



Big Data in the Healthcare & Pharmaceutical Industry: 2017 - 2030 - Opportunities, Challenges, Strategies & Forecasts

#1293483

\$2500

499 pages

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Report Description

“Big Data” originally emerged as a term to describe datasets whose size is beyond the ability of traditional databases to capture, store, manage and analyze. However, the scope of the term has significantly expanded over the years. Big Data not only refers to the data itself but also a set of technologies that capture, store, manage and analyze large and variable collections of data, to solve complex problems.

Amid the proliferation of real-time and historical data from sources such as connected devices, web, social media, sensors, log files and transactional applications, Big Data is rapidly gaining traction from a diverse range of vertical sectors. The healthcare and pharmaceutical industry is no exception to this trend, where Big Data has found a host of applications ranging from drug discovery and precision medicine to clinical decision support and population health management.

SNS Research estimates that Big Data investments in the healthcare and pharmaceutical industry will account for nearly \$4 Billion in 2017 alone. Led by a plethora of business opportunities for healthcare providers, insurers, payers, government agencies, pharmaceutical companies and other stakeholders, these investments are further expected to grow at a CAGR of more than 15% over the next three years.

The “**Big Data in the Healthcare & Pharmaceutical Industry: 2017 – 2030 – Opportunities, Challenges, Strategies & Forecasts**” report presents an in-depth assessment of Big Data in the healthcare and pharmaceutical industry including key market drivers, challenges, investment potential, application areas, use cases, future roadmap, value chain, case studies, vendor profiles and strategies. The report also presents market size forecasts for Big Data hardware, software and professional services investments from 2017 through to 2030. The forecasts are segmented for 8 horizontal submarkets, 5 application areas, 36 use cases, 6 regions and 35 countries.

The report comes with an associated Excel datasheet suite covering quantitative data from all numeric forecasts presented in the report.

The report covers the following topics:

- Big Data ecosystem
- Market drivers and barriers
- Enabling technologies, standardization and regulatory initiatives
- Big Data analytics and implementation models
- Business case, application areas and use cases in the healthcare and pharmaceutical industry
- 34 case studies of Big Data investments by healthcare providers, insurers, payers, pharmaceutical companies and other stakeholders
- Future roadmap and value chain
- Company profiles and strategies of over 240 Big Data vendors
- Strategic recommendations for Big Data vendors, and healthcare and pharmaceutical industry stakeholders
- Market analysis and forecasts from 2017 till 2030

Forecast Segmentation

Market forecasts are provided for each of the following submarkets and their subcategories:

Hardware, Software & Professional Services

- Hardware
- Software
- Professional Services

Horizontal Submarkets

- Storage & Compute Infrastructure
- Networking Infrastructure
- Hadoop & Infrastructure Software
- SQL
- NoSQL
- Analytic Platforms & Applications
- Cloud Platforms

- Professional Services

Application Areas

- Pharmaceutical & Medical Products
- Core Healthcare Operations
- Healthcare Support, Awareness & Disease Prevention
- Health Insurance & Payer Services
- Marketing, Sales & Other Applications

Use Cases

- Drug Discovery, Design & Development
- Medical Product Design & Development
- Clinical Development & Trials
- Precision Medicine & Genomics
- Manufacturing & Supply Chain Management
- Post-Market Surveillance & Pharmacovigilance
- Medical Product Fault Monitoring
- Clinical Decision Support
- Care Coordination & Delivery Management
- CER (Comparative Effectiveness Research) & Observational Evidence
- Personalized Healthcare & Targeted Treatments
- Data-Driven Preventive Care & Health Interventions
- Surgical Practice & Complex Medical Procedures
- Pathology, Medical Imaging & Other Medical Tests
- Proactive & Remote Patient Monitoring
- Predictive Maintenance of Medical Equipment
- Pharmacy Services
- Self-Care & Lifestyle Support
- Medication Adherence & Management
- Vaccine Development & Promotion
- Population Health Management
- Connected Health Communities & Medical Knowledge Dissemination

- Epidemiology & Disease Surveillance
- Health Policy Decision Making
- Controlling Substance Abuse & Addiction
- Increasing Awareness & Accessible Healthcare
- Health Insurance Claims Processing & Management
- Fraud & Abuse Prevention
- Proactive Patient Engagement
- Accountable & Value-Based Care
- Data-Driven Health Insurance Premiums
- Marketing & Sales
- Administrative & Customer Services
- Finance & Risk Management
- Healthcare Data Monetization
- Other Use Cases

Regional Markets

- Asia Pacific
- Eastern Europe
- Latin & Central America
- Middle East & Africa
- North America
- Western Europe

Country Markets

Argentina, Australia, Brazil, Canada, China, Czech Republic, Denmark, Finland, France, Germany, India, Indonesia, Israel, Italy, Japan, Malaysia, Mexico, Netherlands, Norway, Pakistan, Philippines, Poland, Qatar, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Spain, Sweden, Taiwan, Thailand, UAE, UK, USA

Key Questions Answered

The report provides answers to the following key questions:

- How big is the Big Data opportunity in the healthcare and pharmaceutical industry?
- How is the market evolving by segment and region?
- What will the market size be in 2020 and at what rate will it grow?
- What trends, challenges and barriers are influencing its growth?
- Who are the key Big Data software, hardware and services vendors and what are their strategies?
- How much are healthcare providers, insurers, payers, pharmaceutical companies and other stakeholders investing in Big Data?
- What opportunities exist for Big Data analytics in the healthcare and pharmaceutical industry?
- Which countries, application areas and use cases will see the highest percentage of Big Data investments in the healthcare and pharmaceutical industry?

