# A PATH TO VALUE FOR POPULATION HEALTH

# ADOPTING A VALUE CHAIN MODEL

*A Focus Group Research Report from*

CHILMARK RESEARCH

*This research project was conducted by:*

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# TABLE OF CONTENTS

# TABLES AND FIGURES

# Executive Summary

Chilmark Research was commissioned by an EHR vendor to conduct research on how its clients are defining and measuring the value of their Population Health Management (PHM) programs and the technology used to support them. This research included a web survey of the EHR vendor's clients who are currently using their PHM platform. The web survey was followed by a series of in-depth focus group sessions with a self-selected group of PHM executives at customer sites.

Our hypothesis for this report is that these provider organizations were standing up PHM programs in support of their value-based care (VBC) initiatives and that there is a tight integral link between PHM and VBC. This hypothesis is correct. We found all focus group participants, who have adopted and are using a PHM platform from an EHR vendor, are involved in a wide array of VBC programs. Such VBC programs include those with commercial and government payers, direct contracting with self-insured employers, the healthcare organization's own internal population, and in rare cases those providers who also had a commercially available health plan, e.g. Geisinger and Atrium Health.

One of the culminations of this research effort was the identification of ten significant findings and recommendations These findings are reflective of where the industry is today in its migration to VBC, a journey with many challenges but also with the downstream potential for significant rewards.

*Significant Findings & Recommendations:*

- Value is defined at local level
- Definition of value remains in flux
- Few organizations are on strategic path to VBC
- Factoring for return on investment in PHM remains off-radar
- Primary care network is the fulcrum of VBC
- Begin VBC journey with Medicare Advantage
- Establish a separate Population Health Service Organization (PHSO)
- Chosen PHM platform vendor must become strategic partner
- Work from a position of strength – payers adopt your metrics
- Value is elusive but organizations continue to make significant investments

The bottom line is that while there is definite progress towards VBC and more sophisticated approaches to PHM, the industry remains at an immature stage of development, with highly variable models and few best practices.

In light of this immaturity, the report concludes with the presentation of a value chain model for adoption by organizations on the path to VBC regardless of their stage in the adoption process. The value chain for VBC encapsulates the critical core competencies and data-driven functions that an organization must develop to be successful (see Figure 1). It is our hope that such a model will assist all healthcare organizations in developing successful PHM/VBC strategies to improve care delivery for the communities they serve.

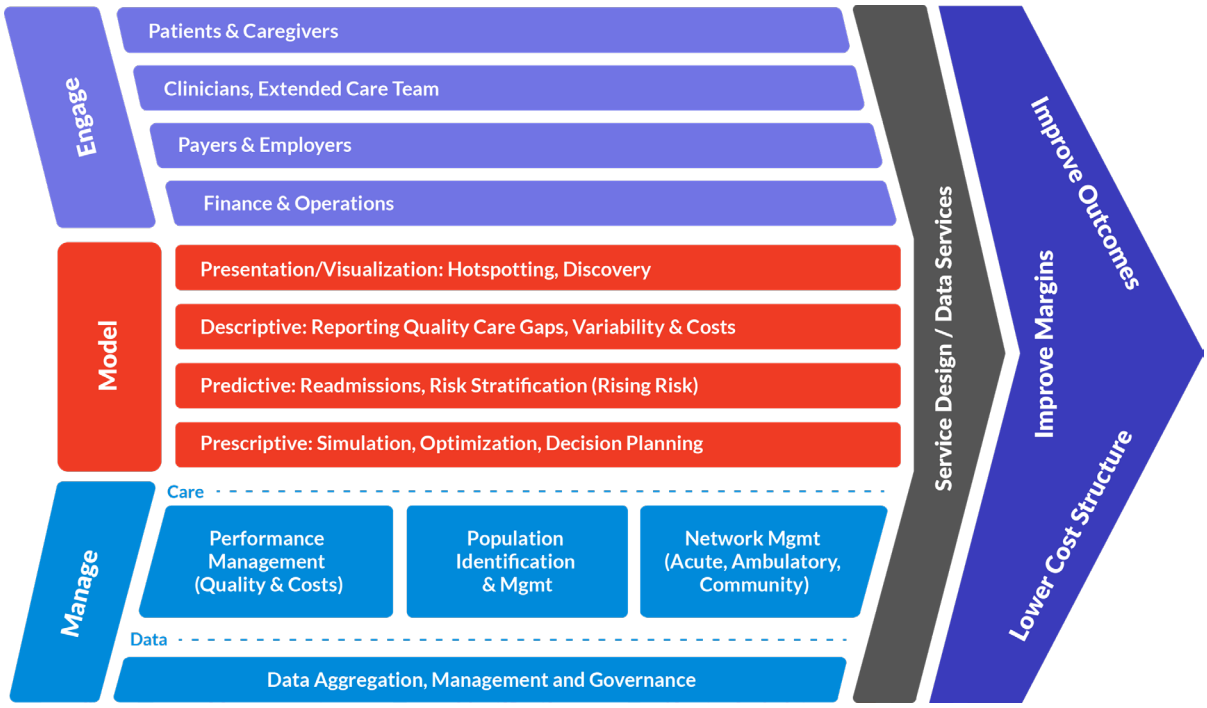


Figure 1: Value Chain for PHM in Support of VBC Programs

## SCOPE AND METHODOLOGY

This report is based on a web survey of an EHR vendor's client base and three focus group sessions with senior healthcare organization leadership of population health management (PHM) programs that use this EHR vendor's PHM suite of tools. Findings from these focus groups echo discussions our analysts have through their course of research evaluating other technologies used in the administration of PHM initiatives. The findings of this project are therefore presented in a way that are relevant to any size healthcare organization with PHM programs in place or in planning.

The participants were drawn from a list of 30 (see Appendix A) asked to respond to an online survey gauging interest and activities related to measuring value and return on investments supporting their organizations' PHM strategies for value-based contracts. Fifteen respondents volunteered to participate in the two-hour focus group sessions. Three focus group sessions were held in June 2019.

The main goal of the survey and focus group sessions was to understand how participants derived value out of their population health management and value-based contract activities. All focus groups were moderated by Chilmark Research, which initiated discussions with a deep dive into the initial web survey results. The focus groups were lively with a lot of direct discussion between participants. With participant permission, all focus groups were recorded and transcribed for further evaluation and analysis.

# Population Health Management: A Strategic Response to Value-Based Care

A number of healthcare organizations (HCOs) have been doing PHM for decades, either through a capitated model such as Kaiser-Permanente or via standing up their own health plan such as University of Pittsburgh Medical Center. But these were outliers in the market. Only with the passage of the Affordable Care Act (ACA) and the introduction by the Center for Medicare and Medicaid Services (CMS) of new, value-based care (VBC) alternative payment models (APM), including Accountable Care Organizations (ACOs), did PHM begin to become a core strategy for a number of HCOs seeking to transition and support VBC.

While the specific definition and scope of PHM means different things to different people, and continues to evolve, for the purposes of this report, we define PHM as:

> *The proactive management of the health of a given population by a defined network of financially linked providers in partnership with community stakeholders (e.g., social workers, visiting nurses, hospice, patient, caregivers/family, etc.).*

Today, the expansion of various VBC contracts all have one thing in common: shifting the financial risk of patient care from payers to providers. Increasingly, healthcare organizations are recognizing that a PHM platform is a critical tool to manage both the covered patients in VBC contracts and the contracts themselves.

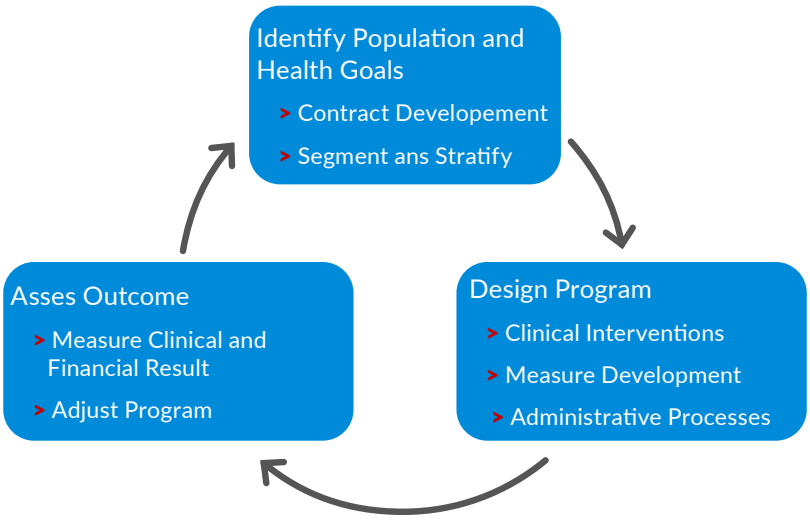


Figure 2: Program Elements for PHM

## PHM: A DATA-DRIVEN STRATEGY

Data is the *lingua franca* for any PHM strategy. Virtually any VBC contract begins with data regarding the population an organization will manage under that contract and the relative risk profile for that population. A VBC engagement typically begins with two to three years of payer claims data to assess and score risk for contract negotiations. Often, clinical data is combined with claims data for a more accurate risk profile.

