A Step-by-Step Guide to Population Health Management

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Introduction to Population Health Management

Healthcare organizations across the nation are in the midst of a transition. For decades, physicians, hospitals, and health systems have sustained and grown their operations through fee-for-service (FFS) reimbursement. Now in the era of value-based care (VBC), FFS is slowly being replaced by reimbursement based on patient outcomes and cost control, among other factors.

This paradigm shift alone is challenging for healthcare organizations. However, these organizations also face continually changing regulations, electronic health record (EHR) optimization, increasing demands from modern healthcare consumers, and a growing number of complex patients with multiple chronic conditions. In this environment, healthcare organizations must operate more efficiently while continuing to deliver optimal care.

Here's where population health management (PHM) comes in.

Population health management, supported by sophisticated, integrated, and automated data analytics technology, helps organizations track and intervene with high-risk and potentially high-cost patients more effectively and efficiently. Proactive, preventive intervention can keep patients out of the emergency department (ED) and the hospital, which further controls healthcare costs. Modern PHM strategies also help increase engagement, supporting patients in managing chronic conditions to drive better outcomes.

This step-by-step guide, designed for organizations looking to deploy their own technology-enabled PHM strategy, provides a detailed overview on the following topics:

- What population health management is
- Its impact on clinical and financial performance
- The role data plays in successful initiatives
- Key steps to launching a successful campaign
- What it all means amid the COVID-19 pandemic

How Population Health Increases Financial Performance

Before we dive into the specifics, we need to understand how we arrived at this paradigm shift. The U.S. spends $11,582 per person per year on healthcare. This is the highest in the world, and nearly twice as much as the average Organisation for Economic Co-operation and Development (OECD) country.

Chronic illness is driving many of these costs, and not surprisingly, the U.S. has the highest chronic disease burden in the world. The medical treatment spending and lost productivity attributed to chronic conditions is expected to cost more than $2.5 trillion annually. Reducing these costs is the heart of value-based care payment models that have been established by government and commercial healthcare payers.

High-quality care inside the four walls of a healthcare organization is only a portion of what delivers better patient outcomes. Improving the health of populations and helping patients stay adherent to their personalized care plans outside their medical visits is the essence of effective PHM.

In many cases, improving engagement and adherence involves overcoming patients' behavioral, economic, and physical environment, in addition to other social obstacles. In fact, one study estimates more than 80 percent of outcomes are influenced by these social determinants of health.

> "Population health management ... helps organizations more efficiently track and intervene with high-risk and potentially high-cost patients."

Why Population Health Management Is Changing Clinical Roles

Population health management is not only impacting financial performance, but it's also helping healthcare organizations deliver optimal care. As such, job roles have changed within healthcare organizations as the demand for technologically skilled nurses and other clinicians have increased.

When PHM started to emerge, the care manager, often a nurse by training, was primarily responsible for forming and executing strategies, in addition to day-to-day operations. Care managers have maintained data analysis and patient outreach responsibilities, but may now have new titles, such as Population Health Coordinator, Population Health Analyst, or Population Health Specialist.

As PHM demands have increased and technology has improved, new executive leadership positions have also been developed to lead strategic direction and guide operations.

Chief Transformation Officer (CTO)

A senior executive position with many other duties besides PHM, the chief transformation officer is charged with transitioning the organization from fee-for-service, acute, episodic-focused care to holistic, preventive, and value-based care. With a background as a physician or advanced-training nurse, the CTO would likely have a long track record of driving change among colleagues at large, integrated healthcare organizations, as well as extensive experience with risk stratification methods and advanced information technology (IT) platforms.

Chief Population Health Officer

Leading population health management strategy, implementation, and oversight at the organization, this senior executive position needs to stay ahead of PHM trends and collaborate with payers, physicians, other clinicians and IT staff to establish best practices. This leader would most likely be a physician who has public health or administration training, with deep knowledge of how advanced data analytics platforms can optimize PHM and outcomes.

Director of Population Health

With a role similar to the Chief Population Health Officer, the Director of Population Health may also be more tightly focused on PHM operations in their job duties. They are charged with developing, overseeing, and improving PHM programs at the organization. As with the other senior executive positions, this role is highly collaborative, working with physicians, care managers, IT staff, finance, and payers to ensure PHM receives the resources it needs to improve outcomes.

