





PHILIPS

Population Health
Management



Shaping the future of healthcare

How health systems can move beyond sick care to proactively keep populations healthy



Introduction:

We see the transition from fee-for-service to value-based care as a journey. One that requires a host of new skill sets and strategies. One that delivers better preventive care and connections across the care continuum with the goals of improving quality and outcomes, but not at the expense of increasing costs. And one that shifts from a focus on delivering episodic sick care to delivering more seamless care that helps keep patients and populations healthy.

Throughout the next months, Philips will be exploring issues related to this challenge from several perspectives. The strategies we see as necessary to progress on this journey include:



Health systems that employ these strategies can make a significant impact on patient outcomes, quality of care and patient satisfaction while reducing the total cost of care. In doing so, these systems can drive additional revenues and produce healthier margins to fund their ongoing progress on this journey. We consider these five strategies to be key in moving beyond episodic sick care to delivering more seamless care that promotes continuous health.

Beyond managing 'frequent fliers' to managing populations

As healthcare providers move to value-based care models, they tend to first tackle the highest utilizers of healthcare – typically the elderly and those who have multiple chronic conditions or a life-threatening acute condition. A report from the Agency for Healthcare Research and Quality (AHRQ) showed that five percent of the highest healthcare utilizers in the U.S. accounted for nearly half of all healthcare costs.¹

Certainly, addressing costs in these 'frequent flier' populations makes sense as a first step. However, as providers become more sophisticated in managing the health of populations and take on more risk, they need integrated solutions that address the entire risk pyramid – including those who are healthy and those at risk for chronic conditions like diabetes and heart disease. Not addressing these subpopulations is costly. If left untreated, 15 to 30% of pre-diabetics will become diabetics within five years, which more than doubles their annual medical costs – something that can quickly consume resources.²

Being able to accurately identify pre-diabetics seems like a straightforward task that could be accomplished simply by examining all of those with an elevated HbA1c value. However, providers are hampered by the fact that the proliferation of proprietary systems has created hundreds of mappings of this single value.

Without a solution that can translate hundreds of different data points into a single meaningful measurement, you will miss many of those at risk for diabetes. Further, once identified, managing the population of pre-diabetics in an engaging and effective way is a task more daunting than identifying the population in the first place.

A comprehensive and agnostic population health management platform can help you manage the full range of your populations, allowing you to:



Aggregate patient data across multiple health information technology resources



Analyze that data into a single, actionable patient record



Risk stratify the population and identify the patient populations, or cohorts, that should be aligned with a rigorous care management or population health process



Guide patients to the most appropriate care settings, before health events escalate



Enable care providers to take actions that improve clinical, financial and human outcomes



Provide patients with guidance about appropriate health interventions based on data and insights

Improving your bottom line: the business case for population health management

By 2020, as much as half of your revenues could be at risk under value-based contracts, regardless of what your payer mix is today. CMS has already exceeded its goal of tying 30% of Medicare payments to quality or value by the end of 2016.³ Most commercial insurers also are driving towards value-based care; for example, the Healthcare Transformation Task Force, which includes major players like Aetna, is well on its way to achieving 75% of its business under value-based models by 2020.⁴

Without effective population health management tools, your organization's bottom line could be jeopardized under risk-based arrangements. Conversely, when well-managed, population health management tools drive initial financial successes, you are better able to fund the next steps of your value-based care journey.

Ironically, many healthcare organizations are leaving significant revenues on the table by **underestimating the cost of not participating in value-based programs.**

Value-based payment models shift the revenue mix significantly. Fee-for-service payments are reduced and replaced by incentive payments based on quality metrics and outcomes.

Alternative payment models move toward eliminating fee-for-service payments and toward more global episode or population-based payments. Without a laser focus on your populations' levels of risk, historical cost and utilization patterns, and your ability to meet quality and cost metrics, you will struggle with these value-based payment models. You need tools that allow you to stratify your population by risk, then help you implement targeted, proactive health interventions to improve the health of your patients, and keep them healthier while reducing utilization and costs.

Ironically, many healthcare organizations are leaving significant revenues on the table by underestimating the cost of not participating in value-based programs. We developed a [Cost of Inaction \(COI\) Calculator](#) that is a quick tool for estimating how much you could be losing if you decide not to participate. As payment models move more aggressively beyond quality metrics, not participating or taking aggressive steps along the journey could result in more significant financial repercussions.

Cost of Inaction Calculator

Federal Program Incentives and Disincentives

	2017	2018	2019
Value-Based Modifier	\$90,720	\$60,480	
MIPS			\$216,000
Readmissions Exposure	\$1,638,555	\$1,474,700	\$1,362,820
CCM	\$3,910,680	\$4,692,816	\$5,474,952
Total Potential Cost of Inaction, Medicare	\$5,639,955	\$6,227,996	\$7,053,772

Total Potential Cost of Inaction, Medicare: \$43,181,818

From big data to better outcomes

The rise of health informatics has given healthcare organizations access to a wealth of patient data across the health continuum. The accelerating pace of wearables and sensors being brought to market bring additive volumes of personal vitals, activity, dietary and lifestyle data. But providers continue to struggle not only to make that data more interoperable, but also to derive value that results in meaningful action and that positively affects health outcomes.

