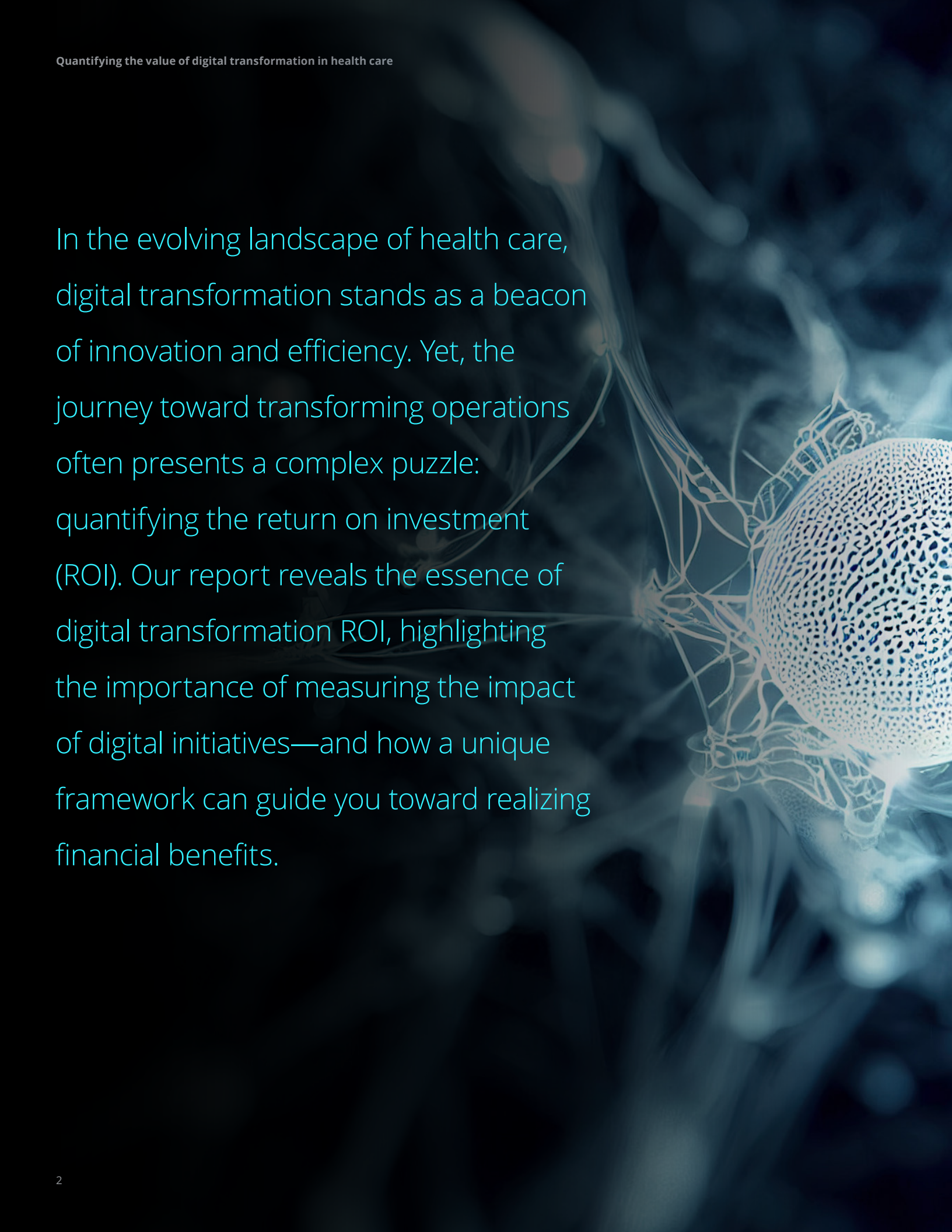


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Quantifying the value of digital transformation in health care

**Empower innovation for competitive advantage—
and better health outcomes**



In the evolving landscape of health care, digital transformation stands as a beacon of innovation and efficiency. Yet, the journey toward transforming operations often presents a complex puzzle: quantifying the return on investment (ROI). Our report reveals the essence of digital transformation ROI, highlighting the importance of measuring the impact of digital initiatives—and how a unique framework can guide you toward realizing financial benefits.

