American Hospital Association™

Advancing Health in America

2019

ENVIRONMENTAL SCAN

INNOVATION AND COORDINATION

SEAMLESS CARE PROPELLED BY TEAMS, TECHNOLOGY, INNOVATION AND DATA

The health care field is transforming. New entrants and unique partnerships are accelerating this transformation. Hospitals and health systems are preparing for the future by investing in innovative technologies and cultures. Teams, technology and data will spur the advancement of care coordination throughout the continuum of care, improving outcomes, addressing affordability and reducing friction for individuals.

To download the entire 2019 Environmental Scan, visit: aha.org/environmentalscan

THERE'S AN APP FOR THAT

- 75% of consumers surveyed said technology is important to managing their health.
- 48% of health care consumers are using mobile health apps.
- Use of wearables has more than tripled since 2014, from 9% to 33%.
- 90% of consumers are willing to share their wearable health device data with their doctors.*
- The top 3 conditions with the best market potential for digital health solutions are diabetes, obesity and depression.**

*"Meet Today's Healthcare Team: Patients + Doctors + Machines," Consumer Survey on Digital Health, Accenture, 2018

**"The Rise of mHealth Apps: A Market Snapshot," Liquid State, March 26, 2018

INTEROPERABILITY

A digitized interoperable health care system that securely and instantly exchanges medical records across the U.S. is estimated to reduce the overall costs of health care services by $371 billion per year.

⬇ **$371 billion**

"To advance health information exchange, we need a health IT consortium," Niam Yaraghi, The Brookings Institution, Feb. 27, 2018
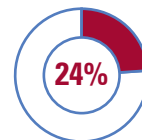
HEALTH DATA EXPLOSION

Health care data growth is one of the fastest across many industries:

- Annual growth rate – 48%
- Amount of data by 2020 – 2,314 exabytes
- Percentage of data that is useful if tagged and analyzed – 57%
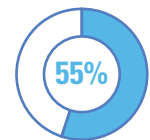- Percentage of data that provides the highest value – 3.1%

"The Digital Universe: Driving data growth in health care. Challenges and Opportunities for IT," EMC Digital Universe, EMC2 and IDC, 2014

SMART SPEAKERS

24%
2018

55%
2022

24% of U.S. households own a smart speaker that relies on a voice-activated personal assistant

55% of U.S. households will have smart speakers*

Possible uses of voice assistants in health care include patient education, adherence and compliance, coordination of care and decision-making support for clinicians.**

*"What Will Health Care Look Like Once Smart Speakers Are Everywhere?" Carla E. Small et al., *Harvard Business Review*, March 7, 2018

**"5 Applications Of Voice Assistants In Healthcare," Bill Cava, Orbita, Jan. 30, 2018; "The Potential of AI Voice-Controlled Personal Assistants in Healthcare," Ryan Matejka, Healthcare Business Insights, Feb. 22, 2018

PERSONAL GENETIC DATA

The number of people who have had their DNA analyzed with direct-to-consumer genetic genealogy tests more than doubled during 2017 and now exceeds 12 million.

This suggests that

1 in 25

American adults now has access to personal genetic data, spurring a range of new genetic-analysis services.

"2017 was the year consumer DNA testing blew up," Antonio Regalado, *MIT Technology Review,* Feb. 12, 2018

HEALTH CARE INVESTMENT

- Total U.S. health care venture capital investment increased 25% in 2017.
  - $14.4 billion invested through 748 deals*
- Health care digitization, consumerism, big data analytics and value-based care reimbursement models will propel the global life sciences market to $1.5 trillion by 2022.**

*"Healthcare MoneyTree™ Report Q4 2017," PricewaterhouseCoopers LLP and CB Insights, Jan. 10, 2018

**"Google, Amazon, Facebook, and Apple Propel the Life Sciences Industry with Strategic Partnerships," Frost & Sullivan, July 5, 2018

TECHNOLOGY AND COST EFFICIENCY

Health plan leaders think these technologies are leading to significant administrative cost efficiencies:

- Clinical data integration – 63.2%
- Robotic process automation – 27.2%
- Artificial intelligence – 22.8%
- Member engagement hub – 22.8%
- Wearables – 22.8%

"The 8th Annual Industry Pulse Report: A national survey of leading health plans and other healthcare stakeholders," HealthCare Executive Group and Change Healthcare, February 2018
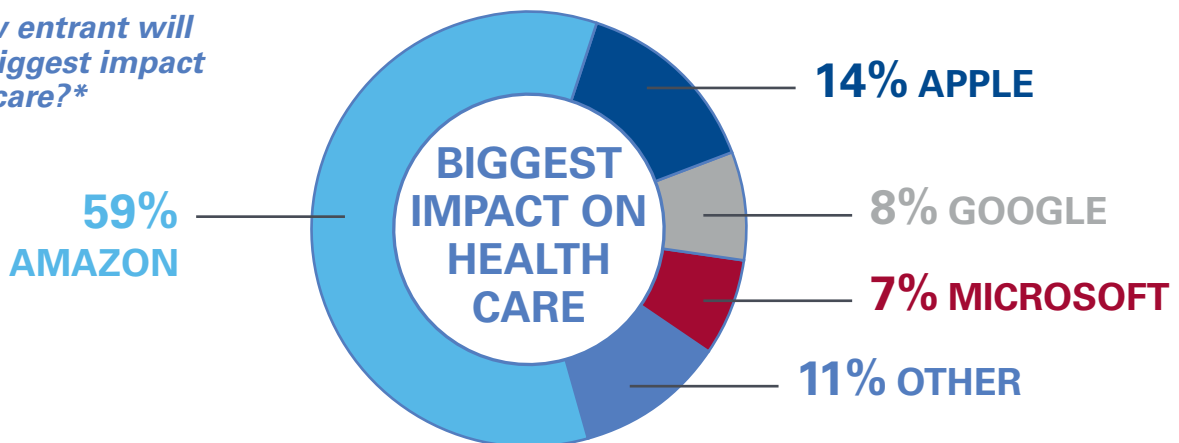
FIVE EMERGING TECHNOLOGIES COULD POTENTIALLY TRANSFORM SOCIETY

- Genome editing
- Artificial intelligence and automation
- Quantum information science
- Brain/augmented reality
- Cryptocurrencies and blockchain

"Trends Affecting Government and Society," Government Accountability Office 2018- 2023 Strategic Plan, Feb. 22, 2018

HOSPITAL AND HEALTH CARE LEADERS' PERSPECTIVE:

Which new entrant will have the biggest impact on health care?

