

# PATIENTS FIRST, WORKING TOGETHER, ALWAYS IMPROVING: ENABLING THE HEALTHCARE FUTURE OF WORK

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# Patients First, Working Together, Always Improving: Enabling the Healthcare Future of Work

## Healthcare:

### A Paradigm Transition Toward Value

Healthcare organizations across the globe are under increasing pressure to transform into purpose-driven organizations, focusing on the value they create and deliver to the patients. Healthcare providers therefore face growing demand for improved clinical and financial outcomes. This is driving the transition from an industry that rewards volume of delivered services to one that is based on their value, operationalized differently based on local structure, culture, and specific context.

Maximizing value in healthcare means delivering integrated personalized services, dynamically adjusted to the evolving needs of target populations. Healthcare organizations can succeed in this mission only with the application of intelligent work models that empower the workforce to focus on the right high-value actions, at the right time, delivered by the right teams to the right patients.

The industry recognizes that 20% of the population is responsible for 80% of medical expenses. The management of the 20% of high-risk individuals relies on different strategies. These individuals often suffer from multiple chronic and other high-risk conditions or are transitioning from one location of care to another (typically from an inpatient facility to home).

Often referred to as population health, these initiatives deliver a new value proposition based on demonstrating improved outcomes. The transition is being driven by reimbursement model changes as well as demands by consumers who are carrying an increasingly growing financial burden for healthcare. In a value-based system, providers are paid to demonstrate value most often by meeting quality of care standards established by the payer. In the U.S., just over 51% of providers are accepting both down-side risk (a provider could lose money if quality standards and financial goals are not met) and up-side risk (providers receive additional payment when quality standards and financial are met). This is followed by 47% of providers accepting bundled payments (U.S. Connected Health and Value-based IT Investment Plans Survey, IDC, February 2019).

#### BUSINESS VALUE HIGHLIGHTS

##### MARKET CHALLENGES

As healthcare systems move to the new **value-based** paradigm, healthcare organizations are under growing pressure embrace a **future of work** scenario. They need to **empower** their workforce and close the digital **impact gap** by intelligently translating the outputs of analytic systems into **actionable insights** tailored to specific job roles and contexts.

##### SOLUTION

Vantage is an AI-enabled workflow management and decision-support population health management solution that empowers and changes the way each employee works, makes decisions, acts, and collaborates on those decisions.

##### KEY TAKEAWAYS

Vantage enables healthcare workforce with personalized, context-relevant insights on the right **actions** for the right **patient population** groups, delivered to the right **employees** at the right **time**. Vantage helps close the digital "impact gap." It supports healthcare organizations achieving positive clinical, financial, and operational outcomes from their investments in data infrastructure, analytics, and workflow solutions.

Technology systems required to accomplish these objectives include:

- Integrated patient-level data that covers clinical, financial, social, human, and behavioral health needs.
- Advanced analytics, including the use of artificial intelligence (AI) to identify the highest-risk individuals, determine the drivers of risk, and deliver the recommended "next best action" to clinicians, program managers, and executives of all levels.
- Process automation to deliver insights from analytics into the workflows of individual employees and teams in the specific context of their decision making, and platforms supporting collaborative workflows.
- Patient outreach to provide ongoing communication and education and improve patient experience.

The challenges are both technical and cultural, with many provider organizations lacking experience in population health management. Data acquisition and normalization across the multiple and diverse data sets is among the most significant challenges. Population health entails a different approach to patients. It requires a long-term and holistic approach to improving a patient's overall health. According to IDC's research, 74% of healthcare providers in the U.K. consider investing in new healthcare service delivery models such as integrated care (IDC European Tech and Industry Pulse Survey 2019-2020). This will require staff with experience in population health and transforming leadership and organizational culture. Incentives, including direct financial incentives, must be created for physicians to address cultural resistance and encourage their performance.

