



# Where are we in Population Health Management (PHM)?

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## Abstract

Population Health Management (PHM) has become an important force of most healthcare facilities in cost recovery planning and risk management. According to a HIMSS survey, about 66% of hospitals and healthcare systems have PHM or similar activity affecting the course of events. This is not being monitored by a number of “Accountable Care Organization (ACOs)” that are not associated with a hospital or health framework and that are also starting to create PHM opportunities. Many organizations anticipating a market shift towards valuable care follow key treatment approaches to design a patient-centered hospital. Some revolutionary healthcare facilities are also looking for clinically coordinated professionals and organizations to thrive and bring different healthcare providers across the care chain under one umbrella for the purpose of negotiation. Additionally, most healthcare facilities do not yet realize that PHM encompasses both medical and behavioral health services. Additionally, since healthcare only identifies 10% -25% of variables in individual healthcare, healthcare facilities must also employ social workers and produce organizations through online services. Given where most organizations are on their PHM journey, it is not surprising that exactly a quarter of PHM healthcare providers do not use IT systems designed specifically for this purpose. To date, most health systems use what is available for PHM applications in their EPHR (Electronic personal health record) - and that’s not enough today.

**Keyword:** Population Health Management; Accountable Care Organization; Healthcare; Records; Management

## Introduction

The abnormal rise in health care costs, a growing lack of acceptance of healthcare and growing inconsistency in healthcare have prevented the United States from beginning to change health care [1]. The most significant advance in this area has been the HITECH Act, which is part of the “2009 US Recovery and Reinvestment Act” [2]. This act provides up to \$ 19 billion in government funding to professionals and care centers for the major use of “electronic health records”. Second, the “Patient Protection and Effective Care Act 2010” provides a mechanism that encourages service providers to take the complete responsibility of care quality and cost [3]. These pieces of the law ratify exhibition projects to measure

hospital-oriented evaluation of hospitals and standardize warfare.

The Health Changes Act also instructs “Medicaid Centers for Medicare and Services” to develop a joint program of “Accountable Care Organization (ACO)”, a meeting of hospitals and professionals that aims to reduce costs and improve healthcare [4]. This PHM program, which began on January 1, 2012, will be accompanied by new “Medicare Activity” that will penalize hospitals for preventable relapses and base some of its benefits on quality measurement. This government-wide activity - similar to the efforts of special disaster relief programs to help hospitals and ACBs - prompted a number of suppliers to prepare for the following

payment changes [4,5]. The general drive behind these developments is to take away from government fundraising, which is a major driver of healthcare costs in the country. The framework for reimbursement of administrative costs remains in place; however, it will, of course, involve greater financial and clinical responsibility. To adapt to these new requirements, health systems and the number of doctors are advancing according to a methodology called 'Population Health Management' [6-8].

The main aim of PHM is to maintain the health of a sick population as normally expected and to reduce the demand for costly interventions such as emergency room visits, hospital admissions, imaging and systems [9-13]. This reduces costs, and furthermore, healthcare is being revisited as an action that undoubtedly includes more than just eliminated care. Although PHM primarily focuses on the patient having high-risk with the highest healthcare costs, it mostly discourses the precautionary and ongoing care needs of every patient. As the prevalence of healthcare over time, the goal is to change the factors that weaken individuals or make their illnesses worse [13]. This proposed methodology necessitates the use of automation. There aren't enough caregivers and caregivers to work with every patient on an ongoing basis, but PHM also includes many routine efforts that people don't have to take on. Introducing the latest information technology that strongly affects these entrepreneurs saves time and cost and makes PHM financially viable. Automation, which allows organizations to study population needs and define residents based on landscapes, health, real estate use, and demographics [8].

### Planning for Population Health Management

Managing population health requires a fundamental change in perspective and examples of supplier practices. Instead of getting more work done, suppliers are being paid for experience and quality. They must adapt to discounts in terms of care for the entire population, not just individual patients seeking active care [2]. Hospitals will see a portion of their income toward Bedouin care, but assurances and methods will be reduced, but they will have the opportunity to participate in mutual funds as an important part of the healthcare system [8,9]. In addition, suppliers will carry-one to compete with one another, but they may have to work in a team to organize healthcare and trade in a shared sharing culture.

