

**INTELLIGENT HEALTHCARE**

**THE RACE  
TO REINVENT  
HEALTHCARE**

**THE POWER OF AI**

## **BUSINESS SITUATION**

# **THE OLD RULES NO LONGER APPLY**

The fundamental structures of the healthcare industry are being challenged. The healthcare market is becoming more consumer driven as disease and treatment information become more accessible and as digital increasingly fuses expectations across industries. In addition, a proliferation of data and new technology is revealing new insights and enabling new ways to identify patients' needs and deliver quality care.

Some of the market forces changing the healthcare landscape include:

### **Healthcare companies face new economic realities**

Healthcare spending keeps rising as a percentage of gross domestic product (GDP), driven largely by labor costs. Margins are being squeezed by continued market, legislative, and regulatory pressures. Simultaneously, business models are evolving as reimbursements become more tied to outcomes.

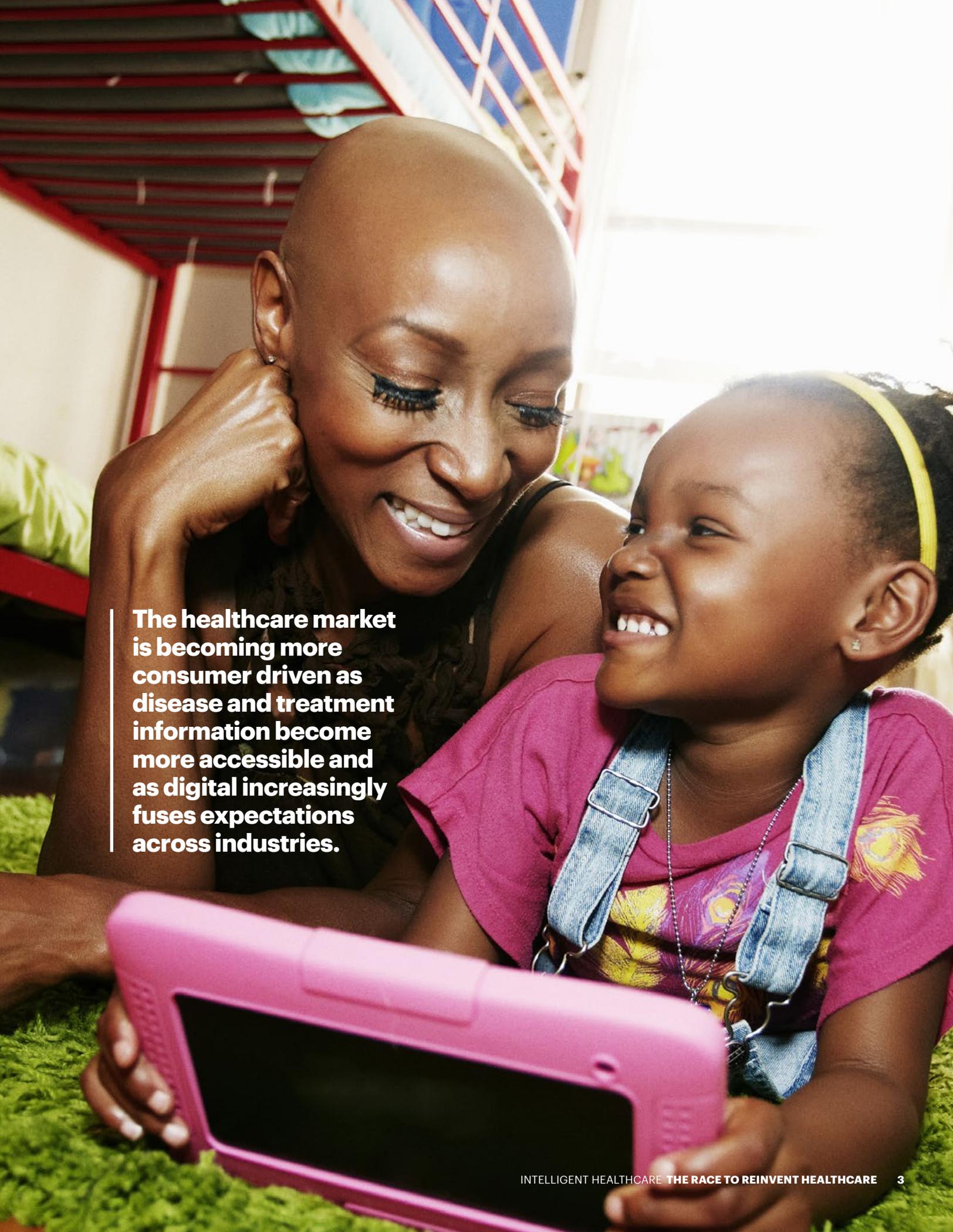
### **Healthcare markets are changing**

Consumers are bearing a greater burden of their healthcare cost and risk. As such, they are becoming more engaged shoppers for quality care and excellent customer service at a fair cost. Simultaneously, demand is growing as chronic conditions become more prevalent, with aging populations and growing affluence in emerging markets.

### **The digital healthcare revolution is here**

New data sources, artificial intelligence (AI), and computing power are enabling breakthroughs. Insights are being unlocked from vast data sets (e.g. genomes, electronic health records (EHRs), mobile diagnostics, wearable devices). This creates the potential to accelerate new drug discovery, precision health, and operational savings.

