term innovation is used frequently and inconsistently. At its most basic level, innovation means introducing a new idea, device, or method. To be innovative is putting something new into practice, typically with the intent to improve upon previous methods. Particularly within healthcare, innovation is a fluid and evolving field. Much of the attention today is focused on innovation driven by the use of new digital solutions. Healthcare organizations increasingly need to make significant changes to the way they operate, and digital solutions have the potential to impact critical operational metrics.

The results of this survey show that there is growing consensus among healthcare leaders around the key components of innovation. While the majority of leaders agree on the need to build innovative partnerships and almost half believe in testing and scaling externally-developed digital solutions, their perspectives begin to diverge around clinical research and investment opportunities, with one notable exception – leaders of AMCs. These leaders unsurprisingly respond with significantly greater interest in clinical research and investment opportunities.



While innovation definitions still vary, leaders are almost universally aligned around the importance of digital innovation. Survey results indicate that leaders overwhelmingly believe that **digital innovation is critical to future success and inaction is not an option.**

These healthcare leaders clearly believe that digital innovation has become a business imperative, and their organizational ambitions are evident and high.



The Innovation Agenda: Top Digital Innovation Priorities for Hospitals and Health Systems

Healthcare leaders agree that there is a strong imperative to innovate, but the proliferation of digital solutions can make it difficult to know how to start or sequence actions.

One leader notes that since **technology is changing so rapidly it's very difficult to remain informed.**

[It's helpful] to share best practices [from] other hospitals [to] be aware of priorities other organizations have successfully addressed."

Recent digital innovation priorities

Survey results indicate areas of importance where leaders have already made digital investments.

PERCENTAGE OF LEADERS THAT HAVE ALREADY IMPLEMENTED A SOLUTION

Employee benefits management



Operational efficiencies and improvements



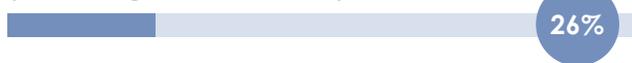
Primary care delivery and utilization



Care transition and post-acute sites of care



Convenient patient access (including telemedicine)



Go-forward digital innovation priorities

PERCENTAGE OF LEADERS ACTIVELY LOOKING FOR A SOLUTION

1. Patient-generated data and customized services

The recent proliferation of digital technologies has increased the volume, velocity, and variety of consumer-generated data. These data sets can allow hospitals and health systems to provide more nimble and personalized care, track population health trends, and efficiently structure patient services. In risk-based contracts, patient-generated data helps providers take better care of high-cost chronic patients and proactively manage these population health needs to reduce facility visits. Healthcare organizations are eager to understand how to securely integrate these data to make meaningful enhancements that improve patient experience and produce new quality insights.



2. Network utilization and management

The movement toward value-based payments has required health systems to develop the skills necessary to take on increasing financial risk. As a major component of this shift, providers are eager to learn how to maintain network integrity so they can effectively track and manage patient populations and avoid unnecessary out-of-network services. Digital solutions can help to solve this problem in a variety of ways, including tracking patient utilization data to report and analyze profitability, improving demand management by confirming referral appropriateness and patient readiness, and improving service and access by simplifying scheduling.



3. Referral management and in-network retention

Matching the right patient to the right physician at the right time through more effective referral management has become a key strategic and operational imperative for hospitals and health systems. New technologies are filling the gaps exposed by first-order approaches with structured content, logic-based provider searching and matching, decision support, and communications functionality designed to power high quality, data-rich, and efficient referrals. Hospitals and health systems hope to reap a host of potential benefits, including better access and service, improved satisfaction for referring providers and their patients, improved in-network utilization, and more effective care coordination.



4. Social community support

Hospitals and health systems know that the total cost of care and improved patient outcomes are dependent on much more than what happens inside their walls. In particular, supporting underserved populations requires a look to the community. Emerging digital solutions create new opportunities to share data and connect to community partners, providing a virtual network to support the patient. Hospitals and health systems are aiming to improve care coordination, compliance, and outcomes, as well as reduce long-term costs.

