VERISK ANALYTICS ACHIEVES GLOBAL-LOCAL BALANCE WITH VERISK HEALTH

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CASE STUDY

an in-depth description of a firm's approach to an IT management issue (intended for MBA and executive education)

INFORMATION BUSINESS

DATA MONETIZATION

CAPABILITIES

BUSINESS ANALYTICS

This case describes how Verisk Health, the former healthcare services business of Verisk Analytics, developed two critical types of capabilities to successfully monetize data analytics in the challenging healthcare marketplace: foundational capabilities, and capabilities for driving customer action. It further illustrates how Verisk Analytics—an information business with a diversification operating model—developed organizational practices that targeted a "global-local balance," enabling the company to respond to local needs while leveraging enterprise-wide capabilities.

MIT MANAGEMENT SLOAN SCHOOL

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Instructor Note:

MIT CISR's Verisk Health case study was created in 2015,[1] before the divestiture of the healthcare services business by Verisk Analytics in mid-2016. The details of the case reflect the state of the Verisk Analytics business as of January 31, 2015, while the titles of quoted interviewees reflect their role with the company in October 2017.

The Verisk Health case study is one of four published MIT CISR cases that feature companies with "information business" business models.[2] The case series intends to showcase a variety of data monetization approaches and evolutions.

The Verisk Health case illustrates an information business with a diversification operating model.[3] The case showcases organizational practices that

1 The attributions of quoted interviewees indicate their role when this case study was created in 2015.

2 Other published cases in this series include B.H. Wixom and P.P. Tallon, "AdJuggler: Using Data Science to Serve the Right Ad at the Right Time," MIT Sloan CISR Working Paper No. 404, November 2015; B.H. Wixom and C.A. Miller, "Healthcare IQ: Competing as the 'Switzerland' of Health Spend Analytics," MIT Sloan CISR Working Paper No. 400, February 2015; and B.H. Wixom, J.W. Ross, and C.M. Beath, "comScore, Inc.: Making Analytics Count," MIT Sloan CISR Working Paper No. 392, November 2013.

3 MIT CISR defines an operating model as a simple statement of the integration and standardization requirements for the firm's core processes. The four options for an operating model are diversification, replication, coordination, and unification. A diversification operating model reflects low integration and process standardization requirements across independent business units with different customers and expertise. The organizing logic is based on synergies from related, but not integrated, business units whose individual success drive the growth of the company. Companies with diversification models may develop shared services to pursue economies of scale. More information on MIT CISR's operating model can be found in J.W. Ross, P. Weill, and D.C. Robertson, Enterprise Architecture as Strategy: Creating a Foundation for Business Execution, Harvard Business Review Press, 2006; or at "Enterprise Architecture," MIT Sloan Center for Information Systems Research, http://cisr.mit.edu/research/research-overview/classic-topics/enterprise-architecture/.

This case study was prepared by Ina M. Sebastian and Barbara H. Wixom of the MIT Sloan Center for Information Systems Research (CISR). The case was written for the purposes of class discussion, rather than to illustrate either effective or ineffective handling of a managerial situation. The authors would like to acknowledge and thank the executives at Verisk Analytics for their participation in the case study.

enabled localized innovation and helped drive scale economies across the enterprise within this operating model. We encourage classroom discussion regarding the ways in which information businesses should make decisions about vertical capabilities. We also encourage that students debate the divestiture of Verisk Health, considering the pros and cons of operating a diversified information business and unique challenges of operating in turbulent markets such as healthcare.

When teaching with this case, we suggest that instructors explore the following questions with students:

1. What was the Verisk Analytics business model?
2. How did Verisk Analytics create competitive advantage within its healthcare division?
3. How did Verisk Analytics senior management balance the need to build enterprise capabilities across the enterprise while remaining nimble and responsive to localized needs within the healthcare division?
4. In 2016, Verisk Analytics divested its healthcare division. What is your assessment of that strategic choice? Provide rationale for your assessment.

VERISK ANALYTICS, INC.