Population Health Manager

This position offers day-to-day support for primary care and other outpatient facilities, to ensure optimal continuity of care for chronic condition management among high-risk patients. Likely a registered nurse by training, the population health manager would offer reports and other insight from the healthcare organization's PHM platform to help the care manager or practice improve quality and cost performance. This role would also conduct direct outreach to patients to help them adhere to care plans and overcome obstacles.

Accounting for the Size Factor

Adding these positions to an organization will greatly depend on its size, care quality, patient satisfaction, and cost goals. A smaller organization, for example, may only require a population health manager to support daily operations of its outpatient facilities and would devote less time to strategy and payer relations. Larger organizations will likely require a senior executive focused solely on PHM to educate and tightly integrate clinicians, administrators, and staff across the enterprise around those goals.

Whether the organization is large or small, PHM platform selection is crucial. The solution must improve the efficiency of data capture and analysis, but it should also automate interventions to further save time for care managers and other clinicians contacting patients.

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How Population Health Roles Change by Practice Type

Although PHM roles are universally expanding, daily tasks and objectives often differ between larger, integrated health systems and smaller group or individual practices.

Larger Enterprises Focus on Readmissions and Outpatient Support

Often, broader organizations have a staff of PHM care or case managers who have three primary daily objectives to support larger care-quality goals:

Prevent readmissions:
Prevent hospital readmissions of recently discharged patients

Avoid ED visits:
Help patients avoid an unnecessary emergency department visit

Manage high-risk patients:
Support integrated primary care and specialty outpatient clinics in managing high-risk patients

Compared to smaller organizations, these PHM professionals frequently have greater care access flexibility for high-risk patients, such as finding available appointments with providers within their network. However, to provide relevant and accurate guidance to patients and community physicians, these care managers require access to real-time data and insight through the PHM platform. This means databases need to be continually updated and integrated throughout the enterprise, across numerous EHRs and other information systems.

Ambulatory Organizations Require Greater Automation

Within independent practices, the care manager charged with PHM may work alone or have limited staff. Practices need their technology to reduce the labor-intensive data searching and patient communication with lower-risk patients, so care managers can focus more of their limited time on higher-risk patients to help them overcome care plan adherence obstacles.

For these types of facilities, a highly automated and intelligent PHM technology platform is critical. The technology needs to continually scan multiple databases that help practices stratify their patient population risk levels and offer reliable guidance to care managers on interventions. Automated electronic or phone outreach and communication further reduces that care manager's daily workload.

Regardless of an organization's size, PHM technology is changing how care is delivered and is helping this new breed of tech-savvy senior executives and clinicians perform at their best. Instant, reliable insights based on analysis of up-to-date, comprehensive aggregated data support PHM leaders in developing effective, long-range strategies and objectives while daily helping patient-facing care managers improve the outcomes of individual patients.

With the right technology deployed across the practice, PHM-focused employees can have a wholly integrated, single point-of-truth to help them:

- **Identify trends**
- **Guide decisions**
- **Deliver timely, effective interventions**

The Role Data Plays in Successful Population Health Initiatives

In the past, managing complex patient populations with both chronic conditions and challenging social determinants of health was labor-intensive, if not impossible. This was largely due to lack of available data and tools for providers.

The Advantage of Centralized Data

Centralized databases combined with intelligent, automated tools help care managers monitor high-risk patients in ways that were inconceivable 20 years ago. Thanks to access to numerous other commercial and consumer databases, care managers within integrated healthcare organizations can now track patient behaviors in near real-time, both across the care continuum and in between visits.

This comprehensive care perspective enables timely interventions, which is crucial—particularly among the five percent of the population that account for an estimated 50 percent of healthcare spending. Preventive interventions can divert patients from high-cost ED visits that may lead to an even costlier, and potentially unnecessary, hospital admission, and the associated inpatient care.

The Power of Automation and Metrics

Even with automated patient data capture and analytics, PHM can still be labor-intensive, with manual report creation, data searching, and patient outreach. Sophisticated PHM platforms, however, are taking automation a step further by instantly generating dashboards showing performance on key metrics.

Platforms are also automatically initiating patient outreach through text, phone, or secure patient-portal messages based on predetermined criteria and patient preference from the care manager or healthcare organization. Automated communication from the healthcare organization is designed to remind, notify, or encourage patients to adhere to their care plan and take positive action.

The goal is the same: to modify behaviors and overcome social determinants of health that are driving them away from optimal outcomes. Readily available access to real-time data ensures automated interventions and communication are more relevant, effective, and focused on prevention.

The Key: Current, Comprehensive Data

That said, data analytics capabilities of a PHM platform are only beneficial to providers if the data is as current, comprehensive, and aggregated as possible.