## Revisiting the Healthcare Traditional Model of Work: Empowering Workflows, Closing the Digital Impact Gap

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Managing costs and improving quality in healthcare requires actionable insights that are not available to most healthcare organizations. Healthcare organizations have invested heavily in data aggregation and analytic solutions to support their enterprises, but they are not always seeing the impact they were hoping for. Healthcare organizations worldwide rank the inability to **efficiently access data** among the top three barriers to delivering value (Source: IDC, Future of Work 2020, EMEA, U.S., and Japan, December 2019 and March 2020). Analytic results are delivered in isolation and transmitted to a decision maker through "reporting tools." These are often limited to dashboards and graphics that present descriptive data and highlight variations but not the insights needed to support decisions on the next best action.

For example, a care manager might receive a report indicating which patients are likely to be readmitted to the hospital. In the U.S., such readmissions are subject to financial penalties under certain circumstances. In today's model, the care manager typically has a readmission risk score for each individual, but additional analysis is needed to find out the reasoning behind this so that the right intervention/action can be initiated. The lack of personalized and actionable insight results in delays and often imprecise intervention. Without personalized interventions designed to meet the holistic needs of a patient, improvement in outcomes is less likely to occur. Even with the right data, the action is still left to individual discretion. Health professionals have the

cognitive challenge of "making sense" of the data, kicking off a cycle of endless analysis rather than action. This results in staff burnout, in addition to the implications for cost and quality management.

The IT investment focus needs to shift to advancing analytic techniques that include the use of machine learning. The benefits of machine learning include the ability to ingest multiple data sources and data types including structured and unstructured data. The use of machine learning would deliver both insights and "next best actions" to care managers to reduce their "decision fatigue." Limited access to actionable insights directly affects the agility of the workforce and workflow and processes automation. It prevents the adoption of collaborative and integrated work models that are necessary for the successful implementation of value-based healthcare models. The value of data is in the decisions it enables being embedded in the workflow that supports the underpinning processes. For example, in some population health management solutions in the U.S., machine learning can auto-assign individuals to specific care pathways that, based on historical data, the algorithm has learned what will bring the most successful programs. Care managers would merely have to review the care plan and adjust as needed, but the burden of reviewing the data and determining the best care plan is eased by the AI solution.

AI can further enable care plans according to the specific milestones for individual patients and support their engagement in their own care. For example, AI-enabled chatbots can send patients medical reminders, respond to their inquiries, or deliver appropriate educational and motivational material. AI-enabled patient engagement systems can help monitor whether patients are achieving their goals and alert care managers when health intervention changes may be appropriate.

AI-driven insights are key to revisit anachronistic and siloed working practices. Employees want a frictionless experience that removes noise and complexity, and the flexibility to work across different channels and care settings depending on their objectives and workstyle. They want a contextually aware environment that is engaging and surfaces relevant information when they need it and how they need it. Healthcare workers need technology/AI to partner with them so that they can be more effective. Similarly, healthcare leaders need actionable insights to monitor and provide consistent guidance to a large and sometimes dispersed workforce. This is essential to avoid process gaps and inaction that will impact clinical outcomes and drive costs. Healthcare executives need to transparently define and track new business metrics in real time for the organization to successfully manage the performance of their teams, prevent or address problems as they appear, identify skills and resource gaps, and provide effective management and mentorship.

## Technology-Enabled "Future of Work" in Healthcare

Accurate, timely decision making is critical to managing healthcare expenses and improving quality of care. Healthcare organizations need to work to close current "impact gaps" in their digital investment strategies; they cannot keep buying new analytic tools that operate in isolation and do not deliver insights that drive appropriate action.

**A future of work scenario** for healthcare organizations implies that the technology must remove the cognitive burden from the professionals and deliver actionable advice to deliver and amplify business impact. Healthcare future of work, therefore, starts by developing a "**learning organization**" that can synthesize the information it needs, and to dynamically apply the resulting insights at scale to execute its business vision. A learning organization is built upon the learning **workforce, workflows, work culture, and work model**.