In 1971, property and casualty (P&C) insurers across the United States collectively initiated and funded the Insurance Services Office, Inc. (ISO) to facilitate compliance with state regulatory processes. The insurers had large state regulatory burden requirements, where they had to put forward relatively granular information about their products and pricing algorithms for each line of insurance. The P&C insurers formed ISO as an association that would gather their data and report it to regulators. The industry collaboration reduced the costs while increasing the quality of the insurers' reporting processes.

As the ISO database grew in size over time, insurers used the data to help manage insurance products, underwriting, and rating. The organization evolved for close to thirty years with the sole mission of understanding and meeting the needs of the P&C insurers. As a result, ISO developed a deep appreciation for the value of pooled data sets and information products that mattered to and were used by its members.

In 1997, ISO became a private, for-profit company,[4] and in 2009 it went public as Verisk Analytics, Inc. (Verisk; NASDAQ:VRSK). In 2015, Verisk was providing risk assessment services and decision analytics for professionals in many fields, including property and casualty insurance, financial services, government, human resources, and healthcare. Verisk had also become an S&P 500 company, had a market cap of $12 billion, and generated $2 billion in annual revenue.

VERISK HEALTH

Verisk entered the healthcare space in 2004 with its acquisition of DxCG, a company that possessed a strong presence in the area of healthcare payments. DxCG founders created analytical models that were foundational for key payment processes at the US Centers for Medicare & Medicaid (CMS). At the time of acquisition, DxCG owned more than one hundred fifty analytical models, some of which predicted potentially avoidable high-cost events in the commercial, Medicare, and Medicaid spaces.

With DxCG serving as its cornerstone, Verisk Health's business (see exhibit 1) grew through seven additional Verisk acquisitions over the next decade (see exhibit 2 for a timeline of Verisk acquisitions related to Verisk Health). The acquisitions helped Verisk Health assemble resources and capabilities specific to healthcare risk analytics much more quickly than building them from scratch. Each acquisition also brought a pre-existing customer base, customer understanding, and domain expertise.

We assumed that we would get a good and necessary level of acceleration if we could find a player that was already in the space and serving customers, because we believe so strongly in the vertical focus and in the need to be very intimate with our customers. Certainly, we can try to build these things on our own, but we are in a hurry.

SCOTT G. STEPHENSON, CHAIRMAN, PRESIDENT, AND CHIEF EXECUTIVE OFFICER, VERISK ANALYTICS, INC.

By 2015, Verisk Health had become Verisk's second-largest business unit, with three primary focus areas: revenue and quality, population health, and payments (see exhibit 3 for a breakdown and valuation of the healthcare addressable market in 2015). A set of foundational capabilities helped Verisk Health convert data assets from all of these areas into insights to benefit its clients—providers, payers, and employers.

4 According to Verisk leaders, as insurers became more reliant upon shared ISO data, regulators became concerned about the risk of price collusion. The leaders decided to privatize ISO in 1997 to avoid the risk.

FOUNDATIONAL CAPABILITIES: TRANSFORMING DATA INTO INSIGHT

We don't believe that you can be a great data analytics company without having the data expertise. It is one of the most distinctive elements of our character and of our success.

VINCE MCCARTHY, SENIOR VICE PRESIDENT, CORPORATE DEVELOPMENT AND STRATEGY, VERISK ANALYTICS, INC.

Clients (e.g., insurers, employers) provided the majority of the data at the heart of Verisk Health's offerings. Verisk Health drew client data from claims, clinical electronic medical records, and billing, as well as from health risk assessments and pharmacy and workers' compensation records. Out of necessity, Verisk Health developed highly effective data ingestion capabilities. The ability to painlessly collect data was essential, because clients hosted data in a variety of different source systems, each with unique standards, data structures, and quality levels.

We want to make it easy to do business with us. That means being able to accept data in whatever format our clients can give it to us. Being a CIO, I understand the burden on many IT organizations. So if we insist that a client translate their data into our format, then we're dead in the water because we're placed into the IT queue.

PERRY ROTELLA, SENIOR VICE PRESIDENT AND CHIEF INFORMATION OFFICER AND GROUP EXECUTIVE, SUPPLY CHAIN RISK ANALYTICS (FORMER), VERISK ANALYTICS, INC.