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From investment to impact

Many health care organizations are embarking on digital transformation initiatives with the goal of value creation, but value quantification can be elusive. Value creation can take several forms: It may look like top-line growth, consumer-centricity, improved health outcomes, reduced cost of care, or enhanced operational efficiency. This multidimensional value makes digital transformation difficult to quantify. Yet, these digital investments are resource-intensive, and with limited financial capital, human capital, attention capital, and reputational capital, decision-makers must evaluate the opportunity costs of initiatives before going forward with an investment.

The missing element of most digital transformations is the ability to attribute measurable metrics to revenue growth and cost efficiencies. To support this process, Deloitte developed the Digital Transformation Value Database with approximately 50 individual levers across seven categories that health care organizations can leverage to predict quantified value. This framework, coupled with benchmark data from the evolving Digital Transformation Value Database, can empower organizations to make informed decisions about their digital investments.

Deloitte understands what it takes to get from metrics to value, and we can help you do the same. For example, let's take a Medicare Advantage (MA) plan with half a million members embarking on a consumer personalization strategy. Applying value seen from MA organizations of similar size, we predict up to \$150 million in additional revenue could be seen by pursuing these personalization investments. Or, how about a medium hospital system interested in creating greater efficiency from call center operations? By introducing conversational artificial intelligence (AI) in its call center and reducing manual resources, we can attribute nearly \$500 million in additional revenue.

Please see pages 6 & 7 for a breakdown and details on these predictions based on scenarios and use cases from Deloitte professional experience.



