

Building a Foundation for Population Health: Ambulatory Patient Registries



Executive Summary

As government initiatives such as the Physician Quality Reporting System (PQRS) and the Readmission Reduction Program continue to ramp up penalties for unmet quality measures, providers are demanding better tools to determine the most appropriate, cost-effective care for their chronically ill patients. With nearly half of all Americans suffering from at least one chronic illness, ambulatory-based patient registries within the EHR show real promise as the key to delivering more effective care.¹

Although the patient registry concept has been around for decades, it has only recently evolved into an actionable, database-driven tool powered by rules-based logic. Patient registries and patient lists are helping providers to align higher cost, higher acuity methods with the populations that are most likely to respond, and forming the basis of sound population health management strategy.

This white paper explores how patient registries can be used to create the foundation for more precise interventions, which characteristics to look for in a patient registry tool, and how healthcare organizations can use them to facilitate population health initiatives.

Segmenting Patient Populations

Starting up a population health program is challenging for most organizations. Ambulatory patient registries can facilitate its implementation by segmenting patients into smaller, more manageable, and actionable groups. Here, patients are grouped into populations based on four risk statuses:



Health Promotion

Healthy patients do not have risk factors for impending chronic conditions or major health issues. Costs associated with their care are low, but organizations must still focus on prevention, care coordination, and general wellness to prevent these patients from rising in the risk spectrum.



At-Risk

At-risk patients are in danger of developing chronic conditions, with the potential for intervention and costly procedures. This population requires a higher degree of care coordination and patient engagement to prevent chronic diseases; they must be monitored more closely and nudged toward routine preventive care and behavioral change.



Chronic Disease

These patients have one or more chronic diseases that require maintenance. This segment is the most important to control, particularly under value-based purchasing programs in which the costs associated with poor management rise exponentially as patients' conditions worsen.



Critically Ill

The most resource- and cost-intensive segment of the population, critically ill patients constitute only about five percent of patients, but account for 40-50 percent of healthcare expenditures.² These "super utilizers" often have multiple chronic or critical illnesses, and require intensive nursing care. Their conditions are no longer stable, and they are at high risk for life-threatening episodes.

Following this initial stratification, organizations can then filter registries into smaller, more manageable worklists based on other characteristics (e.g., age, gender, smoking status, BMI, insurance, provider, etc.). Providers can then determine the most relevant criteria for segmenting their populations, and develop engagement strategies that target those groups. For example, an organization may find their healthiest segment responds favorably to preventive care measures. Within this segment, the younger subgroup engages via social media, while the older subgroup engages through the wellness portal.

The Right Tools: Registries and Worklists

Patient registries and worklists are dynamic tools that reflect the state of all relevant information in the EHR at the moment they are viewed, updating in real time as patient conditions and health data change. Distinctions between registries and worklists are as follows:

Registries

Registries are comprehensive groups of patients, typically based on chronic conditions. A provider could have multiple registries for a specific condition (e.g., a Medicare diabetes registry versus private payer diabetes registries) as well as registries for immunizations and wellness. They are generally viewed as the "wider net."

Worklists

Once the larger population is identified on a registry, providers can further stratify and segment their patients into smaller, more manageable subgroups called worklists. A worklist could be “high-risk diabetic patients with HbA1c levels over nine percent who have not been seen in 90 days” or “patients with BMI scores above 30 who smoke and have not been contacted in 30 days.” Whereas a registry might be maintained at an organizational level, worklists could be created at the individual practice or provider level.

For dynamic patient registries and worklists to be truly effective, they must also have the following characteristics:

Usable. Physicians and other users must be able to adopt registries and worklists into their workflow. They must be intuitive, mobile, and fast, so users can filter, organize, and save new lists with a few clicks. Ideally, they display (or provide quick access to) other relevant data in the EHR.

Flexible. Tools must be adaptable to a variety of care environments and practice settings, from small practices to large, multi-specialty physician groups operating within IDNs. The ability to add and refine lists as populations (and environments) change will be essential.

Actionable. Users must be able to take action directly from the registry without going to a different screen; once they’ve filtered and sorted their list, they must be able to select one or more patients for an intervention.