Claims and clinical data are further used after contract signing to create patient registries, both by disease and utilization as well as by identified gaps in care. Deeper analysis of utilization registries will provide insight as to the highest-cost patients (cumulative claims) under contract and provide the ability to influence behavior to lower those utilization costs through enrollment in various care management programs. Registries, care gaps, and similar analytical insights are distributed to the clinical team that is participating in the VBC program/contract for subsequent follow-up to meet contract objectives.

Lastly, another fundamental element of the data-driven PHM strategy is quality and cost reporting. Combining clinical, claims, and financial data from across the VBC network, these reporting metrics are critical to measuring future success. Organizations today are using a variety of techniques (portals, dashboards, etc.) to provide in-network physicians visibility into their own metrics, often benchmarked against metrics of other, in-network physicians, to ultimately maximize performance and achieve VBC goals. These metrics will also be used for physician attribution.

One final stage in the PHM data-driven strategy that few organizations have undertaken to date is the incorporation of operational data. Operational data, especially when looking across a vast ambulatory network of providers, can be extremely difficult to obtain. But it is in the operational data that organizations will likely find some of the greatest opportunities to improve total costs of delivered care. As VBC increasingly migrates towards more capitated forms of care, incorporation of operational metrics will become standard practice.

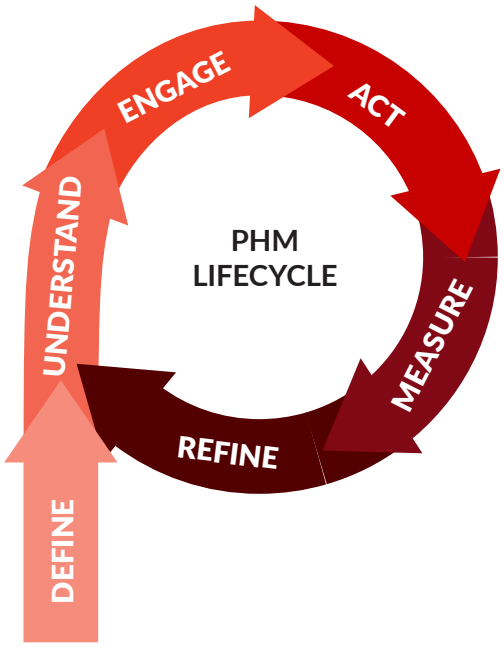


Figure 3: PHM Lifecycle Dependent on Data

## STATE OF VBC TODAY

### Slowly Coming

Fee for services (FFS) is still the dominant form of compensation from payer to provider. Even most of the VBC arrangements between payer to provider (i.e. accountable care organizations(ACOs), Medicare Advantage, etc.) contains a large element FFS. The move away from any FFS element as part of a VBC payment scheme is slow due to reluctance of providers to change current practices and ultimately take on risk. Therefore, it was not too surprising to find that focus group participants are relatively new to PHM with over nearly 75 percent of respondents having launched their PHM program in the last five years or less (Figure 2). This points to the relative immaturity of the market and the slow adoption of PHM solutions to date.

Despite uncertainty about the pace of this transformation, the range of activities that qualifies as VBC is growing. ACOs, Medicare Shared Savings Programs (MSSPs), bundled payment programs, Medicare Advantage, certain Medicaid programs, and even value-based employee benefit programs all constitute PHM/VBC to some degree. Amid this variety of models, PHM programs share many common elements.

CMS, the largest and most ubiquitous payer by far, is the primary driver of VBC across the industry. Commercial insurers are following CMS's lead by introducing a variety of value-based contracts. Large, self-insured employers are also getting in on the game, directly negotiating their own VBC contracts for their employees with local, regional, and national providers.

While the largest VBC program today (excluding pay for performance) is MSSP, Medicare Advantage is the fastest-growing program. Medicare Advantage has led to a number of partnerships between providers and payers to address this opportunity. The next significant model, in terms of lives covered, is the large payer-provider IDNs and provider self-insured.

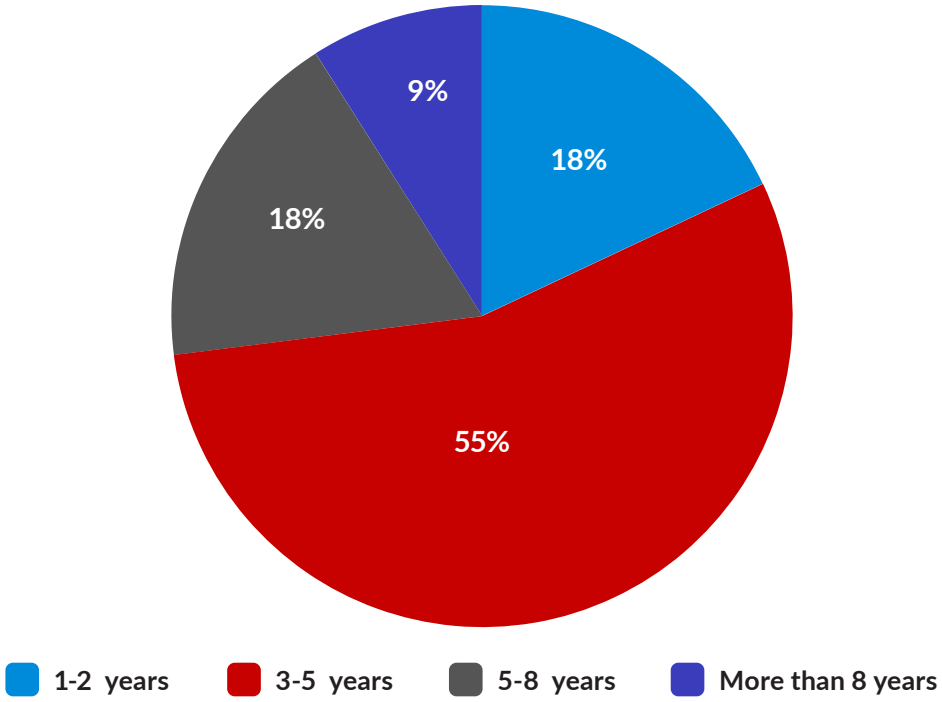


Figure 4: Years of PHM Strategy

## DOMINANT VBC MODELS

The most widely adopted VBC model among participants in this research project is the basic pay for performance contract (Figure 5), a simple quality measures contract with no downside risk. This was closely followed by ACOs; third was Medicare Advantage (MA). In subsequent focus group discussions, it became clear that MA is rapidly growing in popularity and will likely eclipse ACOs in the next year or two as risk exposure is low and reporting requirements modest.

Each of these models has commercial counterparts. Commercial ACOs, Medicare Advantage-like programs, bundled payments, and direct, employer-negotiated programs pretty much follow the CMS models and provider self-insured approaches.

However, a significant issue for all healthcare organizations is that the proliferation of government, commercial, and employer VBC programs also comes with a proliferation of quality reporting requirements that can be contradictory. This often leads to significant reporting burden among clinicians (especially affiliates) and subsequent reluctance to participate in such programs.

### Migration to Downside Risk

Many of these VBC models, ACOs in particular, are shifting from upside-only risk to those with downside risk as well. The most popular ACO model, CMS's Medicare Shared Savings Plan (MSSP), has been all upside risk but is transitioning to downside risk under its Pathways to Success model wherein healthcare organizations will take on downside risk after one year in the program.