To navigate this time of risk and opportunity, healthcare companies need to approach the market and their business in a fundamentally different way.

A photograph of a woman with a shaved head and a young girl sitting together on a green rug. The woman is smiling and looking at a pink tablet held by the girl. The girl is also smiling and looking at the tablet. They are in a room with red metal bunk beds in the background.

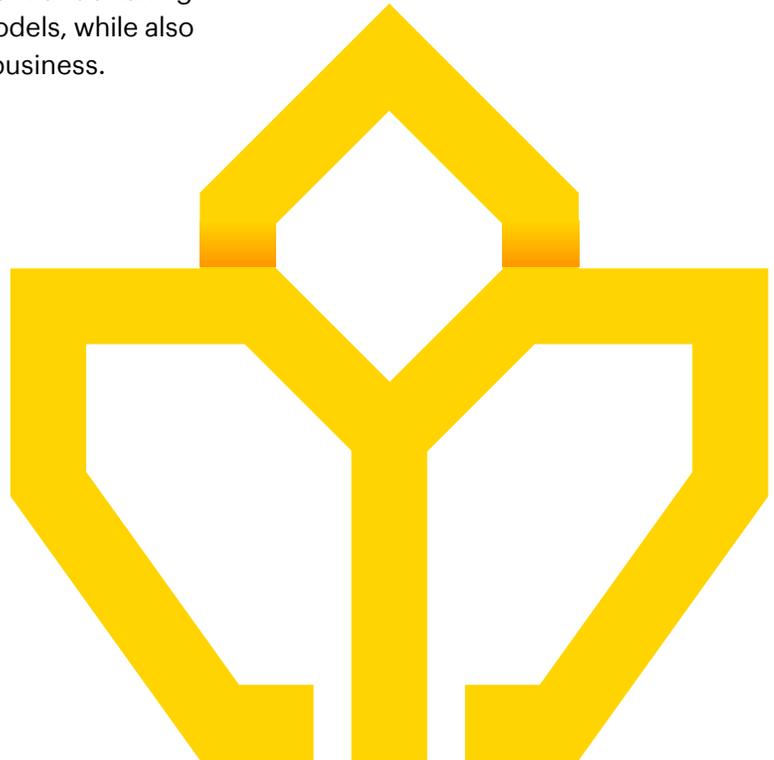
**The healthcare market is becoming more consumer driven as disease and treatment information become more accessible and as digital increasingly fuses expectations across industries.**

## KEY TENSION

# CREATING THE FUTURE WHILE SOLVING FOR THE PRESENT

Many healthcare leaders may be unclear where to begin.

It's difficult to determine where to invest in the intelligent technologies that will deliver the most value in the short, medium and long term. And, it's a significant undertaking to transform in support of new business models, while also continuing to run and improve their core business.



## INSIGHT

# DATA AND AI WILL REINVENT THE PATIENT CARE CONTINUUM

Healthcare of the future will be end to end, analytics driven, outcome based, and service oriented. Industry boundaries are blurring as new competitors, such as high-tech companies, enter the field, and traditional players increasingly converge, resulting in a more intensely competitive, outcomes-oriented and customer-centric environment. This cross-industry synergy will be the new modus operandi and key determinant to business success.

