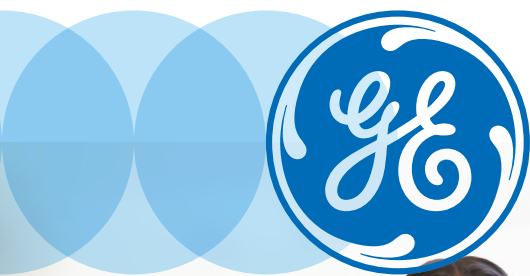


GE Healthcare

# Population health management:

Navigating successfully from volume to value



# In the new world of value-based care and risk-sharing compensation, success will depend on how well provider organizations navigate and adapt to the evolving healthcare landscape. The right technology solutions will be critical to effective care management, clinical excellence, and sound financial results.

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Today's healthcare providers are busy planning and executing to meet the challenges of healthcare reform. Faced with a daunting array of challenges—the transition to ICD-10, achieving Meaningful Use, striving to become an ACO, developing strategies to optimize revenue cycle and manage financial risk – it's no wonder that many providers feel lost in the largely uncharted territory of value-based care, risk-sharing compensation, and outcomes-driven population health management.

This white paper explores the obstacles facing healthcare providers and offers keen insights and strategies to help make the transition to effective population health management as safe and effective as possible while delivering value to patients and providers. Continue reading to understand what the new territory looks like and how to deploy the right tools, and what capabilities are necessary to transition from a volume-based to a value-based healthcare organization.

## The healthcare landscape: Toward value-based care

Traditional fee-for-service (FFS) compensation has led to steadily rising cost without significant improvement in quality or access. FFS incentivizes higher volume of care, while quality and outcomes often take a backseat. Further, FFS places the provider, rather than the patient, at the center of care delivery. The *National Scorecard on U.S. Health System Performance, 2011*, said reimbursement incentives under FFS “do not support healthcare providers' efforts to improve quality, integrate care, or make more efficient use of resources.” As a result, the U.S. health system under-performs despite outspending many industrialized countries.<sup>1</sup> Acknowledgement of limitations of FFS has led to efforts to reign-in costs and exploration of alternative payment models that focus on value.

To slow the growth in care costs and incentivize alternate models, federal government actions mandate reduction in FFS reimbursements:

- The Affordable Care Act (ACA) prescribes \$415 billion in cuts to total Medicare fee-for-service payments from 2013-2022.<sup>2</sup>
- A 9 percent across-the-board reduction in Medicare payments is expected over the next 10 years – a decrease of some \$6.5 million per hospital, per year.<sup>3</sup>

Alternative value-based payment models being evaluated include Medicare Shared Savings, bundled payments, and partially or fully capitated payment models. Value-based programs are gaining traction after successful demonstration by early adopters such as Kaiser Permanente, Geisinger Health System and Intermountain Health. A 2013 study of private payers in the United States found that 37 percent already engage in some form of risk sharing payment arrangements, and 47 percent used some form of shared-savings approaches to pay for at least some of their covered services. The same study found that more than two-thirds of payers would use both models by 2015.<sup>4</sup>

While declining, FFS will not go away in the foreseeable future. However, value-driven models will increasingly replace it as the healthcare landscape shifts from volume to value based care delivery.

## Population Health Management: A framework for value based care

A strong case can be made for population health management (PHM) as the central paradigm for delivering high-quality cost-effective care under many ongoing value-driven pilots. But what exactly is population health management? By one definition:

*“Population health management is an approach to care that focuses on improving the general health of the population by preventing illness in the healthy, keeping chronic sufferers from getting worse, encouraging modifiable lifestyle behavior*

*changes, and directing resources toward the most complex, risky patients—with the ultimate goal of preventing utilization.”<sup>5</sup>*

PHM involves monitoring of healthcare spending, quality, access, and outcomes, with the goal to improve the health of the entire population, while controlling costs of care. As such, PHM stresses wellness and prevention through disease management, along with cost-effective management of complex cases. Providers employ various strategies to keep populations healthy, mitigating financial risk through preventive services, reducing the need for acute and chronic care, and delivering care in the most appropriate and cost-effective settings.

**PHM requires a new set of competencies not required in the FFS world. Among the most critical are:**

- 1. Population risk assessment and stratification**
- 2. Care coordination and management**
- 3. Patient engagement**

## Population risk assessment and stratification

As a first step, PHM requires identification of the population of individuals for whom the provider is responsible. The process of assigning (attributing) patients can be complex, driven by the type of risk-based contract the provider enters. Once the population has been defined, its size, composition and disease burden will evolve over time as patients transition out of network, new patients join the network, or patient’s experience changes in health. Therefore, it is critical to continuously monitor and update the populations’ status.