5. Convenient patient access (including telemedicine)

Convenient patient access remains a priority for hospitals and health systems, since only 26% have already implemented a solution. Patients are now demanding better access to care with more vigor and frequency, bolstered by on-demand services in other industries like banking, transportation, and retail. When this service isn't provided, patients turn to non-traditional care channels and hospitals and health systems lose loyal patients and downstream referrals. Digital solutions offer opportunities to make it easier for patients to conveniently access their healthcare services, including remote diagnostic tools like telemedicine or virtual exams. Hospitals and health systems that prioritize this challenge are seeking to increase quality and efficiency, improve patient retention and experience, and improve professional satisfaction.

PERCENTAGE OF LEADERS ACTIVELY LOOKING FOR A SOLUTION



Creating an Innovation Center

Leaders understand that in order to unlock the power of digital solutions they need to build innovation capacity within their organizations. AMCs and larger hospitals are particularly interested in this pursuit. Building an internal innovation center has many benefits, including a dedicated team that can think about transformational changes rather than incremental improvements. Built correctly, a standalone innovation center can be nimble, resilient, powerful, and a key to driving scaled, impactful digital innovations.

Measuring Outcomes

Where are hospitals and health systems seeking to apply digital innovation and what are they hoping to achieve? Survey results indicate that leaders across organizations and geographies are seeking to make an impact on five outcome metrics that move the needle on care delivery. Hospitals and health systems are prioritizing metrics that demonstrate better quality of care, improved patient safety, reduced costs, enhanced patient experience, and improved physician experience. These metrics also indicate that leaders are now seeking to leverage digital solutions to support risk-based contracts.

STATISTICAL SUMMARY

29% of leaders

are planning to or have already built an innovation center in the next 18 months

50% of AMCs

are planning to or have already built an innovation center

72% of hospitals

with over 400 beds are planning to or have already built an innovation center

Top 5 outcome metrics

1. Quality
2. Safety
3. Cost
4. Patient experience
5. Physician/staff experience

The Barriers to Digital Innovation: Acknowledging Progress and Identifying Roadblocks

Leadership buy-in is no longer a barrier to digital innovation success. Leaders are strongly unified in their belief that digital innovation is a necessity, with 75% of respondents reporting that innovation is a priority at their health system. They also believe that they need to be experimenting consistently rather than playing it too safe. One leader says:

I think we need to be pushed harder to consider how technology will disrupt us. Our industry is ripe for disruption and yet we don't change because [digital innovations] like telehealth [aren't yet] widely or well reimbursed [despite high impact]."

While unclear decision rights or ambiguous accountability may have been challenging in the past, survey results indicate that leaders no longer perceive these barriers. In fact, they are quite confident in decision rights and accountability.

Funding and Investments

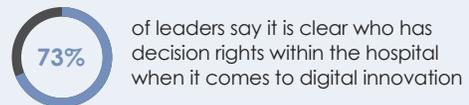
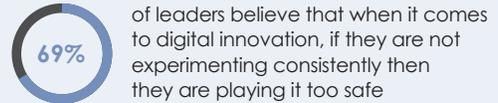
Leaders have erased or lowered some barriers to digital innovation, but other obstacles persist that prevent frontline action. A common inhibitor is funding. Leaders report capital constraints, plus the financial uncertainty that persists due to pending policy changes.

This financial uncertainty can be compounded by ambiguity around impact. Three quarters of leaders share that they are struggling to unlock the full potential of digital innovation. They report that when they do implement digital solutions, they are not yet yielding all of the expected benefits. As a result, it is difficult to realize a target ROI.