Verisk Health's ability to ingest data advanced to new levels with Verisk's 2011 acquisition of Bloodhound Technologies, Inc.[5] (Bloodhound). Bloodhound had developed a real-time platform that could pull in claims data in any format and run claims processes in mere hundreds of milliseconds. Bloodhound built the platform to run analytics related to payment processing and healthcare fraud; however, Verisk Health was able to leverage the technology to support other businesses that needed to analyze large numbers of claims quickly, such as population health.

At times, clients did not have easy access to key data—either it did not exist in a digitized format or it was not formatted for analytics, such as with narrative data in electronic health records. For these cases, Verisk Health employed approximately one thousand people who digitized paper documents and manually retrieved and coded data based on electronic records.

In the example of Medicare risk adjustment, we take in data and create a list of patients who are most likely to have disease states beyond what has been captured. We then send people out to retrieve their medical records. We hand that off to our clinical coders who say, "This is what was coded on the chart, but when I look at these notes, the following things indicate disease states that are not captured." Ultimately, the result is capturing the appropriate disease burden of the population to ensure appropriate reimbursement.

JORDAN BAZINSKY, CHIEF OPERATING OFFICER (FORMER), VERISK HEALTH

As Verisk Health amassed growing volumes of data, the business concurrently grew its practices for business continuity and disaster recovery; security; and standards and protocols for internal and third-party data use.

We have to be vigilant stewards of our clients' data. There is no other option. Obviously, there is a lot of training: HIPAA training, privacy policy training, IT security training … we do that regularly because we need to stay up to date on the regulations. Then there's an advertising component. You'll see a lot of posters in our different offices talking about privacy and security, reminding people that these things matter. We have a hotline that people can call if anything comes up that they think is problematic or question-

5 "Verisk Analytics, Inc., to Acquire Bloodhound Technologies, Inc.," Verisk Analytics, Inc. press release, April 27, 2011, on the Verisk Analytics, Inc. website, http://www.verisk.com/archived/2011/verisk-analytics-inc-to-acquire-bloodhound-technologies-inc.html.

able. We have intense data security monitoring and a solid compliance team who eat, sleep, and breathe protection of our data. We are very crisp in our client contracts about what their data is and is not being used for, and we hold ourselves to the absolute highest standard of how that data is utilized.

JORDAN BAZINSKY, CHIEF OPERATING OFFICER (FORMER), VERISK HEALTH

Verisk Health also had to manage client perceptions regarding its objectivity as an information business. Competitive pressures in the healthcare space made some clients nervous about sharing data because they feared such openness could reveal pricing strategies and other competitive insights. Verisk Health was not owned by a payer or other key stakeholder in the marketplace, so it was positioned to be a neutral curator of cross-company data.

We serve as a neutral Switzerland for the observation and retention of customer data. This neutrality builds fundamental trust.

VINCE MCCARTHY, SENIOR VICE PRESIDENT, CORPORATE DEVELOPMENT AND STRATEGY, VERISK ANALYTICS, INC.

With regulatory constraints and customer-sharing concerns top of mind, whenever possible Verisk Health leadership pursued opportunities to pool client data, integrate data across subject areas, and augment data with new data elements. These activities were believed to create competitive opportunities.

We always strive to build a moat around our businesses, where we can take client data sets and enrich them to add insight, turning them into a Verisk proprietary asset.

PERRY ROTELLA, SENIOR VICE PRESIDENT AND CHIEF INFORMATION OFFICER AND GROUP EXECUTIVE, SUPPLY CHAIN RISK ANALYTICS (FORMER), VERISK ANALYTICS, INC.

For example, new approaches for identifying fraud emerged from pooling data across clients.

Fraud's a $250 billion problem, and it's estimated to grow to $500 billion. As we pool data across multiple health plans for the purpose of identifying fraudulent practices, we find the simplest but [most] effective scams, such as a doctor who charges multiple health plans for eight hours a day.

NADINE HAYS, PRESIDENT (FORMER), VERISK HEALTH

Verisk Health leadership believed that its unique data sets became valuable when combined with its analytics capabilities. The company possessed a large inventory of high-performing analytical models that it developed organically or owned via acquisition. Verisk Health worked to embed the models into standard industry approaches—similar to the continuing way that the DxCG predictive models were used pervasively in CMS payment processes. The DxCG models were considered by many to be "the gold standard" for risk adjustment; many providers chose the DxCG models because of this perception.

