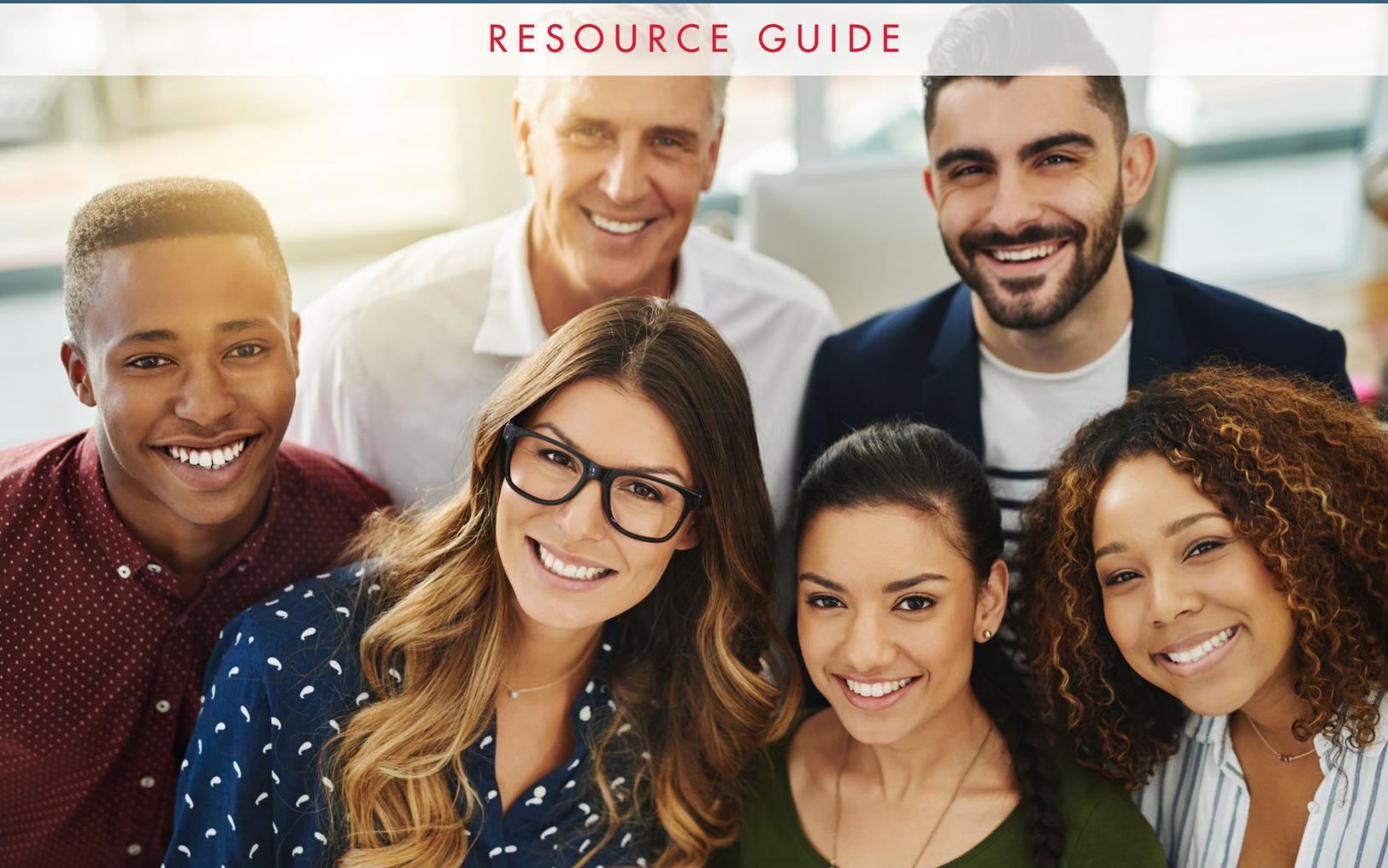


# Population Health Management

## RESOURCE GUIDE



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# Introduction

## ➤ ABOUT NCQA AND JANSSEN SCIENTIFIC AFFAIRS, LLC

The National Committee for Quality Assurance (NCQA) is a leading nonprofit organization dedicated to improving health care quality through measurement, transparency and accountability. Since its founding in 1990, NCQA has been central in driving improvement throughout the health care system, helping to elevate the issue of health care quality to the top of the national agenda.

NCQA has created this Population Health Management Resource Guide with sole sponsorship funding from Janssen Scientific Affairs, LLC (Janssen). While Janssen has had no specific input into the content of the Resource Guide, Janssen and NCQA share the belief that the future of health care delivery requires greater collaboration between the many diverse areas of health care and moving toward achieving population health. This Resource Guide helps health plans develop their population health management (PHM) strategy and help identify best practices for achieving PHM goals.

## ➤ ACKNOWLEDGMENTS

The NCQA Population Health Management Advisory Council was established to provide insight and feedback to NCQA's PHM projects, beginning with the new PHM standards category for Health Plan Accreditation 2018. The Advisory Council meets on a regular basis to discuss any changes in the PHM standards and future development of PHM related projects. Select Advisory Council members (indicated by an asterisk) also reviewed this Resource Guide. NCQA and Janssen extend their greatest appreciations to the Advisory Council's contributions to this guide.

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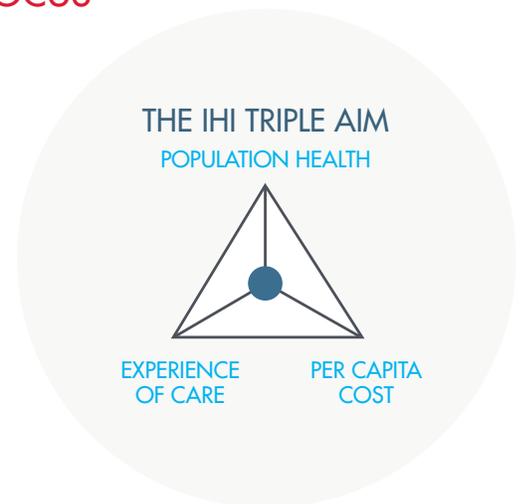


## ➤ POPULATION HEALTH MANAGEMENT: A SHIFT IN FOCUS

Health care expenditures account for 17% of the gross domestic product (\$17 trillion) in the United States, estimated to be 20% by 2020.<sup>1</sup> Although our health spending is the highest in the world, our life expectancy is significantly shorter than that of other industrialized nations. Guided by the Institute for Healthcare Improvement's (IHI) Triple Aim framework (right), the federal government, states, health plans and other stakeholders are tackling these challenges through various initiatives. The Triple Aim framework has three main objectives: Improve the member experience of care, improve the health of populations and reduce the per capita cost of health care.<sup>2</sup>

This Triple Aim framework created a shift in delivery and payment of health care in the United States. In past years, most health care spending occurred through traditional fee-for-service (FFS) payment models. However, with the Triple Aim as a guide, there has been a shift in focus toward payment for quality through value-based payment (VBP) arrangements using PHM to tackle issues in member experience and quality of care.

Population Health Management (PHM) is a model of care that addresses individuals' health needs at all points along the continuum of care, including in the community setting, through participation, engagement and targeted interventions for a defined population. The goal of PHM is to maintain or improve the physical and psychosocial well-being of individuals and address health disparities through cost-effective and tailored health solutions.<sup>3</sup>



## ➤ POPULATION HEALTH MANAGEMENT DRIVERS

PHM did not develop in a vacuum. Federal policy and various stakeholders have driven PHM and value-based care to the forefront of the health care sphere in recent years. These public and private drivers include the following.

### The Affordable Care Act

With the passage of the Patient Protection and Affordable Care Act (ACA) in 2009, new types of value-based care models arose that provide the structures and systems to promote population health.<sup>4</sup> These were bolstered by four ACA provisions that address issues surrounding PHM:<sup>5</sup>

- Provisions for expanded insurance coverage to improve access to health care.
- Provisions for improving the quality of care.
- Provisions to enhance prevention and health promotion.
- Provisions for promoting community- and population-based activities.



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## The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA)

MACRA seeks to move healthcare from the fee-for-service (FFS) payment structure to a model where providers take financial responsibility for care while also improving the quality of care. This is accomplished through the Quality Payment Program, which assesses clinician performance on measures of quality and costs. Clinicians in this program can qualify for two tracks designed to push the market toward value-based reimbursement:

- **Merit-Based Incentive Payment System (MIPS):** FFS payment adjustment is based on performance on quality, cost, health IT and practice improvement metrics.<sup>6</sup>
- **Alternative Payment Models (APM):** A variety of programs moving further from FFS with additional incentive payments for providing high-quality and cost-efficient care. Models include Advanced APMs such as Next Generation accountable care organizations (ACO) and CPC+.<sup>7</sup>

Given the focus on the delivery of quality care, success in either track can be bolstered through implementation of PHM tools and solutions.<sup>8</sup>

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## Employers

Increased productivity and lower health care costs are top priorities for large employers. Many employers believe that integrating primary care and PHM solutions into their health care offerings can produce beneficial results for their company and for employees,<sup>9</sup> and are seeking health plans that use PHM strategies.



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## Other Drivers

Other drivers of population health management exist beyond ACA, MACRA and employers. Accountable care organizations (ACOs) are groups of doctors, hospitals, and other health care providers that come together to provide high quality coordinated care to Medicare patients in an effort to spend health care dollars more wisely.<sup>10</sup> The goals of ACOs are in direct alignment with the goals of population health management. Medicare ACO programs were implemented by CMS to facilitate and incentivize providers and organizations in their transition to an ACO model or get to the next step of their ACO journey<sup>10</sup>:

- **Medicare Shared Savings Program:** helps Medicare fee-for-service program providers become an ACO.
- **Advance Payment ACO Model:** supplementary incentive program for select participants in the Shared Savings Program.
- **Pioneer ACO Model:** designed for organizations and providers already experienced in coordinating care to move from a shared savings payment model to a population-based payment model.
- **Next Generation ACO Model:** for ACOs experienced in managing care for populations of patients.
- **ACO Investment Model:** For Medicare Shared Savings Program ACOs to test pre-paid savings in rural and underserved areas.

In recent years, Medicaid ACOs have been implemented in many states to align provider and payer incentives that are focused on value instead of volume of care. As of February 2018, 12 states have active Medicaid ACO programs and at least 10 more states are pursuing such programs.<sup>11</sup> Most of these programs follow a shared savings or capitated per-patient payment model to establish financial incentive for providers to deliver value driven care. Private ACO contracts have also experienced impressive growth since 2011, with 1366 private ACO contracts in existence and covering 59% of ACO lives as of 2017.<sup>12</sup>

Additionally, other entities are engaging in the field of population health management. In 2015, Institute of Medicine released 15 core measures intended to track progress toward improved health and health care in the U.S.<sup>13</sup> The Agency for Healthcare Research and Quality has released educational and training tools centered around the principles of population health and its interaction with behavioral and social factors.<sup>14</sup>



## ⊕ NCQA AND POPULATION HEALTH MANAGEMENT

### The HPA 2018 PHM Standards

NCQA Accreditation helps organizations win business, meet regulatory requirements and distinguish themselves from the competition. Health Plan Accreditation, built on almost three decades of experience, is NCQA's flagship accreditation program. It is the most comprehensive evaluation in the industry and the only assessment that uses results of clinical performance (HEDIS [Healthcare Effectiveness Data and Information Set] measures) and consumer experience (CHAPS [Consumer Assessment of Healthcare Providers and System] measures).\*

Accreditation requirements meet employer, regulator and consumer demands. NCQA-Accredited health plans cover more than 1,000 health plans across the United States, being the most widely recognized accreditation program in the country.

