

# Demystifying IT Support for Population Health Management

*An Encore point of view on establishing an IT framework for the journey towards population health management*

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## AN ENCORE POINT OF VIEW

In the healthcare industry's transformational shift toward a value-based care environment, significant experimentation is occurring among providers and payers across the country in both payment and delivery model reform. Organizations are now faced with the reality of changing payment models influencing how they deliver care and manage their business. The assumption of risk by providers is unavoidable. This is a permanent change in the way healthcare will be delivered and reimbursed.

## What Is Population Health Management (PHM)?

A holistic, systematic, value-driven approach to health-care delivery and reimbursement that uses people, processes, and technology to coordinate appropriate medical and public health interventions across the care continuum to maximize the health of an entire patient population while minimizing the need for higher-cost interventions (e.g., ED visits and hospitalizations).

## THE JOURNEY TOWARDS POPULATION HEALTH MANAGEMENT

Population Health Management (PHM) is a reality in today's healthcare environment as provider organizations explore opportunities to accept increased clinical and financial accountability for the patient populations they serve. CMS has set a goal to have 50% of all Medicare provider payments through alternative, value-based payment models by 2018<sup>1</sup>, and private organizations have set even higher goals. The Health Care Transformation Task Force, comprised of 28 industry leaders including 16 large provider systems, 4 commercial payers and several industry payers have committed to moving 75% of its members' business into value-based payment arrangements by 2020<sup>2</sup>.

And although PHM is now a reality, the massive shifts in care delivery and reimbursement have resulted in widespread confusion regarding its definition. Encore has synthesized a succinct PHM definition based upon our collective experience and the definitions developed by other well-known organizations:

***PHM is the effective management of targeted patient populations to help drive economic success in at-risk reimbursement contracts (e.g., global budgets) while achieving contractual quality and patient satisfaction benchmarks.***

This paper cuts through some of the recent noise surrounding PHM, clarifies how IT will serve as a critical enabler for a successful transition to PHM, and explores how to use Encore's PHM IT framework to establish a solid foundation upon which to build.

## INFORMATION TECHNOLOGY: THE ROAD AHEAD

At the heart of enabling PHM is the use of IT solutions and data, ultimately hardwiring performance and payment to drive real and meaningful change in healthcare:

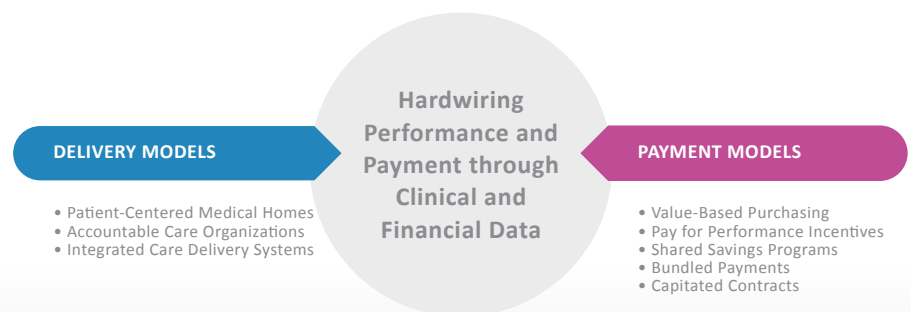


Figure 1. Transition to Fee for Value

*EHR technology is merely one tool and source system in the overall IT portfolio of solutions needed to support PHM.*

*Standardized data capture (which leads to successful analytics) will be embedded in nearly every aspect of care delivery.*

While the implementation of Electronic Health Record (EHR) technology over the past decade has provided a foundational element to enable data capture, EHR technology is merely one tool and source system in an overall IT portfolio of solutions needed to support PHM. With new payment and delivery model innovations, IT leaders are being asked to provide support for a fast-moving target of numerous and varied requirements. These requirements are related to initiatives such as care coordination, advanced analytics, data sharing, and exchange with external entities and telehealth. The effort to develop electronic reporting capabilities to support standardized analysis across incentive and value-based programs is underway; standardized data capture will be embedded in nearly every aspect of care delivery from identification, stratification, and assessment of populations and individual patients all the way through real-time care planning and care plan monitoring. This also includes combining and analyzing large data sets from providers and payers to calculate the quality and operational electronic measures (eMeasures) required to demonstrate performance.