Interoperable. An effective system must be able to import government or community-based registry data, and export data as standards and requirements evolve.

Use Cases: Two Scenarios

These scenarios describe how ambulatory patient registries might be used in different settings to engage patients in population health programs, and depict how they can help organizations to transition to value-based care models.

Scenario 1: Small Physician Office



Dr. Smith is a family practice physician and partner in a five-physician clinic whose staff includes two nurse practitioners. Dr. Smith uses ambulatory patient registries and worklists, as do her nurse practitioners, since they typically perform follow-up with patients based on physician recommendations.

Dr. Smith and her partners meet weekly to improve communication among clinicians. These meetings start with a review of high-level registry data. The group has established separate condition-based registries for the three most prevalent conditions in their community: diabetes, hypertension, and COPD. Each week, they review one of these registries to discuss patient care and wellness strategies.

The practice has parsed their registries into more manageable worklists. In a recent huddle, one physician wondered how many of their hypertensive patients were smokers under the age of 40. It took under a minute to produce the list of nine patients, which was then sorted by severity and assigned to an NP. Later that week, the NP sent the patients a letter about the practice’s new smoking cessation program.

Dr. Smith and her colleagues use the registry tools to help them identify patients overdue for routine care; they’ve seen a

significant improvement in financial performance by identifying patients who should be scheduled for preventive care and proactively contacting them to schedule an appointment.

Scenario 2: Large IDN



Memorial Health System (MHS) is an integrated delivery network comprising three hospitals, five family medicine centers, more than a dozen specialty clinics, and a long-term care facility. They formed their own accountable care organization under the Medicare Shared Savings Program, and ended the previous two fiscal years with small profits.

Prior to entering the ACO, MHS staff focused primarily on overseeing care planning for chronically and critically ill patients. After entering the ACO and implementing ambulatory-based patient registries, care coordinators began working with at-risk patients as well. They also widened their focus from individual care to population care, eventually carving out a small group of care coordinators who work directly with the executive team on population-level care coordination for ACO patients.

Care coordinators at MHS developed registries for all major chronic conditions evident in their ACO population. Each condition-based registry is managed by multiple coordinators, who divide registries into smaller worklists based on risk profile and general health status. These worklists are then sorted and filtered by other demographic characteristics and behavioral-based criteria.

MHS makes a concerted effort to bring every ACO patient in for their annual wellness visit and health risk assessment, a billable visit covered entirely by Medicare. These visits provide an opportunity for the clinical staff to collaborate with patients on setting realistic health goals and to discern the best way to keep them engaged. If the patient or another family member has access to the Internet, they help the patient enroll in their patient portal during the visit, which supports their ongoing PCMH recognition program and prepares them to meet Meaningful Use Stage 2 requirements.

Since deploying their ambulatory registry tools, MHS has expanded wellness, preventive care, and health maintenance programs significantly. They've also detected small drops in ED visits among their chronically ill populations as well as acute readmissions. By keeping lower-margin chronic disease patients out of high-cost acute environments, they've increased their ACO's profitability.

Conclusion

Healthcare organizations empowered with the right patient registry tools will establish a strong foundation for a larger population health strategy. These tools will add value in both the fee-for-service and value-based healthcare environments, serving as a bridge between reimbursement models and bolstering the cost-containment efforts necessary for ACOs. Under a fee-for-service model, practices will be able to identify patients overdue for routine care, screenings, and preventive measures, thus supporting responsible revenue generation. Ambulatory practices owned by or affiliated with integrated care networks — particularly those using a shared EHR across the continuum of care — will be well positioned to manage their patient populations more successfully.

References

1. Ward BW, Schiller JS, Goodman RA. Multiple chronic conditions among US adults: a 2012 update. *Prev Chronic Dis.* 2014;11:130389. DOI:<http://dx.doi.org/10.5888/pcd11.130389>
2. Cohen, S. The Concentration and Persistence in the Level of Health Expenditures over Time: Estimates for the U.S. Population, 2012–2013. Statistical Brief #481. September 2015. Agency for Healthcare Research and Quality, Rockville, MD. http://www.meps.ahrq.gov/mepsweb/data_files/publications/st481/stat481.pdf