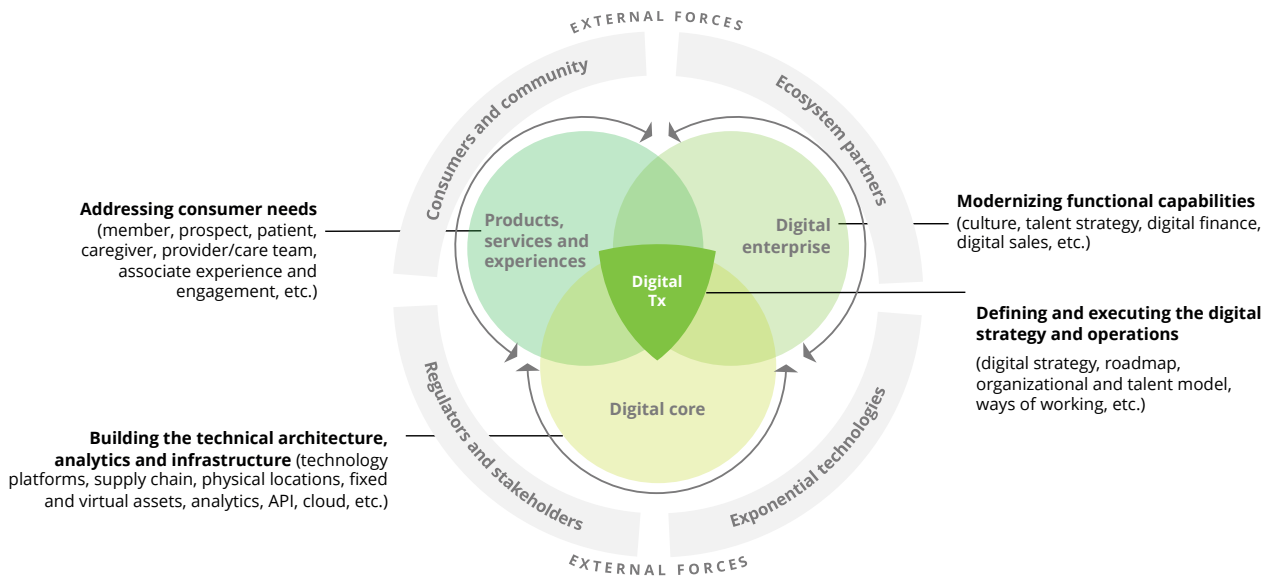
Defining digital transformation

The definition of a digital transformation varies across organizations. Generally, we define a digital transformation to be the use of digital technologies and digital channels (e.g., mobile, web, SMS, chat) in an integrated manner to radically improve the performance and reach of an organization.

Such a transformation requires a human-centered approach to designing experiences and developing strategies that reflect the priorities, values, and goals of the organization and its users.

Digital transformations in the health care industry are supported by three primary pillars—Products, Services, and Experiences; Digital Enterprise; and Digital Core—interacting with several external forces:

Figure 1: Digital transformation opportunity spaces and priority areas



The first pillar, **products, services, and experiences**, reflects the way health care organizations address consumer needs—whether they are members, prospects, patients, caregivers, care teams, or associates. Digital products, services, and experiences can deliver an improved consumer experience, enhanced retention, streamlined workflows, and reduced clinician burnout.

The second pillar, **digital enterprise**, describes an organization’s functional capabilities, or its *digital DNA*. For example, how digital capabilities can improve and modernize talent and retention strategy, the finance organization, and the supply chain. Also, how digital ways of working and agile enterprises can improve culture and drive efficiency and consumer-centricity.

The third pillar, **digital core**, is focused on the “middle layer”—advanced analytics, omnichannel orchestration, and extensible architecture—which enables the other two pillars to transform

the way organizations operate. Many health care organizations are hindered by outdated legacy systems and antiquated data management that often stifle innovation. Advancing the digital core is imperative to long-term transformation.

These three pillars are influenced by four external forces: consumers and community, ecosystem partners, exponential technologies, and regulators and stakeholders.

Selecting digital transformation initiatives often involves trade-offs and requires a constant pulse on the ever-changing external market forces and a careful consideration for balanced investment in the three pillars: Products, services, and experiences, digital enterprise, and digital core. A structured framework can help balance these trade-offs and evaluate digital investment opportunities.

Measuring the impact of digital transformation

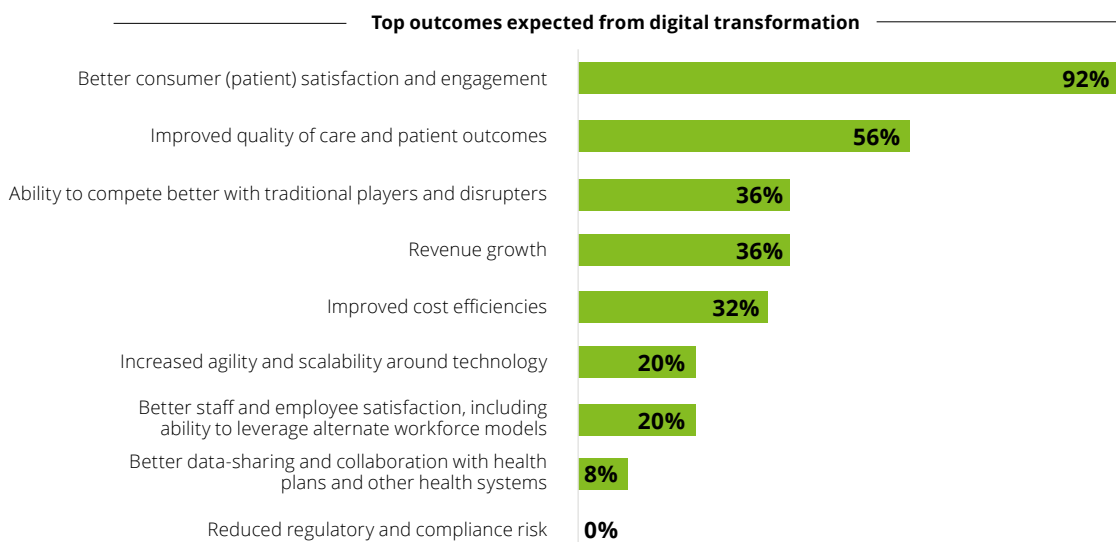
The impact and value of digital initiatives have historically been challenging to measure, limiting the value proposition for digitizing health care. Decision-makers expect a clear understanding for the potential impact, value, and return of a digital investment before jumping in. When defined well, these variables can help leaders make informed decisions, measure progress, and report on the performance of digital capabilities.