Key Findings

The report has the following key findings:

- In 2017, Big Data vendors will pocket nearly \$4 Billion from hardware, software and professional services revenues in the healthcare and pharmaceutical industry. These investments are further expected to grow at a CAGR of more than 15% over the next three years, eventually accounting for over \$5.8 Billion by the end of 2020.
- Through the use of Big Data technologies, hospitals and other healthcare facilities have been able to achieve cost reductions of more than 10%, improvements in outcomes by as much as 20% for certain conditions, growth in revenue by 30%, and increase in patient access to services by more than 35%.
- Big Data technologies are playing a pivotal role in accelerating the transition towards accountable and value-based care models, by enabling the continuous collection, consolidation and analysis of clinical and operational data from healthcare facilities and other available data sources.
- Addressing privacy and security concerns is necessary in order to fully leverage the benefits of Big Data in the healthcare and pharmaceutical industry. Therefore, it is essential for key stakeholders to make significant investments in data encryption and cybersecurity, in addition to adopting defensible de-identification techniques and implementing strict restrictions on data use.

List of Companies Mentioned

- 1010data
- Absolutdata

- Accenture
- ACR (American College of Radiology)
- Actian Corporation
- Adaptive Insights
- Advizor Solutions
- AeroSpike
- Aetna
- AFS Technologies
- Alation
- Algorithmia
- Alluxio
- Alphabet
- Alpine Data
- Alteryx
- Ambient Clinical Analytics
- AMD (Advanced Micro Devices)
- Amino
- Apixio
- Arcadia Data
- Arimo
- ARM
- ASF (Apache Software Foundation)
- ASTM (American Society for Testing and Materials)
- AstraZeneca
- AtScale
- Attivio
- Attunity
- Australian Digital Health Agency
- Automated Insights
- AWS (Amazon Web Services)
- Axiomatics
- Ayasdi
- Bangkok Hospital Group
- Basho Technologies

- Bayer
- BCG (Boston Consulting Group)
- Bedrock Data
- BetterWorks
- Big Cloud Analytics
- Big Panda
- BigML
- Birst
- Bitam
- Blue Medora
- BlueData Software
- BlueTalon
- BMC Software
- BOARD International
- Booz Allen Hamilton
- Boxever
- CACI International
- Cambridge Semantics
- Capgemini
- Cazena
- CDC (Centers for Disease Control & Prevention)
- Centerstone
- Centrifuge Systems
- CenturyLink
- Chartio
- Cincinnati Children's Hospital Medical Center
- Cisco Systems
- Civis Analytics
- ClearStory Data
- Cloudability
- Cloudera
- Clustrix
- CMS (U.S. Centers for Medicare & Medicaid Services)
- CNIL (Data Protection Regulatory Authority, France)

- CognitiveScale
- Collibra
- Concurrent Computer Corporation
- Confluent
- Contexti
- Continuum Analytics
- CosmosID
- Couchbase
- CrowdFlower
- CSA (Cloud Security Alliance)
- CSCC (Cloud Standards Customer Council)
- CSIRO (Commonwealth Scientific and Industrial Research Organization)
- Databricks
- DataGravity
- Dataiku
- Datameer
- DataRobot
- DataScience
- DataStax
- DataTorrent
- Datawatch Corporation
- Datos IO
- DDN (DataDirect Networks)
- Decisyon
- Dell Technologies
- Deloitte
- Demandbase
- Denodo Technologies
- Digital Reasoning Systems
- Dimensional Insight
- DMG (Data Mining Group)
- Dolphin Enterprise Solutions Corporation
- Domino Data Lab
- Domo

- DriveScale
- Dundas Data Visualization
- DXC Technology
- Eligotech
- Engineering Group (Engineering Ingegneria Informatica)
- EnterpriseDB
- eQ Technologic
- Ericsson
- EXASOL
- Express Scripts
- Exscientia
- Facebook
- Faros Healthcare
- FDA (U.S. Food and Drug Administration)
- FICO (Fair Isaac Corporation)
- Fractal Analytics
- Fujitsu
- Fuzzy Logix
- Gainsight
- GE (General Electric)
- Genomics England
- Ginger.io
- Glassbeam
- GNS Healthcare
- Gold Coast Health
- GoodData Corporation
- Google
- Greenwave Systems
- GridGain Systems
- GSK (GlaxoSmithKline)
- Guavus
- H2O.ai
- HDS (Hitachi Data Systems)
- Hedvig