Implementation Operations and Process

Leaders report that implementation operations are a significant barrier to unlocking the full potential of digital innovation. It's extremely difficult to realize a meaningful ROI when implementation processes are incomplete or inconsistent. Process can allow innovation to thrive, but less than half of leaders report that they have a standard process to bring an innovation to pilot and only half have a process to then take that pilot to scale.

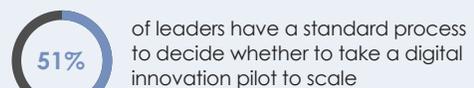
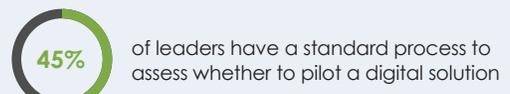
STATISTICAL SUMMARY



STATISTICAL SUMMARY



STATISTICAL SUMMARY



Staffing and Resources

Hospitals and health systems cite insufficient staffing and resources as a high barrier. A lack of dedicated resources, authority, and budget can impede true collaboration and restrict innovation acceleration, which is why many leaders have a growing interest in creating innovation centers. A standalone department is better positioned and incented to dedicate time and resources solely to innovation activities.

Implementation agility

The ability to swiftly implement digital innovation can also be a significant barrier for hospitals and health systems. For many hospitals and health systems, identifying a need doesn't guarantee an implementation, indicating significant culture or process roadblocks. They also express frustration with the speed and efficiency of the digital innovation process.

When a digital technology need is identified, survey results indicate a very long cycle time to get to a scaled adoption of a digital solution. Leaders report that on average it takes 23 months from identifying a digital innovation need to scaling a digital solution to meet that need (henceforth known as R2S; recognition to scale). Hospitals and health systems that are driving innovation quickly are able to get from R2S inside of 12 months.

Leaders struggling to quickly drive innovation are aware that there is likely a better and more efficient path to scaled adoption, but report that knowledge, collaboration, and best practices are sparse.

STATISTICAL SUMMARY



of leaders do not believe that their IT department has sufficient resources to effectively support digital innovation



of leaders say that they have a dedicated individual or department that has the budget and authority necessary to create interdisciplinary work groups across the organization to support digital innovation

STATISTICAL SUMMARY



of the time a digital innovation is identified to fill a need it does not receive a pilot

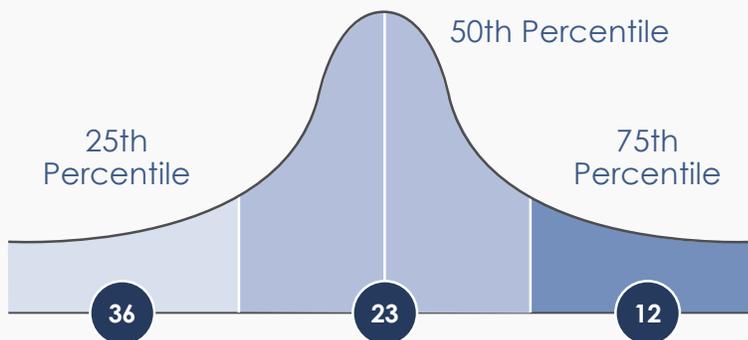


of leaders believe that the time put into digital innovation is spent inefficiently



One leader says that:

[we need] more thought leadership about innovation; convening groups to discuss, identifying metrics to track success, forward looking views on innovation, [and] practical implementation of solutions."



Months from identifying a digital innovation need to scaling a solution

STATISTICAL SUMMARY

Hospitals and health systems can vary a great deal in terms of the time it takes them to get from identifying a digital innovation need to scaling a solution to meet that need. Use this information to benchmark your efficiency and speed relative to other hospitals.

The Top Performers: Shared Traits That Drive Scaled Success

For health systems struggling to remove barriers and become more agile at digital innovation, it can be extremely helpful to look at top performers who are unlocking the power of digital solutions. It's clear from their success that the path to accelerated scale must include sufficient and dedicated IT resources, defined and independent budgets, and service line prioritization.

