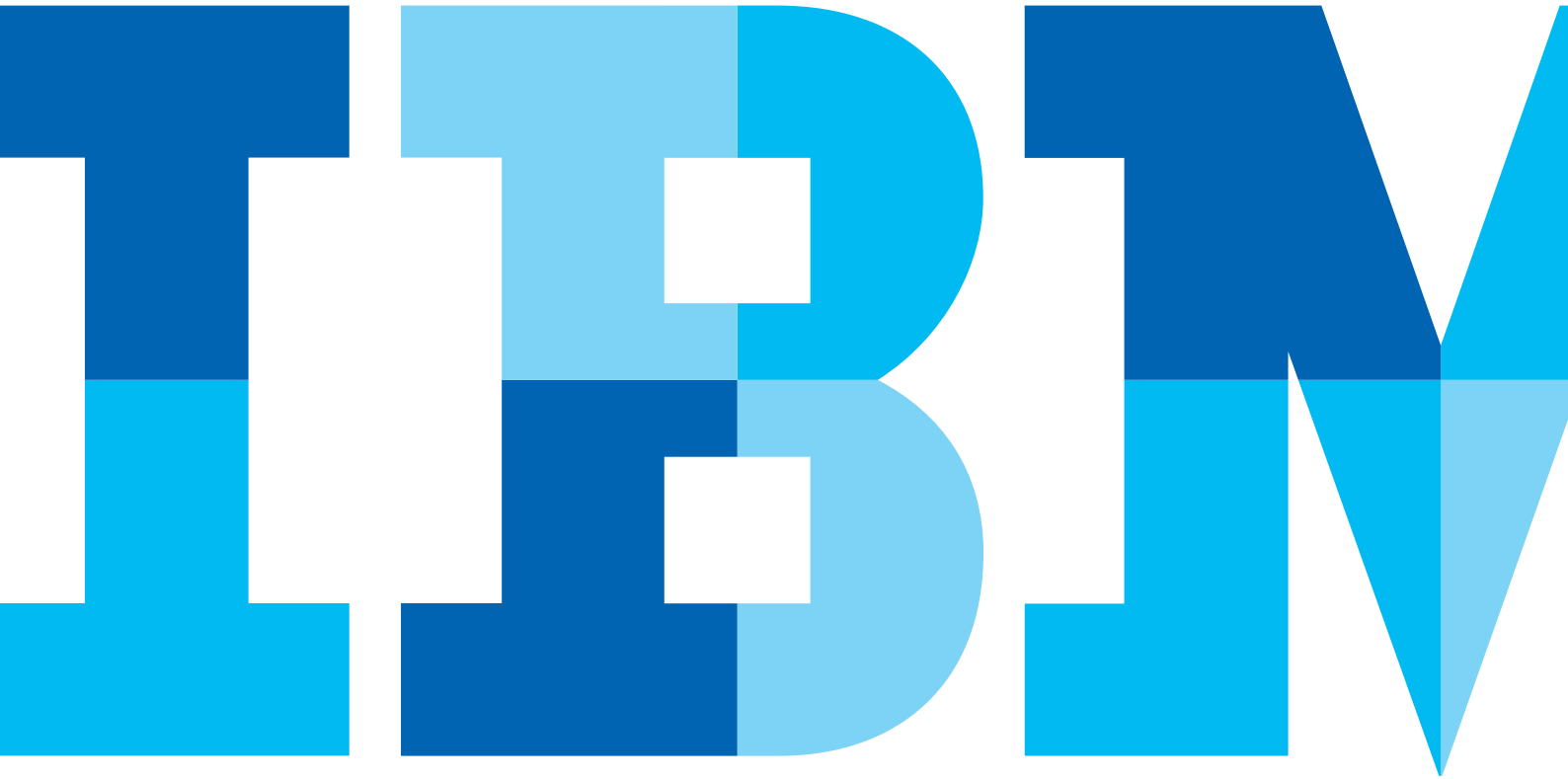# Business analytics for
the agile health plan

IBM

Abstract

Agility is more than responsiveness. It's the ability to recognize all the opportunities facing the organization and adopt innovative strategies to take advantage of them. Given recent healthcare reform legislation, health plans need to be ready to act, respond and transform to ensure profitable performance. To achieve this level of agility, health insurers, payers and healthcare sponsors around the world are turning to business analytics solutions that integrate business intelligence with business performance management and predictive capabilities. These solutions go beyond the routine reporting functions to become proactive and predictive—to improve agility via on-demand operational visibility and broad user participation, enabling health plans and insurers to ask—and answer—the toughest questions fast.