The program's standards and guidelines cover a variety of topics such as quality management and improvement, network and utilization management, credentialing and member rights and responsibilities. HEDIS measures include prevention and screening, specific conditions (diabetes, cardiovascular disease), care coordination, medication management and utilization. Additionally, the CAHPS 5.0H survey is designed to capture accurate and reliable information from consumers about their experiences with health care.

In 2018, NCQA created a new category of Health Plan Accreditation standards: Population Health Management. This category reflects a population-wide focus on care management. Through a consensus-based, iterative review process, internal and external stakeholders evaluated the proposed PHM standards for appropriate inclusion in Health Plan Accreditation 2018. The review process was conducted with leaders in PHM and value-based care.

\* HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA), CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).





## The NCQA PHM Model

The PHM model (right) was developed by NCQA to highlight the activities necessary for a comprehensive PHM strategy. It can be applied to any entity carrying out PHM functions. A key driver in developing this model was the lack of clarity for the accountability for PHM across multiple entities and such a model helps to demonstrate how activities across entities work together to create a comprehensive PHM strategy.

The primary focus of the model is the member/population at the center. A health plan's PHM program should provide care that addresses the needs, preferences and values of its members.<sup>15</sup> This demonstrates a shift in focus from a disease-centered approach of care delivery to one that considers the needs of the whole person. The center "population" is interchangeable—it can be the entire plan membership, people in a specific disease state (e.g., diabetes) or a specific population (e.g., 65 and older, members receiving long-term services and supports). The model allows the organization to be flexible in determining where to focus interventions.



Surrounding the population are components critical to implementing a successful PHM program, including population identification, data integration, stratification, measurement, care delivery systems, health plans and payers, community resources. These components support the population and, together, create a PHM strategy. Each component is described in the Resource Guide.

## ➔ THE POPULATION HEALTH MANAGEMENT RESOURCE GUIDE

The PHM Resource Guide is a practical resource for health plans seeking to create a PHM strategy and incorporate PHM principles. It contains in-the-field examples and helpful tools, and is written for the health plan perspective and experience—although its information can be useful for any organization that wants to understand PHM.

The guide is divided into five components for a successful PHM strategy:

- 1 The Population Health Management Strategy.
- 2 Population Stratification and Resource Integration.
- 3 Targeted, Person-Centered Interventions.
- 4 Delivery System Support and Alignment.
- 5 Measurement.



**How to Use the Resource Guide**

Each guide component follows a similar structure, describing activities related to a specific focus and their importance in a comprehensive PHM strategy. In each component, the guide strives to answer:

- What is this component?
- How is this component important to a PHM strategy?
- What is the role of the health plan?
- What are field examples?
- What are common questions and answers?

The guide answers these questions and provide examples that can inspire health plans for their own PHM strategy. The following table organizes the content of the components into the following subsets.

Subset	Subset Description
In-the-Field Examples and Tools	Examples from real organizations conducting population health management that demonstrate the component discussed.  *The results and claims were not independently verified. NCQA makes no representations or warranties, and has no liability to anyone who relies on the results and claims.
Common Questions Box	Q&A regarding the component and unique aspects of the component.
Measures	Relevant measures that can demonstrate capabilities or progress in achieving the component.

This guide will educate health plans on PHM principles and provide examples of how PHM can be achieved in practice. Users of the guide can use this information to educate employees and stakeholders in PHM principles, and use examples to inspire their own activities.

The Resource Guide does not replace the PHM category of standards in Health Plan Accreditation or dictate additional requirements that must be met for an Accreditation Survey or dictate requirements for how a PHM strategy should be implemented.





# Component 1: The Population Health Management Strategy

The health plan's PHM strategy defines how health services are delivered or offered and provides the basic framework for meeting the needs of a targeted population, as well as guidance and structure for establishing activities that meet PHM goals.

The PHM strategy is unique to the structure and needs of the health plan. Factors include:

- Goals.
- Targeted populations.
- Programs and services offered.
- Health plan activities in addition to member interventions.
- Program coordination.

Establishing a detailed and defined PHM strategy helps a health plan achieve its PHM goals for clinical outcomes and processes, cost/utilization and member experience.

## **If I'm applying for NCQA Health Plan Accreditation, do I need to follow everything in this Guide?**

This guide provides an overview of PHM principles and is not meant to be prescriptive. It illustrates PHM principles and activities; it is not a step-by-step guide on how to conduct PHM.

Many components here align with NCQA standards, but the standards also allow flexibility in a plan's approach to PHM.

Targeted populations are identified through population assessment and member risk stratification; the programs and services offered to members are tailored based on the results. Refer to [Component 2](#) for information.

Activities outside member interventions—staffing, VBP arrangements, utilization management—can be done to achieve PHM goals. Their functionality can be critical to the full implementation of a PHM strategy. Refer to [Component 3](#) for information.

Program coordination in the health plan can minimize repeated contacts with members and can reduce member confusion about the care they receive. Plans can work with other entities to reduce multiple contacts and member burden. Refer to [Component 4](#) for information.

Together, these pieces create a blueprint to PHM, a comprehensive PHM strategy that helps guide a health plan toward successful PHM.

**The Resource Guide does not replace the PHM category of standards in Health Plan Accreditation or dictate additional requirements that must be met for an Accreditation Survey or dictate requirements for how a PHM strategy should be implemented.**



## NCQA'S FOUR AREAS OF FOCUS

Because PHM strives to address member health needs at all points along the continuum of care, health plans creating a PHM strategy should consider NCQA's four areas of focus, cited in the NCQA Health Plan Accreditation element: PHM 1, Element A, Strategy Description. This element requires a health plan's strategy for addressing member needs to meet at least these four areas:

- Keeping members healthy.
- Managing members with emerging risks.
- Patient safety or outcomes across settings.
- Managing multiple chronic illnesses.

These areas of focus cover the entire care continuum. Plans can use them as a starting point for setting goals and dividing the population for targeted intervention. Detailing a PHM strategy with specific goals can help structure and focus efforts on providing services to members across the continuum of care.

EXAMPLES	
Keep members healthy	<p><b>Goal:</b> 70% of members 50 years of age and older receiving two doses of the shingles vaccine.</p> <ul style="list-style-type: none"> <li>• Targeted population: Members 50 years of age and older without prior history of severe allergic reaction to the vaccine.</li> <li>• Programs or services: In-office education on the benefits of shingles vaccination and on-site vaccination clinics targeting the appropriate members.</li> </ul>
Manage members with emerging risks	<p><b>Goal:</b> 40% of members with diabetes and no cardiovascular disease receive statin medications during the measurement year.</p> <ul style="list-style-type: none"> <li>• Targeted population: Members 40–75 years of age diagnosed with diabetes who do not have clinical atherosclerotic cardiovascular disease.</li> <li>• Programs or services: Clinician review of member's prescribed medications, educate targeted members on statins.</li> </ul>
Patient safety	<p><b>Goal:</b> Improve home safety modifications (reduce clutter, tape down loose rugs, install grab bars in the bathroom) for members receiving long-term services and supports (LTSS) during the measurement year.</p> <ul style="list-style-type: none"> <li>• Targeted population: Members receiving LTSS and living at home, and individual assessment revealed the need for home safety modifications.</li> <li>• Programs or services: Referral to community-based or external organization to arrange for home modifications.</li> </ul>
Manage multiple chronic illnesses	<p><b>Goal:</b> Reduce emergency department (ED) visits related to chronic pulmonary obstructive disorder (COPD) in target population by 3% compared with baseline, during the measurement year.</p> <ul style="list-style-type: none"> <li>• Targeted population: Members 65 and older with a diagnosis of COPD.</li> <li>• Programs or services: Complex case management and longitudinal access to primary care.</li> </ul>



## Component 2: Population Stratification and Resource Integration

Understanding the member population and having the resources to serve it adequately are integral to a successful PHM strategy. To do this, a plan should have a process for assessing the member population, segmenting and stratifying members based on their risk profile and providing targeted, person-centered interventions based on the member risk profile and need.

The process of population stratification and targeted intervention is cyclical. It should happen regularly, as part of normal plan activities. Data integration is necessary to support all aspects of PHM, including population assessment, risk stratification and outcomes measurement.

Conducting stratification allows a health plan to understand its member population and the types of services or interventions needed, and develop resources, activities and interventions. Services and interventions can be delivered by the plan, vendors or the delivery system, or be delivered by community organizations providing social services. When these services and interventions are shared among multiple organizations, it is essential they be well integrated and coordinated to avoid confusion, duplication or gaps in service. Understanding a population and providing services that are important to the population lets a plan collaborate and integrate resources outside its scope and fill gaps in services.

This component is divided into the following subsections:

- Population Assessment.
- Data Integration.
- Risk Stratification.
- PHM Activities and Resources.
- Social Determinants of Health.

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The Resource Guide does not replace the PHM category of standards in Health Plan Accreditation or dictate additional requirements that must be met for an Accreditation Survey or for how a PHM strategy should be implemented.

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### ➔ POPULATION ASSESSMENT



**Population assessment** is systematically assessing a population for significant characteristics and needs. When conducting an assessment, a health plan identifies subpopulations in the member population, based on selected characteristics and needs. The assessment should evaluate a variety of defining characteristics and evaluate social determinants of health (described below).

Identified subpopulations are at the discretion of the plan. Characteristics that can define a relevant subpopulation may include, but are not limited to:

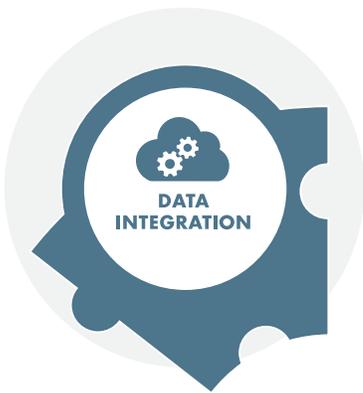
- Federal or state program eligibility (e.g., Medicare or Medicaid, dual-eligible).
- Multiple chronic conditions.
- Severe injuries.



- At-risk ethnic, language or racial group.
- Physical disabilities.
- Intellectual and developmental disabilities.
- Serious and persistent mental illness.
- Housing status.
- Employment status.
- Socioeconomic status.
- Food insecurity.
- Geographic region.
- Age.
- Groups with common comorbidities.

Integrated data should be used to conduct the population assessment. Using various types and sources of data helps a plan understand the care needs of its member population and relevant subpopulations. Continually updated data also provides insight into these populations—these insights can help determine programs and services to offer for improving the health of all members.

## ➔ DATA INTEGRATION



**Data integration** is combining data from multiple systems and sources (e.g., claims, pharmacy), across care sites (e.g., inpatient, ambulatory, home) and across domains (e.g., clinical, business, operational).

Having access to a variety of data sources and types can help a plan provide the right care to members, at the right time. Varieties of data should be integrated in a manner that can be used to assess the population and stratify members based on risk. Aggregating and integrating data is the first step in the process of population assessment and risk stratification, and is also important in other components of the PHM strategy.

Data can be used to ascertain if a program or service is meeting its goals and improving the health of members.

Data integration is not stagnant; it is constantly being collected and integrated—therefore, data systems are continually updated to provide an accurate picture of the member population and the impact a PHM activity is having on the targeted population. This is crucial in providing up-to-date, relevant programs and services for members who need them.

Aggregated data can be used to conduct measurement and improvement activities. Having access to a variety of integrated data sources and types that are aggregated in a single location is important in conducting PHM. Additionally, a defined process for regular review of summary dashboards and analytic reports by appropriate personnel using these data are essential for to be responsive to ongoing population needs.



## ➔ TYPES OF DATA AND SOURCES

The following list of data types and sources is suggestive but not exhaustive. Sources and types of data a plan uses should reflect its needs and the needs of the member population.

- Medical and behavioral claims.
- Laboratory data.
- Electronic health records.
- Case management.
- Wellness and prevention programs.
- All-payer data warehouse.
- Data supplied by members.
- Demographic and census data.
- Pharmacy claims.
- Health appraisals.
- Health services programs in the health plan:
- Utilization management and processes.
- Health information exchanges.
- State or regionwide immunization registries.
- Data supplied by providers or practitioners.

