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Succeeding in Value-Based Care:

How Population Health Analytics Supports Modern Health Care Delivery

Across the U.S., health care is undergoing a transformative move towards value-based care (VBC). This shift focuses on **improving the quality of care, and the effectiveness and efficiency** of health care services, rather than the volume of services provided.

This article explores VBC – including its challenges, benefits and key considerations – and how utilizing intelligent analytics, such as those provided by the **Johns Hopkins ACG® System**, can support your organization as you undertake the transition to VBC. We also share how Johns Hopkins Health System has used population health analytics in its VBC efforts. We discuss the efficient and effective execution of value-based initiatives in support of patients, and how you might apply a similar approach to population health and strategy in your organization.

Understanding Value-Based Care

In traditional fee-for-service (FFS) models, providers are paid based on the number of services or procedures they deliver. VBC models tie the amount health care providers earn to the results they deliver for their patients and reward providers for both efficiency and effectiveness. **These models place a strong emphasis on preventive care, early intervention and the efficient management of chronic conditions at a population and patient level.**

Key Elements of Value-Based Care

Patient-Centered Care: VBC starts with a commitment to seeing the patient's needs and preferences as the driving force in making health care decisions. It encourages shared decision-making and communication between patients, families and providers.

Quality Measurement: Measuring care quality and patient health outcomes are key components of VBC. Health care providers are evaluated based on the quality and effectiveness of the care they deliver, instead of the volume of services provided.

Risk-Sharing Arrangements: In VBC, there is often a shift from sole financial risk on payers (insurers or government) to a shared risk arrangement with health care providers. This encourages providers to improve quality and lower costs through strategies like care coordination and preventive care.

Enhanced Care Coordination: Coordination among different health care providers, including primary care physicians, specialists and hospitals, is crucial in VBC to ensure that patients receive seamless, continuous care. This coordination reduces costs and improves patient health outcomes and satisfaction.

Data-Driven Decision Making: VBC relies on technology and data analytics to provide clinicians with timely, actionable insights.

Benefits of Value-Based Care

1. Improved Outcomes

The primary goal of VBC is to improve patient health outcomes, ensuring that individuals receive the right care at the right time, in the right place for their needs.

2. Cost Savings

By emphasizing preventive health, better management of chronic conditions and early intervention,VBC works to reduce emergency room visits, admissions and readmissions to hospitals. This reduces overall costs for the health care system and out-of-pocket costs for patients.

3. Enhanced Patient Experience

The personalized and comprehensive care provided in a value-based model encourages shared decision-making between patients and their health care team, with a stronger focus on addressing patients' individual needs.

4. Sustainability

Health care's traditional FFS models are not sustainable in the face of challenges such as an aging population and exponentially rising costs. VBC offers a sustainable and adaptable approach to address these challenges.

Challenges with Value-Based Care

Although there are many benefits to VBC, the transition from traditional FFS to VBC is a complex and challenging one. It requires modern infrastructure and a strong commitment from both administration and providers. This sea-change starts with re-evaluating each step of our health care delivery system, from when to how a patient receives care. Payers and policymakers have long been the primary driving force in the shift to VBC, however, local health care systems and providers are the champions who must implement these important initiatives.

Ultimately, the goal is that VBC will create a more cohesive and patient outcome-focused approach to health care that focuses on prevention and better management of chronic conditions, rather than an over-medicalized system. This requires cross-organizational buy-in and strategic planning.

Key challenges include...

Implementing necessary organizational infrastructure

- Solution: Establish a multidimensional and multispecialty leadership team that is collectively focused on the same objectives: to develop quality management systems, identify needs and improve infrastructure.[1]

Understanding health care data and implementing appropriate interventions

- Solution: Identify and connect with patients who need the highest levels of care to drive better overall long-term outcomes.[1] The Johns Hopkins ACG System can help.

Ensuring equitable access to care for all patients

- Solution: Start by measuring and identifying disparities in your patient population, focusing on where improvements can be made – patients with social, geographical, environmental and economic disparities. Learn about the ACG System's Social Determinants of Health functionality.