The populations’ health status and illness burden helps determine resource requirements and cost of care – critical for evaluating the financial risk. Typically, the population is segmented (stratified) into cohorts by health status and health indicators, with similar clinical, utilization and financial risk profiles. Stratification of the population enables providers to plan and deliver the right amount and type of care to each patient cohort and forms the

central thesis of PHM. Risk stratification often reveals the asymmetrical distribution of clinical and financial risk such that a small minority of seriously ill patients account for the majority of cost. In this scenario, providers can optimize results by focusing on the sickest patients.

It is not sufficient to survey the population’s current health status – instead, it is critical to accurately project future health states and disease progression over the duration of the contract to improve clinical and financial predictability and mitigate contractual risk. Sophisticated prediction algorithms may be employed to predict disease progression and future utilization patterns based on historical data. An accurate predictive analytics highly improves the ability to anticipate care needs and deliver appropriate care, in addition to, helping providers accurately predict their clinical and financial risk.

While population risk assessment and stratification may not be new, effective solutions still elude many providers, who commonly rely on homegrown solutions or patchwork technology and analytics solutions that only tackle some aspects of the process, often ineffectively. Providers with successful population risk assessment and stratification capabilities tend to deploy a complete and integrated technology solution that seamlessly encapsulates two critical steps: *Data aggregation and processing, and risk stratification and prediction.*

### Data aggregation and processing

Aggregating, processing and normalizing of patient health and demographic data is important to assessing the covered population’s composition and health status. Key statistics such as gender breakdown, age distribution, health status, illness burden and care utilization often must be collected from disparate sources:

- **Claims data:** Medical claims from private payers and Medicare/Medicaid, including prescription drug claims
- **Administrative data:** Patient information, billing information and appointment scheduling

- **Clinical data:** HIE, EMR, lab systems, e-prescribing systems, and patient portals/personal health records
- **Other data:** Socioeconomic data, health risk assessment, patient-reported data and biometric data

A key challenge is aggregating data from multiple disconnected sources that do not regularly or effectively communicate with each other. In fact, interoperability among data systems and sources remains a major hurdle for many providers. Once aggregated, however, it remains challenging to organize and analyze collected data in a timely, meaningful and actionable way. Successful providers meet this challenge by deploying IT tools, infrastructure and support to connect, import, process, normalize and exchange data among systems securely and without disrupting current infrastructure or functions.

### Risk stratification and prediction:

Once the data is available, the next step is stratification of the population into cohorts based on clinical and financial risk. While there is no universally accepted way to risk-stratify patients; one common principle is to focus on three groups:

- **Today’s high utilizers.**
- **Patients with chronic diseases.**
- **Tomorrow’s high-risk patients.**

Risk stratification algorithms can simplify this process by accounting for each patient’s past and current health state, comparing them to historical records from millions of other patients with similar health conditions, and assigning appropriate risk scores. These scores become the basis for segmenting the population by clinical risk and care cost. Further, accurate risk prediction can help providers anticipate clinical and utilization risk. Providers equipped with this information can model financial viability of proposed contracts and negotiate mutually favorable terms and conditions, while also planning and allocating appropriate clinical resource to care effectively for their patient populations in the future.

## Care coordination and management

Once the population's health status is known, the focus of PHM shifts to managing and improving health: keeping the healthy individuals healthy and, proactively treating patients about to fall sick, or already sick. This requires an integrated care delivery ecosystem organized around holistic health and care needs of each person. The various providers in this ecosystem must work in concert to provide the right care, at the right place, at right time. Few care systems today approach this integrated model.

Incentivized largely by volume-based reimbursement (Fee For Service), many providers have organized into silos, treating patients as a collection of disparate conditions or episodes instead of focusing on patients' overall health. A shift toward value-based care requires that providers break down the silos and challenge care fragmentation. Consequently, the healthcare industry is already moving toward better integration of data, systems, information, care providers, provider organizations and other important stakeholder. This sets the foundation for better care coordination and care management.