Data will provide the fuel and connective tissue. Intelligent technologies—powered by AI—will unlock the value. AI will generate new data-based insights, create new efficiencies, and achieve better patient and economic outcomes, while delivering excellent, personalized experiences. Leading companies will transform treatment, care, and business operations by putting data and AI at the core of everything they do.

**AI will generate new insights, create new efficiencies, and achieve better patient and economic outcomes.**

## OPPORTUNITY

# A PERSONALIZED APPROACH TO INTELLIGENT CARE

Although AI is a transformative technology, its potential for healthcare is best realized when applied to practical problems and highly targeted use cases.

Organizational change happens by “building up” from applying new solutions, rather than “forcing down” from theoretical constructs. And, as AI-based innovation creates efficiencies, it unlocks working capital to invest in solving the next business priority.

**Using AI to reinvent healthcare will provide targeted and tangible benefits to all aspects of the patient experience, and subsequently, the business.**

## KEY APPLICATIONS, INNOVATIONS AND BENEFITS INCLUDE:

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### Discovering innovative patient treatments

- **New drug discovery** – Expedite the drug-discovery process by accelerating target identification and validation, as well as the lead-optimization process and drug safety evaluations.
- **Clinical trials** – Improve clinical trial recruitment, patient identification, adverse event identification, trial management, and approval processes via adaptive trials and real-world evidence (RWE).
- **Genomics** – Reduce the time and cost to develop new treatments and drugs by efficiently analyzing complex genomic datasets and predicting what will happen within a cell when DNA is altered by genetic variation.

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## Delivering better patient care

- **Precision health** – Integrate genomics, precision medicine, and customer-treatment technologies to enable an individualized approach to care, from the proactive diagnoses of illnesses using a personal genome to tailored wellness and prevention interventions.
- **Decision support** – Leverage AI to provide better context for physicians’ diagnostic and therapeutic decisions (e.g. diagnostic imaging interpretation, clinical diagnostics, and risk and disease prediction) that significantly improve clinician productivity and accuracy.
- **Virtual care** – Make virtual encounters possible between health assistants and outpatients—anytime, anywhere— with augmented reality and cognitive computing, as well as interpretation of speech and body language.
- **Medical chart review** – Augment staff chart reviews with AI to reduce effort, improve quality, improve risk score accuracy, and identify care gaps that can be closed.

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## Driving more efficient operations and optimizing reimbursement

- **Clinical workflows** – Streamline clinical workflows to minimize administrative tasks, reduce wait times, and maximize the time a provider has with patients at the point of care.
- **Outcomes-based business models** – Shift from selling products to selling outcomes by digitally delivering dynamic, personalized care and by replacing and/or augmenting drugs with physician-prescribed clinical applications.
- **More efficient resource deployment** – Transform health organizations into efficient, consumer- and patient-friendly enterprises by automating processes, streamlining the supply chain, forecasting demand, optimizing staff scheduling, managing patient throughput, and managing capacity.
- **AI-augmented and automated operations** – Reduce the manual effort to execute administrative tasks, such as benefit coding, denials management, and authorization review through automated intake, robotic process automation, and AI-augmented decision-making.

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**Engaging patients  
more effectively  
to grow the business**

- **Targeted marketing** – Understand customers better, create better segmentations, and provide individualized information using the power of deep learning.
- **Patient personalization** – Keep patients engaged by tailoring the mix of services, content and channels for individual needs, preferences, and behavioral patterns, thereby improving the customer experience.
- **Adherence** – Identify and monitor high-risk patients with advanced analytics, and then help them adhere to their treatment regime using app-based interactions and wearables.
- **Recovery** – Facilitate patient recovery and reduce hospital readmissions and ER visits, by providing tailored reminders and alerts and monitoring patient progress remotely.

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Using AI to reinvent healthcare will provide targeted and tangible benefits to all aspects of the patient experience, and subsequently, the business. Furthermore, it will create fundamental change that allows companies to seize new opportunities while navigating extreme market forces in the healthcare landscape.

**Explore how Accenture is helping reinvent healthcare with AI.  
Visit [www.accenture.com/ai-for-business-transformation](http://www.accenture.com/ai-for-business-transformation)**

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