Up-to-date, real-time data captured throughout the care continuum enables clinicians to identify potential adverse health events sooner across large populations of patients, ultimately preventing an unnecessary ED visit or hospital admission. Patients can also receive chronic condition management, recovery support, and education during ideal, teachable moments.

These factors are crucial for succeeding under the value-based care models. It may sound time-consuming and complex to access and analyze these huge amounts of timely data, but with the right processes and technology, healthcare organizations can save significant time and effort that they are currently expanding on PHM.

“Under the HRRP, hospitals bear a penalty if patients with certain conditions are readmitted within 30 days and the cause of readmission was determined to be avoidable.”

Shifting the Focus to Prevention

The importance of timely data for PHM interventions cannot be overstated. Avoidable readmissions not only contribute to overall costs, but healthcare organizations can also be penalized as much as 3 percent of their Medicare payments for these events under the Centers for Medicare and Medicaid Services’ Hospital Readmission Reduction Program (HRRP). Under the program, hospitals bear a penalty if patients with certain conditions are readmitted within 30 days and the cause of readmission was determined to be avoidable.

Keeping HRRP patients, or any high-risk population, out of the hospital requires integrated access to data aggregated from multiple outpatient facilities where the patient receives post-discharge care. Also included would be pharmacy data to ensure prescriptions are being filled, and documentation from home-health providers to track a patient’s recovery and/or chronic condition management.

Capturing, aggregating, and analyzing all of this comprehensive data can seem like a massive, time-consuming effort. However, sophisticated and integrated PHM technology is available that automatically aggregates, analyzes, and presents data from different providers and organizations as it is captured.

It also alerts care managers and other clinicians to follow up with recently discharged patients, and it gathers information through automated, mobile-based surveys. Additionally, these systems can inquire why appointments were missed through text messages, portal messages, interactive voice response phone calls, or whichever method the patient or provider prefers.

Timely interventions can be delivered in a fraction of the time of manual data searching, phone calls, and waiting for responses. Most importantly, patients receive the support, education, and resources to stay adherent to care plans rather than returning to the hospital.

The Importance of Conducting Timely, Data-Driven Interventions

As previously mentioned, an aggregated and holistic view of the patient includes data from outpatient facilities, pharmacies, and other providers. This is in addition to non-clinical, social, and environmental data that influences patients' actions just as much as—if not more than—the care delivered at hospitals or practices.

Determining Critical Data Points

Such social determinants of health data sets can include:

- Physical environment: Air and water quality, housing type, transportation, parks or walking access, proximity to grocery stores, and distance to a primary care provider
- Healthy behaviors: Diet and exercise, tobacco use, healthy activity, care plan adherence, healthy attitude, and behavior modifiability
- Social factors: Education, literacy, employment and financial history, and family and social support

These data sets—and many others that are available—are run through sophisticated algorithms to offer an actionable view of patients that enable *more relevant and effective interventions*.

A better understanding of a high-risk patient's social determinants of health also helps care managers understand, communicate, and overcome obstacles that may be affecting more than just one patient. Such interventions can then be more broadly applied across larger groups, improving efficiency while optimizing care.

Timely interventions are just as important as up-to-date data. When analysis is married with proper actions, healthcare organizations are well-equipped to achieve their value-based care goals. Analysis and reporting is enlightening, but it won't aid an organization in improving patient outcomes or reducing wasteful spending unless the information is acted upon.

Moreover, advanced PHM technology must deliver analysis in a highly intuitive, actionable way to reduce clinician interpretation time and accelerate—or automate—interventions. Prioritizing care interventions in this way can make the seemingly insurmountable task of achieving optimal outcomes with large patient populations much more attainable.

Establishing Data-Driven Workflows

Intervening with patients based on the insight provided by data analytics needs to be strategic and efficient. Organizations must craft data-driven workflows that allow care managers to concentrate their limited time on the highest-risk, highest-need patients. Workflows would also depend on a healthcare organization's quality goals and the high-risk populations that are driving the organization's highest costs and care utilization.

Risk stratification capabilities of the PHM technology platform could help organizations design these workflows, as well as implement automated interventions, so care managers can focus on the most complex and challenging patients.

Lower-risk, easily managed patients would receive the same level of monitoring through up-to-date, comprehensive, and aggregated data capture. However, these groups would receive more automated education, reminders, and communications delivered through the PHM solution's rules-based engine. Regardless of the method, the focus of the outreach for all populations must be preventive care and adherence support to nurture patient engagement and activation.