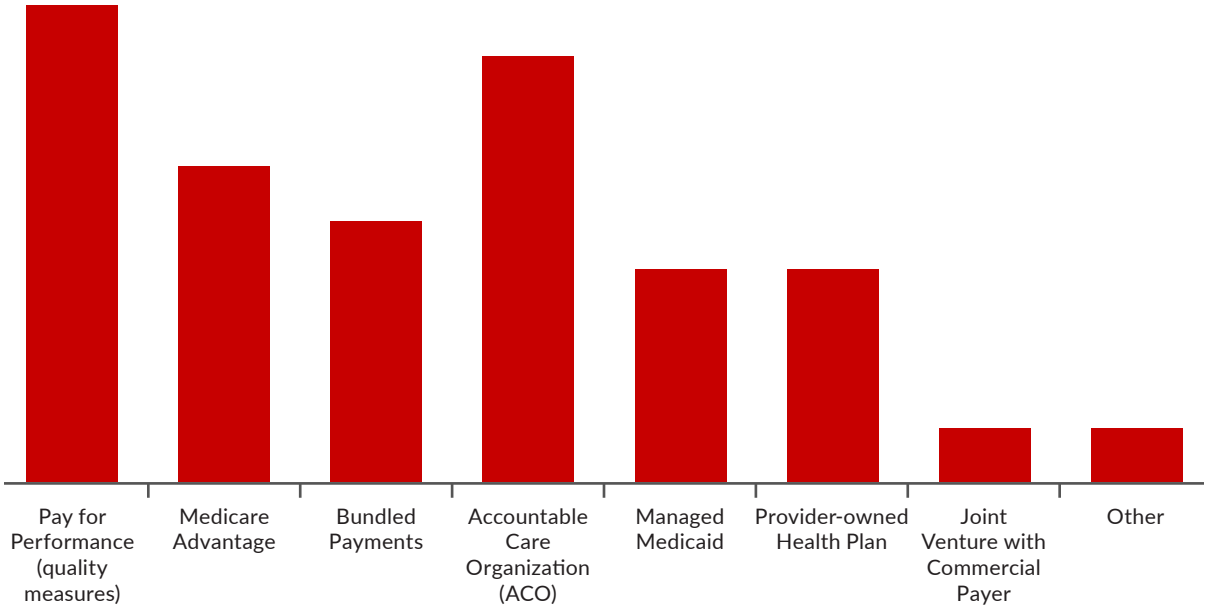


Figure 5: Multiple Types of VBC Contracts Being Adopted

## HOW IS VALUE MEASURED TODAY

This relative maturity of how providers measure value and return on investment in PHM/VBC is the subject of this report. So, how is value measured today for PHM/VBC? There are four somewhat overlapping categories: clinical, quality, process, and financial.

### Clinical and Quality Measures

Quality measures come in three flavors: clinical, typically defined internally by an organization; contractual, defined by individual VBC contracts; and regulatory. The burden today on clinicians to collect such metrics cannot be overstated and is often pointed to as a primary contributor to physician burnout. However, such metrics are critical to measuring the success of any PHM program.

One of the most intense discussions in each of the three focus groups was on how to deal with the sheer number of quality metrics, their diverse reporting requirements, and that these metrics change frequently over time. Each payer has different quality metrics, and different contracts from the same payer can have different and even conflicting quality metrics and reporting requirements. Measuring value using quality metrics is therefore challenging when the metrics are not standardized or consistent over time.

### Process Improvement Measures

Process improvement may provide the most significant value from investments in PHM/VBC programs by optimizing workflows to lower overall patient utilization costs. An effective PHM deployment, building from a robust data management and analytics layer, will facilitate workflow efficiencies. Focus group participants reported that PHM lends itself to more effective use of clinical resources such as identifying and shifting patients to lower-cost care settings.

PHM solutions can also improve communications amongst the care team and with the patient. Patients can be directed to self-management and the results captured and measured. Improving patient self-care can have a significant impact on overall utilization rates and subsequently the cost structure.

### Financial Impacts

During the focus group sessions, a comprehensive understanding of the financial impacts of PHM/VBC was mostly lacking. The primary measure mentioned was "total cost of care," in other words, the sum of reimbursements.

Among focus group participants is an appreciation of the incremental bonus payments for quality metric reporting and "claims" control. It was here that participants mentioned that they were getting value from their investments. But, upon further inquiry, we found no organization had calculated a true cost of investment and return (ROI) for their PHM/VBC initiatives. Amongst even the most progressive participants (lives covered, maturity of strategy, etc.) none could articulate a clear financial metric beyond the bonuses received from their VBC contracts.

## IMPACT ON PHM IT ADOPTION

There is no doubt that VBC is driving and will continue to drive PHM technology adoption. Recent, more aggressive actions, by CMS among others, to migrate to a value-based care model paying for outcomes, not services, is driving an uptick in PHM technology adoption. Succeeding in the world of shifting risk and metric-driven healthcare without a robust suite of PHM technology and well-honed practices will become increasingly difficult.

Those organizations participating in this research effort were asked what their PHM investment priorities were for 2020. Not surprisingly, planned investments were fairly well distributed across the four primary pillars of PHM: analytics, consumer engagement, interoperability, and care management (Figure 6).

As the proliferation of VBC grows, PHM technology and best practices will not change significantly. The two major exceptions will be how providers measure value and return on investments, as VBC involves more and more patient encounters, drives a larger percentage of revenue (and costs), and requires large amounts of human and technical capital and infrastructure.


Figure 6: Planned Top PHM Investment Priority in 2020

# Significant Findings

## VALUE DEFINED AT LOCAL LEVEL

**Description:** Not surprisingly, the focus group participants had wildly varying approaches to measuring the value coming from their PHM/VBC programs. A huge contributor to these variations were local factors, including:

- Competition in the provider's service region.
- Having one or more large employers driving highly capitated care.
- Ambulatory physician status, either independent or employed.
- The level of over or under capacity in the acute care facility.
- The relative aggressiveness of local payer organizations (e.g., state/Medicaid, local government, private, and other local healthcare insurance market participants) moving to VBC contracting.

**Implications:** The one-size-fits-all valuation approach to PHM/VBC will not work. The high variability of local circumstances dictates how each HCO approaches PHM in support of VBC within the region they serve. This factor also makes it extremely difficult to scale best practices beyond a given region or locality for many years to come and subsequently will impact effective adoption and deployment of PHM-enabling technologies, especially those with a rigid framework.

**Recommendations:** Even though each provider will need to have its own approach to achieving optimal value from PHM/VBC programs, it was clear from the cross-discussions amongst focus group participants that there is still a lot for providers to learn from each other. Everything does not have to be invented from scratch. A successful PHM/VBC initiative will incorporate ideas from many other organizations and some elements that are uniquely required to serve local conditions.

## DEFINITION OF VALUE IN FLUX

**Description:** Across all focus group participants we heard time and again that one of the greatest challenges to measuring the value of their PHM initiatives was the changing definition of what "value" meant to their contracting partners (payers, employers, CMS). Healthcare providers are given specific metrics to meet as part of their VBC contract terms; however, it is not unusual for those terms to be modified over the contract period or significantly change in next round of contract negotiations. Some participants also mentioned that the short-term nature of some VBC contracts made it challenging to effectively plan several years out. Subsequently, this lack of a long-term horizon to guide strategy hinders efforts to undergo the change management necessary to migrate to VBC models of care.

**Implications:** Without consistent, year-over-year VBC contract terms that extend beyond three to five years, it is difficult for organizations to articulate the value of their PHM investments and nearly impossible to calculate return on investments (ROI) that include both direct and indirect costs. Participants, however, were hopeful that in two to five years' time, they would be able to more accurately articulate the value of and even ROI on their significant investments in PHM.

**Recommendations:** Healthcare organizations need to better negotiate longer-term contracts with fewer opportunities for modifications over the contract period. As organizations become more skilled at VBC, we encourage them to negotiate more strategically, matching contract terms to core competencies and obviating the need for any significant future modifications. This will require an organization to move to a more strategic approach to VBC, going beyond contracts and their terms to becoming an organization where population health management is a core competency.

## FEW ON STRATEGIC PATH TO VALUE

**Description:** Attitudes and efforts to enable PHM across focus group participants to support VBCs fall into three broad categories: tactical, process, or strategic.