Most quality measurement programs to date have focused on reporting structural or process measures rather than outcomes; only 139 of nearly 2,000 measures tracked by the AHRQ's Quality Management Clearing House relate to actual health outcomes.⁵ Ideally, to provide value, outcome measures should:



Establishing a clear purpose for the data collected is an important first step, as is finding a technology partner that can help deliver the right data in easy-to-read formats that improve insights into both patient and population health.

Population health management platforms can aggregate data from multiple sources into an actionable patient database, identify gaps in care and deliver alerts to clinical staff to fill care gaps. Beyond gaps in care, the PHM platforms provide clinical teams with the data and insights integrated into a workflow that helps enable impactful care coordination, management and patient engagement. Their goal is to drive better management of high-risk and high-cost patients, greater preventive care compliance, fewer unnecessary ED visits, and a financial return on investment.

Understanding the importance of social determinants of health

Medical care approaches only about 20% of a person's health, while genomic, environmental, social and support factors account for the other 80%⁶ or more, according to independent studies over the last decade (Figure 1). Indeed, the most important data point for predicting health may be a person's zip code.

Large disparities in health can be found among populations that live near each other. One study found that babies born in Montgomery County, Maryland and neighboring counties in Virginia (Arlington and Fairfax) have a life expectancy six to seven years longer than those born in Washington, D.C., just one zip code away.⁷

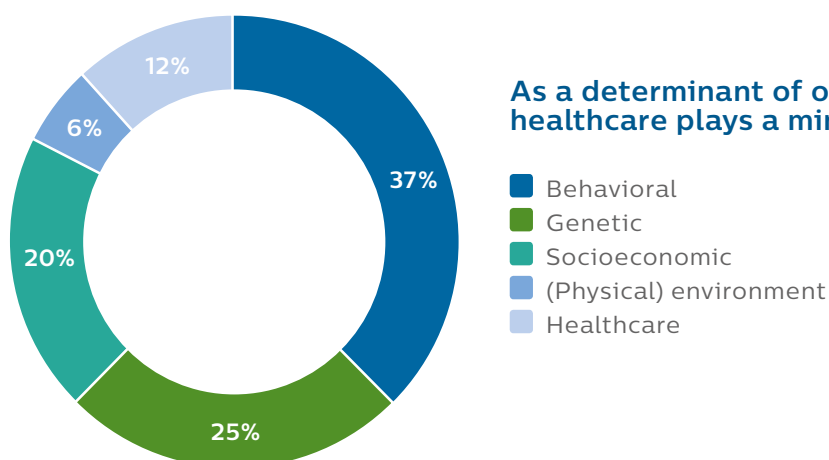
The Institutes of Medicine and the National Quality Forum recommend that community vitals be included in patient data, and the Centers for Disease Control and Prevention (CDC) recommends that providers consider the following factors:⁸

- Economic stability (income, debt, employment)
- Education (literacy, language, training, services)
- Physical environment (housing, transportation, safety, parks, walkability)
- Food (hunger levels, access to healthy options)
- Social support networks (social integration, community networks)
- Access to healthcare (available providers, cultural diversity needs, quality of care, insurance)

These social determinants of health consist of everything from smoking and dietary habits to economic and environmental stressors, access to home care or transport, ability to afford and comply with prescribed medications and treatments and environmental safety. Imagine how different the expected compliance and post discharge outcomes would be for patients with poor social support, economic difficulty and lack of access to transportation, versus patients released to close family supervision and high access to ambulatory and home care, telehealth and wearable sensors to track progress.

Medical care approaches only about **20% of a person's health.**

Incorporating community vital signs– such as information about the neighborhoods and social settings in which patients live, work, play and learn – and patient specific social determinants into the population health management programs can vastly improve patient and disease management initiatives, referral management, risk stratification and preventive health. That, in turn, supports the overarching PHM strategies of treating the whole patient and improving quality and outcomes.



As a determinant of overall health, healthcare plays a minor role.

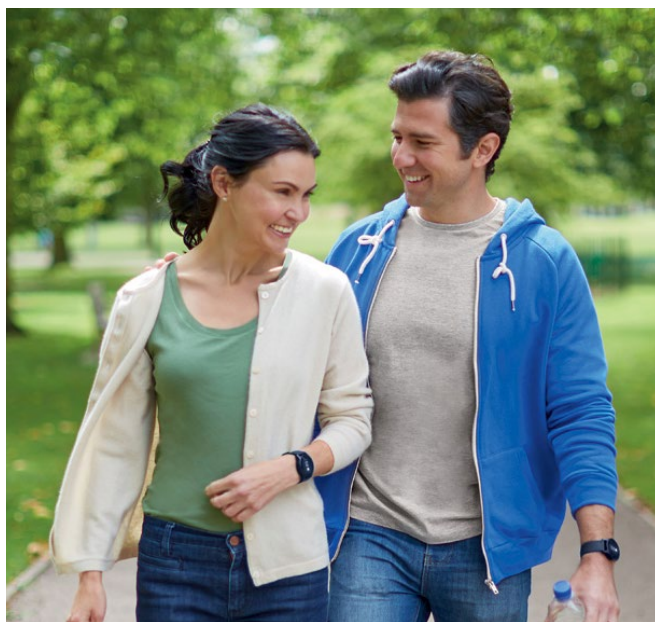
Figure 1: Schroeder, M.D., Steven A. We Can Do Better – Improving the Health of the American People. NEJM. 2007 Sept 20; 357; 12: 1221-1228