A lot of the risk models will get you to roughly the same place, but when you're a provider entering into a risk agreement, you don't want to be using one approach when the payer has a different approach. Then you're measuring your performance one way, and they're measuring your performance a different way.

VINCE MCCARTHY

CAPABILITIES FOR DRIVING CUSTOMER ACTION: UNDERSTANDING CUSTOMERS TO HELP CREATE VALUE

Hays believed that Verisk Health's data sets and analytical models were foundational to the company's competitive advantage; however, this advantage was deepened and sustained through capabilities that allowed the organization to understand its clients and influence their effective use of analytics insights within core business

processes and decisions. When clients acted upon analytics insights, they created positive bottom-line impact—sometimes at significant levels, such as in the area of revenue solutions.

Revenue Solutions is about ensuring that our clients are being paid appropriately for the illness burden that they are managing. One client alone had hundreds of millions in additional revenue last year simply through that activity. In claims editing, we identified more than $1.26 billion of documented savings for our clients last year alone.

NADINE HAYS, PRESIDENT (FORMER), VERISK HEALTH

Ensuring that clients acted on analytics insights, however, was not straightforward. For one, Verisk Health had no direct control over client action; at best, the company could communicate and advise. Thus, Hays and her team were intent on establishing customer-centric strategies that would positively impact the client's bottom line and fend off competitors that developed "good enough" predictive models.

We have better and more unique data than many people. We are the gold standard, but we should be worried about people who might create "good enough." When I think about sustaining competitive advantage, we need to make sure that we are evolving with the decisions that our customers need to make, and not just assume that we're going to throw data over the wall to them and they're going to figure it out.

DOUG FLEISHMAN, EXECUTIVE VICE PRESIDENT, SALES (FORMER), VERISK HEALTH

Mastering the Domain

The better Verisk Health understood the existing and evolving needs of its clients, the more it could tailor data and analytics to address pressing and compelling problems and decisions. In part, Verisk Health employees understood the needs of clients because they possessed deep domain expertise. Verisk Health proactively recruited and developed domain-savvy data scientists. It hired analysts with past experience in its client organizations, and deep knowledge of claims and the complex infrastructures of payer, provider, and employer organizations.

Some people on my team and on our client services team could write the rulebook, probably from memory, on Medicare risk adjustment. Those folks can see the question behind the question because they are deep domain experts.

MATT SIEGEL, SENIOR VICE PRESIDENT, REVENUE, QUALITY, AND POPULATION HEALTH SOLUTIONS (FORMER), VERISK HEALTH[6]

Verisk Health supplemented domain knowledge with analytics training referred to as a data analytics boot camp. Leaders believed that the workforce was well positioned to understand and serve clients because of the blended domain and analytics skillsets.

Collaborating With Customers

Client collaboration allowed employees to evolve and apply their domain expertise. When possible, employees interacted closely with clients to elicit requirements, solve problems, provide training, and support products.

There are two things that create a useful and valuable data analytic business: proprietary data—and we know this because we were born with it—and deep domain expertise and connectivity with customers. It

6 Matt Siegel left Verisk Health in April 2015.

is only through that customer relationship that you really have the opportunity to observe the emerging data analytic need.

SCOTT G. STEPHENSON, PRESIDENT AND CHIEF EXECUTIVE OFFICER, VERISK ANALYTICS, INC.

Verisk Health data scientists worked closely with clients in the development and co-creation of analytics offerings. A special team of entrepreneurs worked with clients to explore new ideas with horizons of three-to-five years and to build prototypes of applications to meet future needs.

We're very big into partnering with close customers to iterate and fine-tune, and it's something that our CEO believes in and stresses from the top down.

MATT SIEGEL, SENIOR VICE PRESIDENT, REVENUE, QUALITY, AND POPULATION HEALTH SOLUTIONS (FORMER), VERISK HEALTH

Delivering Consulting Services

The Verisk Health business model focused the company on developing and delivering analytics products to scale; however, company leaders appreciated that consulting services at times was an appropriate and welcome direction that would support customers, give Verisk Health the opportunity to directly influence client action, and provide a firsthand look at exactly how clients were applying Verisk Health data and analytics. Consulting increased the likelihood that clients would effectively apply analytics in the context of their problem-solving—and generate value.