Several focus group participants are taking a tactical approach to VBC, responding to specific contract terms on a case-by-case basis, be they commercial or government payer contracts. In many cases this shift was driven by CMS shared savings programs. Others cited Medicare Advantage or state Medicaid HMOs. Those taking a tactical approach shared the common characteristics of only having recently (within last one to three years) developed a formal PHM program and began adopting technology to support it. Secondly, this group also shared unique regional conditions, such as a major commercial payer not transitioning to VBC thus few incentives for providers, especially network affiliates, to change the practice business model.

The second group, and the largest percentage of focus group respondents, were those taking a process-centric approach to PHM. In a process-centric model, the organization seeks to facilitate PHM by improving process flows across its network to meet specific VBC objectives of improving quality scores while keeping costs in check, if not lowering them. Oftentimes, this requires IT platform standardization across the network to facilitate data sharing and the delivery of insights at the point of care. To ease physician burden, especially across an ambulatory network, process-centric organizations strive to standardize measures across all VBC contracts.

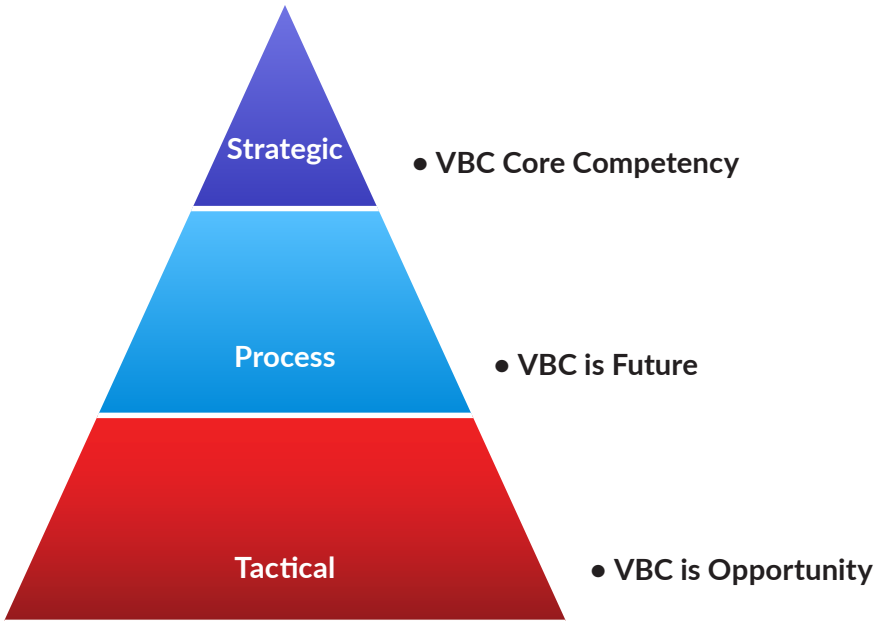


Figure 7: Levels of VBC Maturity

The third group has a strategic focus wherein PHM/VBC must become a core competency for the organization. Those on a strategic path are the trailblazers, the early innovators in the industry, and subsequently represented the smallest percentage of focus group participants. During one focus group session, one of these leaders remarked: "Stop talking contracts." This group is best characterized as seeing VBC as the one and only viable future for the healthcare sector. They also firmly believe that it is simply the right thing to do to best serve their communities.

Those with a strategic focus typically have the greatest number of years' experience in PHM and VBC and were early adopters of the technology to support their PHM vision. All of them have their employees in a self-insured

plan. Several are now offering a health plan in the communities they serve (full capitation) and have a wide range of VBC contracts across all payer types.

**Implications:** It is clear that with experience gained over many years, healthcare organizations evolve their PHM programs to become a strategic core competency. There appears to be no easy, accelerated path to this level of competency. It takes years of experience, deep investments in technology and other resources, as well as significant cultural change within the organization.

**Recommendations:** Those that are now at a strategic level clearly see VBC as a core competency in their path to remain highly competitive in the markets they serve. The changes in workflows, revenue models, and the investments required to move to true PHM and VBC will be highly disruptive to the existing way of doing business. Therefore, for those organizations that are just beginning to migrate to VBC, it is imperative that leaders of these efforts gain full executive support, including boards of directors and most importantly clinical leadership, both within the organization as well as across their affiliated network.

## FACTORING FOR ROI REMAINS OFF-RADAR

**Description:** In a preliminary survey of potential focus group participants, over 22% of respondents said they were getting positive ROI (Return on Investments) from their PHM/VBC investments today. Two-thirds said they expected positive ROI over the next one to three years. Only 11% said they had no plans to measure ROI (see Figure 8).

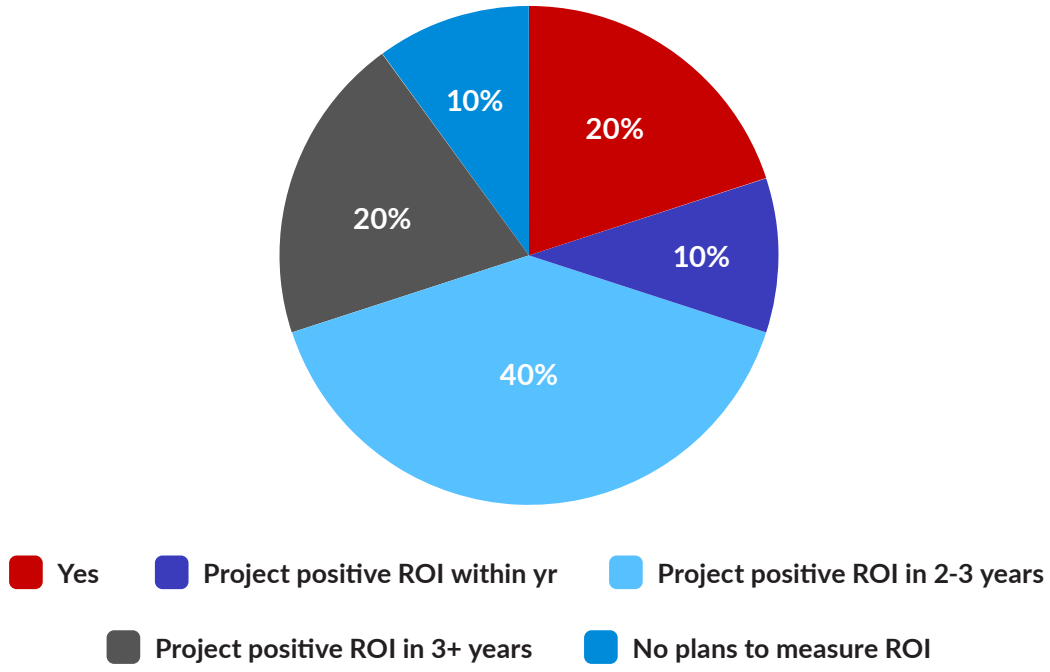


Figure 8: Focus Group Participants' ROI Projections

But in the focus group sessions it became clear that ROI for PHM/VBC programs and supporting technology is not being accounted for. Some respondents considered clinical improvements or care management productivity as positive ROI. A few were counting swings in revenue (mostly hitting payer metrics to get paid bonuses), and in one case optimizing contract terms with payers, as contributing to positive ROI.

**Implications:** We're not completely sure why ROI metrics (i.e. the relationship between expenses and revenues) are not taken more seriously. In some cases it could be the newness and volatility of the programs. In others it could be because the programs are a relatively low direct percentage of the providers' income and expenses (especially true for the large providers with extensive acute care facilities). And of course some of this is probably due to the American healthcare system's reliance on revenue growth and stability as the overwhelming financial measure, rather than a focus on margins.

Eventually, accurate ROI calculations for everything touching PHM/VBC investments will become necessary as growth in value-based contracts results in providers taking on more risk, as the internal costs of providing care increases, and as the total gross and net revenue flowing to providers is trimmed.

**Recommendations:** VBC/PHM managers and execs are going to have to explain the finances of these programs and their growing impacts on the institution as a whole. For example, if the PHM program is successful in reducing imaging and other tests, it is important to know the marginal impact on the imaging and other department financials.

Just because the whole area of VBC is in flux is no reason to not track ROI. As metrics, requirements, and payment methods change, one can see what changes are needed for these programs to become financially sustainable. Negative ROI is okay on new ventures but nevertheless should be tracked. It is not that hard to start building ROI spreadsheets and implement True Continuous Costing to calculate the bottom line impact.