- HHS (U.S. Department of Health & Human Services)
- HL7 (Health Level Seven)
- HLI (Human Longevity Inc.)
- Hortonworks
- HPE (Hewlett Packard Enterprise)
- Huawei
- IBM Corporation
- iDashboards
- IEEE (Institute of Electrical and Electronics Engineers)
- IHE (Integrating the Healthcare Enterprise)
- Illumina
- IMI (Innovative Medicines Initiative)
- Impetus Technologies
- INCITS (InterNational Committee for Information Technology Standards)
- Incorta
- INDS (National Institute of Health Data, France)
- InetSoft Technology Corporation
- Infer
- Infor
- Informatica Corporation
- Information Builders
- Infosys
- Infoworks
- Insightsoftware.com
- InsightSquared
- Intel Corporation
- Interana
- InterSystems Corporation
- ISO (International Organization for Standardization)
- ITU (International Telecommunications Union)
- IU Health (Indiana University Health)
- IURTC (Indiana University Research & Technology Corporation)
- Jedox
- Jethro

- Jinfonet Software
- Johnson & Johnson
- Juniper Networks
- KALEAO
- KBV/NASHIP (National Association of Statutory Health Insurance Physicians, Germany)
- Keen IO
- Kinetica
- KNIME
- Kognitio
- Kyvos Insights
- Lavastorm
- Lexalytics
- Lexmark International
- Linux Foundation
- Logi Analytics
- Longview Solutions
- Looker Data Sciences
- LucidWorks
- Luminoso Technologies
- Maana
- Magento Commerce
- Manthan Software Services
- MapD Technologies
- MapR Technologies
- MariaDB Corporation
- MarkLogic Corporation
- Mathworks
- Mayo Clinic
- Medtronic
- MemSQL
- Merck & Co.
- Merck KGaA
- Metric Insights
- Microsoft Corporation

- MicroStrategy
- Ministry of Health, Labor and Welfare, Japan
- Minitab
- MolecularMatch
- MongoDB
- MSQC (Michigan Surgical Quality Collaborative)
- Mu Sigma
- NCCS (National Cancer Centre Singapore)
- NCPDP (National Council for Prescription Drug Programs)
- NEC Corporation
- NEMA (National Electrical Manufacturers Association)
- Neo Technology
- NetApp
- NHS (National Health Service, United Kingdom)
- NHS England
- NHS Scotland
- Nimbix
- NIST (U.S. National Institute of Standards and Technology)
- Nokia
- Novartis
- NTT Data Corporation
- Numerify
- NuoDB
- Nutonian
- NVIDIA Corporation
- OASIS (Organization for the Advancement of Structured Information Standards)
- Oblong Industries
- ODaF (Open Data Foundation)
- ODCA (Open Data Center Alliance)
- ODPI (Open Ecosystem of Big Data)
- OGC (Open Geospatial Consortium)
- OpenText Corporation
- Opera Solutions
- Optimal Plus

- Optum
- OptumLabs
- Oracle Corporation
- Palantir Technologies
- Panorama Software
- Paxata
- Pentaho Corporation
- Pepperdata
- Pfizer
- Phocas Software
- Pivotal Software
- Prognoz
- Progress Software Corporation
- Proteus Digital Health
- PwC (PricewaterhouseCoopers International)
- Pyramid Analytics
- Qlik
- Quantum Corporation
- Qubole
- Rackspace
- Radius Intelligence
- RapidMiner
- Recorded Future
- Red Hat
- Redis Labs
- RedPoint Global
- Reltio
- Roche
- Rocket Fuel
- Royal Philips
- RStudio
- Ryft Systems
- Sailthru
- Salesforce.com

- Salient Management Company
- Samsung Group
- Sanofi
- SAP
- SAS Institute
- ScaleDB
- ScaleOut Software
- SCIO Health Analytics
- Seagate Technology
- Seattle Children's Hospital
- Sickweather
- Sinequa
- SingHealth (Singapore Health Services)
- SiSense
- SnapLogic
- Snowflake Computing
- Software AG
- Splice Machine
- Splunk
- Sproxil
- Sqrrl
- Strategy Companion Corporation
- StreamSets
- Striim
- Sumo Logic
- Supermicro (Super Micro Computer)
- Syncsort
- SynerScope
- Tableau Software
- Talena
- Talend
- Tamr
- TARGIT
- TCS (Tata Consultancy Services)

- Teradata Corporation
- The Weather Company
- ThoughtSpot
- TIBCO Software
- Tidemark
- TM Forum
- Toshiba Corporation
- TPC (Transaction Processing Performance Council)
- Trifacta
- U.S. Department of Energy
- U.S. Department of Veterans Affairs
- UN (United Nations)
- UnitedHealth Group
- University of Michigan
- University of Utah Health Care
- Unravel Data
- VHA (U.S. Veterans Health Administration)
- VMware
- VoltDB
- W3C (World Wide Web Consortium)
- Waterline Data
- Western Digital Corporation
- WiPro
- Workday
- X12
- Xplenty
- Yellowfin International
- Yseop
- Zendesk
- Zoomdata

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