To evaluate the *impact* of a digital initiative, it's important to first identify the initiative's expected outcomes. The Deloitte Center for Health Solutions collaborated with the Scottsdale Institute to better understand how health systems are using digital tools to transform health care. Technology executives were interviewed and surveyed, and then participated in a moderated panel discussion. Figure 2 illustrates the key findings from this effort.

Figure 2: 2021 commercial total medical claims spend

Deloitte and the Scottsdale Institute conducted a survey of technology executives of 25 health systems, interviewed five health system technology leaders, and facilitated a moderated panel discussion of technology leaders from three health systems to better understand how health systems are using digital to transform health care.

Q. What are the top three outcomes that you hope to achieve as a result of digital transformation in your organization? (Select top three)



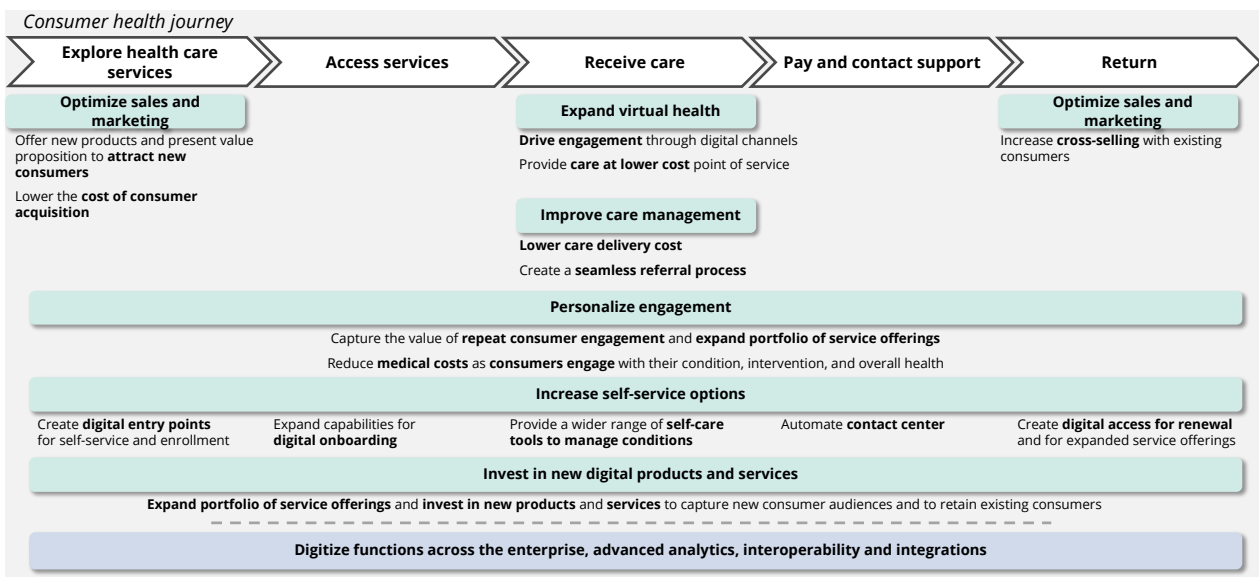
Source: Deloitte Insights and Scottsdale Institute, "[Digital transformation: From a buzzword to imperative for health systems](#)," 2021

While there are clear priorities and alignment around desired outcomes, organizations commonly lack a clear line of sight into selecting the digital initiatives that will help them achieve their goals. Additionally, measuring and attributing impact can often be even more challenging. There are known methods to measure consumer satisfaction, but it can be difficult to define how improved consumer satisfaction translates to financial return.