The Importance of Provider Enagement

A key obstacle to VBC is provider engagement. Provider buy-in is critical to success, because physicians are at the forefront of patient care and are key to addressing the critical care delivery changes necessary to successfully implement VBC.

Physician involvement is essential to:

Make informed decisions about patient care

Manage treatment plans

Influence overall quality of care

Many organizations believe they can succeed in VBC through monitoring and analytics alone. While VBC relies on data and analytics to measure outcomes and drive improvement, it is up to the physicians to act on high-risk patients, monitor their progress and adjust care plans accordingly. Provider input can lead to more effective data-driven decision-making.

Doctors and other health professionals are under a high level of stress, with over 60% reporting feeling burned out, according to the American Medical Association.[2] Physician burnout can have a detrimental impact on the success of VBC as physicians may become disengaged from VBC initiatives and perceive them as additional burdens, rather than opportunities for improving patient care.

Additionally, health care providers may initially face financial uncertainties during the transition from FFS to value-based models. Addressing these challenges is crucial to long-term success.

How Population Health Analytics Supports Value-Based Care

The transition from FFS to VBC in health care is supported and facilitated by data and population health analytics in several ways.

- **Data and analytics are central to population health management in understanding health risks and utilization drivers.**
- **Analytics can identify high-need and high-risk patients for intervention, ensuring providers are interacting with the right patients at the right time.**
- **Data sharing between providers helps ensure all care team members have access to relevant patient information, allowing for seamless care coordination and reduction of duplicate services.**
- **Data outputs enable health care organizations to evaluate the effectiveness of chronic disease management programs.**
- **Data and analytics also support the equitable allocation of resources among providers within a provider organization, based on the health risks of their respective patient panels.**

Johns Hopkins Medicine uses the Johns Hopkins ACG System, the world's leading population health analytics toolkit that has continuously evolved over the last 30 years.

Founded by Barbara Starfield, a pioneer of preventive health and the concept of VBC, the ACG System is a staple for health care organizations to gain an advanced understanding of their population health needs and support a culture of continuous improvement by providing real-time feedback on health, quality and financial performance.

Understanding patient needs through the ACG System outputs empowers care managers and care coordinators to address barriers to care, which often result in missed appointments, missed medication, higher costs and unnecessary emergency department visits. The ACG System also provides health care leaders with the information they need to make informed decisions about resource allocation, care delivery models and investments in technology and infrastructure.

Case Study: Johns Hopkins Medicine Office of Population Health

Using Analytics and Strategic Planning to Execute on Value-Based Care Initiatives

In 2023, Johns Hopkins Medicine created a department to improve population health, create data-driven care models and reduce health disparities. The Office of Population Health (OPH) supports the Johns Hopkins Health System in the execution of VBC initiatives. It is a centralized office that includes administrative and patient-facing clinical teams that work together to optimally align expertise with care delivery functions.

The OPH focused their efforts in three core areas:

1. **Create a strong foundation that enables better coordination and execution of administrative and clinical initiatives.**
2. **Establish critical focus areas, including management of high-risk patients and addressing social determinants of health (SDoH).**
3. **Create a muti-year strategic plan to reduce unnecessary utilization and health disparities, and improve data analysis, health care services and coordination within the health care system. This effort was supported by the ACG System's ability to identify major risks that affected individual patient health, in order to improve overall care.**

Implementing a New Organizational Structure

The primary goal of this operational redesign was to ensure leaders from different departments could work efficiently on shared objectives. A leadership team was put in place to oversee these efforts and build an effective and strong workforce, review several other population health models across the country and create a new plan that would most benefit the institution.

Various teams within the Johns Hopkins Medicine OPH were established and responsible for operational management, review of analytics and data trends, and patient support. A team of Community Health Workers engaged with the larger community to address SDoH, provide access to services and build stronger relationships with the community.