## PCP NETWORK IS THE FULCRUM OF VBC

**Description:** All of the focus group participants were managers/executives from provider organizations with significant, and in some cases huge, acute care and research medical centers. The group was clear that driving value from PHM/VBC requires focusing on ambulatory care.

We heard from several participants that their initial focus on acute care yielded little from a value-add perspective. Once they turned their sights on their ambulatory network, they were able to derive significant value across the organization. Value from their ambulatory care efforts was a result of better alignment across their network leading to improved quality measures and reducing unwarranted variability (lowering costs).

**Implications:** There are two major implications from this finding. First, primary care is the quarterback driving much of the care/value model, but specialists can be an expensive resource that needs to be carefully managed. Also, several participants mentioned the need to supplement doctors with physician extenders and clinical support personnel such as clinical pharmacists.

Second, since PHM/VBC has downstream impacts on the utilization and financials of acute care services, such as reduction in Emergency Room visits, activities that drive value on the ambulatory side will come under scrutiny from the managers of acute clinical departments. As mentioned above, local conditions regarding employed or independent physicians will have significant impacts on how value models are constructed.

**Recommendations:** While PHM/VBC managers and executives need to work closely with acute clinical service line managers and executives, it should not be their primary area of focus. Getting the ambulatory services right by defining and enabling a high performance ambulatory network of providers is the most important step in driving value from PHM/VBC initiatives.

## BEGIN WITH MEDICARE ADVANTAGE

**Description:** During the group sessions there was a lot of discussion of Medicare. One of the most profound recommendations from the panels was for new and even experienced PHM/VBC managers to focus on Medicare Advantage (MA).

**Implications:** Medicare Advantage is the largest and fastest-growing VBC program. It pays well and has relatively small downside risk. Commercial payers are aggressively marketing their MA programs to seniors and seeking provider partners. In most cases the competition amongst payers to sign seniors to these programs is intense. And the payers are willing, in some cases, to assist providers with the administrative burdens they face when beginning or growing their VBC payer mix.

**Recommendations:** Providers, even those who have been at PHM for a long time, will do well to actively pursue commercial payers with MA programs. Engagement with payers must be a partnership wherein each organization strives for transparency (especially data) to meet goals and maximize bonus payments. Many of the skills developed and technology deployed to support MA will create the "muscle memory" that can be transferred to other VBC programs.

## CHOSEN VENDOR MUST BECOME STRATEGIC PARTNER

**Description:** Not surprisingly, participants in the focus group sessions remarked that it is critical to view one's PHM technology vendor as a partner in the journey to VBC. The migration to this new model of care delivery is not accomplished quickly, and success requires a long-term commitment from both parties. Healthcare organizations want their vendor to have a first-hand knowledge of what they are trying to accomplish for the region they serve. They also look to their vendor partner to provide insights on how to overcome some of the challenges they may face based on the vendor's work with other likeminded clients.

All participants mentioned the importance of information technology in their PHM/VBC efforts. Most said their IT departments were helpful, but not all, primarily due to resource constraints. This led to 90% of participants stating that the relationship with their PHM vendor, for both technology and services, is critical to the success of their program (see Figure 9).

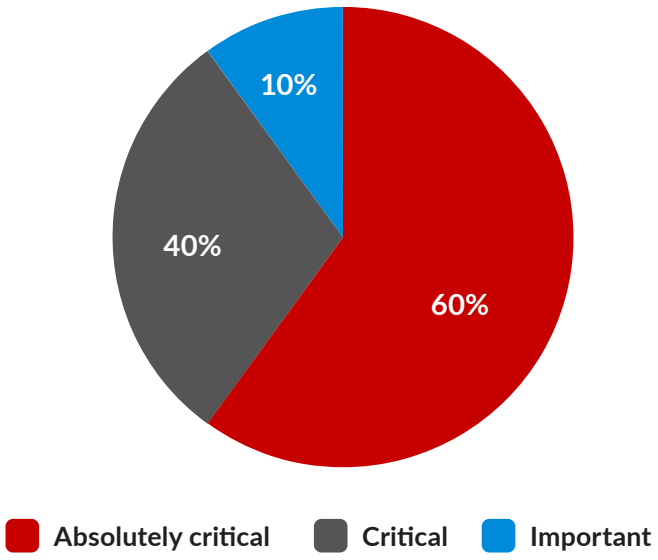


Figure 9: Criticality of Strategic Relationship with IT Vendor

**Implications:** A primary challenge for vendors in forming a strong partnership with a provider organization is that few vendors today have all the PHM tools required to fully support the transition to VBC.

Secondly, many vendors' sales forces still operate under a quick-sell model rather than seeking to form a long-term, strategic client relationship. This quick-sell approach will increasingly fall out of favor, especially for the more mature organizations that are taking a strategic approach to the VBC initiatives.

Lastly, moving to a strategic partnership requires a higher degree of trust and willingness to share both the risk and potential rewards of VBC. Few organizations today, either vendor or provider, have adopted such a risk sharing model.

**Recommendations:** In other technology adoption efforts outside of healthcare, vendors have been known to set up Centers of Excellence where there is ongoing collection and sharing of "what works" for all interested customers. Something similar is worth pursuing by leading PHM vendors for addressing the challenges (technical, operational, and cultural) that are required to move to VBC.

To better assist their strategic healthcare partners, lead PHM vendors will need to accept that they may not be able to meet all the technology needs of their client. Therefore, the lead vendor should seek strategic partnerships with other vendors to provide a full, comprehensive PHM suite to meet client requirements. The lead vendor should also be open to working with other vendors a client may choose to meet their PHM needs without any biases.

Healthcare organizations should seek a strategic partnership in earlier stages of their PHM journey, ideally when transitioning from a tactical focus to a process focus for VBC. This will provide sufficient time for a deep, strategic relationship to develop and, just as important, define how each organization will share in the risks and rewards of migrating to a VBC model for the region served.

## ESTABLISH A POPULATION HEALTH SERVICE ORGANIZATION (PHSO)

**Description:** Among those organizations with several or more years of experience in VBC and contracting, each had established a separate Population Health Service Organization (PHSO). The PHSO operates independently, typically with its own profit and loss accounting, and is responsible for the organization's success in VBC contracts. The PHSO business leader reports to the highest level of the broader organization, typically the CFO and/or CEO. The rate of establishment of PHSOs within healthcare organizations is rapidly accelerating and will likely become the norm within two to three years' time.

**Implications:** This separate PHSO entity is responsible for supporting (IT infrastructure, analytics, care management, etc.) the broader organization's ability to capitalize upon VBC. Having a separate organizational structure with its own goals for success allows the PHSO to pursue the optimal strategy for VBC that, at times, may conflict with the business objectives of the traditional HCO business model, e.g., minimizing length of stay, reducing ED visits, etc.

**Recommendations:** It may not be financially justifiable to establish a separate PHSO for an organization that has a limited number of lives in VBC contracts (less than 60,000). However, those organizations that are aggressively on the path to expand their VBC program to 100,000 lives or more should begin in earnest to establish the organizational structure for the PHSO, including recruiting leadership, establishing objectives, and determining an operating budget.

Strong leadership and support are prerequisites for establishing the PHSO, as core objectives of the PHSO will, at times, run counter to traditional operating models, thereby disrupting revenue streams. For example, the primary objective of the PHSO is to steer patients towards lower-cost venues of care (e.g. not ED or acute facility).

Such steerage can impact a given hospital's revenue. Strong leadership will provide a vision for the organization that extends beyond these short-term losses, if any, to the long-term gains for the entire organization in its migration to VBC.

## WORK FROM POSITION OF STRENGTH (PAYERS ADOPT YOUR METRICS)

**Description:** Focus group participants with more mature PHM initiatives and several years' experience with VBC contracting all had one thing in common: they had developed a common set of quality metrics for all VBC contracts including commercial, government, and employer. These metrics are characterized as "the most stringent, but reasonable quality metrics" for meeting objectives of VBC. If payers come to the table with contract terms and measures that go well beyond these quality measures, the provider organizations may reject those terms, arguing that what they are using today will meet a payer's stated objectives.

A provider organization that has built a high-performing, clinically integrated network for the region they serve is something all payers increasingly seek out, making it far easier to convince payers to go along with the measures that provider is using.