"The combination of the push for universal coverage, the erosion of employer-sponsored insurance and the aging population is expected to drive this continued shift to individual and government-based coverage."

—IBM Institute for Business Value, Healthcare 2015 and U.S. Health Plans

Overview

Today's best, most competitive health insurance organizations will need to move quickly to turn out new products and services targeting new channels or entirely new markets. Given today's tough economic challenges and the growing shift away from the more profitable employer plans into less profitable government or state-sponsored plans, successful health insurers are seeking ways to grow member loyalty, meet unprecedented customer demand for individual treatment and pounce on operational problems. They are focusing on identifying fraud and abuse, and on seeking innovation in every area with strong teams and aggressive strategies.

Against the slowing profitability of the economy and the uncertainties of healthcare reform, health insurers cannot risk waiting for answers to the toughest, most complicated questions about their business drivers by network, market, product, investors and competitors. The successful health plans and insurers will constantly force answers to tough questions and deploy predictive models to analyze, enhance and protect their business.

To drive and monitor performance against the competition, market leaders deploy business analytics systems that enable them to rapidly implement, modify and expand their capabilities for strategic planning, sales, marketing, operations analysis and reporting. A complete business analytics solution extends beyond the bounds of finance and readily boosts agility with:

- Operational visibility on demand
- Broad user participation
- Swift deployment
- Cost-effective solution expansion

With a full spectrum of data and the ability to analyze and report from every corner of the business, the big payoff includes rapid innovation (new products, new services, new markets), fast business restructuring and greater market share.

According to futurist Jim Carroll, transformation is very doable for many businesses, "They are realizing that innovation isn't some dark, mysterious ancient ritual: they're realizing that it's simply a mindset that involves constant probing to see how we can fix things, find new things or transform things, whether those things be business processes, customer service methods, new products, marketing and distribution channel concepts, or just about anything else."

Business problems
When the view doesn't change

Unfortunately, many health plans and insurers today don't consider their opportunity to hold position as the lead dog in the pack and can easily fall behind the competition at any time. They face agility issues with limited views into all aspects of their operations. At the most basic levels, they can see budgets and medical costs but cannot tie that activity back to the metrics of their business drivers.

Reactive rather than proactive, they wind up responding slowly or not at all to the market and continue to lose out on opportunities to capture more customers, revenues and profitability. But a company can transform its perspective on its situation — with the help of a robust business analytics solution — and can deploy predictive capabilities to spot trends and patterns in utilization and provider performance to detect fraud and abuse.
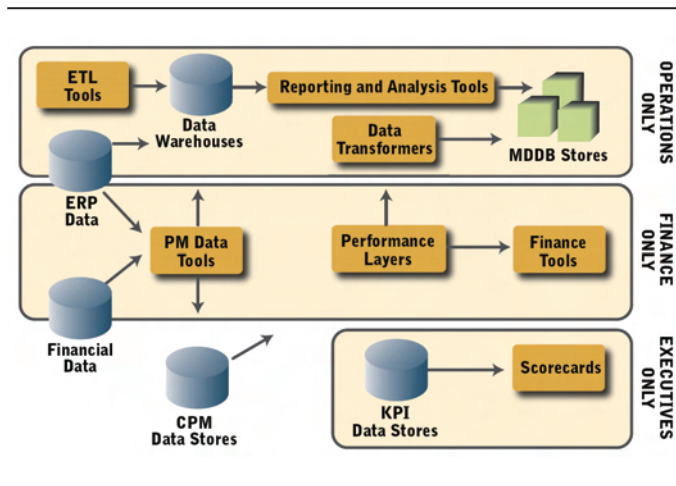
Figure 1: Disjointed technologies lead to silos of information and limit an organization's ability to act with focus and agility.

First-generation performance software

It's vital to take a critical look at many of today's so-called "performance management solutions." Many of them are either first-generation, narrowly focused, single-application offerings or an assortment of systems simply cobbled together.

In the case of the former, functionality is sacrificed because the solution fills only a single need. Focused — perhaps — on capturing transactions and generating simple reports on claims management or aggregate medical costs, they are ill-suited for key operations like planning or forecasting.