Establishing Priorities:

When the **OPH** was created, they outlined five initial priorities, which included:

- Identification of high-risk/high-utilization patients and connection to care management resources
- Development of cross-functional care team workflows
- Collaboration with the Office of Diversity, Inclusion and Health Equity
- Behavioral health intervention refinement
- Development of a three-year strategic plan

Using Population Health Analytics to Support Key Priorities

The initial priority to identify newly high-risk and high-utilizing patients was supported by the use of the ACG System, among other analytics platforms. The OPH used the ACG System to understand patient risk through both a historical and projected lens.

The ACG System analyzed:

- Patients with more than two hospitalizations or observation stays in the last six months
- Patients with more than three visits to the ED in the last six months
- Patients with an ACG risk score that indicated a higher likelihood of hospitalization in the next six months

A master list of these high-risk patients was created every two weeks and shared with other patient-centered departments within Johns Hopkins Medicine. This ensured improved coordination between inpatient and outpatient teams and helped the groups provide better care for these patients.

Supported by resources like the ACG System, other health systems can use these best practices when assessing their own transition to VBC.

1. **Data is analyzed at every opportunity.** Using the ACG System, patient groups are identified and supervised to ensure they receive appropriate care. Eventual patient outcomes and total cost of care are reviewed to confirm performance standards.

2. **Over-utilization and other trends are reviewed to identify places where resources may be used excessively.** The total cost of care is analyzed to find opportunities for savings, increased efficiencies and to increase the value of care provided to patients.

3. **Data is reviewed to see what type of care can provide the most impact for a population, then that care is introduced to additional groups in need.** That data is also shared among different departments to better coordinate care.

Creating a Multi-year Strategic Plan

OPH's key focus areas were developed using an advanced strategic planning process with dozens of stakeholders across the enterprise, all collectively agreeing on two guiding missions: 1) to bend the utilization curve and 2) to reduce health disparities.

This process led the group to develop the following tactics to support their strategic plan:

An advanced analytics roadmap, supported by the ACG System and subsequent analytics.

Clinical service delivery tied to population health.

Monitoring engagement and performance in VBC contracts.

Aligning health system goals across Johns Hopkins Medicine entities, focusing on population health.

The OPH strategic plan was a catalyst of harmonized population health activities across Johns Hopkins Medicine. These efforts leveraged VBC incentives in order to improve overall health and performance. To read more about the development of Johns Hopkins Medicine's Office of Population Health, click here.

Conclusion

VBC represents a significant shift in the way health care is delivered and paid for. Its focus on improving outcomes, reducing costs and enhancing the patient experience holds great potential to revolutionize health care nationwide. As the health care industry continues to evolve, VBC is poised to play a central role in achieving the quadruple aim of health care: better patient experience, better provider experience, better population health and lower costs.

However, in order to be successful with VBC, it is vital for organizations to plan strategically. This transition is not a passive endeavor, nor can it happen overnight. Supported by intelligent analytics like the ACG System, your organization can realize a successful transition to a new world of patient care with the goal of better long-term health, more efficient utilization, better provider experience and reduced costs for all.

ABOUT THE **ACG SYSTEM**

The Johns Hopkins ACG System is the world's leading population health analytics software. The System continues to evolve, providing ever-more refined tools used in the U.S. and across the globe for over 30 years, from commercial health plans and governments to health systems and large employers. The beauty of the ACG System is its ability to combine data from an array of sources to reveal powerful insights that go beyond just medical records.

By identifying risk and tracking patients over time, the ACG System can help you plan ahead and reduce health care costs – especially valuable to risk-bearing health systems and provider organizations. Most importantly, the ACG System allows you to be proactive, rather than reactive, when it comes to your population's unique health care needs. The System helps you combine a population-level perspective with patient-level behaviors and conditions. And because the System is incredibly flexible and responsive to new information, you can rest assured that no matter what comes next, the ACG System will continuously adapt to your health care management needs.

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LEARN MORE

To learn more about how the ACG System can support your organization in VBC initiatives, visit: hopkinsacg.org or contact us at acginfo@jh.edu.

If you are an ACG customer, reach out to your Account Manager.

1. https://www.sciencedirect.com/science/article/pii/S0002934323003030
2. https://www.ama-assn.org/practice-management/physician-health/burnout-benchmark-28-unhappy-current-health-care-job