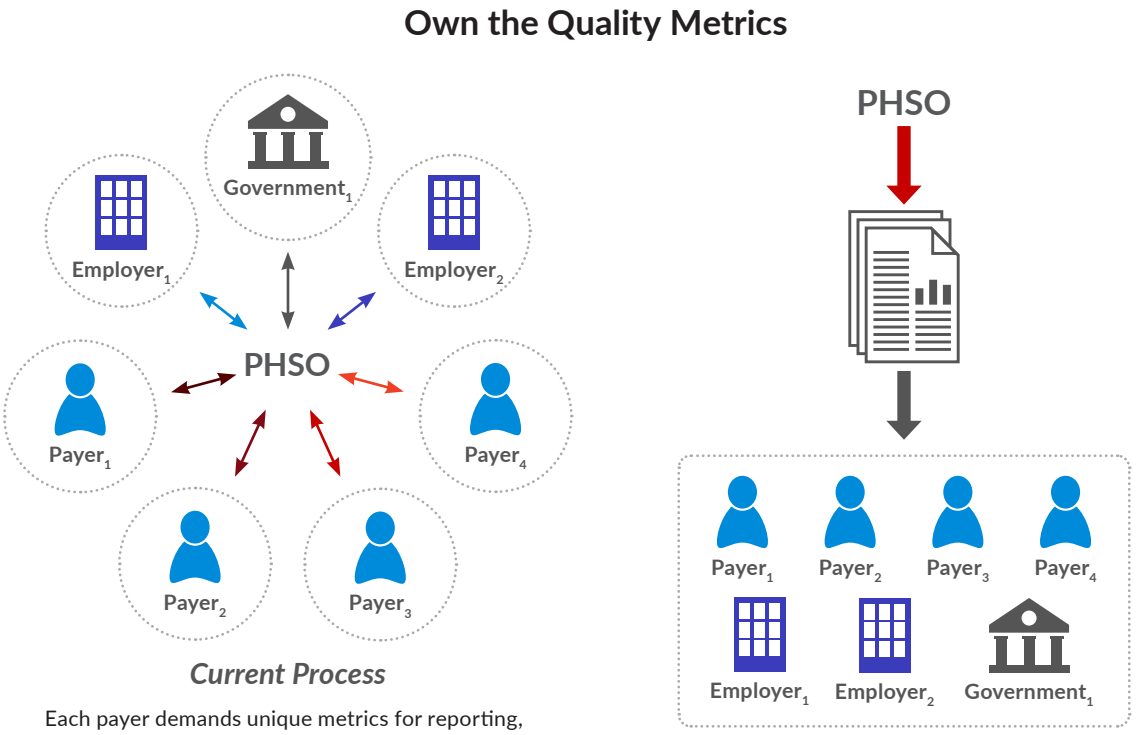


Figure 10: One Set of Quality Metrics for All VBC Contracts

**Implications:** In developing one single set of quality measures for their organization and its affiliates, the provider organization can greatly simplify the workload for its front-line clinicians. No longer does a physician need to worry about which patient is under which contract and what measures must be collected for each patient seen in a given day.

**Recommendations:** Put together a quality measures team for your organization including representation not only of employed clinical staff but affiliate providers as well, from both acute and ambulatory settings. This team will be responsible for creating consensus and buy-in for a common set of quality measures for the entire organization that will contribute to higher-quality care for the communities served. Provide clinicians with full transparency into their quality scores and the measures they can take to improve them. Demonstrate to payers that the quality scores chosen, while payer agnostic, will meet their objectives.

## INVESTMENTS CONTINUE

**Description:** It became readily apparent that, among those participants who had been working towards VBC for a number of years, there was a strong belief that they were on the right path and that investment must continue in their PHM technology infrastructure, despite no demonstrable ROI to date. One large health system saw itself at the mid-point of a 12-year strategic plan. Clearly, they are investing for the long-term.

Among these focus group participants, there are two driving forces. First, virtually all of them have taken an early lead against competing health systems in moving to VBC in their service areas. They firmly believe that VBC is how healthcare will be paid for in the future and see themselves as having a distinct competitive advantage by making these early investments. Secondly, several participants stated that they are on this path because it is simply the right thing to do to better serve their community. This sentiment was particularly strong among faith-based providers.

**Implications:** Over the last several years there has been hesitation among most provider organizations on committing to a PHM/VBC strategy and making the investments necessary to ensure success. This is not surprising considering the turmoil at the Federal level about the fate of the ACA. However, a number of provider organizations have taken the lead, seeing an opportunity to leverage their PHM investments to become more competitive in direct contracting with employers, standing up their own health plan, as well as participating in state Medicaid and especially Medicare Advantage. One provider organization also remarked that across their system, they provide $1.2 billion per year in uncompensated care. Being able to trim that by even 10% would represent a huge opportunity.

**Recommendations:** Investing the resources to enable PHM in support of VBC is not something that can easily be equated to an ROI within a given timeframe. Rather, an organization must make a conscious decision to become a provider of VBC for their community. Therefore, the leadership team for an HCO's VBC/PHM program must gain the support of not only the most senior administrative staff, but also clinical leadership and the Board of Directors. An organization must also go in with eyes wide open, realizing that this is not a task that will be accomplished quickly but one that will take years of hard work to ensure sustainable and lasting cultural change within the organization.

# Path to Value

As our research and focus group findings show, the path to value for PHM infrastructure investments to support new VBC models of care and reimbursement is still very much in its infancy. Organizations that we found to be at the pinnacle of strategic intent and maturity have yet to define a clear ROI for their PHM investments to date. However, these same organizations have seen value creation from their investments and believe that a demonstrable ROI is within their grasp within the next several years.

## PHM VALUE MODEL

The value chain concept was first described by Michael Porter in his 1985 book, *Competitive Advantage: Creating and Sustaining Superior Performance*. Since that publication, numerous others have sought to define what the value chain means for different industry sectors, including the services industry. An attempt was made to apply the value chain concept by researchers at the University of Pennsylvania's Wharton School (Burns et. al. 2002). These researchers found that applying traditional value chain models to healthcare is extremely difficult due to lack of true strategic partnerships across an extended value chain.

However, much has changed since 2002. The introduction of VBC reimbursement models is forcing healthcare organizations to more closely evaluate how they create value across multiple entities. This has led to a number of partnerships, mergers, acquisitions, and other activities, all in the hopes of creating a robust value chain. Figure 11 shows the typical value chain of a PHSO.

**Supplier:** Payers, government, pharmaceutical, medical devices and supplies, etc.
**Channel:** Salaried and affiliated providers, care managers, skilled nursing facilities, hospice, social services, etc.
**End-User:** Patient/consumer, caregiver

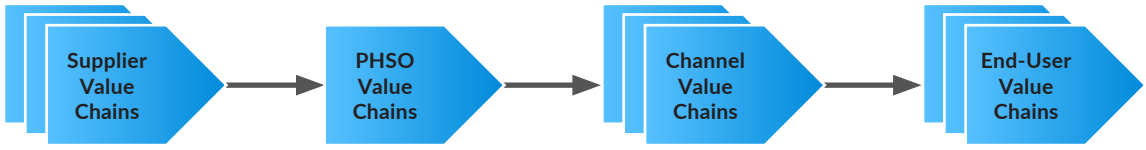


Figure 11: Extended PHM/VBC Value Chain

Within the value chain is the PHSO. Unlike most value chain models better aligned to manufacturing, we propose a completely new, data-driven model outlined in Figure 12. The foundational layer for the PHSO is the ability to aggregate data from multiple sources to drive decision support functions across all PHM/VBC aspects that the PHSO has responsibility for. Adopting the value chain model for PHM will provide a framework to help guide organizations forward, regardless of locality, payer mix, system size, or upstream and downstream value chains that the PHSO will partner with.