Deloitte's Digital Transformation Database can help in clearly identifying what lever(s) digital investments are expected to affect. Having a clear business case and linking it to explicit business outcomes is critical to making more effective investment decisions when embarking on digital transformations.


Within each of these levers, there is an evolving set of benchmarks that we use to help our health care clients analyze expected outcomes and inform investment decisions.

Figure 3: Drivers of business value from digital transformation



Benchmark spotlight

Organization type: National Health Plan
Initiative domain: Member service
Value driver: Shift to digital channels
Benchmark impact: 18% to 36% increase in call deflection from implementing automated and targeted campaigns for top call-volume drivers



Benchmark spotlight

Organization type: Regional Health Provider
Initiative domain: Patient engagement
Value driver: Remote patient monitoring
Benchmark impact: 2% to 7% reduction in avoidable hospital readmissions from implementing remote patient monitoring and at-home devices



Source: Use cases are based on prior Deloitte experience

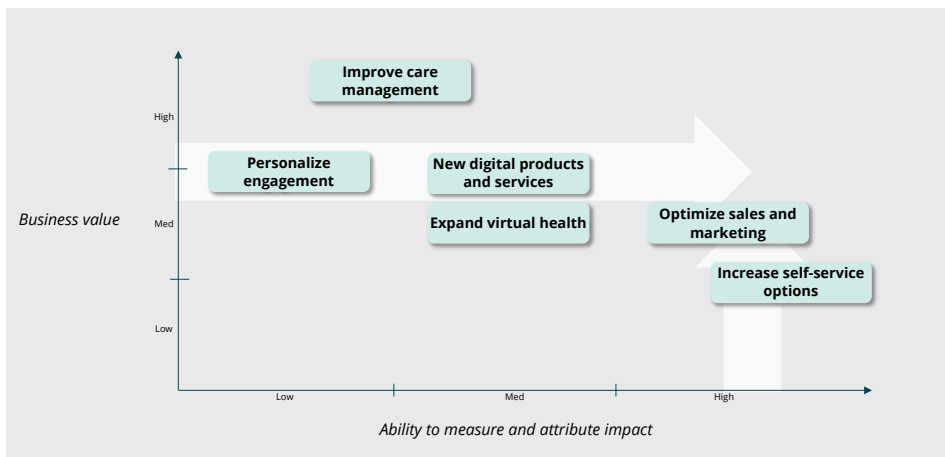
Measuring and attributing impact

The ability to measure and attribute impact varies by type of initiative. Some investments are hard to measure because the digital tools have limited capability to track activity in enough detail to make confident links between an initiative and its resulting business impact. Often, however, the impact is hard to measure because there are degrees of separation between an initiative and the business outcome.

For example, optimizing sales and marketing can be much easier to measure and attribute impact than personalized engagement initiatives. Sales and marketing spend is known, the leads coming

in are likely known, and the ability to correlate one with the other is possible since the action-reaction relationship is attributable. On the other hand, when a health plan carries out an initiative to personalize consumer engagement, the health plan aims to improve retention, but historically, there wasn't objective "metric" for how much personalized an engagement is when compared to others, and there's seldom tools for attributing that consumer's retention to the personalization investment. There's little doubt that a more personalized experience drives significant business value, but the ability to quantify and attribute that value directly has been more nebulous than other digital initiatives.