These developments represent enormous and possibly large forces. Not only do healthcare organizations need to understand a different compensation model to help PHM, but they also need to encourage their suppliers to work together in a different way, including how to reward them for aligning new compensation models [13]. Internal

legislation and competition from external supplier meetings can also foster collaboration, so leaders must anticipate how to create the precise culture and environment for change. In addition, health systems should open correspondence with public health service providers and various aspects of their networks. On the operational level, organizations need to change their structure and workflow to upgrade PHM and adopt new types of machine tools and discovery [7]. This requires setting "clear goals, the active attention of management - including medical leaders, and an evaluation of technical standards" along with an effective distribution policy [1].

### Setting Goals and Objectives

In addition to the previously set goals, it is helpful to keep in mind the agency's three goals for improving healthcare: improving the care experience, improving the health of the population, and reducing the cost of care per person [4]. Whilst population health is just one of these issues, it may reach organizations to reach out to the other two to achieve this goal. The triple goal is also an important and commendable goal for lifting. The usage of health information technology is essential for PHM, but the new paradigm cannot be in control without workflow updates and the change management [9].

According to a patient-centered article, "Health information technology (HIT) alone will not affect a change in performance or routine. Without workflow, cycles and relationship changes, HIT will fail." Contacts and knowledge in the field of healthcare. "One of the most important aspects of implementing healthcare facilities is the systematic care plan, the use of a multidisciplinary care team, the coordination of conditions of care and the improvement of access to primary health care [2,3].

### Showing Leadership

Health leaders must take constant responsibility for changes in PHM. Areas where leadership is particularly important are the adoption and use of "information technology, change management, performance appraisal, and community building" [2]. Change management means that vendors and other employees take responsibility for PHM requirements. Many doctors do not understand why old drug methods are currently not appropriate. Remembering doctors after leading a PHM is a latest way to sort this opposition. Health leaders must also forge alliances with other health professionals and network organizations [8,9]. One of the fastest goals of this concerted effort is to disseminate health information to safeguard that comprehensive and pertinent patient data is accessible to health care providers.

## Technology Assessment

Defining and implementing health information technology is one of the most important parts of planning a PHM [9]. Obtaining EHRs is only the first step towards establishing the necessary foundation. It is imperative to properly use a variety of different applications for PHM mechanization and to communicate with patients in their own care. In addition, regulations for rapid technological change must be constantly reviewed, along with new government guidelines. That is why suppliers must work closely with their agents to ensure that they get the optimum care which might help them meet the latest needs of healthcare. Health managers are gradually looking with retailers with an agile focus and clinical information system [2]. As some of these organizations move into the field of PHM, professionals are developing the latest programs needed to conduct PHM activities, such as “effective step-by-step reporting, patient participation, education, and quality improvement” [9].

## Rollout Strategy

Any robust and comprehensive program like PHM should be done gradually. For example, primary care methods should begin with robotic tasks in the patient’s effort, or hospitals should improve their monitoring facilities with automatic breaks that help improve post-discharge care. Everything that is done from a less distracting point of view should be attempted before it is rolled to all organizations [12,13].

## Data Collective, Storage and Management

Systematic and Professional data selection, management and storage of patient’s automation, quality assessment and research implementation; Inclusive, relevant and applicable information is essential to improving patient care [5]. In any case, the current power tools are not intended for PHM with different systems. To fill these IT gaps, organizations need libraries, other additions, and health information sharing. Libraries should also be databases for the entire population, not limited to patients with obvious disease. The primary test is the collection of patient-targeted data from a variety of sources [2]. Healthcare efforts may be able to collect data from their own systems in the database, and discrete practices could have environmental health concerns associated with their main reference laboratories. The information contained in these systems can be used to build libraries to monitor and control the health of the population [12].

In any case, presenting and requesting data can allow physician meetings to create cabinets that can improve preventative and ongoing care - although these libraries need important data, for example, whether a patient equals diabetes or high blood pressure. Air traffic controllers do

not regularly cover a lot of information about the health care that patients receive outside of suppliers’ unions. They are relying on an online health information exchange that will address this problem, at least in part, as it spreads [5,6]. Service providers who should participate in PHM should support HIE collection efforts, which can encourage the sharing of evidence about patient health problems, drugs, laboratory findings and methodologies, regardless of website, motivation, or global recruitment framework.