The movement towards managing populations is creating significant upheaval at organizations now trying to figure out strategies around wellness, care coordination, outreach and the patient-centered medical home (PCMH). Some of these may be services delegated to other entities, while others will be delivered internally. This compounds the IT complexity, particularly concerning the resources needed to support them. There are key strategic and operational questions that IT leaders should be seeking to answer on the front end along with understanding customary IT functional and data requirements.

Questions to be considered include:

- Who are your payer partners (commercial, CMS) for risk-based contracting?
- What type of risk-based arrangements are you developing with each payer?
- Which other provider organizations are you aligning with, and how tight will those relationships be?
- What other strategic organizational imperatives are impacting your timeline for launching these programs?
- How does your organization intend to capture data needed for key quality and performance measures that will define overall program success?
- What is your long-term strategy to expand population health from at-risk patients to the entire patient population?

Each organization will approach PHM slightly differently, so an IT framework must be flexible enough to accommodate a diversity of operational environments and existing IT solutions already in place.

Encore's PHM IT Framework starts with the basics to help provider organizations match operational needs to available capabilities.

Although we are entering this transition period with a great deal of experimentation, it is critical for IT leaders to engage with their organizations early on to understand their organization's strategy for operationalizing PHM. Rather than jumping first to identify and-in some cases-purchase required IT solutions, a more effective approach is to understand the core process building blocks of an organization's strategy for deploying PHM. Each organization will approach PHM slightly differently, so an IT framework must be flexible enough to accommodate a diversity of operational environments and existing IT solutions. Additionally, new organizational models and processes are creating new IT requirements that are complex and not yet fully defined.

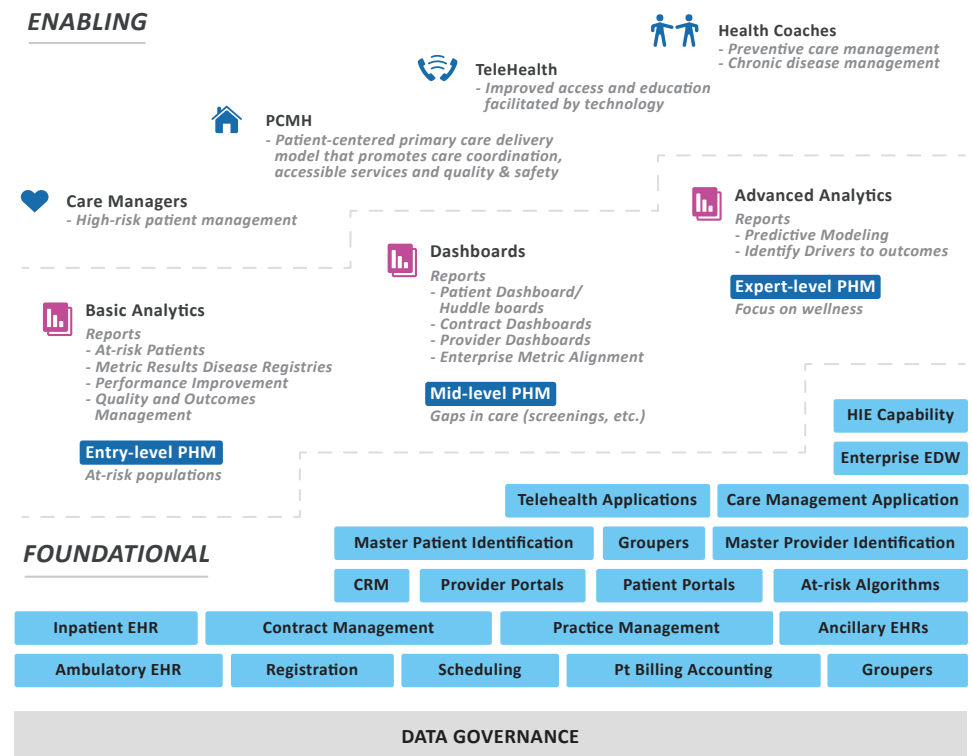


Figure 2. PHM Components

## ENCORE'S PHM IT FRAMEWORK

The PHM IT vendor marketplace is fraught with confusion and complexity. While IT vendors are rapidly acquiring, developing new, or enhancing existing offerings in an attempt to keep pace, the marketplace is still immature, and no single offering does it all. With so much at stake with PHM, there are some critical level-setting considerations that need to occur for provider organizations to start this journey well.