**Care coordination:** Increasingly, care is coordinated across a continuum by a multidisciplinary team that may include physicians, other clinicians, service specialists, pharmacists, social workers, and patients. To ensure that patients receive the appropriate amount and type of care, care teams need to track up-to-date health history and current care needs and coordinate care across a network of facilities and providers. Coordination avoids waste and redundancy and prevents errors and adverse outcomes. Further, effective coordination enables all providers to collaborate, delivering the most effective and timely care as a team and focus on improving patient health rather than alleviating specific conditions.

**Care management:** A small minority of seriously ill patients tend to consume the majority of the care resources and costs.

These are a priority for many providers entering PHM as they tend to have multiple chronic and comorbid conditions and need specific, continuous intervention, delivered by a dedicated care management team. To be effective, such teams need to target evidence-based care plans that prevent disease progression and so avoid high-cost events such as complications, ED visits and hospital admissions or readmissions. To do this, care managers need access to relevant, up-to-date patient data. They also must be able to get critical input from members of the extended care team, including patients and families, and update the care plan based on coordinated feedback.

Care coordination and care management are the pillars of successful PHM. Effective IT tools can connect the community of providers, make relevant and current health information available to the right stakeholders and help them use the information to deliver appropriate care across the care continuum. These tools should automate care activities and integrate them into the clinical and operational workflows, so that care providers can easily execute on patient care plans, proactively monitor plan effectiveness, and make timely adjustments. An effective care coordination and management system should include:

### Care coordination:

- Provide platform that facilitates participation from a wide variety of stakeholders: patients (including caregivers), health plans and their members, providers, service centers, and others partners
- Aggregate, maintain and make available longitudinal patient health records across the network
- Enable secure communication with the various partners, including patients, in real time
- Generate alerts about events, conditions and issues based on guidelines and custom rules
- Automate and integrate tasks and activities into workflow to increase task efficiency

### Care management:

- Create detailed assessments of patient health status based on patient inputs, patient health history and demographic data
- Create and recommend specific registries for care management by customized programs: chronic disease, medication adherence, complex care, behavioral health
- Make available evidence-based plans of care for multiple co-morbidities and conditions
- Help create and execute on care plans via a rich collection of supporting tools and resources that automate various care management activities

A key requirement is to put patients at the center of care delivery. Tightly aligned with this goal is behavioral sensitivity. Increasingly, care coordination management goes beyond the pure clinical to consider behavioral factors that affect patients' health: financial status, mobility, living environment, family, support systems. The goal is to remove any barriers to the care patients need. This could include, for instance, delivering medications to a diabetic patient who is isolated without access to transportation – instead of having her stay at home, get clinically worse, and require hospitalization.

## Patient engagement

Patient engagement is key to achieving PHM goals. Fully engaged patients tend to be proactive about improving their health, and they are also more likely to seek timely care and take part in wellness programs. All this helps reduce cost and improve outcomes. Despite its benefits, patient engagement remains a challenge for lack of tools to automate and streamline the processes by which patients can manage their health and wellness.

Successful organizations provide many tools and resources to engage patients. These include patient portals that educate patients and give them access to their health records and other useful resources. Further, communication tools that lower barriers to access and interactions



between patients and care providers increase patient compliance and empower patients to be in charge of improving their own health.

## Conclusion

The healthcare landscape is shifting slowly but inevitably toward population health management and value-based compensation. Care providers can gain an advantage by building the competencies and adopting specific technologies that help drive success under the new care models. A foundational layer to population health management is risk assessment and stratification. It allows the healthcare organization to more efficiently assign resources and deploy appropriate care plans based on clinical and financial risk. Care coordination allows for more effective collaboration amongst providers in the healthcare network by connecting patient data systems and providing a single, longitudinal patient record. Care management involves the use of evidenced-based intervention programs for patients deemed to have higher risk profiles. By taking a holistic approach to caring for these patients, caregivers can work to overcome clinical, psychological and/or socioeconomic barriers that might otherwise limit intervention efficacy. Lastly, while patient engagement is considered a potential game-changer in this space, technology solutions have not yet evolved to achieve widespread adoption.

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### References

- 1 The Commonwealth Fund Commission on a High Performance Health System, Why Not the Best? Results from the National Scorecard on U.S. Health System Performance, 2011, The Commonwealth Fund, October 2011.
- 2 Charting the Transition to Risk, ©2013, The Advisory Board Company.
- 3 Field Guide to Medicare Payment Innovations, ©2012, The Advisory Board Company.
- 4 Changing compensation models: Viewpoints from private payers. ©2013, GE Healthcare.
- 5 Clinical analytics market trends report. Chilmark research LLC.



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