### What are health information exchanges? All-payer data warehouses?

Health information exchanges (HIE) share health information electronically between any two or more organizations with an executed business/legal arrangement.<sup>16</sup> The goal of these exchanges is to facilitate access to and retrieval of clinical data to provide safe, timely and efficient person-centered care.

All-payer data warehouses provide a more complete and more accurate picture of the health care delivery system across public and private payers, to improve population health.<sup>17</sup>

Data sources can come from a variety of places: claims, laboratory reports, ICD-10 codes, open source software, publicly available data such as demographics and census reports or other means. Other data sources can only be accessed through collaboration with providers or practices, or other entities such as health information exchanges, pharmacy benefit management databases and community and/or online sources of information about social determinants of health.

The ability to use data to its fullest is critical to providing actionable insights into PHM activities and plan members. Interoperability is the ability of health information systems to work together within and across organizational boundaries to advance the effective delivery of care.<sup>18</sup> Data should be usable across all systems, to allow “apples-to-apples” comparison. Standardized content eliminates ambiguity.<sup>19</sup>



## In-the-Field Examples and Tools: Philips Wellcentive

**Problem:** In 2012, MGM Resorts launched its Direct Care Health Plan (DCHP) for employees in Las Vegas as an alternative to the traditional PPO and HMO offerings. An issue affecting their success in improving the quality and lowering the cost of their healthcare was that primary care providers used different non-interoperable EHR applications or had no EHR system at all.

**Process:** The Philips Wellcentive solution aggregated and integrated data from a variety of sources that included primary care, specialists, hospitals, labs and pharmacies to create a “mini-HIE” for the DCHP program.

With the integrated solution in place, primary care providers can:

- View a single, actionable patient record for each patient.
- Easily identify gaps in care and implement actions to address them.
- Identify patients who may not be taking prescribed medications.
- Enter data in the EHR, regardless of vendor, and automatically populate the registry.

### Results:

- 79% of diabetic patients enrolled in DCHP received HbA1c screening, compared with 53% of patients enrolled in the PPO offering.
- 62% of eligible members enrolled in DCHP received colorectal cancer screening, compared with 30.7% of patients enrolled in the PPO offering.
- 76% of members say their primary care provider office wait time is less than 15 minutes.

\* The results and claims were not independently verified. NCQA makes no representations or warranties, and has no liability to anyone who relies on the results and claims.

## In-the-Field Examples and Tools: Health Leads<sup>20</sup>

**Solution:** Health Leads created a Social Needs Screening Toolkit that provides guidance on assessing members for essential needs. The toolkit recommends the following domains in a SDH screening tool:

- Food insecurity.
- Utility needs.
- Transportation.
- Sociodemographic information.
- Housing instability.
- Financial resource strain.
- Exposure to violence.

Health Leads also share best practices learned for creating a successful screening tool:

- Keep language at a 5th grade or lower reading level.
- Ensure forms and materials are available in the practice’s most spoken languages.
- Make it short and simple.



- Choose clinically validated, targeted questions for your intervention and population.
- Fully integrate screening processes and resulting information into a clinical workflow.
- Discuss goals, priorities and available support services with members with social needs.
- Conduct a short pilot of the screening tool before offering it to the entire member population.

The toolkit provides a recommended social determinants of health screening tool that can be tailored to meet the needs and characteristics of the population. Examples of social needs questions in the tool include:

- In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?
- In the last 12 months, has the electric, gas, oil, or water company threatened to shut off your services in your home?
- Are you worried that in the next 2 months, you may not have stable housing?
- Do you often feel that you lack companionship?
- In the last 12 months, have you ever had to go without health care because you didn't have a way to get there?
- Do you ever need help reading hospital materials?

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## In-the-Field Examples and Tools: ActiveHealth Management (

The CareEngine® service from ActiveHealth Management is a clinical decision support tool utilizing over 9,000 evidence-based clinical rules and about 200 health markers to continuously monitor and analyze the total health and well-being of each member. The tool can provide a broad, holistic view of health using administrative claims data, electronic health record data, worker's compensation data, patient-derived data (e.g., medical and wearable devices, health risk assessment) and other data sources. A set of clinical algorithms are used to identify an individual's overall and condition-specific clinical risk. CareEngine also includes alerts that are sent to physicians, members, care managers and wellness coaches to communicate a possible opportunity to improve the member's health according to accepted standards of care.

To evaluate the efficacy of CareEngine, ActiveHealth® conducted a matched controlled cohort study focusing on clinical indicators of care quality, use of hospitals and emergency departments and expenditures. These focuses were chosen for their ability to demonstrate value of the service to health plans and accountable care organizations. The study included individuals covered by fully insured preferred provider organization plans of a large, national health plan insuring many providers, some of which employed the CareEngine service.

The results of the study demonstrated that those exposed to CareEngine's clinical decision support communications saw:

- Improvements in 8 of 13 important clinical quality measurements.
- 8% reduction in emergency department visits and hospital admissions

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**In-the-Field Examples and Tools: Kaiser Permanente, Integrated Organizations**

Population care management for 12 million Kaiser Permanente members in 8 regions is enabled by KP HealthConnect™, the integrated electronic health record available in all care settings. Proactive office encounters identify and address care gaps for every patient at every contact, and panel management closes care gaps at the level of primary care provider (PCP) panels through outreach to patients by clinic support staff.

Through the KP HealthConnect™ platform, Kaiser uses their KP SureNet system to assess and identify patients with potential care gaps, such as abnormal lab results without timely follow up or the use of certain medications without adequate monitoring. Once these gaps are identified, regional teams outreach to patients and follow them until care gaps are closed. Medication adherence programs have improved new and continuing prescription fill rates. In addition to outreach, tools on kp.org, the online patient portal, increase patient engagement through personalized health action plans notifying patients of needed actions. More recent initiatives focus on systematically identifying and addressing social needs as an important element of population care.

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**RISK STRATIFICATION**



Risk stratification is the process of separating member populations into different risk groups.<sup>21</sup> Categories can then be used to assign members to tiers or subsets, with the goal of determining member eligibility for programs or specific services.

A similar method to risk stratification is population segmentation, which divides the population into meaningful subsets using information collected through population assessment and other data sources. Both segmentation and stratification result in the categorization of members with care needs at all levels and intensities.

Risk statuses or subsets include strategies aimed at health promotion and wellness, management of chronic conditions and complex case management. Plans can design risk stratification and intervention models to optimize outcomes important to their population and maximize the impact of care and resources.

There are many ways to stratify/segment members based on risk status. Regardless of the method, stratification requires a

**What is predictive analysis? When would it be used?<sup>21</sup>**

Predictive analysis uses technology and statistical methods to search massive amounts of data and analyze it to predict outcomes for individuals. It can be used to increase the accuracy of diagnoses, identify at-risk members, assist in treatment decisions, predict future medical costs, and more. Such techniques can reveal associations in data that would otherwise have gone unnoticed.



population assessment and integrated data to determine members' subsets and programs and services for which they are eligible.

Stratifying members based on cost information and/or utilization can be included, but alone is not comprehensive enough for appropriate risk stratification.

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### Models of Risk Stratification<sup>22</sup>

There is more than one model of risk stratification. A plan's choice of model is contingent upon its structure and goals, and on the characteristics of its population. A plan can also create its own risk stratification or segmentation model to suit its population. Examples of common models include:

- **Adjusted Clinical Groups.** Uses the presence/absence of specific diagnosis from inpatient/outpatient services to predict utilization of medical resources for a specified period, age and sex. Individuals are then classified into 1 of 93 discrete categories with similar expected utilization patterns.
- **Hierarchical Condition Categories.** Seventy condition categories from selected ICD codes; includes expected health expenditures.
- **Elder Risk Assessment.** Age, gender, marital status, number of hospital days over the previous two years and selected comorbidities are used to assign an index score to each member over 60 years.
- **Chronic Comorbidity Count.** Based on publicly available information from the Agency for Healthcare Research and Quality's (AHRQ) Clinical Classification software, the total count of selected comorbid conditions spanning six categories.
- **Minnesota Tiering.** Members are grouped into one of five tiers based on the number of conditions across each condition group (e.g., Tier 1 = 1–3 condition groups, Tier 2 = 4–6 condition groups).
- **Charlson Comorbidity Measure.** Predicts the risk of 1-year mortality for members with a range of comorbid illnesses. Based on administrative data, it uses the presence/absence of 17 comorbidity definitions to assign members a score from 1–20, increasing in comorbid complexity.
- **Identification of Febrile, Neutropenic Children with Neoplastic Disease** (Lucas et al.). Predicts severe infections in pediatric cancer patients using chills, hypotension, and leukemia/lymphoma diagnosis as predictors.<sup>23</sup>

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### In-the-Field Examples and Tools: Evolent Health

**Problem:** An accountable care organization in the Midwest with nearly 30,000 members had previously focused their member stratification by pulling members based on high-cost claims data, which had resulted in only modestly improved outcomes.

**Process:** The organization partnered with Evolent Health to optimize their clinical and cost performance and to implement a population health program. Through this partnership, the organization implemented the Evolent stratification approach to identify "impactable" members using factors beyond cost and utilization. The Evolent stratification used an analytics-driven suite of predictive models to leverage machine learning across administrative, clinical and social data and to identify members by balancing high risk for clinically important outcomes with opportunity to change.



**Results:** A study of the partnership’s Complex Care program, designed to prevent ambulatory care-sensitive admissions due to poorly managed chronic diseases, found that there was a 48% reduction in medical expenditures per member per month, a 66% reduction in inpatient admission, a 51% reduction in ED visits and \$4.6M in total annual avoided costs for stratified managed members. This was accompanied by appropriate increases in outpatient visits and pharmaceutical and administrative costs for the stratified cohort.

Evolut Health provides solutions for organizations committed to moving toward achieving clinical and financial success in value-based care. These solutions are utilized by a variety of provider organizations, including health systems, physician groups, accountable care organizations, and provider-sponsored health plans.

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## PHM ACTIVITIES AND RESOURCES



Once a health plan has conducted a population assessment, the results can be used to review and update its PHM activities and resources. The PHM strategy should be updated to include new programs, services and activities that meet the needs of the member population as much as possible. Updates to plan resources such as staffing ratios and cultural competencies should be based on results of the population assessment. By tailoring resources and/or service offerings to a population, a health plan can focus resources where they will have the greatest impact. These examples demonstrate how a population assessment is used to inform what resources a particular subpopulation may require:

### **Subpopulation identified: of children and adolescents diagnosed with asthma.**

- **Discovered through:** Medical claims, community health assessment provided by local health department.
- **Current services offered to members with asthma:** Self-management tools for asthma triggers, respiratory therapy benefits.
- **Additional services and resources to be offered to members with asthma:** At home visit program to assess indoor environmental triggers.

### **Subpopulation identified: members whose main language is Arabic.**

- **Discovered through:** Community health assessment provided by local health department, census data.
- **Current services offered to Arabic members:** Educational materials in Arabic language.
- **Additional services and resources to be offered to Arabic members:** Hire a community outreach coordinator focused on Arab communities.

Reassessing the appropriateness of PHM activities and resources is fundamental to an overall PHM strategy. This requires flexibility with regard to changes in the population. If a health plan successfully updates its PHM activities and resources based on population assessment results, it can give its members the right care at the right time.



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## Community Resources<sup>24,25</sup>

In many cases, a health plan's services cannot address every need identified by the population assessment. Plans can mitigate this by integrating community resources into the suite of services they provide. Members who require the services of a community resource can be connected through a referral service, a community health worker or other methods.