BIGGEST IMPACT ON HEALTH CARE

59% AMAZON

14% APPLE

8% GOOGLE

7% MICROSOFT

11% OTHER

*Top 3 most important current disruptions:**

40% Consumerism

38% Medicaid financing and redesign

36% Move toward value/delivery system reform

*"Healthcare Disruption, The Future of the Healthcare Market," Reaction Data, 2018

**"Healthcare Trends and Implications Survey," AHA's Society for Healthcare Strategy & Market Development, July 2018

HOSPITAL EXECUTIVES SURVEYED ABOUT DIGITAL INNOVATION

- The Top 5 digital innovation priorities for health systems:
  - Patient-generated data and customized services
  - Network utilization and management
  - Referral management and in-network retention
  - Social community support
  - Convenient patient access, including telemedicine

- More than 50% of leaders say that they are holding off on digital innovation because of a 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.
  - Reserving a portion of each service line leader's budget for digital innovation.

When all four factors are present, innovation occurs 52% faster, shortening the time to impact by a year.

"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 and AVIA, September 2017

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INVESTMENT ADVISERS' VIEWS ON DISRUPTORS

Health care investment advisers identified six key disruptors anticipated to continue reshaping the landscape.

High-opportunity disruptors
- Shifting care to lower cost sites
- Consumer engagement and expectations
- Rise in clinical service outsourcing/automation
- Integrated and interoperable care delivery

Higher-risk disruptors
- Access constraints
- Pricing pressure

"2018 Health Care & Life Sciences Investment Outlook," KPMG & Leavitt Partners, Jan. 9, 2018

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RETAIL CLINICS

	Market share	# of clinics
CVS Health retail pharmacy	55%	1,105
Walgreens	18%	356
Kroger	11%	213
Walmart	4%	75
Other	12%	256

"Retail Clinic Check Up: CVS Retrenches, Walgreens Outsources, Kroger Expands," Adam J. Fein, Ph.D., Drug Channels Institute, Feb. 16, 2017

A SAMPLING OF NEW ENTRANTS AND DEALS IN HEALTH CARE

Amazon, JPMorgan Chase and Berkshire Hathaway started a new business to improve their employees' health care.[1]

Amazon and startup Xealth are working on a pilot program that will let doctors prescribe items for delivery to patients' homes. Amazon acquired pharmaceutical delivery services PillPack.[2] It also is seeking to leverage voice assistant Alexa in the health care field.[3]

The **CVS-Aetna** deal brings together around 10,000 CVS stores and the health insurer's 22 million customers.[4] It gives CVS large claims data sets to combine with pharmacy and retail clinic data.[5]

Google is developing a version of artificial intelligence that could predict the outcome of patients' hospital visits the moment they are admitted.[6]

Apple is launching a group of primary care clinics for its employees.[7]

Walmart is experimenting with ACOs; 21% of large employers are using ACOs.[8]

Uber Health provides a ride-hailing platform available specifically to health care providers.[9]

Cigna plans to buy the nation's largest and last major independent pharmacy benefit manager, Express Scripts Holding Co., which is responsible for the prescription plans of more than 80 million Americans.[10] The U.S. Justice Department has approved the deal.[11]

1 "Amazon, Berkshire Hathaway and JPMorgan Team Up to Try to Disrupt Health Care," Nick Wingfield, Katie Thomas and Reed Abelson, The New York Times, Jan. 30, 2018

2 "Report: Amazon and startup Xealth working on program to deliver medical supplies to patients," Clare McGrane, *GeekWire,* July 12, 2018

3 "Digital health briefing: Amazon is building a health team for Alexa," Nicky Lineaweaver and Laura Beaver, *Business Insider,* May 14, 2018

4 "CVS 'Moving Forward' With Aetna Deal, Profit Tops Estimates," Robert Langreth, Bloomberg, May 2, 2018

5 "Disrupting Health Care: From Amazon To CVS, Data Is At The Heart Of It," Gary Bloom, *Forbes,* July 6, 2018

6 "Google is developing its own prescription for U.S. health-care costs: smarter artificial Intelligence," Jurica Dujmovic, *Marketwatch,* Feb. 9, 2018

7 "Apple is launching medical clinics to deliver the 'world's best health care experience' to its employees," Christina Farr, CNBC.com, Feb. 27, 2018

8 "Amazon Isn't the Only Retail Giant Trying to Remake Health Care," Zachary Tracer, Bloomberg, March 8, 2018

9 "Uber launches Uber Health, a B2B ride-hailing platform for healthcare," Darrell Etherington, *TechCrunch,* March 1, 2018

10 "Cigna to Buy Express Scripts in $52 Billion Health Care Deal," Katie Thomas et al., *The New York Times,* March 8, 2018

11 "Merger of Cigna and Express Scripts Gets Approval From Justice Dept.," Reed Abelson, *The New York Times,* Sept. 17, 2018