Data management for PHM facilities is also tested on the basis that: “each provider and health plan have a different framework for identifying evidence and assigning the service provider to the patient” [11]. Health information exchange (HIEs) should use Hub ID numbers for patients and carers. Human health services and other health plans should include areas for data linking through databases and coordination between patients and primary service providers [5]. Accuracy of data and reliability will continue to increase and it will be important to use the clinical data through long-term billing data as suppliers and healthcare providers normalize the dataset. The unstructured data in the scanned reports and target notes will remain relevant to clinical trials in European studies [11,12]. However, to build permanent domes, produce critical reports and accurately measure quality, suppliers must improve the reliability/integrity of data, increase measurement of individual data, and take reasonable steps [13].

## Population Monitoring and Stratification

To monitor the health of the selected population, the organization must be able to monitor and evaluate the health of every patient. It should also define its population in subgroups that need certain services for certain things [5]. Agency for Healthcare Research and Quality’s (AHRQ) clarifies a single patient participation policy: “Providers must be able to identify subpopulations of patients who might benefit from additional services. Examples of these groups include: patients needing reminders for preventive care or tests; patients overdue for care or not meeting management goals; patients who have failed to receive follow-up after being sent reminders; and patients who might benefit from discussion of risk reduction”.

From a perspective of care management, every patient must be identified with a risk of disease or exacerbation. Collecting patients to classify the condition has been a common methodology for disease management programs [11,12]. Interestingly, the stratification of care policy emphasizes on if patients are sick enough to require comprehensive care from a caregiver, or already have permanent conditions that require intervention for non-consent, or are otherwise healthy, and only preventative needs care and training.

Patients can also be identified based on “demographics, health status, behavioral risks, and financial risks”. Layering often has to be stopped.

Amongst the patients with the maximum PHM costs in any year, fewer than 30% were in that group a year earlier [6,7]. Organizations looking to improve quality and reduce healthcare costs must focus on the perfection of their patients and their changing health. Online healthcare providers use budget assumptions that can help identify patients who are likely to have significant health costs [13]. Some health plans offer equipment companies that sell this type of device, which can be important to differentiate between patients who are in the hospital or who have complications in the coming months [6].

### Patient Engagement

In organizations dedicated to PHM, health care providers need to care for patients just as they did during an experiment. Healthcare teams should strive to provide adequate evidence-based care during the visits of patients, but also ensure that a lack of care is minimized when patients stop returning to work. To do this, practitioners work with patients to help them cope with themselves more easily. Health teams also need to sort out the ways to cure the patients by understanding their care plan effectively [3]. The most obvious help is simply the patient-doctor relationship. At the same time that patients are disappearing from health care providers for a long time, warnings about the necessity for a health care provider to visit and operate patients for better health may be attractive [1].

By using patient-physician relationships, caregivers can inspire patients to modify their health behaviors and often provide appropriate facilities [8]. Studies come up with the idea that patient participation can improve health outcomes and prevent obesity during pregnancy. For example, altered behavior issues, such as smoking and being overweight, are responsible for 40% of cases in the United States [2,3]. When recommended screening tests are performed for patients, they are also informed of their health issues and taken care of.

### Team Based Intervention

Services which are provided by any team are at the core of PHM as “Primary Care Physicians (PCPs)” are flexible and consistent to safeguard patients and obtain appropriate preventive and ongoing care [13]. However, PCP computers are challenging and will spread much more as the number of protected patients increases and interest in primary care with change in healthcare [3,12]. It is estimated that, even today, the PCP will have to work 18 hours a day to provide

all the care its residents need. In any case, many clinicians can do a lot of this work and empower professionals in areas that demand their skills. Nursing teams of doctors, nurses or other professionals can monitor more patients and meet their greater needs than the current model for basic services [7,9]. These nursing teams can include mid-level doctors, support staff, medical colleagues, nutritionists, physiotherapists, health care providers, health advisors and more.