Encore's PHM IT Framework starts with the basics to help provider organizations match operational needs to available capabilities. It is comprised of four core building blocks:

- **EHR** – providing foundational capability for providers to deliver care across the continuum.

The *foundational* building blocks of the PHM IT Framework include the **EHR** and **Infrastructure** environments.

The *Enabling* building blocks of **Care Management** and **Analytics** deepen coordination and transition management capabilities across the continuum of care.

- *Infrastructure* – providing foundational capabilities for data sharing, collaboration, and engagement across providers and with patients.
- *Care Management* – enabling a care coordinator’s ability to engage in outreach and ensure that patients are compliant with care plans and regimens designed to improve overall health status.
- *Analytics* – enabling capabilities for leveraging data to assess and stratify the population, identifying where to focus care coordinators, and measuring overall population health.

The *foundational* building blocks of the PHM IT framework include the EHR and infrastructure. A number of capabilities need to be well-supported within these two foundational building blocks for any organization seeking to manage populations effectively. The *enabling* building blocks of care management and analytics allow an organization to move towards a more mature level of PHM by deepening care coordination and transition management capabilities across the continuum of care while providing advanced analytics capabilities and business intelligence.

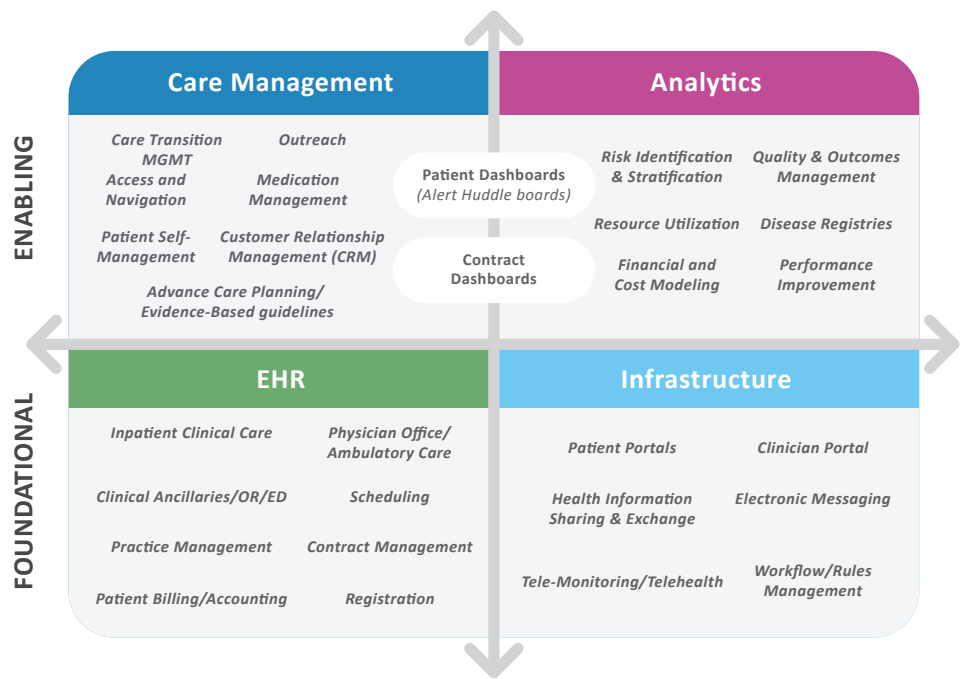


Figure 3. Encore’s PHM IT Framework

*While the EHR will continue to play a major role, there are many gaps in PHM that EHR vendors have yet to address fully.*

*There is still a long way to go before seamless connections and pervasive fluidity of data among systems is accomplished.*

*Care Management is becoming increasingly important, and data will increasingly be used to prove value and drive decision-making.*

The following are some key trends specific to each of these four building blocks which can drive preliminary thinking around ways in which IT can support an organization's PHM strategy.