Empowering each of the elements of learning healthcare organizations requires the democratization of intelligence, making it available ubiquitously. **Data democratization** enables healthcare workers to understand how to find the data they need, who has changed it, why and when, how reliable it is, and whether they are drawing the right conclusions from what they see. Data democratization requires a well-designed security and privacy policy framework to govern data access to employees under a set of defined parameters (role, location, hours, device, etc.). But when such a framework is in place, the healthcare workforce is empowered with actionable insights across multiple workflows, driving new work models and fostering a purpose-driven culture within the organization.

### *The Learning Workforce*

Data democratization is pivotal for multidisciplinary teams working along a care continuum that increasingly includes clinical, social, human service, and mental health professionals. This integrated approach entails flatter organizations, with more open and transparent flows of information. IDC research shows that in Europe, 35% of healthcare organizations have already introduced specific initiatives aimed at flattening their structure for greater agility.

Solutions based on intelligence democratization foster increased employee acceptance and involvement. If all employees can understand data in the right context, they can identify issues before they become problems and autonomously adapt their activity depending on evolving conditions. Just as importantly, they can safely rely more on process automation, as they understand and share the rules and parameters behind it.

Acceptance of data-driven decision making further removes "chain of command" decision making referrals. New user-friendly interfaces and chatbots with natural language processing facilitate the workforce in having meaningful "conversations" with data. AI-based solutions then learn about workforce preferences and the organization rules and decision-making processes. This knowledge that has been "learned" by the AI algorithms is the basis for recommending actions so that decisions are made consistently across the organization.

## *Learning Workflows*

Intelligent automated workflows based on a rich set of rules and parameters, powered by AI, can recommend the next best action for the desired results. Nearly 40% of healthcare organizations worldwide see inefficient and manual processes as a key challenge, and nearly 50% see technologies automating business tasks as an opportunity to allow employees to focus on higher-value tasks. Organizations can thus retrain the workforce for activities with more impactful outcomes. For example, health workers can prioritize patients most at risk and follow prescribed workflows for effective intervention.

Workflow automation is the top growth investment in work transformation, with IDC surveys showing it is expected to be broadly used by at least one-third of healthcare organizations in the next three years. The impact of workflow automation can go beyond cost savings and operational efficiencies to create greater patient value. Workflow automation frees up employees from mundane and inefficient tasks and enables them to shift to higher value tasks for the most impactful outcomes, according to 53% of healthcare organizations. Automatically capturing and analyzing data across systems and applications can provide real-time information for decision making and reduce bottlenecks in supporting teams in their day-to-day jobs.

## *The Learning Work Model*

Modern healthcare requires organizations to have a higher degree of agility to be aligned with the evolving needs of patients. Adaptive workforce planning and dynamic reconfigurable teams to generate the right action or patient-specific health intervention means bringing together the right employees to the right teams at the right time. This can be challenging, particularly in siloed organizational settings as is often the case in healthcare. Choosing the right technology, however, can make a difference:

- Intelligent (workflow-driven) collaboration management solutions can be effective to support a fluid, adaptable environment.
- Insightful dashboards with real-time data across the entire project can enable teams to track progress against KPIs and make informed business decisions.

To avoid information overload and inaction, these tools, while shared across the organization, must present information and insights in a way that is tailored to the specific context and individuals' roles, whether for executive managers, intelligence services analysts, or healthcare professionals in the field. Intelligent collaboration management solutions are needed to support a fluid, adaptable environment.

## *The Learning Work Culture*

The availability of analytics tools can make the difference in fostering a sense of a purpose, engagement, and shared accountability across the organization. Healthcare leaders need to find the means to mentor and guide large workforces to drive performance. New organizational models need to be fostered by a shared vision on the organization's objectives, requiring both top-down and bottom-up buy-in:

- Top down: Strong leadership and cross-functional governance are needed for sponsorship and sustainable organizational change.
- Bottom up: Leaders must engage, empower, and build trust in their teams. Employees must be able to autonomously measure their own performance, understand how it impacts the overall business outcomes, and what actions they need to take to achieve the desired goals.