Tailoring Patient Outreach

Automated or manual intervention methods should be tailored to patients' preferences, such as through text messages, emails, patient portal secure messages, or an interactive voice response phone call. Some patients—particularly elderly patient populations—may prefer a phone call directly with a care manager rather than a text message.

Implementing Change Slowly

Implementing data-driven PHM outreach workflows needs to be as strategic as designing the process. It's recommended that the structure of the program be implemented in smaller pieces, making it more efficient and effective than if an attempt is made to immediately manage all high-risk populations.

Such an initiative should move forward incrementally, focusing first on one high-risk population and then learning and adjusting the course of action based on early experience. A gradual expansion across populations and care quality goals will help PHM-focused providers build confidence and mastery of these new processes while improving outcomes, setting the foundation for long-term success.

Automating Interventions Is Essential

Even when guided by up-to-date and reliable analysis from technology, conducting automated interventions can still be time-consuming. Population health managers need to be supported in their role, beyond automated trend dashboards and reports, by incorporating automated communication and patient-reported data.

Handling simple outreach and patient-generated data capture helps reduce the overall burden on care managers. It can make PHM much more feasible and effective, even for organizations newly launching this model of care management.

Interventions for patients outside of a healthcare facility are typically conducted through manual phone calls or sending postal mail, which are time-consuming and frustrating for providers due to slow response rates. Automated interventions delivered through an advanced PHM platform can significantly reduce a care manager's workload and improve both patient response rates and their experience.

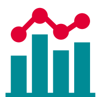
Using Population Health Technology to Automate Interventions

Advanced PHM platforms can automate electronic communication that nurtures stronger engagement and care plan adherence. Based on discrete events in a patient's life, a targeted and automated communication can be sent to a patient when needed.

A small sample of those events may include:

- **Recent hospitalization and discharge**
- **High volume of emergency department visits**
- **Referral visit**
- **Skipped appointments**
- **Unfilled prescriptions**

Creating outreach campaigns can be flexible, using a rules-based engine that is easily configurable based on any number of patient variables. These variables may include specific chronic condition(s), age, sex, health plan, smoking status, and recent hospitalization.

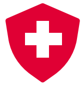


Surveys for Patient-Reported Data

An increasingly popular automated outreach method that helps an organization capture valuable patient-reported data, but also nurtures engagement, are surveys delivered to patients' mobile device or portal. Questions can inquire about any aspect of the patient's chronic condition management, post-discharge recovery, or care delivery experience. Based on patients' responses—especially if answers indicate they are struggling with self-management—the intervention can be escalated to a live care manager for a more in-depth interview.

Surveys are especially useful when a patient visits specialists or other healthcare facilities that are unaffiliated with your healthcare organization. In these instances, an organization may not discover the out-of-network patient care was delivered until after the patient's health plan has reimbursed the claim, which could be 90 days later.

Effective PHM relies on up-to-date data so interventions are timely and effective, and capturing data from patients through automated surveys helps eliminate that lag time and improve efficiency.



Enabling Stronger Patient Engagement

Automated communication and intervention enables stronger patient engagement, even if patients are not interacting with a live care manager. This is because it demonstrates the healthcare organization is vested in the patient's health and quality of life year-round.

Although it is a valuable management support tool and can help patients stay adherent to their care plans, it is not a replacement for clinician experience and judgment. Automation simply eliminates time-consuming, non-essential activities, so care managers can focus their clinical and interpersonal skills on helping complex and challenging patients achieve optimal outcomes.

How to Implement a Successful Population Health Strategy

Although advanced PHM technology is essential to enable this automation, healthcare organizations need to set themselves up for success by creating targeted and effective patient outreach campaigns, focused on their care quality and financial goals. With some simple and strategic preparation, however, organizations and care managers can enjoy the efficiency and insight of automated reporting and interventions across populations.

Identify and Prioritize Goals

The old saying about how "you can't improve what you don't measure" is highly applicable to effective PHM. That is why the first step in establishing your PHM campaign strategy is to determine the organization's most urgent or significant goals.

When starting out with PHM campaigns, it is tempting to create as many as possible and determine which one is most effective. However, a better strategy is to create one or two campaigns and then refine and improve them until the response rate and other results reach the desired objectives.

Many organizations, for example, want to reduce all avoidable readmissions across their enterprise, which is both a clinical quality and cost-reduction goal. Other institutions may wish to focus on readmissions for specific populations of high-risk patients, such as those with congestive heart failure (CHF), chronic obstructive pulmonary disorder, or pneumonia, all of which are conditions susceptible to penalties under the Hospital Readmission Reduction Program from the Centers for Medicare and Medicaid Services.