Figure 4: Ability to measure and attribute impact



Ways to increase impact and measurability

- Combine multiple digital investments to unlock network effects
- Combine with other sources of impact
- Implement attribution methodologies
- Gather more signals from more sources
- Track touches to provide more clarity on customer lifetime value

There are ways that health care organizations can increase measurability of digital impact and value. First, implementing the latest attribution methodologies. This works best in situations where high volumes of "clean" data are available so that statistical correlation modeling can be performed at a high degree of confidence. For example, some leading health care organizations are running these types of attribution models today to measure and attribute specific marketing campaigns to an uplift in appointments generated, even in areas that were previously hard to measure like TV spend. Second, gathering more signals from additional sources can also improve measurability by triangulating datapoints that, on their own, would not provide a complete view of the initiative. For example, health care organizations can combine targeted real-time surveys with web and app intercept questions and in-person questionnaires to get a better view on whether personalization efforts are making a positive impact on the consumer experience.

Measuring and assessing consumer interactions across journeys, touchpoints, and features enabled through real-time consumer feedback can increase the value of digital initiatives. Sometimes,

all it takes to demonstrate success is a defined set of key metrics coupled with a robust measurement strategy to prove the percentage improvement.

Deloitte worked with a health care organization that was considering implementing best-in-class technologies to measure, understand, and act based on consumer experience signals. By embedding survey and journey orchestration tools into the consumer journey, Deloitte and the client were able to identify key moments of dissatisfaction and better understand what was creating systemic friction, including digital experience issues. Understanding the root causes of dissatisfaction allowed for the organization to better identify, prioritize, and execute experience improvement initiatives, which led to an overall improvement to the consumer experience. The organization was able to accurately identify and address up to 75% of all dissatisfied consumers, compared to less than 30% being addressed before, as well as increase its Net Promoter Score (NPS). This level of information and measurability unlocks the ability to enhance accessibility and adoption, which can reduce friction and improve the overall consumer experience.

Putting the framework into practice

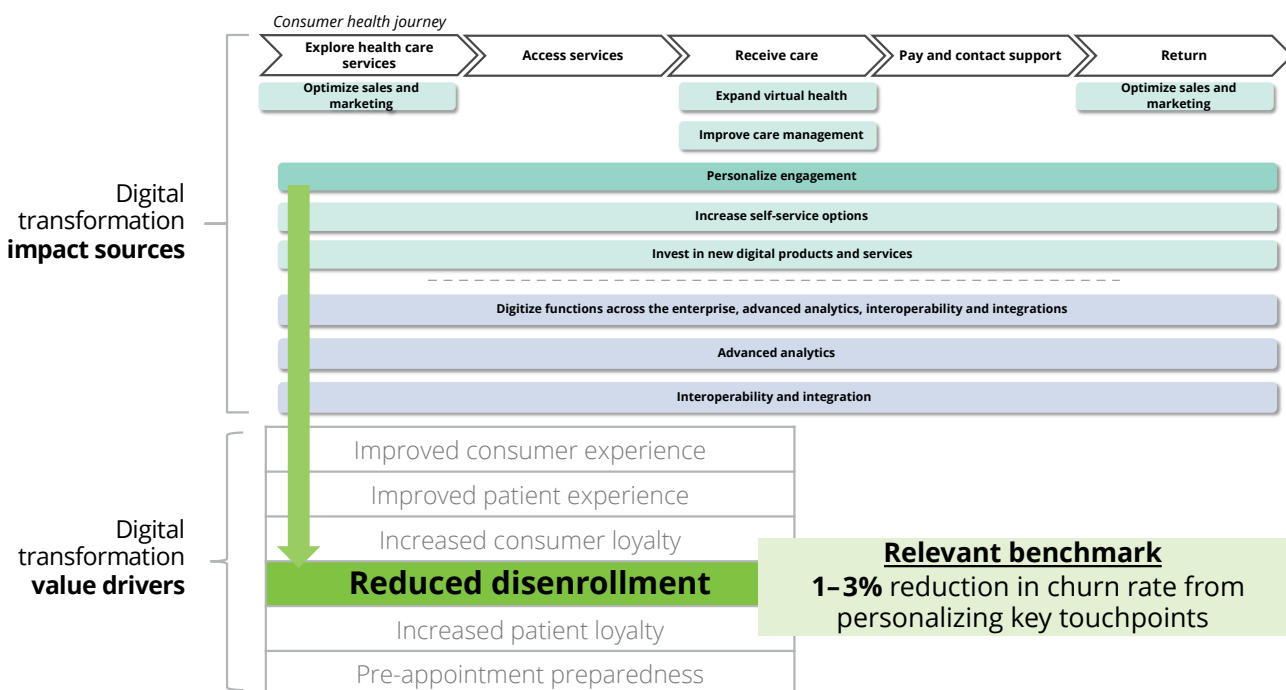
To put this framework and accompanying benchmark database into practice, let's look at a potential initiative to enhance personalized engagement. To quantify the value and impact of investing in this area, we can consider a benchmark of decreased disenrollment from a comparable organization, since increasing personalized engagement is associated with decreasing disenrollment.