In the mid-20th century, community health worker programs were a federally supported way of expanding health care access to underserved communities. Since then, government support has greatly diminished,<sup>26</sup> but community health workers can increase access to health care services and the appropriate use of resources by providing outreach to and links between communities and the delivery system. Collaborating with a local community health worker program or hiring community health workers can connect hard-to-reach populations, including underserved, vulnerable and rural populations, to needed resources; for example:

- Connect at-risk members with shelters.
- Sponsor or set up fresh food markets in communities lacking access to fresh produce.
- Connect food-insecure members with food security programs or sponsor community gardens.
- Connect elderly members without social supports to Area Agencies on Aging, to help with transportation and meal delivery.
- Be a community partner in healthy community planning.
- Partner with community organizations promoting healthy behavior learning opportunities (e.g., nutritional classes at local supermarkets, free fitness classes).
- Support community improvement activities by attending planning meetings or sponsoring improvement activities and efforts.
- Utilize social workers or other community health workers who can connect members with appropriate community resources.
- Connect members with vocational programs.
- Refer members to government aid (e.g., food stamps, maternal-child health programs, housing assistance).
- Connect elderly members with senior centers and adult day cares.
- Connect members who have substance abuse issues with community support groups.
- Connect members with social risk to housing resources and poverty outreach groups.

### How can I find community organizations to integrate into my services?

Many community organizations that provide useful services to a member population work with other health plans, health systems and local governments. It can be beneficial to locate those community organizations that are being used by similar organizations to yourself and that provide services that meet the needs of your members.

The ACA requires participating health plan networks to include essential community providers (ECP). Local health departments are beginning to partner with health plans to provide services (e.g., for TB, sexually transmitted disease, family planning) to historically underserved areas and populations.<sup>24</sup>

Collaboration with community health boards can also be beneficial in forging partnerships with community organizations and resources, and can help align efforts between health plan and community partners to achieve high-priority population health goals.<sup>25</sup>



## In-the-Field Examples and Tools: BlueCare Tennessee

**Problem:** Only 70% of children enrolled in BlueCare received well-child screenings.

**Solution:** BlueCare partnered with KaBOOM, a nonprofit organization that helps communities build playgrounds for children, to develop an innovative way of educating parents and kids on the importance of well-child screenings. They built two community playgrounds in Memphis and Chattanooga; each playground serves more than 1,000 area kids and parents in zip codes with high well-child screening noncompliance rates.

BlueCare and KaBOOM placed well-child screening awareness messages on plaques, signs and equipment throughout the playground areas. BlueCare also collaborated with the United Way of Nashville to use its 211 helpline to spread the importance of well-child screenings during call center interactions, enabling a critical connection between individuals and families in need and appropriate community-based organizations and government agencies, supporting a database of more than 10,000 services. Through this partnership BlueCare was also able to collaborate with the Imagination Library, a free children's book distribution program for children from birth to 5 years in local counties. Well-child screening awareness labelling was placed on books mailed to parents of participating children, in addition to messaging in the Imagination Library newsletters that were also sent to parents.

BlueCare's Community Engagement Strategy focuses on working side by side with community agencies, stakeholders, civic organizations and interest groups to improve the quality and efficiency of care for its members. Such partnerships and initiatives can empower those from the community to learn about BlueCare's programs. Community engagement can increase the level of trust between the plan and the community.

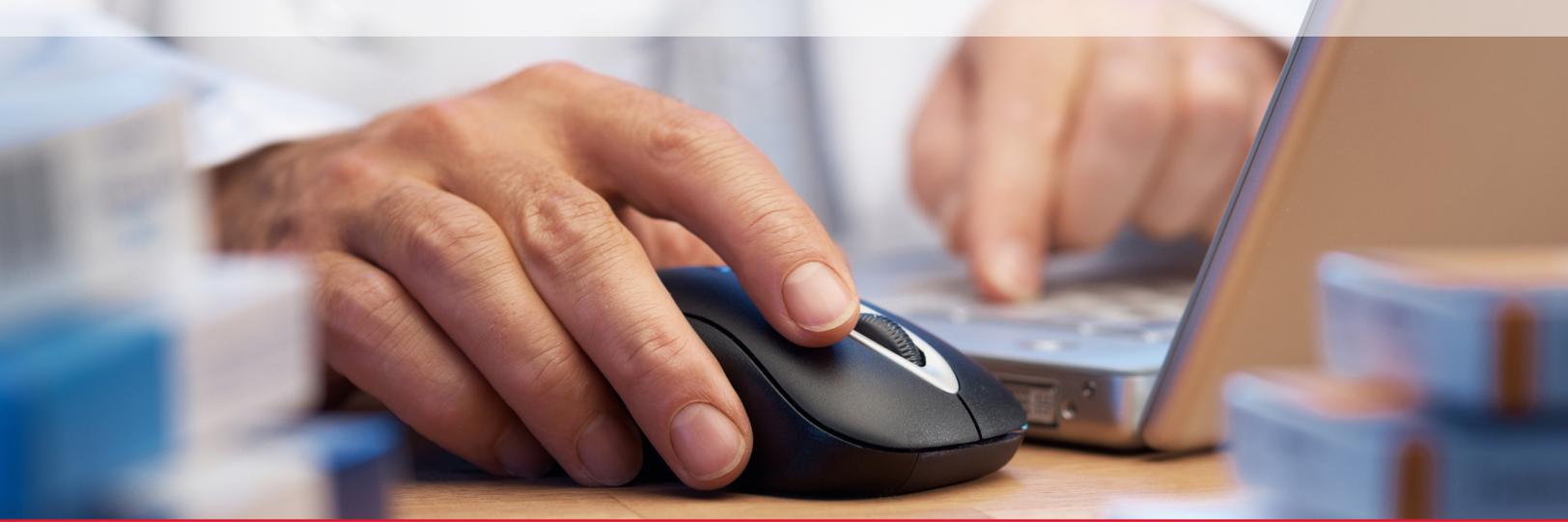
\* The results and claims were not independently verified. NCQA makes no representations or warranties, and has no liability to anyone who relies on the results and claims.

## ⊕ SOCIAL DETERMINANTS OF HEALTH<sup>27</sup>

Social determinants of health are economic and social conditions—where people are born, live, learn, work, play, worship and age—that affect a wide range of health, functioning and quality-of-life outcomes and risks; for example:

- Safe housing.
- Local food markets.
- Socioeconomic conditions.
- Access to educational, economic, and job opportunities.
- Transportation options.
- Social support.
- Exposure to crime, violence, and social disorder (e.g., presence of trash and lack of cooperation in a community).

These behaviors, social and environmental factors play a fundamental role in the health of the population.<sup>28</sup> A meta-analysis found that social factors, such as education, racial segregation, social supports, and poverty accounted for over a third of total deaths in the United States over a year.<sup>29</sup> Assessing social determinants of health is necessary to understand a population's characteristics and needs. In many cases, they provide added insight into services an individual may require to improve health and quality of life. Their inclusion in the pool of data used to conduct population identification and resource integration is



critical to fully addressing the health needs of a member population.

A health plan's comprehensive understanding of its member population, including factors related to social determinants of health helps to determine the appropriate services and programs needed to care for the members and to identify any gaps in services. In many cases, community resources and supports can fill these service gaps and can often prove to be more cost-effective to delegate to these outside entities.

With increasing focus on social determinants of health in optimizing member care, tools have been created to facilitate organizations in understanding their member population's social determinants. The Protocol for Responding to and Assessing Patients' Assets, Risks and Experiences (PRAPARE) is intended to help health care providers and payers collect data to understand and act upon their member's social determinants of health.<sup>30</sup> It includes a social determinants screening tool as well as an implementation and action process that is customizable to the organizational and community needs. This screening tool includes a set of core and optional measures based on community priorities to capture data on social determinants of health in the population. The protocol is also compatible with many widely used electronic health records systems. Gaining such information can help health plans make improvements at the members, organizational and community level to improve the health of their members.

### **How do I find data or information on social determinants of health in my population?**

The CDC has a variety of data resources on social determinants of health used:

- Chronic Disease Indicators.
- National Environmental Public Health Tracking Network.
- The Social Vulnerability Index.
- Vulnerable Populations Footprint Tool.
- Community needs assessments.
- Census data.
- Demographic data.

Health assessments or appraisals can also provide information relevant to many social determinants of health. Assessments include member-reported information on demographics, self-perceived health status and special needs that can help identify social needs and risks.



**In-the-Field Examples and Tools: UnitedHealthcare**

UnitedHealthcare (UHC) is the largest healthcare company in the U.S. In past years, it has expanded its available member data to include non-traditional measures of social determinants of health by implementing a coding system developed specifically for issues related to social determinants of health and other non-traditional data, such as veteran status and caregiver information.

These UHC “member attribution” codes capture self-identified member data (e.g., transportation, social interaction and isolation and food insecurity) to fill gaps in the ICD-10 Diagnosis Codes to allow for more holistic support for the member. These codes fall into the following categories related to social determinants of health:

- Counseling
- Education
- Health/health care
- Respite care
- Economic stability
- Employment
- Personal care
- Social/community

The process to collect the social determinants of health data is based on use of a standardized file layout. This layout can accommodate sources that identify member social determinants, sources that refer members to social services that assist them with their barriers to care, and/or sources that fulfill a social need. UHC works with strategic community partners (SCP) to map their data to the standardized layout and consults with certified coding experts to match the source’s terminology to the established codes. The SCP then provides the file on a regular basis to a designated secure location for processing, storage, allowing United to address a more holistic approach to the member’s care utilizing this information coupled with more traditional clinical data.

This data can be used to reduce disparities in health and address member’s barriers to care. For example, a partner contracted by UHC that conducts at least 1.2 million home visits per year captured information on member’s self-identified social barriers to care. In 2017, over 550,000 members have self-identified a need of social, financial, or community assistance affecting their health. Over 700,000 referrals were made using this information to include but not limited to: member outreach, assistance with applications for Medicare Savings Program/Low Income Subsidy programs and/or referrals to social services using a database of national and local community resources.

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# Component 3: Targeted, Person-Centered Interventions

Once members are stratified, a plan can identify the most appropriate interventions and services. Members are often stratified by risk, which indicates that the plan should offer interventions of varying intensity. These interventions help members receive the right care at the right time, improving population health and experience. This component discusses the following generalized categories and interventions:

- **Well members with little or no risk factors.** Wellness and prevention education and programs.
- **Members with emerging risk factors or one chronic condition.** Chronic condition management programs.
- **Members with multi-condition, polypharmacy or other complex risk factors.** Complex case management programs.
- **Members with behavioral health risk factors:** Behavioral health management programs.

## What's the difference between wellness and well-being? What can a health plan do to help?

Wellness is often defined as a focus on improving physical health, whereas well-being is a holistic view of wellness that includes an individual's emotions and moods, satisfaction, fulfillment and positive functioning such as job satisfaction, financial security and social connectedness.

A plan can use data on social determinants of health to identify potential issues of well-being, and its wellness and prevention programs and services can address them. Mental health services can also contribute to improved well-being.

## How can a health plan engage members in wellness services?

Engaging members in wellness and prevention services can be difficult, but there are strategies for improving member engagement:

- Incentives such as gym membership discounts, contests and challenges.
- Effective marketing on problems solved by wellness services, or a call to action.
- Communication that meets members where they are; such as through email, print, websites, posters, text messaging, social media.
- Wellness committees that include member



Programs in each category increase in intensity or care and intervention, depending on member risk status and need.

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The Resource Guide does not replace the PHM category of standards in Health Plan Accreditation or dictate additional requirements that must be met for an Accreditation Survey or dictate requirements for how a PHM strategy should be implemented.

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## ⊕ WELLNESS AND PREVENTION<sup>31,32</sup>

Wellness and prevention services are key to a PHM strategy. A health plan can offer wellness services focused on preventing illness and injury, promoting health and productivity, increasing health awareness and reducing risk. This can be done through identifying and managing health risks through evidence-based tools. Services can target:

- Healthy weight maintenance.
- Physical activity.
- Stress management.
- Depression.
- Smoking and tobacco cessation.
- Healthy eating.
- High-risk substance use.