In the latter case, when the performance management system consists of loosely coupled applications, organizations must suffer a great deal to reap modest functional rewards. The data analyzed by operations, finance and senior management is housed in "silos" or disparate data stores, each requiring separate toolsets and interfaces for viewing or analysis.

Analysis and reports created by the business teams remain unconsolidated, scattered — or connected inefficiently — and present the business with various versions or models of the same scenario. Few have access to all the data; most have only sectional views of the company's performance. Users may be able to see the company plan, but can't compare that information to their various departmental drivers — their ultimate need — or the workarounds to get at the information are so cumbersome that they prohibit enterprise-wide use.

"They are realizing that innovation isn't some dark, mysterious ancient ritual: they're realizing that it is simply a mindset that involves constant probing to see how we can fix things, find new things or transform things: whether those things be business processes, customer service methods, new products, marketing and distribution channel concepts, or just about anything else."

—Jim Carroll, Futurist

Business drivers

An exercise in frustration

If you're working across multiple silos of data and applications with spreadsheets as your only interface between systems, you're likely frustrated by lack of visibility into critical performance data, disjointed group problem-solving and delayed decision-making.

Complicating things even further, multiple solutions demand greater IT effort and expertise in data management, extraction, transformation and so on. Manageability is also highly complex and expensive because you face components neither designed nor built to comprise an integrated performance management suite: multiple vendors with varying upgrade schedules and standards; expensive add-on applications; excessive data movement that heightens the probably of errors; and a loss of the ability to audit activity. For many enterprises, attempts at triage comes through waves of costly consultants.

Bottom line: Your frustration increases and your competitive edge is dulled.

Business analytics: The new generation

In the latter half of this decade, healthcare organizations, including both health plans and providers are facing information needs equal to much larger businesses, but with more limited resources and IT support. And the cost and value of discrete, disconnected systems are coming into serious question. CFOs and CIOs at health industry organizations are jointly seeking readily integrated, high-ROI, enterprise-wide solutions for performance management. New-generation business analytics systems include both predictive and performance management functionality, and offer:

- Improved operational visibility: on-demand access to fresh data in all operations — from finance to sales, marketing, product development, medical cost management and HR.
- Immediate views, what-if scenarios and reports for all levels of users — from the department level to the executive team.
- Models that are rapidly configured and can extend into multiple departments, with little user training and minimal IT assistance.
- Advanced analytics and predictive capabilities to detect fraud and abuse, identify trends, monitor compliance and predict outcomes.

Health plans have traditionally leveraged claims data for comparative and trending information across providers, as well as to create cost models for gaining efficiencies. They know that 20% of enrollees incur 80% of all healthcare costs. Identifying those 20% and enrolling into effective disease management and wellness programs are where the big savings will be made.

However, moving from this traditional retrospective analysis of incoming claims to a much more predictive and interventional capability to influence members and drive down costs is becoming the imperative. Agile organizations are utilizing their data to support cost containment strategies, continual scrutinization of medical loss ratios and development of innovative programs for pay-for-performance, wellness and case management as they strive to become more of a health and wellness partner of the employers they serve.

A pervasive solution with broad participation for planning and analytics allows a coordinated approach to a strategy, enables a health plan to view actuals against market plans and helps orchestrate the allocation of resources, development of disease management strategies and provider network oversight. This opens the door to market leader flexibility — agility that allows rapid innovation and business restructuring. In fact, agile companies who choose a business analytics solution are usually surprised at how broadly they can address their strategies and can hit the ground running once they have identified their key business drivers, products and markets.

"Population management tools such as predictive modeling and clinical analytics begin the process of stratifying the population and identifying those members most at risk and who would benefit from being enrolled in a disease management program(s) or targeted for pay-for-performance initiatives."

—Lynne A. Dunbrack, Program Director, Provider/Health Payer Research, IDC Health Insights*

The solution

Building blocks of business analytics

To meet an organization's needs in the culture of speed, a business analytics solution should provide certain key capabilities:

- A single, enterprise framework for reporting, planning, analysis and prediction
- Easy-to-use interfaces for all kinds of knowledge workers
- High-performance analytics and predictive capabilities
- Hassle-free application configuration
- Unlimited scalability
- An IT-friendly, low-maintenance environment

Business analytics solutions with such features improve performance by collecting information from across the business, organizing the information in an easy-to-use manner, streamlining analysis for better-informed decision-making, and — most critically — facilitating rapid execution.