Therefore, the availability of new digital tools that leverage advanced analytics capabilities to provide context-relevant insights on performance and progress can make the difference, fostering sense of a purpose, engagement, and shared accountability across the organization.

## Considering Vantage: How it Empowers the Future of Work in Healthcare

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Vantage, developed by Vantage Health Technologies, is an AI-enabled population health management platform that provides management decision support and operational tools to payer and provider organizations and governments. Vantage Health Technologies is part of the BroadReach Group, created with the mission to "harness health technology and innovation that empowers human action." Vantage aims to empower health workers to make the right decisions and take the right actions at the right time to improve the health and well-being of populations around the world and foster equity in healthcare. Since 2016, Vantage has been developed in collaboration with Microsoft and its suite of applications.

Vantage positions workforce empowerment as the principal way for payers, providers, or governments to meaningfully improve health outcomes and financial and operational performance. The premise upon which Vantage is built is that ***the future of work in healthcare is about changing and empowering every employee to be more effective.***

The Vantage solution is designed to close the major "impact gap" that prevents many healthcare organizations from yielding commensurate ROI from investments in data infrastructure, analytics, and workflow solutions. The analytic tools and visualization dashboards that are complex to interpret, not customized to user's specific roles, and are disconnected from the respective workflows and business problems, will not change or empower the entire workforce. The approach to treat analytic and workflow tools as the end-product, hoping that employees can decode the analytics for themselves and make appropriate decisions and changes to their behaviors, fails to yield the desired impact on health outcomes and financial and organizational performance.

Vantage aims to address this digital "impact gap" by translating the outputs of the data analytics and AI into clear, step-by-step management decision-support recommendations, personalized for each employee in their specific role. Vantage further links these recommendations to workflows and collaboration tools in Microsoft Teams to allow implementation and operational excellence at scale. This empowers and changes the way each employee in the organization makes decisions, acts, and collaborates on those decisions.

Using this approach, Vantage helps healthcare organizations close the "impact gap" and achieve a positive ROI in terms of health and financial and operational outcomes from their investments into data infrastructure, analytics, and workflows.

Vantage enables the transition towards the Future of Work in healthcare by delivering:

- **Intelligent insights.** Vantage sits on top of existing operational, financial, and clinical operating systems. Based on critical business problems and priorities that need to be managed and the employees who need to act upon them, Vantage uses its AI-powered algorithms to "connect the dots" from real-time data in the existing systems and deliver clear context-aware recommendations on workflows, generated based on best practice implementation tools. These recommendations are personalized to each employee's specific tasks and delivered in "plain English" using natural language processing (NLP) via email, chatbot, or directly via the Vantage app in MS Teams.
- **Intelligent collaboration.** Vantage also links these recommendations to bring together collaboration tools, knowledge, checklists, SOPs, and workflows in one convenient area for each employee and each team. Integration with Microsoft Teams and O365 enables the orchestration of human resources and workflow-driven collaboration to support care coordination and a fluid collaborative environment in real time, enabling the agility to dynamically adapt to the evolving needs. Healthcare managers can continuously track, monitor, and support large and diverse staff dispersed across large geographies, while employees can use Teams' collaboration capabilities to work together on operational execution and continuously improve performance.
- **360-degree view, democratization of intelligence.** Vantage is an interoperable platform, connecting all engaged stakeholders across complex healthcare ecosystems, connecting and aggregating data from various clinical, financial, and operational systems, in addition to relevant third-party datasets and reports. It thus enables a holistic view of all critical data and application systems to support intelligent decision making as well as transparency and accountability end to end. Further, the solution is designed for a broad set of users. Its use requires little or no training thanks to the intuitive design, the integration with Microsoft Teams, and NLP-based chatbot tools for accessing data and insights, and can be used by different-level employees with different competency levels. The use of Vantage therefore fosters democratization of data and intelligence across healthcare organizations.