There are many ways to target these health areas. Wellness and prevention services and interventions can include, but are not limited to:

- Administering health appraisals.
- Self-management tools (interactive quizzes, caloric intake diary).
- Online or onsite wellness classes, activities and educational resources.
- Age and gender-appropriate screenings (breast cancer, colon cancer, prostate cancer).
- Preventive care reminders.
- Educational materials on specific health conditions and illnesses.
- Personal coaching.
- Age-appropriate vaccinations.
- Primary care for evidence-based preventive care.

### NCQA Programs

The NCQA Wellness and Health Promotion Accreditation program is a comprehensive assessment of full-service wellness providers. It is intended to help employers “get their money’s worth” when selecting wellness providers, by identifying vendors most likely to deliver on the employer’s priorities, such as workforce health and reducing absenteeism.



Wellness and prevention services support members with health risks such as smoking or obesity, to prevent development of chronic conditions such as diabetes, hypertension and cancer. For other members, these services promote a healthy lifestyle.

Services and materials can be provided through a variety of mediums—print, telephone, mobile phone application, in person, online—and should be in easy-to-understand language.

Self-management tools help members determine their health risks, and recommend ways to improve health. They can also help members reach and maintain personal health goals, and can be interactive, letting members enter personal information for immediate, individualized results.

Types of wellness and prevention services required differ by populations. Cancer screenings are a good example of how wellness and prevention service requirements may differ between certain populations. Screening is critical for the detection of certain cancers, such as cervical and colorectal cancer. These cancers can be prevented through screening methods and the detection of precancerous polyps, though the need of these screening methods differs by age groups. For example, the US Preventive Services Task Force (USPSTF) recommends screening adults between 50 and 75 years of age for colorectal cancer using fecal occult blood testing, sigmoidoscopy or colonoscopy.<sup>33</sup> There are also differences based on demographics and certain characteristics.

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### In-the-Field Examples and Tools: Essentia Health

**Problem:** Help community members access healthy food options in the Northwest Minnesota region.

**Solution:** Essentia Health is an ACO serving individuals in Minnesota, Wisconsin, North Dakota and Idaho. It supports farmers markets in the area to increase food dollars for low-income residents who participate in the Supplemental Nutritional Assistance Program (SNAP) through an EBT-matching program.

Local farmers markets accept EBT and SNAP as a form of payment and provide a one-to-one match of up to \$15 per day. By partnering with Hunger Solutions Minnesota, a hunger relief organization, Essentia Health was able to contribute \$5 toward the matching program, a contribution of approximately \$5,000. Participating in this matching program allows low-income customers to have more food assistance dollars available for purchasing healthy local foods.

In addition to fund matching, Essentia Health partners with a local food bank to transform its traditional food shelf program to a healthier model of distribution. The program implemented the nudge theory of behavioral science to provide indirect suggestions as a way of influencing decision making. In this case, “nudging” members using behavioral cues to make healthier choices easier. Sixteen food shelves and 47 staff and volunteers were trained on “nudges.”

**Results:** Since implementation, the food shelf has seen a 27% reduction in the distribution of baked goods and a 48% increase in the distribution of fruits and vegetables. Additionally, in a survey at the Lincoln Park Farmers Market:

- 42% of customers used an EBT card.
- 72% of customers tried a new food.
- 91% of customers felt that the program positively impacted their health.

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## In-the-Field Examples and Tools: University of Texas Medical Branch

The University of Texas Medical Branch (UTMB) is an academic and research institution and network of hospitals and clinics that provide a full range of medical primary and specialty care throughout Texas. UTMB recognized that it had an opportunity to reduce its 30-day readmission rate, which was most likely attributable to a lack of a standard patient discharge process and transitions of care.

**Problem:** Various factors made it difficult for patients to achieve the necessary steps to help them recover and avoid hospital readmission. There was a lack of necessary data to be able to identify patients at highest risk for readmission. Patient education materials were not standardized resulting in variation in the information patients received. Complex discharge instructions lead to medication mismanagement or an unclear understanding of the signs and symptoms that might indicate a need to seek care from their practitioner.

**Solution:** To reduce unnecessary hospital readmissions, UTMB established the multidisciplinary Controlling Avoidable Readmissions Effectively (CARE) collaborative. This collaborative focused on meeting this goal through the following factors: coordination of care, improved access to primary care, behavioral healthcare and specialty care, and improved utilization of standard processes and technology. Through the CARE collaborative, UTMB:

- Established standard processes for documenting patient complexity and comorbidity of diagnoses, thus improving the accuracy of clinical documentation and communication of the patient's medical needs.
- Developed the role of patient care facilitators focused on coordinating the care of patients at high risk of readmission.
- Implemented an analytics application to view data by patient demographics, discharge status, practitioner, and other metrics to monitor trends associated with readmissions.
- Communicated progress on 30-day all-cause readmission rate reductions and identified best practices across the system through organizational scorecards.

**Results:** Establishment of the CARE collaborative at UTMB has led to the following results:

- 14.5% relative reduction in the 30-day all-cause readmissions rate.

\$1.9M in cost avoidance due to a reduction in the 30-day all-cause readmissions rate.\*The results and claims were not independently verified. NCCQA makes no representations or warranties, and has no liability to anyone who relies on the results and claims.

## ➔ CHRONIC CONDITIONS<sup>34</sup>

As of 2012, about half of all U.S. adults have one or more chronic condition.<sup>35</sup> Health plans must recognize that these conditions do not occur in isolation; for example, obesity often leads to heart disease, hypertension and diabetes, and the existence of these comorbidities should lead to a different treatment plan.

To effectively manage this segment of a population, a plan engages in care coordination strategies to address comorbidity issues that can arise when treating chronic conditions.<sup>36</sup> Effective chronic condition management interventions can help avoid hospitalizations and complications. Example interventions include:

- Remote monitoring (wearable technology).
- Telehealth and virtual appointments for rural members.
- Medication management and reconciliation.
- Weight management.
- Nutrition counseling.



- Member educational tools on their condition.
- Oxygen therapy.
- Laboratory tests (pulmonary function test, A1C levels, eye dilation).
- Routine foot exams.
- Smoking cessation programs.

Having such tools and services available for managing chronic conditions will help reduce associated costs and improve members' quality of care and life. A review of 41 studies assessed the evidence of chronic condition management on improving quality outcomes and reducing costs, and included interventions and services for their patients with chronic conditions such as those described above, in addition to self-management tools and delivery system design. In the review, 32 of 39 studies measuring outcomes saw improvement on at least one outcome measure for patients. Additionally, 18 of the 27 studies assessing cost and utilization demonstrated reductions in health care costs, as well as resource use associated with congestive heart failure, diabetes and asthma.<sup>37</sup>

### **How does the health plan screen chronic conditions? Which conditions should be intervened upon?**

Deciding how to screen for these conditions and which conditions should be intervened upon is dependent on the population targeted. It is very common that members will have comorbidities and risk factors associated with chronic conditions that could impact their health. To address this, your health plan can prioritize matching members to programs such as condition management based on the presence of a condition, while also considering the impact of these comorbidities and risk factors that could put the member at further risk of disease.

Similar improvements in clinical outcomes and costs were seen in a study implementing a long-term chronic condition management model that included interventions and services such as appropriate medication therapy, health counseling and education. The study demonstrated a total health care cost reduction of 2,704 per participant per year, with a return on investment of \$4.89 on every \$1 spent through the interventions and services it noted.<sup>38</sup>

Members with chronic conditions, or who are at risk for chronic conditions, are identified during risk stratification or segmentation. Stratification can then be applied to the identified condition, to further segment into other factors such as severity of condition or demographics. For example, a plan stratifies members by disease and geographic region, which reveals a high concentration of obesity and heart disease in a certain zip code. The plan compares the zip code to a community assessment conducted by the state, and discovers a food desert or an area without grocery stores or other access to fresh foods. These members' conditions may be affected by a lack of access to healthy foods and should be considered when planning and programming care.



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### **In-the-Field Examples and Tools: Cognizant**

Cognizant's TriZetto Healthcare Products are software solutions to help organizations support the provisions of the Triple Aim framework and drive administrative efficiency. Cognizant's view is that utilizing automated and integrated processes can make this possible.

To help organizations accomplish these goals, Cognizant developed products to automate the care management process and utilize data-driven activity to facilitate targeted interventions. The products integrate administrative systems, support, and utilization management, creating an efficient workflow that helps organizations reduce costs. These processes are consolidated into a single automated platform to help organizations better deliver targeted interventions and services to their members, manage members with complex needs and chronic conditions, coordinate resources, ongoing care plan monitoring and access to evidence-based guidelines for clinical support.

Combining these processes into a single platform creates a comprehensive picture of a member population through a secure, web-based communication platform. This type of strategy can push quality improvement initiatives and streamline utilization.

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### **In-the-Field Examples and Tools: Sharecare, Inc.**

The Sharecare diabetes solution engages health systems and physicians to achieve desired diabetes-related outcomes using a results-driven, innovative approach to care. Their end-to-end solution allows for patient diabetes management across the entire continuum of care.

Sharecare has implemented their solution in the Munroe Regional's Diabetes Center in collaboration with the Marion County School Board and Florida Blue health insurance plan to address high costs and outcomes related to diabetes care. The goals of the program were to improve diabetes-related outcomes, medication adherence, enhance productivity, and achieve cost savings. Various steps were taken to meet these goals including:

- Remove barriers to treatment (i.e., costs for education, screenings, medications, supplies)
  - Provide education and support for diabetes management
  - Provide group classes at times that minimize conflict with school hours
  - Create a "one stop shop" at education sessions to provide convenient access to care screenings such as foot exams
- Implementation of the program resulted in the following achievements:
- Program participants had a 9% decrease in total healthcare costs, whereas non-participants had a 39% increase in total healthcare costs
  - Program participants had a 5% decrease in inpatient costs, whereas non-participants had a 81% increase in inpatient costs

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## ➔ COMPLEX NEEDS

Members with complex needs are at the highest end of the risk spectrum. They require interventions that are typically more intensive than members in other risk categories, and account for a large, often disproportionate, percentage of health care expenditures. Complexity can be clinical, behavioral, functional and social.

Understanding the spectrum of needs for this population is important for adequate intervention. Management of their health is critical to reducing escalating expenditures and directing them to appropriate services.

A care management model for this high-needs, high-cost population should emphasize engagement of individuals to assess care needs, develop person-centered care plans and coordinate with other entities to close care gaps. In many cases, a member with complex needs is seen by multiple primary and specialty care clinicians that may or may not share health information. The establishment of a “medical home neighborhood” can help to coordinate and integrate the care of the multiple clinicians that may participate in a member’s care. The concept of the medical home is explained further in Component 4.

As the general population ages, the proportion of members with complex needs will continue to increase—projected to be near 83.7 million people by 2050, almost double the size of the same age group in 2010.<sup>39</sup> A comprehensive PHM strategy includes treating these members now, and in the future.

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### Complex Case Management Model

The complex case management (CCM) model is designed for care of individuals with multiple chronic conditions, limited functioning and behavioral and social needs. According to results from the Medicare Coordinated Care Demonstration projects, the following components of a CCM model are most effective in reducing hospitalizations and costs:<sup>40</sup>

- In-person contact.
- Access to timely information.
- Coordination between care coordinators and primary care providers.
- Care transitions coordination and follow-up.
- Self-management support and education.
- Social support.



Once members are identified for CCM, a case manager conducts a comprehensive health assessment to identify the member's needs. The case manager and member (or caregiver) collaborate on a care plan that addresses the member's clinical and social needs. The case manager continually reassesses the member's condition and updates the plan as new needs arise or the member's condition changes.