The enterprise framework

Health plans in particular can benefit from an enterprise solution — a foundational platform that leverages their underlying data stores — for multiple reasons. The components across silos are all integrated, and all data and metadata are shared across applications so that your teams work with only one data set. Every user can query and report from the same solution — without bouncing into a new application and without facing multiple user conventions and features.

Figure 2: A unified business analytics solution provides applications, easy-to-use interfaces, high-performance analytics and flexible data management.

Self-service interfaces and application development for extension across the enterprise

As more health insurers expand performance management initiatives company-wide, increasing numbers of users with decreasing amounts of experience must become acquainted with new tools and solutions. They need user-friendly applications that allow them to be self-sufficient in generating reports, drilling into data and performing *what-if* analyses.

Next-generation business analytics solutions offer users advanced features for rapid analysis and reporting, as well as easy information exploration and visualization. Such features include:

- Personalized interfaces such as home pages with navigation to reports and templates for planning and analytical applications.
- User-assembled solutions and user-maintained data, which is the best of both worlds, mid-way between tools and boxed applications.
- Basic components such as wizards, workflow, visualization (charts, graphs, tables, etc.) pre-built databases and sample cubes and plans.
- The ability to change variables or even the business model quickly, immediately seeing the changes and comparing them with historical data or other projections. The ownership of models resides with users who develop, adjust and maintain them.

High-performance analytics

Because business agility means reducing decision cycle time, rapid access is imperative. Financial planners, controllers, actuaries and other business managers need to change input values and recalculate on-the-fly so they can focus on solving business problems without waiting hours for critical information. Cross-enterprise teams need to perform analyses on frequently changing data from millions of transactions, such as daily or hourly review of claims, calls, network inquiries or minute-by-minute transactions with hundreds of medical facilities.

The key performance attributes of a business analytics solution required in such a dynamic environment are:

• Concurrent read/write for collaborative planning processes
• Parallel scenarios and assumptions with on-demand recalculation
• Instantaneous availability of model or data changes
• Multi-dimensional analysis of business information

A solution with an in-memory database provides these capabilities, eliminating the server bottlenecks that require frequent, tedious database updates and recalculations that slow decision-making.

"IT needs to …provide right-time information access to support the self-service environment. End users are unforgiving when they are prevented from instantly reviewing the results of their interaction with the performance management solution."

—Dan Vessett, Program Vice President, Analytics and Data Warehousing Software, IDC

Business analytics checklist
Are you on the road to agility? Determine which of these capabilities your current business analytics system provides:

• A single, compact platform for budgeting, forecasting, planning, consolidations, reporting and analysis
• Easy-to-use interfaces for all kinds of knowledge workers
• High-performance analytics
• Predictive analytics and capabilities
• User-guided application configuration
• Unlimited scalability
• An IT-friendly, low maintenance environment

Scalability
As companies provide greater numbers of knowledge workers and departments with analytic capability and grow their data stores exponentially, a business analytics solution must scale to meet increased demand.

The solution should support dozens to hundreds of concurrent users, to scale "up" to take advantage of multi-core processors, and to scale "out" to serve geographically diverse users as companies expand against market competition.

And a flexible, next-generation business analytics solution must be installed, deployed and up-and-running in a cost-effective and time-efficient project.

Conclusion

Put simply, business analytics solutions not only free end users; they spell relief for the IT department. A single enterprise framework offers standardization across the enterprise infrastructure, simple upgrades and little involvement with configuration management. Self-serve applications eliminate the development backlog, allowing IT to focus on key infrastructure changes to support business agility.

Agility isn't an impossible dream and the rewards can be nearly limitless. The business analytics solution, the seamless combination of business intelligence, business performance management and predictive capabilities, provides the spring-board — the responsiveness, flexibility, ease and scalability — to understand and explore the business situation from all angles, and all dimensions. IBM® Business Analytics solutions facilitate change and set you free to engage, adapt and innovate.

Never has it been more critical for healthcare organizations to measure, monitor, plan and report on performance, and IBM Business Analytics software allows healthcare institutions to improve performance across the organization and drive accountability in these challenging economic times. Read more about IBM Business Analytics for healthcare. For demos, white papers, analyst reports and more please visit **ibm.com**/cognos/healthcare.

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Related publications

Adams, Jim, Barbara A. Archbold, Edgar L. Mounib and David New. "Healthcare 2015 and U.S. health plans: New roles, new competencies" IBM Institute for Business Value. September 2007 (**ibm.com**/healthcare/hc2015).

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