The output of some of this stuff is pretty high IQ work. To be able to just interpret from the data points can be challenging. A lot of times, we'll have a consulting wrapper on top of the solutions, just to make sure that the results we're presenting are being accurately and completely understood.

DAVID JACKSON, SENIOR VICE PRESIDENT OF PAYMENT ACCURACY AND FRAUD SOLUTIONS (FORMER), VERISK HEALTH

When working closely with clients on engagements, Verisk Health employees identified and resolved barriers to client action that were specific to clients' settings.

We can't presume that because we've delivered something amazing, people are using it and getting value. We provide consultative support to our customers to help them get to the point where they can use our product and implement it. It's about making sure that our product specialists, sales specialists, and customer service specialists are all connected to the customer and gather feedback, so we understand where something that we know brings value is not bringing value to a customer. It may be because of a structural issue at the customer. We need to go help them fix that.

EVA HUSTON, SENIOR VICE PRESIDENT, CHIEF FINANCIAL OFFICER, VERISK ANALYTICS, INC.

Consulting also enabled valuable engagement with clients that informed Verisk Health employees about the suitability of their products in meeting both current and future needs.

It's very important to have a balance between creating data analytic products and providing services around them. If you don't provide services, you really don't have any linkage to the actual usage that your customers are putting your products to, and therefore you can be blind and run the risk of not being current to what they need and where their needs are going. You need to find a balance where the best, healthiest business is a blending of the two.

SCOTT G. STEPHENSON, CHAIRMAN, PRESIDENT, AND CHIEF EXECUTIVE OFFICER, VERISK ANALYTICS, INC.

Creating Consumable Offerings

Verisk Health facilitated client action by making its information offerings highly consumable by end users. The company learned that clients could much more easily understand and manipulate user interfaces that incorporated various forms of visualization; thus, developers built interfaces using intuitive designs, colors, workflows, and alerts to present data and analytics in meaningful ways. This allowed end users, as an example, to drill down into records and perform a detailed investigation on subsets of patients, which were identified through analytics.

When you talk in the aggregate about patients with certain attributes, they say, "Well great, but what do I do about that?" Being able to drill down to the individual level and say, "Patient X went to the emergency room three times in the last six months, this is why she was there, these are the drugs, here is how compliant she was,' [enables you to] have an entirely different conversation.

JORDAN BAZINSKY, CHIEF OPERATING OFFICER (FORMER), VERISK HEALTH

The ease of manipulating analytics output made it much more likely that users would analyze the data, understand implications from the analysis, and determine appropriate actions based on it.

Sophisticated visualization was increasingly required to communicate increasingly complex health risk analytics output. In 2014, Verisk ran a campaign to communicate the importance of visualization to its employees; the campaign included a contest to spark interest in innovative visualization approaches.

Data visualization is going to be a huge differentiator in monetizing data going forward. Unless analytics are delivered in a consumable way that clients can work with, you've lost.

PERRY ROTELLA, SENIOR VICE PRESIDENT AND CHIEF INFORMATION OFFICER AND GROUP EXECUTIVE, SUPPLY CHAIN RISK ANALYTICS (FORMER), VERISK ANALYTICS, INC.

Training also helped to make offerings consumable. Initially, clients learned about the Verisk Health toolset and its basic capabilities via a generic training experience. After clients became comfortable with the underlying technology, the company provided a second round of more customized training intended to inform how the tools could be applied to meet the client's specific needs.

SUCCEEDING IN THE TURBULENT HEALTHCARE MARKETPLACE WITH GLOBAL-LOCAL BALANCE

Verisk Health had to quickly adapt to new and changing market conditions as a competitor in the turbulent healthcare marketplace (see exhibit 4 for the company's competitive environment). Company leadership worked to remain as nimble as possible by using a "stay small" strategy.

When we look at some of the larger companies in the data space, we're not sure that we aspire to be them. We continually try to break ourselves down into smaller groups.