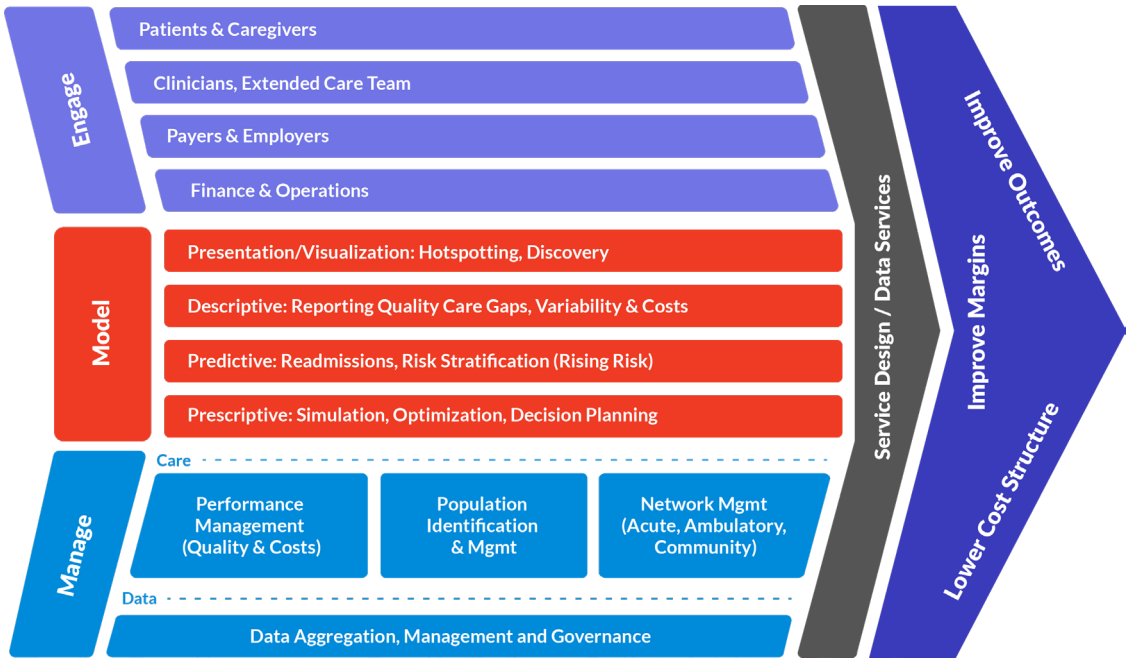


Figure 12: Value Chain for PHSO in Support of VBC Programs

## Data Driven

While many factors come into play in the relative success of any VBC program, access to timely, accurate, relevant data to drive decisions is arguably the most fundamental. Any successful PHM strategy begins with asking the simple questions of:

- What and who is the population we will serve in a VBC contract?
- Who are the high utilizers of care?
- Who has more than one chronic condition and, among those, who is not self-managing their condition effectively?
- How does this population compare to others currently under management? Will additional and/or different resources be needed?
- Does our clinically integrated network have the demonstrated performance metrics to be successful?

None of these questions can be answered without sufficient data and the analytics to derive insights. Therefore, within the value chain model, data—in aggregation, management, and governance—is the fundamental building block for the entire model. It also bears noting that this layer is not just internally facing, but externally facing as well.

Time and again throughout our discussions, however, literally every focus group participant raised the subject of timely access to accurate, relevant data. All organizations interviewed struggle with this issue to varying degrees due to two primary factors. Clinical and claims data from partners is often inconsistent and error-prone and, especially with claims data, contains high latency. Second, technology to access, aggregate, normalize, and map terminology of data remains immature.

These shortcomings place a significant burden on any organization's PHM/VBC efforts and should be planned for in advance. In VBC contract negotiations with payers, providers should clearly state in these contracts what data is to be shared and at what frequency (e.g., weekly, monthly, quarterly, etc.).

## Managed Care Continuum

The value chain model breaks down the care continuum for VBC into three dominant categories that must be managed:

**Performance management** sets the VBC parameters (quality, costs, outcomes) by which the PHM strategy will be measured. These metrics extend beyond the enterprise and payer-provider contract negotiations to define metrics by which all providers in-network, both salaried and affiliated, will be assessed.

**Population identification and management** defines the patient/community population in a given VBC contract. It is here that an organization will also set measures for assessing patient risk (social determinants, behavioral health) that may lead to higher utilization of services. Care gaps and other measures pertinent to VBC are also identified here at population and patient levels.

**Network management** is in large part the active management of the clinically integrated network (CIN) that the organization has established for a given VBC contract(s). Active management includes providing in-network providers with the VBC performance measures by which they will be measured and the population/patient panel they will be responsible for. In addition to the CIN, it is within this arena that the organization will manage relationships with community services organizations to extend care and address social needs.

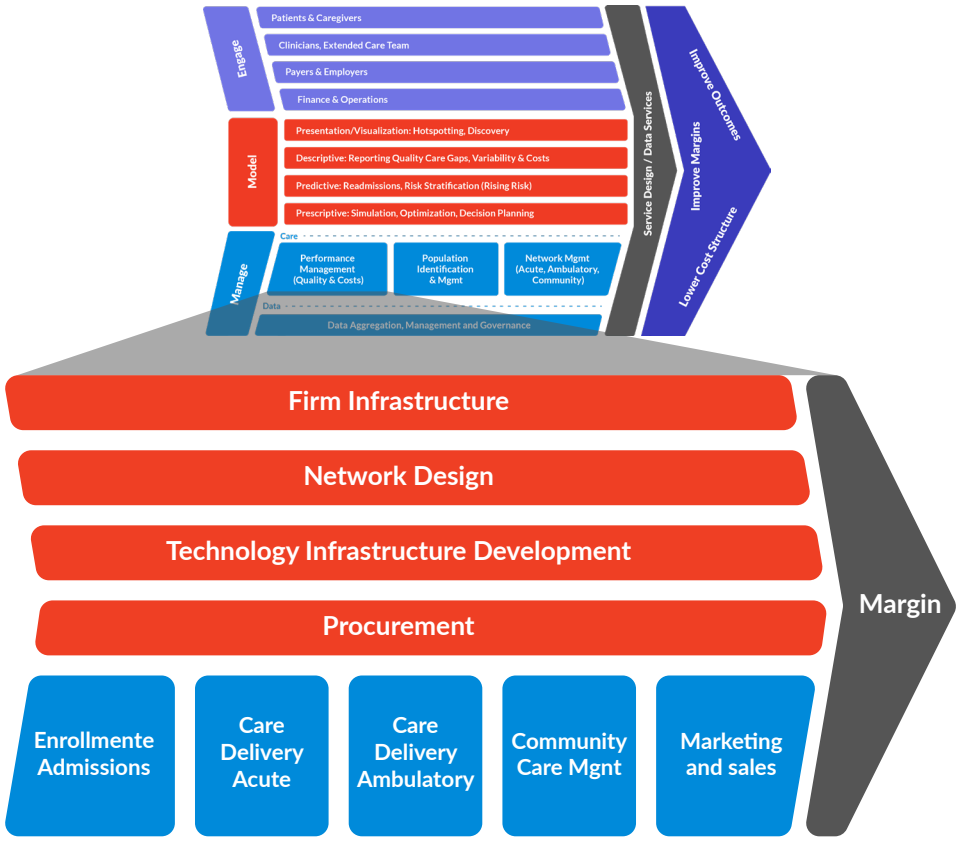


Figure 13: Performance Management Embedded Value Chain

It is critical to note that each of these three managed activities in the PHM value chain have an embedded value chain of their own. In Figure 13, an example of a value chain for Performance Management is provided. Based on VBC contract design and the population included therein, Performance Management will define critical metrics across the care delivery chain, from acute, to community, to home. It is important to remember that such embedded value chains will directly impact the value chains of other entities both upstream and downstream. Accounting for these upstream and downstream participants is necessary to ensure success of one's own value chain.

## Model for Optimization

Overlaying the three dominant management activities outlined above are the various analytical models that will be used. Analytical models are commonly divided into three main groupings:

**Descriptive:** Highly structured, simplistic models most often used to produce reports on key VBC contract metrics (quality, cost, performance, attribution, etc.).

**Predictive:** Advanced models (algorithms) used to predict future scenarios. Today, predictive models are commonly used to assess and predict the relative utilization risk of a population that is or may come under contract for VBC.

**Prescriptive:** Goes a step beyond predictive to providing prescriptive insights – often based on AI/ML algorithms – as to what specific steps should be taken to avoid an undesired outcome. Prescriptive algorithms may serve a wide range of needs from cost avoidance to proactively managing patients. However, such prescriptive algorithms today remain immature and not widely used.

These models leverage available data, both latent and real-time, along with requirements defined in the "Manage" layer to create the reports and point of care insights required to assist organizations in meeting VBC objectives.