### *Common Challenges*

Common challenges that healthcare organizations face when deploying healthcare workflow technologies such as Vantage are associated with the following:

- **A lack of adequate ICT infrastructure and skills:** In a sector where the integration and maintenance of legacy systems can absorb up to 60% of IT budgets, healthcare organizations need to understand the ICT infrastructure constraints, along with the lack of digital and data skills among healthcare workers. Understanding ICT infrastructure constraints, and users' relationship with the technology, is a pivotal first step in deploying the solutions.
- **Organizational culture and resistance to change:** Siloed working practices and staff resistance to change may hinder the transition towards Future of Work at healthcare organizations. When implementing solutions such as Vantage, healthcare executives should carefully devise a plan to address staff-specific information needs along workflows, and how



to leverage intelligent tools and user-centric functionalities to help the workforce achieve their objectives, ensuring closer engagement.

- **Real-time accessibility of critical data:** Enabling continuous access to all relevant clinical and operational data for all relevant stakeholders is essential in healthcare. In the unfolding scenario of value-based healthcare, care delivery systems are increasingly expanding to involve multiple departments within and beyond individual organizations (to other providers, payers, and patients). But this is often undermined by interoperability issues.
- **Ensuring data security and privacy:** Secure and compliant exchange of health information across the critical ecosystem and the ability to integrate and access all relevant data repositories, systems, and applications is critical to provide a continuous integrated 360-degree visibility of performance and must be assessed carefully when evaluating healthcare workflow technologies such as Vantage.
- **Fragmented operational implementation across the workforce:** Knowledge, standard operating procedures, and protocols are often scattered across different systems, employee knowledge, and paper-based documents. This might lead to inefficiencies and ineffective collaboration within and between teams, especially under remote working conditions. When implementing solutions such as Vantage, healthcare organizations need to focus on how the solution will be deployed, capture this knowledge, and make it available across the whole organization.

## Benefits

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Many organizations worldwide have implemented Vantage, in particular to support complex population health management programs. For example, Vantage solutions have been used to allow governments to implement HIV and TB population health programs, which included managing over 7 million HIV tests, ensuring compliance to care plans for 2.4 million people on antiretroviral therapy, and achieving a 93% viral load suppression rate.

In South Africa, healthcare authorities used Vantage in their response to COVID-19. They captured and analyzed nearly 10 million screening test results on the Vantage platform to provide management decision support on real-time resource allocation to maximize screenings and testing. The program also involved assessing the organizational readiness of 317 hospitals and clinics as well as remotely training and coaching over 7,000 health workers. Empowering each employee from patient-facing personnel to the top health executives in a personal and context-relevant way is one of the key benefits mentioned by BroadReach customers using Vantage. The solution provided the right tools and knowledge (checklists, workflows, collaboration) to help employees be more effective and make the right decisions at the right time.

## Methodology

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The product and company information contained in this document was obtained from multiple sources, including information and corporate documents supplied by BroadReach Healthcare, questions posed by IDC directly to BroadReach Healthcare employees, and publicly available customer references.

## MESSAGE FROM THE SPONSOR

From Chris LeGrand, BroadReach Group CEO

The BroadReach Group is a social enterprise whose businesses harness health technology and innovation that empowers human action. We bring nearly two decades of healthcare expertise combined with world-class technology solutions to help organizations deliver better health outcomes, improved efficiency of scarce healthcare resources, cost savings, enhanced organizational performance, and more sustainable health systems. To accelerate the digital transformation of healthcare, we developed Vantage, a set of AI-powered solutions that distil our learning from nearly 20 years of working on the world's most complex population health challenges. We see a future for healthcare where the entire system is empowered by combining data with insights and proven workflows, equipping health professionals to make the right decisions at the right time and implement those decisions at scale. This is democratization of data; this is the future of work for the health industry and paves the way for true health equity.

Read more: [www.brhc.com](http://www.brhc.com)

## About IDC

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