PERRY ROTELLA

Another top-of-mind concern for management was the balance of leveraging enterprise-wide capabilities while responding to local needs. Natural global and local tensions were resolved primarily through organizational roles and structures. For example, Verisk Analytics utilized dual executive roles whereby senior executives managed a horizontal function in addition to a vertical market in which they had profit and loss responsibility. This dual-role organization ensured that the main businesses—insurance, health analytics, credit card analytics, and supply chain analytics—benefited from the capabilities and possible synergies that the rest of the Verisk family of businesses had to offer. The intent of the structure was to encourage executives to make enterprise decisions that did not constrain local needs.

We need to act globally and locally at the same time. We need to think about Verisk Health in terms of

our customers, our employees, and our business growth. But at the same time, we need to think about Verisk Analytics as a whole.

PERRY ROTELLA, SENIOR VICE PRESIDENT AND CHIEF INFORMATION OFFICER AND GROUP EXECUTIVE, SUPPLY CHAIN RISK ANALYTICS (FORMER), VERISK ANALYTICS, INC.

Verisk Health also built structural bridges to connect groups. The company implemented collaboration tools like Yammer[7] to capture and disseminate best practices. It established common development environments to support consistent work practices and knowledge sharing. Verisk Health leaders discovered synergies from porting analytics skills and knowledge across verticals and domains in the firm.

[We have groups with] different business applications but very similar scientific techniques. It was critical that the Richmond-based analytic group, the Waltham-based analytic group, and the Utah-based analytic groups started to get together. Two out of those three groups are reporting to me, and we also work with IT to create common environments in which we can do sandbox-type work.

MATT SIEGEL, SENIOR VICE PRESIDENT, REVENUE, QUALITY, AND POPULATION HEALTH SOLUTIONS (FORMER), VERISK HEALTH

CONCLUSION

In June 2016, Verisk Analytics announced the closing of the divestiture of Verisk Health to private equity firm Veritas Capital Fund Management, LLC. According to Verisk CEO Scott G. Stephenson, "The sale enhances our focus on proprietary analytics in our key vertical markets."[8] Veritas Capital would apply its experience in the healthcare analytics sector and capital markets to help Verisk Health grow.[9]

At the end of 2016, Verisk had 6,314 employees and annual revenue of $2 billion. The company was operating two segments—risk assessment and decision analytics—for property and casualty insurance financial services, energy, government, and human resources. It no longer served the healthcare market.[10] Meanwhile, Verisk Health had rebranded the company as Verscend Technologies, Inc. (Verscend). Healthcare executive Dr. Emad Rizk had joined the company as chief executive officer. The company reinforced its focus "…to deliver intelligence that drives action." According to Rizk, "Verscend is at the forefront of better, smarter, more integrated analytic solutions that create real value in the new era of healthcare …. Driven by data and led by experience, we anticipate the challenges of tomorrow and apply insights to create quantifiable value and greater efficiency."[11]

7 Yammer is an enterprise social networking service. "Yammer," Microsoft Office, https://products.office.com/en-us/yammer/.

8 "Verisk Analytics, Inc. Announces Closing of Healthcare Services Business Sale," Verisk Analytics, Inc. press release, June 1, 2016, on the Verisk Analytics, Inc. website, http://www.verisk.com/press-releases/2016/june/verisk-analytics-inc-announces-closing-of-healthcare-services-business-sale.html.

9 "Verisk Analytics, Inc. Signs Definitive Agreement to Sell Its Healthcare Services Business to Veritas Capital for $820 Million," Verisk Analytics, Inc. press release, April 25, 2016, on the Verisk Analytics, Inc. website, http://www.verisk.com/press-releases/2016/april/verisk-analytics-inc-signs-definitive-agreement-to-sell-its-healthcare-services-business-to-veritas-capital-for-820-million.html.