Survey results indicate that creating flexible budgets, dedicating funding, reserving service line budgets, and clearing roadblocks for operations and IT resources can impressively impact the speed of digital innovation. Taken together, these factors can accelerate digital innovation by a full year.

STATISTICAL SUMMARY

The average hospital takes 23 months to go from recognizing a digital innovation need to fully scaling a solution (henceforth R2S; recognition to scale)

NEED

PILOT

SCALE

23 months average

17% FASTER IF

Hospitals have a **dedicated pool of funding** for digital innovation

17% FASTER IF

Hospitals have a **mechanism for funding digital innovation** opportunities outside of the budget cycle

22% FASTER IF

Hospitals **reserve a portion of each service line leader's budget** for digital innovation

23% FASTER IF

Hospitals believe their **IT departments are sufficiently resourced** to support digital innovation.

52% FASTER & ACCELERATE DIGITAL INNOVATION BY A FULL YEAR

NEED

PILOT

SCALE

12 months average

When all four factors are present

Recommendations

Slow to get to scale

Hospitals and health systems that identify as slow to get from R2S should target two immediate areas to begin accelerating innovation activities.

- 1. Invest in IT resources.** A dedicated and sufficiently staffed IT team strongly correlates with getting from R2S quickly, and also leadership confidence in the ability to truly support innovation.
- 2. Implement a flexible budget cycle for operations staff.** Separating the digital innovation budget from standard cycles empowers staff to respond to changing business demands, which allows them to adapt planning and resources to support evolving priorities and capabilities.

Fast to get to scale

Hospitals and health systems that identify as fast to get from R2S could prioritize their efforts in other areas, namely by directing digital innovation funds to prepare for risk-based contracts.

- Understand and proactively manage high-risk patients, leading to improved care coordination, and a better understanding of cost.
- Capture clinician performance metrics on behalf of patients to provide the accountability necessary to fully transition to patient-centered care.
- Implement continuous monitoring of key performance metrics, such as quality and consistency of care to support a high level of accountability.
- Provide the intelligence and reporting to run more effective and financially proficient organizations.

Conclusion

Successfully scaling digital innovation is a strategic imperative, and it doesn't need to continue to be a mystery. To become an innovative organization, providers need to follow in the footsteps of top performers who have learned to navigate the digital innovation process quickly and efficiently. These leaders find value in experimenting consistently, encouraging smart risk-taking, and prioritizing financial and organizational resources to successfully and quickly scale digital solutions.

Top performers are nimble and confident, removing operational barriers by dedicating funding and resources to innovation. Just as significant, they institute specific processes like flexible budget reviews and workflows with clear decision rights to allow innovation to thrive. These process improvements strongly correlate with the agility and speed of innovation. The disconnect between leadership aspirations and on-the-ground results evaporates when teams are empowered with the tools, funds, processes, and resources to move forward.

While digital innovation may be a newer journey for healthcare organizations, it's undoubtedly become a shared goal. Sharing knowledge like best practices and peer benchmarking is a prevalent request from leaders. One leader notes that "we are still very much on a learning journey. Educational activities exploring case relevant examples would be of value." Knowledge sharing, collaboration, and best practices can help galvanize action, crystallize innovation priorities, and accelerate transformation across the field.

AHA

The AHA is a not-for-profit association of health care provider organizations and individuals that are committed to the health improvement of their communities. The AHA is the national advocate for its members, which include nearly 5,000 hospitals, health care systems, networks, other providers of care and 43,000 individual members. 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 AHA website at www.aha.org.

AVIA

AVIA leads a network of health systems working together to innovate and transform. AVIA Innovator Network members solve pressing challenges with digital solutions that deliver financial and clinical results. AVIA provides strategic focus and a collaborative approach to accelerate innovation.

If your organization has an interest in leveraging industry expertise and the findings of leading health systems to develop your digital innovation priorities, you can contact AVIA at contact@aviahealthinnovation.com