The type of CCM model implemented depends on the plan's capabilities and requirements. Additionally, the context and setting of a health plan plays a role in implementation, as well. Typical models include, but are not limited to:<sup>41</sup>

- **Embedded care manager model.** Complex care managers are assigned to and are located at one or more practice sites.
- **Centrally located care management.** Complex care managers are located at a central office and provide care to multiple sites.
- **Brick and mortar clinic.** An "intensivist" is assigned to a high-risk member panel and a member is temporarily reassigned from primary care to the intensivist.
- **Telephonic case management:** complex care managers provide management services through telephonic interaction with members.

### What makes a member complex?

Complex members typically have multiple chronic conditions, multiple medications or a severe, uncontrolled condition. From a utilization perspective, complex members are usually the top 1%–5% of resource utilizers.

### What's the difference between case management and complex case management?

Case management is a collaborative process of assessment, planning, facilitation, care coordination, evaluation and advocacy for options and services that meet the comprehensive needs of the member.

Complex case management is a subset of case management aimed at members whose critical event or diagnosis requires extensive use of resources, and who need help navigating the system to facilitate appropriate delivery of care and services.

## Long-Term Services and Supports

Long-term services and supports (LTSS) are designed for members with complex needs requiring long-term care. The goal of LTSS is to meet care needs and allow members to live with dignity and independence in a variety of community and institutional settings.<sup>42</sup> LTSS cover a broad range of paid and unpaid medical and personal care assistance that members may need on a long-term basis, such as activities of daily living such (e.g., eating, bathing, dressing) and instrumental activities of daily living (e.g., preparing meals, housekeeping, managing medications).<sup>43</sup> Care planning and coordination can help members and their families navigate the health system and ensure that the proper services and providers are in place to meet the members needs and preferences.

LTSS and case management work together to provide person-centered care by improving the coordination of services that address a member's clinical and social needs. Better coordination among clinicians, caregivers and community service providers will result in a better service to the LTSS population and may reduce the need for acute medical care and prevent or delay costly institutional placement.



LTSS are usually provided by paid and unpaid individuals (such as family members) and by organizations that range from large national corporations to small community-based organizations. Examples of LTSS include, but are not limited to:

- Adult day care.
- Transportation and access.
- Homemaker and chore services.
- Personal care for activities of daily living (dressing, bathing, eating).
- Financial and legal services.

Examples of LTSS providers include, but are not limited to:

- Area Agencies on Aging.
- Home-delivered meal programs (e.g., Meals on Wheels).
- Centers for Independent Living
- Other community based organizations

### NCQA Programs

Accreditation of Case Management for LTSS is designed to support organizations that coordinate LTSS, such as Area Agencies on Aging and centers for independent living.

LTSS Distinction for Health Plans is designed to support NCQA-Accredited health plans and MBHOs that coordinate LTSS.



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## In-the-Field Examples and Tools: Neighborhood Health Plan of Rhode Island

The Neighborhood Health Plan of Rhode Island's CCM program follows a process to identify members eligible for the CCM program and intervene in their care. The following case study demonstrates the process and workflow of the program:

A 47-year-old member was identified for the CCM program due to a discharge from a rehabilitation facility with a length of stay greater than seven days. The member is Spanish speaking and utilized interpreter services to communicate with the Nurse Case Manager. Prior to outreach, pharmacy, core claims and care management systems were reviewed to gather information on the member. After three attempts, the member was successfully contacted to complete the initial assessment.

This initial assessment began with a discussion about the voluntary CCM program and verbal permission from the member for the case manager to speak with all his providers. Additionally, the initial assessment detailed the member's current health status, condition-specific issues, and recent medical history. The member had been admitted to the rehabilitation facility after a hospital stay for a partial laminectomy for cervical myelopathy. He also has diabetes that caused neuropathy in his arms and hands and is a daily smoker. The case manager informed the member about a smoking cessation program, and the member agreed to a referral.

When assessing the member's medications, it became clear that the member has trouble forgetting his medication and refilling his prescriptions. The case manager explained that the medications can be prepacked for the member and acts to have the medications prepacked by the member's pharmacy.

The member also reported having depression, anxiety, bipolar disorder, psychosis and schizophrenia, but denies suicidal ideation. However, the needs related to his behavioral health issues are being addressed.

Upon evaluation of the member's psychosocial issues, the member noted that he has difficulty paying his rent, electric bill and is concerned about the future. In response, the case manager mailed the member a pack on community resources to assist with financial issues.

The member also denied having any type of advance directive, but was interested in having one. The case manager mailed the member information on this subject.

The member's memory is also identified as a barrier to meeting his overall health goals, though his wife reminds him when to take medications and dates of appointments.

The initial assessment further evaluated visual and hearing needs, activities of daily living, cultural and linguistic barriers, adequacy of caregiver resources, adequacy of benefits and need for outside referrals demonstrated that the member's needs in these areas were being met.

After the initial assessment was completed, the case manager created a self-management plan with prioritized goals for the member. Follow-up communication as scheduled with the member on a monthly basis to track progress towards these goals.

\* The results and claims were not independently verified. NCQA makes no representations or warranties, and has no liability to anyone who relies on the results and claims.



### In-the-Field Examples and Tools: Partners in Care Foundation

Partners in Care Foundation's mission is to shape the evolving health system by developing and spreading high-value models of community-based care and self-management. Its Multipurpose Senior Services Program supports adults 65 and older who meet Medicaid requirements for long-term nursing home placement. The program includes the following elements:

- Telephone intake screening to verify Medicaid status and impairments requiring daily support.
- Comprehensive clinical and psychosocial assessment in the home.
- A negotiated participant-centered care and service plan.
- Communication and contact with the participant's primary care provider. This includes providing a copy of the assessment, care plan, and medication list and notifying the provider of any incidents or changes in conditions.
- Securement of community-based services available outside Medicaid.
- Authorization and assurance of provision of other services to needed to complete the care plan, including home safety and accessibility improvements, meals, assisted transportation, respite care, emergency-response system and in-home psychological support.
- Monthly care management phone calls to verify receipt of services and satisfaction with services. Calls are also used to identify changes in condition or circumstances, including falls and ED/ hospital utilization.
- Quarterly home visits.
- Annual reassessments.

The program maintains a credentialed provider network for the entire spectrum of services that might be needed to keep frail elders at home safely, and has several built-in quality systems, such as peer review of records, frequent case conferences, software alerts and participant satisfaction surveys and interviews. On average, the program keeps participants in their homes/communities for 5.2 years.

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## ⊕ BEHAVIORAL HEALTH<sup>44</sup>

Comprehensive, person-centered care is critical to a PHM strategy. Often, members require both clinical and behavioral health services.

In 2012, the Substance Abuse and Mental Health Services Administration's National Survey on Drug Use and Health revealed that 43.7 million U.S. adults—18.6% of the population—experienced some form of mental illness, and 20.7 million had a substance use disorder.<sup>45</sup>

Behavioral and clinical health are not mutually exclusive. Members with chronic diseases such as diabetes and cancer experience higher rates of depression.<sup>46</sup> Depression and other behavioral health disorders can contribute to a poor quality of life and make appropriate chronic disease management difficult. PHM can help address these issues by integrating behavioral healthcare and services into comprehensive, person-centered care.

Behavioral health disorders can also lead to costly utilization of services. Nearly 45% of patients who visit the ED experience mental illness and/or a substance abuse issue, and nearly \$4B is spent annually on treating mood disorders such as depression and bipolar.<sup>46</sup> Implementing PHM principles can provide an opportunity to reduce costs and more effectively manage members experiencing behavioral and mental health issues.

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### Substance Use

Substance use continues to plague the U.S. health care system. Since 2006, ED visits have increased 144% due to opioid-related care, and there were 4.6 opioid overdose deaths every hour in 2016.<sup>47</sup> Only 18% of the 22.5 million adults requiring care for substance abuse receive treatment.<sup>48</sup>

A well-resourced PHM strategy can improve the reach of substance abuse treatment. A comprehensive population assessment can reveal substance abuse issues or risk factors for substance abuse. Targeted follow-up and case management for at-risk members can help connect members with care.





## Component 4: Delivery System Support and Alignment



Although a health plan acts as the payer, and often, the driver of health care population health management, the care delivery system cannot be overlooked. Practitioners and providers in the care delivery system are at the frontline of care and can influence outcomes, utilization and quality. Providers and practitioners, including clinicians, ACOs, hospitals and other entities, often have different capabilities. The health plan can engage with and support its care delivery system to achieve PHM strategy goals and implement relevant activities in line with their abilities.

Health plans offer more than financial or administrative support: Health plans have a rich data cache that can be valuable to practitioners and providers. Because different providers and practitioners have different needs, there is no “one-size-fits-all” approach for alignment and support between a plan and its delivery system.

### How can behavioral health be integrated into primary care?

Behavioral health conditions are often underdiagnosed or diagnosed late, resulting in delayed treatment, poorer outcomes and higher costs of care.

Identifying behavioral health conditions in a primary care setting can mitigate these issues and realize the full potential of comprehensive primary care in a PCMH setting. Additionally, this can allow for a “warm hand-off” of the member to appropriate services following identification of a behavioral health condition in the primary care setting.

Health plans seeking to partner with practices that have the functionality to integrate behavioral healthcare and primary care can use NCQA PCMH Recognition with Behavioral Health Distinction as a mark of quality.

This component includes the following subsections on provider and delivery system support:

- Value-based payment arrangements.
- Data sharing.
- Patient-centered medical homes.
- Shared decision-making aids.

These subsections will detail activities for supporting and aligning a plan’s delivery system to achieve PHM goals.



## ➔ PROVIDER ENGAGEMENT AND SUPPORT

Practitioners drive 75%–85% of quality and care decisions.<sup>49</sup> Engaging with these and other entities involved in care delivery can help implement strategies to improve quality of care and reduce costs. Engagement and support can come in a variety of ways, such as: decision support tools, support for practice transformation, data reports and other information to inform care decisions. Each should be deployed after considering the sophistication and needs of the practitioners and providers in the delivery system.

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### Value-Based Payment Arrangements

The Centers for Medicare & Medicaid Services (CMS) defines common VBP arrangements:<sup>50</sup>

- **Pay-for-performance (P4P).** Payments are for individual units of service and triggered by care delivery, as under the FFS approach, but providers or practitioners can qualify for bonuses or be subject to penalties for cost and/or quality related performance. Foundational payments or payments for supplemental services also fall under this payment approach.

- **Shared savings.** Payments are FFS, but provider/practitioners who keep medical costs below established expectations retain a portion (up to 100%) of the savings generated. Providers/practitioners who qualify for a shared savings award must also meet standards for quality of care, which can influence the proportion of total savings.
- **Shared risk.** Payments are FFS, but providers/practitioners whose medical costs are above established expectations are liable for a portion (up to 100%) of cost overruns.
- **Two-sided risk sharing.** Payments are FFS, but providers/practitioners agree to share cost overruns in exchange for the opportunity to receive shared savings.
- **Capitation/population-based payment.** Payments are not tied to delivery of services, but take the form of a fixed per member, per unit of time sum paid in advance to the provider/practitioner for delivery of a set of services (partial capitation) or all services (full or global capitation). The provider/practitioner assumes partial or full risk for costs above the capitation/population-based payment amount and retains all (or most) savings if costs fall below that amount. Payments, penalties and awards depend on quality of care.

While MACRA is shifting the space of Medicare payments toward value-based reimbursements, private insurers are following Medicare's lead. When developing a VBP arrangement, three influences should be considered:<sup>51</sup>

- **External environment:** Regulations, payment policies, member preferences and quality improvement initiatives.
- **Provider characteristics:** Health care system structure, organization culture, available resources and capabilities, population served.
- **Program features:** The defined member population, program goals, measures, financial incentive and risk structure.