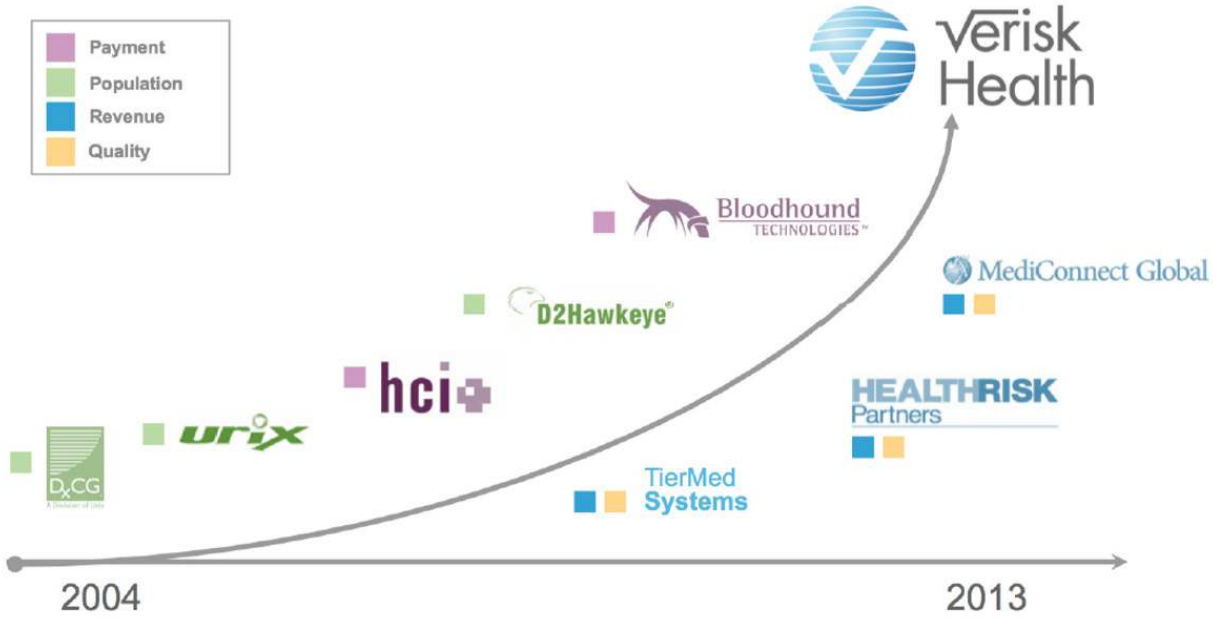
10 Verisk Analytics – company summary report (2017). OneSource Information Service, Inc. Retrieved from OneSource Global Business browser, July 28, 2017; Amy Orr, "Veritas to Buy Verisk's Health-Analytics Unit for $820 Million," The Wall Street Journal, April 26, 2016, https://www.wsj.com/articles/veritas-to-buy-verisks-health-analytics-unit-for-820-million-1461693648.

11 Verscend Chief Executive Officer Dr. Emad Rizk in the Verscend Technologies, Inc. press release "Verisk Health Announced Rebrand to Verscend Technologies," August 26, 2016, on the Businesswire website, http://www.businesswire.com/news/home/20160826005091/en/Verisk-Health-Announces-Rebrand-Verscend-Technologies.

Exhibit 1: Verisk Health's Business

Source: Verisk Analytics, Inc., "Verisk Health," 2014 Investor Day presentation, March 6, 2014, p. 6.