The healthcare organization will then need to set associated benchmarks in the PHM technology platform for continuous monitoring, analysis, and reporting. For example, if the goal is to reduce readmissions within 30 days for only CHF patients, the care manager will need to check those boxes within the software.

Identify "The Patients"

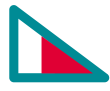
Once a broader care and financial goal is established, it is recommended that care managers narrow the PHM platform's focus to track tightly focused groups of patients under that goal. Because the technology would be seamlessly integrated with the organization's electronic health record and other information systems, selecting patients across broad criteria is simple.

For example, perhaps the organization may only want to monitor CHF patients ages 65 and older who have been recently admitted to the hospital. Conversely, providers may choose to narrow the focus to CHF patients with other designated chronic conditions because they pose a greater risk for readmission.

As organizations gain experience in these areas, multiple campaigns can be run simultaneously to monitor more populations or as payers introduce new value-based care payment programs.

All of these criteria can be tracked through campaigns. Additional criteria could include any combination of:

- Gender
- Occupation
- Residence location
- Emergency department use
- Positive or negative response to automated interventions
- Recent test results
- Clinical identifiers such as lab value, medication, or diagnosis
- Payer or value-based care payment program



Descending Levels of Campaigns

The goal of the outreach campaign is to have patients drop out or “descend” to lower-risk thresholds. Descending the risk profile means the patient will continue to receive active monitoring through the PHM platform, but automated outreach activity and reporting would be less frequent, depending on the care manager’s preferences or the goals of the organization.

Perhaps the most exciting aspect of conducting these campaigns is that accuracy only increases over time. The more data and patient activity captured in the platform, the better the PHM technology can predict behaviors and outcomes. As a result, the platform and care managers can more proactively respond to trends and improve patient outcomes.

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How Population Health Is Being Used in Response to COVID-19

Social determinants of health are largely responsible for disparities in access to care, as well as higher rates of chronic conditions and health literacy. Racial, ethnic, and economic factors can all impede quality care and put patients at increased risk of developing a chronic disease—and the same has been true throughout the COVID-19 health crisis.

Fortunately, technology-driven population health strategies, combined with targeted outreach, empower practices to:

- **Gain full visibility into high-risk populations**
- **Provide comprehensive patient support**
- **Keep their communities as healthy as possible both during and after the COVID-19 pandemic**

In addition to addressing care gaps due to social determinants of health, practices now need a process in place to inform patients about the vaccine rollout and simplify scheduling. However, recent research reveals that more than 30 percent of the U.S. public does not intend to vaccinate against the COVID-19 virus. Using population health management technology, healthcare practices can send targeted messages to high-risk, high-hesitancy groups to provide useful information and (hopefully) reduce COVID-19 vaccine hesitancy.

Steps Toward Sustainable and Continuous Improvement

We hope this step-by-step guide prepares and motivates your organization for the changes occurring in value-based care and population health management. As care delivery models and clinician roles continue to evolve, so must provider organization operations, shifting from episodic and isolated to holistic and year-round.

New Technology for a New Breed of Clinicians

Technology is advancing to help a new breed of clinicians efficiently and effectively manage populations, leveraging not only electronic health record and claims data, but also comprehensive data aggregated from throughout the care continuum and beyond. Deeper and broader information sets about patients' social determinants of health, behaviors, and non-clinical activities—combined with medical information—deliver a complete, insightful perspective to guide care decisions and interventions.

With an up-to-date holistic view of patients outside of the office visit or hospital, automated interventions delivered through PHM technology can be more timely to prevent an adverse event. Consistent and relevant outreach and communication yields strong engagement with patients who feel more connected to providers that demonstrate concern about their health throughout the year.

Deep Insights for Superior Patient Care

Population health management is a new, growing movement in healthcare delivery, enabling organizations to gain deeper insights into the best, most effective ways to manage their patients and care plans. Implementing PHM into an organization's daily practices may seem challenging at first, but with advanced technology, clearly defined roles, and efficient, data-driven workflows, organizations can optimize clinical and financial outcomes for many years to come.

> **"Consistent and relevant outreach and communication yields strong engagement with patients who feel more connected to providers that demonstrate concern about their health throughout the year."**

Want to learn more about population health management and the technology behind it? Schedule a demo of our Patient Activate solution.

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