Moving from engaging patients to activating consumers

Healthcare has been slower than many industries to use digital technology to deliver better service. Consumers today are used to on-demand service from retailers like Amazon and Netflix and want that level of responsiveness from their healthcare providers. At the same time, they are paying far more for their healthcare out of their own pockets, and they expect greater price transparency. Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores and online price comparison tools, while rudimentary, are beginning to drive consumer choice. Health systems that ignore consumers' rising expectations and power will do so at their own peril.

Providers have begun to focus on engaging patients through technology like patient portals, but we believe that this is only the first step to the true end goal – the ability to activate consumers to better health. That is no small task. According to the Department of Health and Human Services, in 2010 fewer than half of adults age 65 years or older were up-to-date with core preventive services despite regular checkups.

At the same time, there's mounting evidence that activating people to greater involvement in their health matters. One study reported that "patients with higher activation scores are more likely than patients with lower scores to have biometrics such as body mass index, hemoglobin A1c, blood pressure and cholesterol in the normal range."⁹ A subsequent study¹⁰ found that activated patients had better health outcomes in nine of 13 measures and lower costs over a two-year period than a non-activated group.



One challenge for providers is dealing with the varying needs and capabilities of different populations, and avoiding the trap of using the same engagement strategy on populations with different age, health and socioeconomic conditions. Changing ingrained behaviors such as unhealthy eating habits and too little exercise is another challenge.

Personal health data is typically scattered over many apps, devices and systems in multiple places and formats, limiting its value. Integrating that data in a cloud-based connected health ecosystem of devices, apps and tools can support people and caregivers. Here are a few examples:

- Apps married to smart devices that improve therapy compliance in those with sleep apnea
- Programs that use smartphone apps, clinical decision algorithms and predictive analytics to help motivate healthy behavior through digital coaching, in those at risk for metabolic and cardiovascular diseases
- Ambulatory telehealth programs that help those with multiple chronic conditions like congestive heart failure to continuously monitor their health and connect with their provider teams from home to prevent health crises and reduce utilization

There's mounting evidence that **activating people to greater involvement in their health matters.**

Activating frail elderly populations has been especially challenging. These populations can benefit from home monitoring tools such as:

- Sensors that detect normal eating, sleeping and other behaviors
- Digital devices that promote medication adherence and detect falls, and digitally transmit information to the appropriate responder
- Predictive analytics platforms that can alert providers to those who are likely to need emergency transport within the next 30 days

It's an exciting time to be in healthcare, where new opportunities to use data and technology to improve health abound. Health systems that make smart and strategic investments in initial population health management strategies and programs can fund the ongoing journey to delivering more seamless care – and that in turn will promote continuous health.

References

¹ https://meps.ahrq.gov/data_files/publications/st354/stat354.shtml

² <https://www.cdc.gov/diabetes/pubs/images/prediabetes-infographic.jpg>

³ <http://www.modernhealthcare.com/article/20150128/NEWS/301289952>

⁴ *Value-Based Payment Bulletin*, Feb. 16, 2017.

⁵ https://www.usa.philips.com/c-dam/b2bhc/us/documents/Continuous_Health.pdf

⁶ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3863696/>

⁷ Robert Wood Johnson Foundation Commission to Build a Healthier America, 2014 study

⁸ <https://www.cdc.gov/aging/pdf/cps-clinical-preventive-services.pdf>

⁹ <http://content.healthaffairs.org/content/32/2/207.full> "What The Evidence Shows About Patient Activation: Better Health Outcomes And Care Experiences; Fewer Data On Costs" Judith H. Hibbard and Jessica Greene. Health Affairs. February 2013.

¹⁰ [http://content.healthaffairs.org/content/34/3/431#aff-1\(abstract\)](http://content.healthaffairs.org/content/34/3/431#aff-1(abstract)) - "When Patient Activation Levels Change, Health Outcomes and Costs Change, Too." Jessica Greene, Judith Hibbard et al.

© 2017 Koninklijke Philips N.V. All rights reserved.
Specifications are subject to change without notice.
Trademarks are the property of Koninklijke Philips N.V.
or their respective owners.



www.wellcentive.com

Philips Wellcentive
100 North Point Center East, Suite 320
Alpharetta, GA 30022
Tel. (877) 295-0886