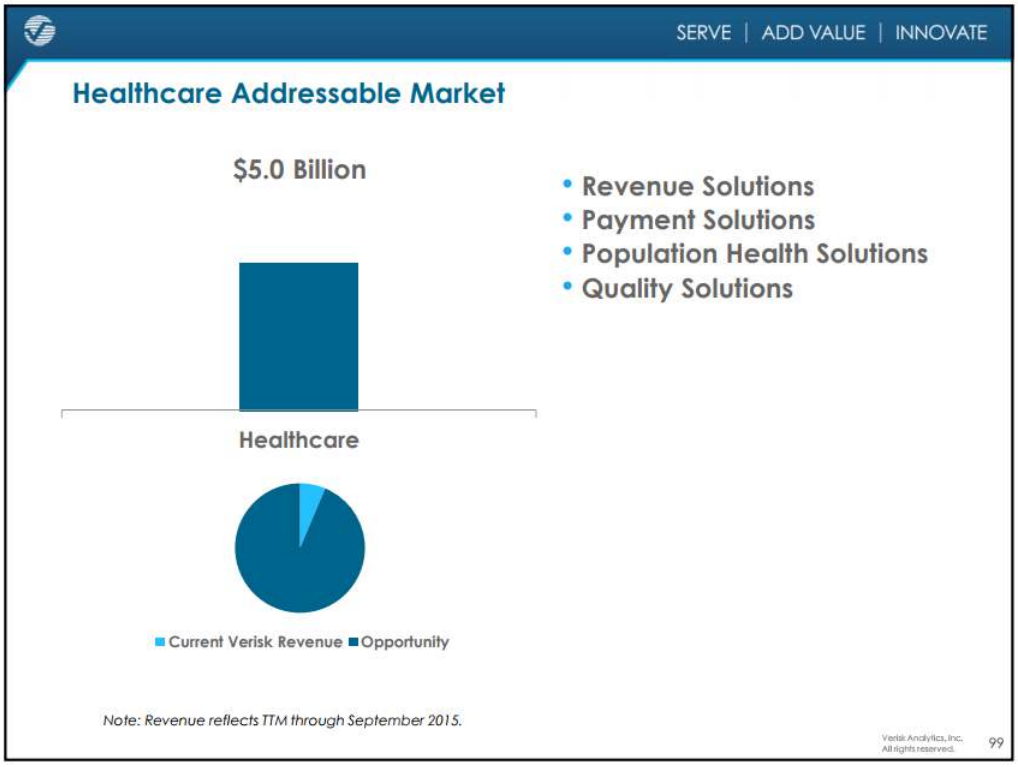
Exhibit 2: Verisk Analytics Acquisition Timeline Related to Verisk Health



In 2004, Verisk Analytics established its Verisk Health division with the acquisition of DxCG. Verisk Analytics continued to grow Verisk Health over time with a series of subsequent acquisitions.

Source: Verisk Analytics, Inc., "Verisk Health," 2014 Investor Day presentation, March 6, 2014, p. 4.

Exhibit 3: Healthcare Addressable Market



Source: Verisk Analytics, Inc., "Healthcare Addressable Market," Verisk Analytics Investor Day, December 1, 2015, p. 51.

Exhibit 4: Verisk Health Solutions and Competitors for Each, circa 2015

Source: Verisk Analytics, Inc., "Verisk Health," 2014 Investor Day presentation, March 6, 2014, pp. 5 (top graphic) and 12.

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Canadian Imperial Bank of Commerce
Cardinal Health, Inc.
Caterpillar, Inc.
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Charles Schwab & Co., Inc.
Chevron Corporation
CHRISTUS Health
Cochlear Limited (Australia)
Commonwealth Bank of Australia
CPPIB (Canada)
CSBS
DBS Bank Ltd. (Singapore)
DentaQuest
El Corte Inglés
Equifax
ExxonMobil Global Services Company
Fairfax Media (Australia)
Ferrovial Corporacion, S.A. (Spain)
Fidelity Investments
FrieslandCampina
General Electric
Genworth Financial
GlaxoSmithKline (UK)
Hitachi, Ltd. (Japan)
Howden Joinery Group plc (UK)
Insurance Australia Group
Iron Mountain
Johnson & Johnson
LKK Health Products Group Ltd. (HK, China)
LPL Financial
McGraw-Hill Education
National Australia Bank Ltd.
National Disability Insurance Scheme (Australia)
New Zealand Government—GCIO Office
Nielsen
Nomura Holdings, Inc. (Japan)
Nomura Research Institute, Ltd. (Japan)
Nordea Bank
Northwestern Mutual
OCP S.A.
Orange S.A. (France)
Org. for Economic Co-operation and Development (OECD)
Origin Energy (Australia)
Owens Corning
PepsiCo Inc.
Pioneer Natural Resources USA Inc.
Principal Financial Group
Procter & Gamble
QBE
Raytheon Company
Reserve Bank of Australia
Royal Bank of Canada
Sabadell Bank
Scentre Group (Australia)
Schindler Digital Business AG (Switzerland)
Schneider Electric Industries SAS (France)
Standard Bank Group (South Africa)
State Street Corp.
Suncorp Group (Australia)
Swinburne University of Technology (Australia)
Sydney Water (Australia)
TD Bank, N.A.
Teck Resources Ltd. (Canada)
Tenet Health
Tetra Pak (Sweden)
Trinity Health
USAA
Westpac Banking Corp. (Australia)
WestRock Company
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