- The **EHR** is a key component, but it is only part of the PHM IT Framework. EHR implementations have occupied a great deal of IT activity, and organizations have made significant improvements in clinician adoption and automation of their workflows, as well as data capture for re-use. While the EHR will continue to play a major role, there are many gaps in PHM that most EHR vendors have yet to address fully. Key competencies in areas such as analytics, care management, disease management, utilization management, and business process management are just now becoming a focus of some EHR vendors. Provider organizations should carefully evaluate EHR PHM offerings and ensure expected capability is present to enable PHM strategies.
- Interoperability and integration remain major **infrastructure** hurdles to overcome. The challenges related to integration of processes and data within and outside provider organizations are certainly not new, but the criticality is higher than it has ever been before. With care delivery and coordination becoming increasingly important across the continuum of care as part of PHM, the ability to track and share data between disparate systems and organizational entities is vital for success. With improved health information exchange (HIE) technology, improved adherence to standards and increased penetration of open technology platforms, the situation is improving. However, there is still a long way to go before seamless connections and pervasive fluidity of data among systems occurs.
- **Care management** is becoming increasingly important for provider organizations entering into risk-based contracting arrangements. While robust care management has traditionally been the domain of payers, the information sharing and processes of care management and patient outreach are starting to be shared with and often owned by provider organizations. These providers will now be financially motivated to improve compliance with select quality measures and reduce unnecessary or avoidable utilization and costs, sharing the same aim of care management programs that payers have been implementing for years. As provider organizations begin to assume financial risk for various patient populations, they must have the ability to coordinate care and manage utilization through robust care management processes and organizational resources.
- **Analytics** will be pervasive throughout PHM. As healthcare providers begin to leverage tools for reusing and repurposing data from a single source of truth, and as they harvest data from both their core systems and third party sources (e.g., payers), analytics serves a key enabling role. Whether the analytics are predictive, real-time or retrospective, data will increasingly be used not only to prove value but also to drive decision-making. Nowhere is this more evident than in the hardwiring of payment and performance through the use of clinical data. The transformation of our healthcare sys-



*Since no one vendor is likely to address all the capabilities needed to support PHM, provider organizations will need to assemble a solution that meets current and anticipated requirements.*

tem towards a fee-for-value model is entirely dependent upon the accurate and consistent capture of key data for reporting of metrics and driving performance improvement. Using data as a key asset across the enterprise requires significant organizational competency with data governance and will be critical for providers.

Using Encore's PHM IT Framework to match operational needs to available capabilities, an organization can identify the new core business process requirements needed for PHM. Knowing these requirements helps the organization evaluate and align PHM IT solutions with functional and data needs. Typically, the breadth and depth of the requirements results in multiple strategic IT scenarios, each offering strengths and weaknesses. In the near term (i.e., 2-3 years), IT support for PHM will likely be provided through a combination of different application and infrastructure solutions with no one vendor supplying all the pieces.

While the market matures, IT decisions will be highly complex and nuanced, requiring innovative and agile IT planning. IT leadership will need to invest wisely in new solutions or in extending the existing IT portfolio and infrastructure to meet these new PHM requirements. The evaluation of IT solutions requires a thorough understanding of the organization's PHM strategy and the associated process, functional, and data needs. Sifting through myriad solution offerings will require both clearly defined PHM objectives shared by all stakeholders and an objective, structured process to evaluate offerings against those objectives.

Encore's PHM IT Framework provides a mechanism to:

- Establish a common language across the organization around value-based care delivery concepts.
- Develop system-wide data governance to support reporting and analytics.
- Agree on guiding principles and foundational requirements for process, functional and data needs to accelerate IT solution evaluation and selection.
- Facilitate meaningful discussions with executive leadership related to key operational and IT issues.

## THE PHM IT VENDOR MARKETPLACE: A FRAGMENTED STATE OF AFFAIRS

The PHM IT vendor marketplace is trying to keep pace with a rapidly evolving and complex set of organizational needs. A flood of vendors is offering multiple IT solutions to address the new and evolving requirements. Many vendors have a heritage based in a particular domain such as disease management, payer-centric claims solutions, EHRs, analytics, and infrastructure; the last three already hold a key piece of the overall PHM puzzle. Some vendors are introducing net new products while others are refining and expanding existing solutions and functionality.

Over the next several years, we should expect to both consolidation among existing vendors and new entrants in this marketplace. The pressure will be on IT leaders to be shrewd evaluators and buyers.