## Engage with Actionable Insights

The final layer of the value chain model for PHM is Engage. At this level, the aforementioned Manage and Model layers come together, providing the VBC requirements for success with the data to deliver the insights to engage all stakeholders, from patient, to care team, to administrative staff.

While all layers of the PHM value chain model are critical to success, the level of coordinated engagement that an organization is able to activate will ultimately define the success or failure of their VBC initiatives. Tailoring the insights and their delivery to the end user for activation will require organizations to pay special attention to user interface (UI) design as well as data governance to maintain privacy and security of patient health information.

# Call to Action

Deploying a PHM strategy, and the technology to support it, to be successful at VBC is an endeavor that is measured in years. Even the most experienced organizations that participated in this research still struggle with balancing resources, applying analytic insights at point of care, and delivering long-term value to the organization. Despite such struggles, these organizations foresee the industry's inexorable migration to VBC over time and want to be leaders in the regions they serve. Therefore, it is not surprising that not one organization that participated in this research has any intention of reducing their investments in PHM technology and services.

For those organizations considering how to begin their journey to VBC, or those just starting, it is not too late, but a sense of urgency is warranted. Technology deployment, network design, clinical alignment (communication and change management) and other critical factors that are required for VBC excellence can take several years to develop core competencies in.

Regardless of where your organization is on the adoption and maturity curve for PHM/VBC, there are five critical components, below, that require close and continuous attention to ensure long-term success. Bear these in mind as you pursue your own strategy to effectively serve your community or region.

## LEAD

Payments based on VBC models will create disruption throughout the organization. Leaders today must justify the strategic need to move to VBC, though today VBC revenue remains significantly lower than that for traditional FFS. There is also the very real issue that for many organizations, VBC could significantly impact hospital revenue (lower ED utilization, lower length of stay, etc.) as care is pushed to lower-cost venues. Overcoming such disruption and pushback requires strong, visionary leadership from the entire C-suite.

## ORGANIZE

Organize PHM/VBC stakeholders including the clinical team (i.e. doctors, nurses, physician extenders), care management, PHM specific IT support, clinical network managers and liaisons, contract negotiators, etc. Assign members from each of these stakeholder groups as leaders. Set goals and outline specific tasks for each group. Meet regularly.

## ENGAGE

The PHC/VBC team is the sharp end of the spear in leading the organization to a new model of care, which will be highly disruptive to any organization. Formalize a plan to engage with other constituencies within the provider organization that are impacted by PHM/VBC (e.g., specific service lines, imaging, pharmacy, lab, finance, IT, RCM, etc.). Beyond the organization itself, gain support for your PHM strategy by engaging other organizations, such as community services, urgent care centers, or long term and post-acute care (LTPAC), within your region of service.

## COMMUNICATE

Establish procedures for, and channels of, communication with PHM/VBC stakeholders and other departments impacted by PHM/VBC activities. This communication needs to be regular and bi-directional in nature. Today, this important step is often overlooked, which leads to one of the primary hurdles to PHM/VBC adoption – lack of knowledge by frontline clinical and administrative staff of what VBC is and what its objectives are.

## MONITOR AND OPTIMIZE

Clinical and financial performance needs to be continuously monitored and optimized. Clinical and claims-based VBC metrics are often defined by the payer but are typically inadequate for internal success. Identify your critical success metrics, clinical and financial, and establish processes to capture these. But do not just capture these metrics; use this information to optimize processes to fully capitalize on your VBC contracts.

# Appendix A: Focus Group Invited Participants

| Organization | Title |
|---|---|
| Nationwide Healthcare System | Senior Vice President/President |
| Nationwide Healthcare System | Chief Medical Officer |
| Large, Urban Healthcare System | Senior Vice President, Enterprise Population Health |
| Large, Regional Healthcare System | Senior Vice President, Population Health |
| Academic Medical Center | Director of Population Health |
| Large, Regional Healthcare System | Chief Medical Officer, Insurance Division |
| Mid-size, Regional Health System | President |
| Mid-size, Regional Health System | Director Population Health |
| Small, Local Health System | Executive Director of Population Health |
| Independent Physicians Assoc. | Executive Director of Population Health |
| Children's Hospital | Chief Health Information Officer (CHIO) |
| Children's Hospital | Vice President, Population Health |
| Nationwide Children's Health System | Vice President, Chief Medical Informatics Officer, and Chief Information Officer |
| Large, Regional Healthcare System | Senior Vice President, Quality and Patient Safety; Chief Population Health Officer |
| Mid-size, Regional Health System | Vice President, Network and Business Development |
| Mid-size, Regional Health System | Executive Director of Population Health |
| Large, Regional Healthcare System | Chief Administrative Officer, ACO |
| Large, Regional Healthcare System | Vice President of Enterprise Analytics |
| Mid-size, Regional Health System | Executive Director, Population Health |
| Large, Regional Healthcare System | President, Population Health |
| Independent Physicians Assoc. | Assistant Vice President, Population Health |
| Academic Medical Center | Senior Vice President, Population Health |
| Mid-size, Regional Health System | Senior Vice President, Chief Medical Information Officer |
| Mid-size, Regional Health System | Senior Vice President and Chief Information Officer |
| Large, Regional Healthcare System | Chief Information Officer |
| Independent Physicians Assoc. | Director, Business Intelligence |
| Mid-size, Regional Health System | Vice President and Chief Information Officer |
| Mid-size, Regional Health System | Vice President of Clinical Operations and Health Services |
| Mid-size, Regional Health System | Vice President and Chief Information Officer |
| Mid-size, Regional Health System | Interim Chief Information Officer |
| Mid-size, Regional Health System | Population Health Manager |
| Academic Medical Center | Chief Medical Informatics Officer |
| Nationwide Healthcare System | Chief Consultant, Public Health |
| Independent Physicians Assoc. | Vice President, Population Health |

# Appendix B: Acronyms Used

| Term | Definition |
|---|---|
| ACO | Accountable Care Organization |
| ACA | Affordable Care Act |
| AI/ML | Artificial intelligence/machine learning |
| APM | Alternative payment models |
| CIN | Clinically integrated network |
| CMS | Centers for Medicare and Medicaid Services |
| ED | Emergency department |
| FFS | Fee-for-service |
| HCO | Healthcare organization |
| HMO | Healthcare management organization |
| HIE | Health information exchange |
| IDN | Integrated delivery network |
| IT | Information technology |
| LTPAC | Long term and post-acute care |
| MA | Medicare Advantage |
| MSSP | Medicare Shared Savings Program |
| PHM | Population health management |
| PHSO | Population health service organization |
| RCM | Revenue cycle management |
| ROI | Return on investment |
| VBC | Value-based care |

# Appendix C: About Chilmark Research

**Our mission:**

*Improve the delivery of care and the patient experience through the effective adoption and use of IT.*

Chilmark Research is a global research and advisory firm whose sole focu s is the market for healthcare IT solutions. This focus allows us to provide our clients with the most in-depth, objective research on the critical technology and adoption trends occurring throughout the healthcare sector. Areas of current research focus include among others: Analytics (including AI/ML), Clinician Network Management, Cloud-computing Models for Healthcare, Care Management & Coordination, Community Engagement, Consumerism/Engagement, Payer-Provider Convergence, Population Health Management, and Value-based Care.

Using a pragmatic, evidence-based research methodology with a strong emphasis on primary research, Chilmark Research structures its research reports to serve the needs of technology adopters, consultants, investors and technology vendors. In addition to reports for the general market, Chilmark Research performs research for clients based on their specific needs. Such research has included competitive analyses, market opportunity assessments, strategic assessment of market and vendors for partnership and/or acquisition.

In 2012, Chilmark Research launched the Chilmark Advisory Service (CAS) in direct response to clients' request for a continuous feed of research on the most pertinent trends in the adoption and use of healthcare IT. This annual subscription service provides not only access to our research reports throughout the year, but also direct access to Chilmark Research analysts to answer specific client needs. Please contact us directly for further information about CAS.

Chilmark Research is proud of the clients it has had the pleasure to serve including Abbott Labs, Allscripts, Anthem, athenahealth, Bain, Cerner, Cleveland Clinic, Epic, HCA, Highmark, IBM, Watson Health, Kaiser-Permanente, Mayo Clinic, McKinsey, Medtronic, Merck, Microsoft, and Verizon to name a few. It is our hope that at some future date we will have the pleasure to serve you as well.

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