For example, a commercial health plan with 500,000 Medicare Advantage (MA) members, an average per-member-per-month (PMPM) revenue of \$900, and a retention rate of 85%. From prior research, we have a strong sense of the critical moments in a member's consumer journey (e.g., benefit selection) where there are opportunities to be more personalized with communication and recommendations based on what we know about that member or segment. By infusing targeted personalization into these meaningful moments throughout the member journey, an organization can reduce annual churn by one to three percentage points. Applied to the 500,000-member health plan, this would result in \$55 million to \$150 million in additional revenue per year from investing in more personalized key touchpoints and retaining a little more of the existing consumer base. With a benchmark on

churn rate, we can estimate a reasonable return on investment for this investment and use it as a datapoint to garner broad support within the organization and build a more robust business case.

Investing in a digital self-service initiative is another illustrative example that helps demonstrate measurable and quantifiable value. Medium to large health plans and providers often have significant call volumes that can be decreased by offering consumers digital self-service options (e.g., scheduling). For example, consider a hospital system receiving 4 million calls per year related to appointment scheduling that has an average cost per call of \$5 (fairly typical from our experience). Depending on the type of call (e.g., confirm, cancel, or follow-up from an appointment), we estimate that 20% to 60% of the calls could be automated and replaced by implementing conversational AI and self-service capabilities, saving the organization \$4 million to \$12 million annually. Since these cost savings directly result in net profit improvement, it would be equivalent to \$200 million to \$500 million in additional revenue at a 2% margin.

Figure 5: Linking benchmarks to source of impact



Drive tangible business value for the future

Pursuing digital transformations, with a clear road map and strategy for the future, is essential for continued growth and future-proofing of health care businesses. However, identifying where to invest with limited capital across one or multiple transformation pillars—Products, Services, and Experiences; Digital Enterprise; and Digital Core—can be complicated if impact is hard to quantify. A framework that identifies how digital initiatives can lead to business value as well as a database of benchmarks that provides ways to quantify can support the buy-in organizations need for digital investment.

Measuring the value of initiatives is an ongoing endeavor. As an organization continues through its digital transformation journey, it should gather its own database of internal benchmarks based on the actual impact and value realized. This will enable the organization to calibrate the impact and value unique to its context and continue to identify new value creation opportunities through enhanced digital experiences.

Further readings on this topic include:

- [A new language for digital transformation](#)
- [Digital transformation: From a buzzword to an imperative for health systems](#)
- [At-scale digital personalization](#)
- [Future of Health](#)



Authors



Matt Kaye
Principal
Deloitte Consulting LLP



Dan Sabido
Senior Manager
Deloitte Consulting LLP

Acknowledgments

Caroline Allieri, Boris Kheyn-Kheyfets, Ben Jonash, Andy Davis, and Bill Laughlin



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