### INVEST WISELY

During the next couple of years, provider organizations should anticipate using a variety of new and existing solutions to address PHM requirements as opposed to searching for a single vendor product to address every need. In the near term, this will require strong interoperability and integration solutions, along with skill sets to “stitch together” a comprehensive set of application functionality. This period most likely will serve as a temporary IT environment and bridge as the vendor marketplace for PHM continues to mature, innovate, and consolidate. In the intermediate term, organizations should anticipate replacing temporary solutions over the next two to five years as new vendor entrants utilize cutting-edge technology platforms to develop rich and advanced PHM functionality while current vendors with core strengths (e.g., analytics, patient engagement, EHR) extend their capabilities.

Successful IT leaders must embrace the challenge of the changing environment and drive innovative thinking to navigate an often bumpy road. PHM organizational strategies and resulting decision-making at the executive level will have major IT implications, so it is best for IT leaders to participate in front-end strategy discussions as part of an inclusive, iterative planning process. This front-end effort will promote strategic objectives and new operational models for an organization, allowing for a more thorough and efficient assessment of IT needs. The following are recommended next steps to help form the basis of a more structured approach:

*The healthcare IT vendor marketplace for PHM is highly fragmented and relatively immature.*

*No single vendor currently offers a comprehensive solution.*

*The next couple of years most likely will serve as a temporary IT bridge as the PHM IT vendor marketplace continues to mature, innovate and consolidate.*



*IT will be a key enabler for aligning the goals of improving the patient experience and improving the quality of care while reducing the overall per capita cost.*

- Specify the scope and definition of what PHM will be for your organization within the context of your geography and local market dynamics.
- Work closely with your executive leadership team to understand foundational PHM IT capabilities and gaps.
- Facilitate PHM IT strategy development including an IT roadmap of key initiatives, timelines, resources, and costs.

Knowing where to begin in this journey can be a challenge, but it should not paralyze IT leaders. When entering the new world of PHM, IT leaders must think differently, planning for both the ongoing growth of the PHM program and the need for additional application and IT support. IT will be a key enabler for aligning the often competing goals of improving the patient experience and improving the quality of care received while reducing the overall per capita cost of healthcare.

## REFERENCES

### *Other Literature Sources Reviewed*

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2. Commonwealth Fund Organization. The Triple Aim Journey: Improving Population Health and Patients' Experience of Care, While Reducing Costs. Case Study Series Introduction and Overview; Douglas McCarthy and Sarah Klein; July 2010.
3. Encore Health Resources. A World Evolving Toward Value; Rewarding Quality: Volume to Value; Karen Knecht, Carol Boberg, Susan Kiley, Sherie Giles; November 2012.
4. Encore Health Resources. Enterprise Data in Healthcare: An Untapped Asset for Performance Improvement Analysis and Measurement; Randy L. Thomas, Sherie Giles, David Greenwalt, Karen Knecht; May 2013.

## GLOSSARY

- **eMeasures:** Electronic Measures (eMeasures) are quality measures with electronic specifications that include the data elements, logic and definitions for that measure in a format that can be captured or stored in the EHR so that the data can be sent or shared electronically with other entities in a structured, standardized, and unaltered format. Source: Encore Health Resources.
- **Care Coordination:** Care coordination is the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services. Organizing care involves the marshalling of personnel and other resources needed to carry out all required patient care activities and is often managed by the exchange of information among participants responsible for different aspects of care. Source: McDonald KM, Sundaram V, Bravata DM, et al. Closing the Quality Gap: A Critical Analysis of Quality Improvement Strategies, Volume 7—Care Coordination. Rockville, MD: Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services; June 2007.
- **Care Management:** A set of enrollee-centered, goal-oriented, culturally relevant and logical steps to assure that an enrollee receives needed services in a supportive, effective, efficient, timely and cost-effective manner. Care management emphasizes prevention, continuity of care and coordination of care, which advocates for, and links enrollees to, services as necessary across providers and settings. Source: Care Management Workbook, State of New Jersey, January 2014.

- **Case Management:** A component of care management, case management is a set of activities tailored to meet a member's situational health-related needs. Situational health needs can be defined as time-limited episodes of instability. Source: Care Management Workbook, State of New Jersey, January 2014.
- **Intervention:** An Intervention is an activity or action taken towards achieving an established goal for a member (e.g., provider or program referral, mailing, patient education, medications reconciliation, etc.).
- **Workflow:** Progression of steps (tasks, events, interactions) that comprise a work process, and create or add value to the organization's activities. In a sequential workflow, each step is dependent on occurrence of the previous step.