These factors can have far-reaching effects on designing, evaluating and implementing a VBP arrangement, and can affect the success for a plan's VBP program.

Commercial payers are also following the lead of CMS and adopting VBP protocols as well. For example, VBP arrangements can be utilized in a patient-centered medical home model. Shared savings or shared risk provisions, the primary care provider is eligible to receive a percentage of the medical costs savings after insurer withholdings if they meet specific quality thresholds and has total medical costs lower than the target.<sup>52</sup> Additionally, in the shared risk model, providers are responsible to remit payment for a percentage of the medical cost loss when the total medical costs over a measurement period exceed the target. These models are very similar to those seen in public Medicare and Medicaid VBP arrangements being promoted by CMS.

Utilizing VBP arrangements can help a plan achieve PHM goals by emphasizing quality of care with reduced costs. In 2017, the U.S. Department of Health and Human Services Office of Inspector General analyzed the spending and utilization of ACOs participating the Medicare Shared Savings Program. It determined that most participating ACOs were able to reduce Medicare spending and improve quality of care in the first three years of the program. Overall, the net reduction in spending across all ACOs was about \$1 Billion.<sup>53</sup> These successful ACOs can serve as examples on how to pursue and implement VBP arrangements and move toward value-based care.

Provider engagement is also critical to transformation to value-based care and implementation of a PHM strategy. Providers might be concerned that they are ill-equipped to transform to value-based care and do not fully understand VBP arrangements,<sup>54</sup> but health plans are uniquely positioned to ease these concerns by:<sup>55</sup>

- Explaining integrated and value-based care.
- Expanding the provider's reach (access to care management resources that go beyond information gained from office-based primary care).
- Leveraging activities to improve quality measures.
- Offering a spectrum of VBP options to allow for an appropriate balance between value-based incentives and financial risk exposure.

## Data Sharing

As established in Component 2, data can unlock population information to discover needs and create person-centered interventions. A provider or practitioner typically uses clinical data to make member-specific care decisions in the office, and a health plan uses claims or other data to make population-level decisions. Sharing these two types of data and their use leads to a more information on which to base improvements to quality of care and resource utilization.<sup>56</sup> For example, a plan's case manager discovers that a member lacks transportation to doctor appointments and often feels socially isolated due to an inability to visit friends and family. The plan transmits this information to the member's practitioner. While the case manager works to find appropriate transportation, the practitioner offers the member telehealth visits. Without data sharing, this connection would not be made and the member's health might decline. Data sharing helps identify gaps in care and services and helps fill these gaps.



When sharing data, a plan must be conscious of member and information privacy, rights to data ownership and the possibility of losing data in a hack or breach.<sup>57</sup> With the uptake of more data to provide insights into population characteristics and deliver more-appropriate care, cybersecurity is crucial—and yet, many organizations lack the infrastructure to pinpoint, track and analyze threats, and are thus unaware of an attack.<sup>58</sup>

Plans can take precautions to avoid a cybersecurity breach:

- Follow HIPAA requirements and regulations on the use and portability of health information.
- Only use the necessary amount of data to conduct activities such as population assessments and targeted interventions.
- Proactively secure member information.
- Anticipate and defend against oncoming cyberattacks.

Although these activities are not a panacea, they are appropriate safeguards in protecting the health information of plan members.

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## Patient-Centered Medical Homes

Primary care clinicians are often the first point of contact for a member and guide the member through the health care journey. The patient-centered medical home (PCMH) is a model of care that builds relationships between members and their care teams and streamlines care coordination.

NCQA's PCMH Recognition program evaluates practices utilizing a PCMH model of care. NCQA-Recognized PCMH practices have demonstrated their commitment to quality improvement and a patient-centered approach to care that results in happier, healthier patients.

PCMH recognition is based on the guiding principles put forth by the American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Physicians and the American Osteopathic Association:<sup>59</sup>

- Each member has an ongoing relationship with a personal physician.
- The personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of members.
- The personal physician is responsible for providing all the member's health care needs or for taking responsibility for appropriately arranging care with other qualified professionals. This includes care for all stages of life; acute care; chronic care; preventive services; and end of life care.
- Care is coordinated and/or integrated across all elements of the health care system and the member's community.
- Practices advocate for quality and safety as the hallmark of the medical home.
- Enhanced access to care is available through systems such as open scheduling, expanded hours and new option for communication between members, their personal physician and practice staff.
- Payment appropriately recognizes the added value provided to patients who have a PCMH.

PCMHs help health plans achieve PHM goals; for example, a PCMH can assess the needs of its population and use available information and resources to proactively address those needs. Through understanding of the needs and characteristics of the patient population, a PCMH can optimize the types of services and interventions provided. This may include tailored resources it provides to the patient population (e.g., materials in Spanish for Spanish-speaking members).

A PCMH can also engage in quality improvement activities to analyze measures of clinical outcomes, resource utilization, member experience and costs. PCMHs and health plans serve different populations. The population served by a PCMH is unique to its patients; the population served by a health plan is the entire membership, which may be spread across multiple



### NCQA Programs

NCQA's PCMH Recognition program evaluates practices using a PCMH model of care. The PCMH Recognition program incorporates other programs and distinctions that demonstrate quality in more specialized areas:

- The Oncology Medical Home program helps facilitate team-based care by recognizing oncologists who use a patient-centered model to improve collaboration and health care delivery for cancer patients.
- Distinctions in behavioral health integration, reporting of electronic quality measures and patient experience reporting.

PCMHs or an entire delivery system or across geographies.

Plans can also support PCMHs in their transformation through:

- Gap analysis for the practice.
- Onsite training or coaching.
- Care management support.
- Educational support and learning collaboratives.
- Technical assistance.
- Financial incentives and support.

Providing these supports can facilitate building the foundation necessary to sustain practice transformation to the PCMH model of care and help practices meet quality improvement metrics foundational to PHM goals.<sup>60</sup>

### Oncology Medical Homes

Oncology medical homes align systems and resources with coordinated care focused on the needs of cancer patients. They address the essential components of patient-centered oncology care and the long-term relationship between practice and patient during active treatment.

In many cases, oncology practices provide principal long-term care of patients in active cancer treatment. Successful oncology medical homes provide comprehensive care that can be included as part of a health plan's PHM strategy. Health plans engaging with oncology medical homes can reduce cancer spending, ED utilization and hospitalizations, while providing comprehensive care to members.<sup>61,62</sup>

### Shared Decision-Making Aids

Health plans can offer shared decision-making aids to providers, to help members make informed clinical decisions when there is more than one medically reasonable option to diagnose or treat a condition.

Educational tools do not meet the goals of a shared decision-making aid. An aid should help members engage in a discussion of their options with a provider. They are not intended to advise the member to choose one option over the other or to replace provider counseling;<sup>63</sup> they are meant as an accompaniment to counseling. They may focus on preference-sensitive conditions, chronic care management or lifestyle changes, to encourage member commitment to self-care and treatment regimens.



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## In-the-Field Examples and Tools: Washington State Health Care Authority

Washington State Health Care Authority (HCA) is a health care purchaser for more than 2 million residents. HCA uses two separate programs to accomplish this: Washington Apple Health, a Medicaid program, and the Public Employees Benefits Board program.

Currently, HCA's certified decision aids include subject matter such as treatment choices for knee or hip osteoarthritis and maternity and delivery care. These help patients participate in the decision-making process of their care and improve the quality of the decisions they make.

HCA ensures the quality of its patient-decision aids through a certification process, created in collaboration with state and national stakeholders, that recognizes the importance of having several components in a quality decision aid, including:

- More than one option or choice, presented with sufficient detail and in an understandable manner.
- Advantages and disadvantages of the options or choices, provided in a balanced, non-biased way.

These components are not a comprehensive list, but are fundamental principles that should be incorporated when designing a patient-decision aid.

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**In-the-Field Examples and Tools: Baylor Scott & White Quality Alliance**

Baylor Scott & White Quality Alliance (BSWQA) is a clinically integrated accountable care organization affiliated with Baylor Scott & White Health. BSWQA manages the health of nearly 500,000 individuals and is comprised of over 6,000 primary and specialty care providers, 50 hospitals and more than 95 post-acute care facilities.

BSWQA actively engages with its provider network through monthly communications, provider dashboards, and a Network Field Advisor team. This team serves as liaisons between BSWQA headquarters and providers in the field. The team provides onboarding services to new physicians, conducts onsite visits and practice-level review meetings with BSWQA providers as a means for enhancing provider engagement in contract performance and level setting expectations for managing the health of individuals. Performance is measured through variables such as utilization, clinical quality and efficiency on both the provider and practice level. Successes are shared, opportunities for improvement are identified and action plans are developed for meeting performance measures. Performance data is also shared through the provider dashboard, where providers are expected to monitor their performance on a monthly basis.

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## Component 5: Measurement



The best way for a health plan to evaluate the impact of its PHM strategy is to measure quality, cost and utilization and member experience. By tracking measurement over time, a plan can determine which strategies are working and which might need additional resources. Measuring the impact of the PHM strategy begins with picking relevant measures: those that match the goals of the programs and activities in the PHM strategy.

Measure results are compared to previously specified benchmarks and goals. The plan can track its progress against these over time to determine if the strategy is creating a positive impact.

To truly understand a strategy's effect, measures should be analyzed comprehensively to find connections between cost/ utilization, clinical or other outcomes and member experience. If measures are examined by themselves—in a vacuum—the plan might not see the full picture; might not see how its strategy meets (or does not meet) its PHM goals and moves (or does not move) toward the Triple Aim.

### How should a health plan choose measures? What are the best measures to choose?

Which measures a plan chooses depends on its priorities and goals, and on requirements under its VBP arrangement.

Measurements and indicators should be tied to the overall population and its goals; for example, a plan catering to Medicare members will not choose measures of childhood immunizations.

Measures should help the plan identify areas where it can improve the health and experience of members or reduce costs.

After interpretation and analysis of results, the plan can identify and act on opportunities for improvement. The opportunities may change over time as new analyses are conducted. These actions can improve the effectiveness of the PHM strategy and provide improved care, better member experience and reduced costs.

This component is divided into the following subsections:

- Types of Measures.
- Tools to Set and Evaluate the Impact of the PHM Strategy.

Each subsection gives further detail into the use of measurement to evaluate the impact of the health plan's PHM strategy.

The Resource Guide does not replace the PHM category of standards in Health Plan Accreditation or dictate additional requirements that must be met for an Accreditation Survey or dictate requirements for how a PHM strategy should be implemented.

## ➔ TYPES OF MEASURES

### Clinical Measures

Clinical measures focus on activities, events, occurrences or outcomes related to provision of clinical services; for example:

- **Outcome measures.** Incidence or prevalence rate for desirable or undesirable health status outcomes (i.e., members with controlled hypertension).
- **Process measures.** Measures of clinical performance based on objective clinical criteria defined from practice guidelines or other clinical specifications (i.e., immunization rates).

Examples of clinical HEDIS measures:

- **Persistence of Beta-Blocker Treatment After a Heart Attack.** The percentage of members 18 years of age and older during the measurement year who had a diagnosis of AMI and were hospitalized and discharged from July 1 of the year prior to the measurement year to June 30 of the measurement year, and received persistent beta-blocker treatment for six months after discharge.
- **Medication Management for People With Asthma.** The percentage of members 5–64 years of age during the measurement year who were identified as having persistent asthma and were dispensed appropriate medications that they remained on during the treatment period.
- **Controlling High Blood Pressure.** This intermediate-outcome measure assesses members 18–85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (<140/90 mm Hg) during the measurement year at whether blood pressure was controlled among adults 18–85 years of age who were diagnosed with hypertension. Control is demonstrated by the following criteria:
  - Members 18–59 years of age whose blood pressure was <140/90 mm Hg.
  - Members 60–85 years of age with a diagnosis of diabetes whose blood pressure was <140/90 mm Hg.
  - Members 60–85 years of age without a diagnosis of diabetes whose blood pressure was <150/90 mm Hg.