Healthcare professionals in primary care of things in the future will have a completely different working process than now. Instead of relying on a balanced experience between patients and service providers, the workflow includes phone visits, email meetings, numerous visits and experiences from different members of the care team. Out-of-office calling is becoming standard and there are fewer office visits [7]. Top management teams need progressive automation and specialized technology to function properly. We recently revised the evaluation of the information systems that can provide regularly updated comprehensive perspectives on patient care based on data on social causes from a variety of sources. Libraries throughout residents can also provide alerts and reports regarding administration, and “access” (organizing appropriate care with personal and close experience) [1,3].

### Identifying potential Change Areas

Population profiling is a cycle that encourages a better understanding of the current and future health needs of the entire country and helps distinguish between open doors to changing governance [7]. By looking at the previous care designs, for example in general practice or in geological areas, observing contrasts as they converge, planning and evaluating new care models and gaining experience with the impact of adjacent health technology. This can be useful for obtaining advice on choosing the nature and composition of the services to be provided [3,12]. Population distribution and risk categorization also play a role in establishing a coordinated care system and supporting population health management. Population division divides the population according to health status [9,12]. This encourages the practitioners to understand the health needs and requirements of the average population who, for example, a performance-based methodology may be helpful. Risk management plays an important role in changing the methods of asset allocation. Asset allocation based on population at risk encourages a liability regime to target assets towards the most unfortunate population [1,3].

### Preventive Care

Permanent patients need regular check-ups and tests to stay healthy. Sometimes a patient who does not walk is at risk

if not monitored regularly. Regular tests and medications can help these patients avoid getting into a permanent routine of care [12]. Healthcare professionals can use extensive auditing and modern modeling/methods to ensure a patient does not enter the risk department. For example, Philips gives hospitals an overview so they can identify patients at risk who need emergency care. It provides tools to aid clinical selection and models of bias that help caregivers and ICU staff plan care and deliver appropriate care to primary care patients [7,9].

Additionally, hospitals offer outpatient clinics, so healthcare professionals can determine the level of care a patient will need. This reduces the weight of healthcare professionals and also saves patient costs [3]. Healthcare facilities can also post health assessments for each patient. The higher the level of risk, the greater the attention the patient receives from the specialist. This means more standardized follow-up and more hospital assistance. The goal is to prevent future emergencies and crisis eruptions [1,3]. To ensure data is constantly updated, professionals and participants must plan a workflow to differentiate between groups at risk and provide preventive care.

### Measuring Outcomes

Data testing is an important part of "PHM". Particularly structured operating standards are needed to measure mortality, health, common diseases, and patient experiences. Reports using this data must be accessible to suppliers, guardians, and senior management [13]. Organizations should also measure patient costs and experiences based on public opinion. Additionally, one can use these reports as a reason for good responses to payments and other external factors. To determine the health of a population at any time, institutions can use a "variety of metrics, including measurements, half-results (HbA1c or blood pressure values) and long-term outcomes" [8]. This requires a set of clinical data of that specific patient and patient-specific data, such as the operational status and the legitimacy of self-management [5].

A serious standard can contain these unique types of data with evidence-based rules for creating personal reports and showing managers how well the health framework serves different segments of the sick population. In all cases, the data must be error-free, accurate and completely acceptable, especially when used in reports of supplier performance and patient outcomes [1,2,8]. All members / patients can filter by motivation, focus on activity, resources, health and lack of care. Similar methods may be used in patients with a specific condition, such as diabetes. In all cases, this task must be performed by trained clinical investigators; it should not be assigned to IT professionals or individuals

with little preparation. The ability to display these types of advertisements can also help organizations to collect high-quality data and send it to CMS and private sector employers [5,6].

Similar views of the data used in PHM can be reused for projects such as CMS projects for medical projects, "Medicare and Medicaid EHR incentive programs", health plan salaries for executive projects, and patient-centered home knowledge programs. To do this successfully, the art gallery contributes what institutions at PHM should be using according to the scope of outreach projects [10,12].

### Conclusion

Population health management needs healthcare professionals to develop new opportunities and a new framework for care. Automation is key to obtaining appropriate preventive, permanent and immediate care for every patient. Automation can also help organizations implement PHM in a professional manner, moving from administrative burdens to responsible care, whilst increasing financial sustainability and hierarchy.

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