### Measurement and VBP arrangements

Measurement often drives VBP arrangement payments. In the CMS Quality Payment Program, measures and performance data are used to earn payment adjustments.

Adjustments can vary, based on the measures and performance data provided. For example, the Merit-Based Incentive Payment System focuses on measures of quality, cost, improvement activities and advancing care information.

Performance on these measures is tied to payment adjustments on a claim-by-claim basis.

- **Childhood Immunization Status.** The percentage of children 2 years of age who had four diphtheria, tetanus and acellular pertussis; three polio; one measles, mumps and rubella; three haemophilus influenza type B; three hepatitis B; one chicken pox; four pneumococcal conjugate; one hepatitis A; two or three rotavirus; and two influenza vaccines by their second birthday.



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## Cost/Utilization Measures

Utilization measures capture frequency and rates of services provided for a wide-range of services and procedures in different care settings. Such measures provide information about how the organization manages and expends resources, and how efficiently and effectively the organization uses available health services and resources. Risk adjusted measures account for the underlying characteristics of the member population when assessing utilization.

- Cost of care measures can be used to demonstrate utilization. These measures can consider the mix and frequency of services, for example: Dollars per episode, overall or by type of service.
- Dollars per member, per month, overall or by type of service.
- Dollars per procedure.

Examples of a utilization HEDIS measures:

- **Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life.** This measure assesses the percentage of members 3–6 years of age who had one or more well-child visits with a primary care physician during the measurement year.
- **Plan All-Cause Readmission.** For members 18 years of age and older, the number of acute inpatient stays during the measurement year that were followed by an unplanned acute readmission of any diagnosis within 30 days.
- **Acute Hospitalization Utilization:** For members 18 years of age and older, the risk-adjusted ratio of observed-to-expected acute inpatient and observation stay discharges during the measurement year, including surgery, medicine and total.

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## Member Experience of Care Measures

Member experience can be elucidated through satisfaction surveys such as the HEDIS Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey 5.0H and the Clinician Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) survey. Examples of member experience measures include:

- Experience with an overall program.
- Experience with program staff.
- Usefulness of disseminated information.
- Members' ability to adhere to recommendations.
- Percentage of members indicating that the program helped them achieve health goals.
- Complaints.

Health plans can create their own member experience surveys for internal use. Examples of questions related to a case management program include:

- Did the case manager help you understand the treatment plan?
- Did the case manager help you get the care you needed?
- Did the case manager pay attention to you and help you with problems?
- Did the case manager treat you with courtesy and respect?
- How satisfied are you with the case management program?
- Did the case manager use medical words you did not understand?<sup>64</sup>
- Did the case manager encourage you to ask questions?<sup>64</sup>
- Did the case manager answer all your questions to your satisfaction?<sup>64</sup>



## ➔ TOOLS TO SET AND EVALUATE THE IMPACT OF THE PHM STRATEGY

Various methods can be used to set attainable goals, such as SMART Goals, and to conduct impact analysis of a PHM strategy on meeting those goals including PDSA cycles and root cause analyses.

### SMART Goals<sup>65</sup>

- **Specific:** A clear and specific goal motivates and focuses efforts appropriately.
- **Measurable:** A measurable goal can be used to track progress and motivate.
- **Achievable:** Creating a realistic and achievable goal is important for a balance between maintaining motivation and stretching capabilities to achieve the goal.
- **Relevant:** A relevant goal is important to the health plan and aligns with other goals.
- **Time-bound:** A goal with a target date enforces the deadline for reaching a goal.

SMART goals provide clarity and focus for activities and encourage a methodological process for creating feasible objectives. Below are examples of original, “non-SMART” goals and corresponding SMART goals<sup>65</sup>

Original Goal	SMART Goal
Reduce obesity rates for children and adolescents.	By December 31, 2019, reduce the percent of obese 9th graders in Awesome County from 8% (baseline) to 7%.
Decrease Health Department member wait times.	Over the next 30 days, decrease member wait times in the Health department by 25%.
Increase the number of member satisfaction surveys collected.	Increase the number of member satisfaction surveys collected by 30% in the second quarter of fiscal year 2019.

Writing SMART goals helps illustrate a health plan’s objectives and highlights issues that might otherwise go unnoticed, such as the time frame for an activity. Once a goal is set, the PDSA (Plan-Do-Study-Act) cycle can be used to test activities to achieve the goal.

### PDSA Cycle

The PDSA (Plan-Do-Study-Act) cycle can be used to test a change by:<sup>66</sup>

- **Developing a plan to test the change (Plan).**
  - Plan the test. What question is being answered? What is the predicted outcome? What data must be collected?
- **Carrying out the test (Do).**
  - Carry out the test on a small scale, documenting problems and unexpected observations.
- **Observing and learning from the consequences (Study).**
  - Analyze results and compare to predictions.
- **Determining what modifications should be made to the test (Act).**
  - Make a plan for next steps based on the results.



The PDSA cycle can be used through many iterations. In some cases, an action may require several cycles as new information is learned during implementation. A plan can create a new PDSA cycle based on modifications, and reevaluate progress in the same way. This iterative cycle can help a plan identify value-added techniques and activities that help achieve PHM goals.

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## Root Cause Analysis

Root cause analysis is a method for analyzing serious adverse events. It was initially used to analyze industrial accidents, but is now widely used in health care.<sup>67</sup> A root cause is a factor that increases the likelihood of error. The goal of root cause analysis is to find out what happened, why it happened and how to prevent it from happening again.

The analysis process requires an interdisciplinary team that is familiar with the event and can identify changes that need to be made to prevent the event from happening again. It typically begins with data collection and review of the event through records. The following steps help identify the activities necessary to conduct a comprehensive root cause analysis:<sup>68</sup>

- Appoint a team to conduct the root cause analysis.
  - The team should be interdisciplinary and knowledgeable of the processes involved in the event.
  - Team members should include:<sup>69</sup>
- A subject matter expert on the event (member nurse, case manager)
- Individuals not familiar with the event.
- A leader versed in root cause analysis (administrator).
- A member representative.
- Analyze the event.
  - Describe the initial sequence of events, identify information gaps and information needed, find additional information, identify root-cause and contributing factors.
- Take action
  - Identify actions implemented in similar past events, develop an action plan, provide feedback.

It is important to understand that there could be more than one root cause of an adverse event; there could be a constellation of events that result in an adverse event. An effective action plan considers all causes of an adverse event.

## ⊕ OTHER EXAMPLES OF NCQA HEDIS MEASURES

Measures can be an effective way to evaluate health plan performance in a variety of areas of population health management including wellness and prevention services, chronic conditions management and behavioral health. NCQA has developed measures in several of its programs, such as Health Plan Accreditation, that assess various components of these areas of focus.

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## Wellness and Prevention

**Chlamydia Screening in Women**, a measure in the HEDIS measure set, assesses the percentage of women 16–24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year. Sexual activity is identified through pharmacy data (prescriptions for contraceptives) and claims/encounter data (denoting a service such as a pregnancy test or prenatal services).

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## Chronic Conditions Management

**Comprehensive Diabetes Care**, in the HEDIS measure set, assesses the percentage of members 18–75 years of age with diabetes (types 1 and 2) who had each of the following:

- HbA1c testing.
- HbA1c control (<8.0%).
- Eye (retinal) exam.
- Blood pressure control.
- HbA1c poor control (>9%).
- HbA1c control (<7.0%) for a selected population.
- Medical attention for nephropathy.

**Pharmacotherapy Management of COPD Exacerbation**, in the HEDIS measure set, assesses the percentage of COPD exacerbations for members 40 and older who had an acute inpatient discharge or ED visit in the measurement year and were dispensed appropriate medications (systemic corticosteroid within 14 days of the event and a bronchodilator within 30 days of the event).

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## Behavioral Health

Approximately 43.4 million people, or 18 percent of the U.S. adult population, experience mental illness in a given year. Without treatment, symptoms associated with these disorders can last for years, or can eventually lead to death by suicide or other causes. Fortunately, many people can improve through treatment with appropriate medications.

Members who are on emergence of side effects, clinical condition and safety. Health plans have an opportunity to track antidepressant use in members and identify appropriate follow-up care to monitor clinical worsening and suicide risk.

**Antidepressant Medication Management**, a HEDIS measure, assesses the percentage of members 18 years and older who had a diagnosis of major depression, were initiated on an antidepressant medication and either received an adequate acute-phase trial of medications (three months) or completed a period of continuous medication treatment (six months). The goal of the measure is to determine the rate of medication use and continued use for people who are vulnerable to depression and other worsening behavioral health disorders.

**Follow-Up After Hospitalization for Mental Illness**, a HEDIS measure, assesses the percentage of discharges for members 6 years and older who were hospitalized for treatment of selected mental illness diagnoses and who had a follow-up visit with a mental health practitioner.

Regular follow-up therapy for members is important after they have been hospitalized for mental illness. Follow-up visits also help detect early post-hospitalization reactions or medication problems and encourage continuity of care. According to a guideline developed by the American Academy of Child and Adolescent Psychiatry and the American Psychiatric Association, there is a need for regular and timely assessments and documentation of the patient's response to all treatments.<sup>43</sup>

# Summary

Ultimately, PHM can be summarized by the Guide's:

- **The PHM Strategy** – Health plans have a comprehensive strategy covering the continuum of care.
- **Population Stratification and Resource Integration** – Health plans use integrated data to assess and stratify the population.
- **Targeted, Person-Centered Interventions** – Health plans provide interventions that meet the member's needs and values.
- **Delivery System Support and Alignment** – Health plans support and work with their care delivery system to execute PHM goals.
- **Measurement** – Health plans measure and evaluate the PHM program to improve.

These components demonstrate and identify the critical elements of health plan's PHM approach. They are intended to educate and guide health plans in their pursuit to implement PHM principles into their organization.

PHM will continue to be an important model of care into the future as healthcare continues to move towards value-based payment arrangements and advanced data analytics. Short term, 68% of healthcare executives reported that PHM is "very important" to their healthcare delivery strategy in the next two years.<sup>71</sup> Overall, the goals and components of PHM will help achieve the Triple Aim – better health, better care and better value.





# Acronyms

<b>ACA</b>	The Patient Protection and Affordable Care Act
<b>ACO</b>	Accountable care organization
<b>CCM</b>	Complex case management
<b>CDC</b>	Centers for Disease Control and Prevention
<b>CHIP</b>	Children’s Health Insurance Plan
<b>CMS</b>	Centers for Medicare and Medicaid
<b>COPD</b>	Chronic obstructive pulmonary disease
<b>EHR</b>	Electronic health record
<b>ED</b>	Emergency Department
<b>FFS</b>	Fee-for-service
<b>HEDIS</b>	Healthcare Effectiveness Data and Information Set
<b>HPA</b>	Health Plan Accreditation
<b>HIPA</b>	Health Insurance Portability and Accountability Act of 1996
<b>ICD-10</b>	International Statistical Classification of Disease and Related Health Problems, 10th Revision
<b>LTSS</b>	Long-term services and supports
<b>MACRA</b>	The Medicare Access and CHIP Reauthorization Act of 2015
<b>MBHO</b>	Managed behavioral healthcare organization
<b>NCQA</b>	National Committee for Quality Assurance
<b>P4P</b>	Pay-for-performance
<b>PCMH</b>	Patient-centered medical home
<b>PCP</b>	Primary care physician
<b>PDSA</b>	Plan-Do-Study-Act cycle
<b>PHM</b>	Population health management
<b>PHQ-9</b>	Patient Health Questionnaire
<b>PROMIS</b>	Patient-Reported Outcomes Measurement Information System
<b>VBP</b>	Value-based payment

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