Care Management Platforms for Population Health: Seven Real-World Best Practices

Our experience with large platforms offers important lessons and strategies that healthcare organizations can successfully replicate when deploying a population health-oriented care management system.

Executive Summary

Care management platforms are fast becoming a necessity for provider-delivered population health management. Payers have long practiced care management, but in a low-touch environment using claims data. Increasingly, however, providers will practice population healthcare management using a relationship-driven, real-time, high-touch approach. Platforms promise to deliver evidence-based care plans, driven by real-time data from a central repository. This will enable providers to achieve the patient outcomes necessary to meet the value-based care requirements of delivering higher quality care at lower costs while improving the healthcare consumer’s experience.

How well providers succeed at these goals depends on how effectively they plan, prepare and execute the care management platform implementation. This is largely uncharted territory for providers. No individual vendor has been able to offer a complete platform solution that directly addresses all the needs of typical providers for acute and/or ambulatory care.

The lessons discussed in this whitepaper are the result of our direct experience with recent care management platform deployments designed to achieve provider population health management goals. These challenging projects touched virtually every clinical and business process in the organization. Our work has helped us identify a critical readiness evaluation model that providers can use to streamline platform implementation, including assessing care management maturity in several dimensions.

Using this model, organizations can successfully deploy care management platforms and design new workflow processes that will help them fulfill contractual requirements and align clinical resources more appropriately with actual needs. These care management approaches will also enable providers to effectively monitor and manage populations and deliver wellness services more effectively to improve patient satisfaction while reducing costs.
Care Management's Data Intensity

Care management platforms promise to automate labor-intensive data aggregation, more quickly and accurately identify patients, generate appropriate care plans and assist care managers at the point of care with relevant data and evidence-based protocols.

Automating Care Management for Population Health: A Brave New World

When a care management platform designed for managing population health with real-time data goes live, it identifies hundreds of patients and generates disease cohorts, care plans, reports and dashboards. In just a matter of hours, the platform delivers a long queue of ready-to-engage patients that would otherwise take several months to compile. Such systems interact with key provider business and clinical processes and IT systems.

Care management is exceptionally data-driven, using clinical, revenue cycle and utilization data to provide decision-making guidance at the point of care by referencing evidence-based health outcome contractual requirements.

To take full advantage of the care management platform’s capabilities and adapt to this new world, providers must redesign organization-wide processes and manage significant change. In an ideal provider organization, creating a closed-loop care coordination system would include a complete exchange of clinical information across all involved entities, with a patient’s care team supported by insights derived from real-time data analytics and evidence at the point of care (see Figure 1).

Provider organizations face many challenges in achieving these goals. Platform implementations are not easily replicable because of each provider’s unique mix of IT systems, business processes and patient populations. Even within a single provider organization, IT capabilities and business and clinical maturity for care management may vary widely across individual departments and institutions.

In addition, care management platforms are still relatively immature. They have not been in use long enough to collect the feedback necessary for vendors to enhance and grow their offerings. During our recent work deploying care management platforms, we inventoried tools, strategies and key lessons learned that have enabled health-care organizations to more smoothly implement and generate value from their investments.
Model Key Dimensions of Readiness for Care Management

Providers can better position themselves for implementation success by clearly understanding their readiness to mesh existing care management programs with a sophisticated platform. We have developed a model for scoring the key dimensions of care management implementation maturity; providers can use the results to fine-tune their strategies for launching a care management platform (see Figure 2). The three key maturity dimensions are:

- **Organization**: The work here is to assess the organization’s culture, care delivery infrastructure and technology portfolio in terms of their ability to align with a sophisticated care management platform and support closed-loop care coordination (see Figure 3, next page). The organization’s current care management processes, in particular, are evaluated according to their levels of interoperability across departments, use of analytics to drive care decisions, caregiver training, business process efficiency and underlying IT system maturity.

- **Contract**: Platform implementation and configuration choices are directly impacted by the level of complexity of current contracts. These contracts define key care management requirements and affect the scale of required transformation. Typical evaluation points include number of managed lives, risk level definition, acute or chronic conditions, patient settings, care team structure requirements, process compliance, number of outcomes to track and reporting requirements.

- **Product**: As most provider-side care management platforms are immature, it’s critical to understand the selected platform’s current capabilities, such as how many desired features are available out of the box, its interoperability capabilities, support features and roadmap.

Rethinking, Refining Care Management Platforms

*Care management platform implementation is an enterprise-wide effort, intertwining with clinical, administrative and IT systems and processes. Healthcare organizations must assess their readiness to integrate automation-augmented care management in these areas in order to identify and overcome potential platform implementation challenges.*

Figure 2

<table>
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<tr>
<th>Business Needs Assessment</th>
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<tr>
<td>- Recognize and address the lack of clarity on functional needs.</td>
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<td>- Develop an approach to drive priority customizations.</td>
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<td>- Address the inability to distinguish team and process redesign needs from application functionality.</td>
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<th>Consuming Data for Care Management</th>
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<td>- Enable integration of conventional, social and patient-generated data.</td>
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<td>- Address challenges in reconciling data to create a single version of the truth.</td>
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<th>Care Process Re-design and Change Management</th>
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<td>- Recognize the necessity of process mapping and evaluation.</td>
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<td>- Identify and focus on change management scope.</td>
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<td>- Understand culture and policies.</td>
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<th>Vendor Partner Selection</th>
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<td>- Recognize that the care management platform is relatively immature and that the feature set is both complex and specialized for a single vendor to deliver.</td>
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<td>- Include implementation maturity and roadmap items in the evaluation.</td>
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<th>Enterprise-wide PHM Implementation Strategy</th>
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<td>- Prepare for long duration, large scope and impact.</td>
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<td>- Complex multi-partner collaboration.</td>
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<td>- Large-scale business process modifications.</td>
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<td>- Diversity of risk contracts/programs.</td>
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<th>Product Configuration</th>
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<td>- Understand dependencies arising from integration of new and existing care delivery programs.</td>
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<td>- Manage redundancy in capabilities across applications.</td>
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<th>Data Acquisition and Preparation</th>
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<td>- Enable semantic normalization and optimization of data.</td>
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<td>- Synchronize availability across multiple sources.</td>
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<tr>
<td>- Coordinate with interoperability roadmap.</td>
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<td>- Take a continuous quality improvement approach.</td>
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Scoring Organizational Readiness
Organizations receive a score, from 0 to 100, indicating their readiness to implement a care management platform. The scores fall into one of four categories: basic, foundational, emerging and mature/sustainable (see Figure 4, next page).

Using a model to calculate maturity, the organization can develop an objective and structured view of its current state to guide the implementation effort. An organization in the “basic” or “foundational” maturity stage should recognize that it will need to engage in more substantive process redesign and change management activities during the implementation vs. an organization that already has well-established and interconnected care processes across its systems (see Quick Take, next page).

This approach to readiness helps highlight the areas that will most likely be affected by the implementation, and can pinpoint issues to address, such as care teams needing to learn how to incorporate analytics into their workflows, and/or key interoperability points among systems. It may also reveal other clinical, business and IT initiatives under way that might intersect with the platform deployment, such as ICD-10 transitions, electronic health records, meaningful use projects, etc.

We have found that the assessment results provide a solid basis for identifying business objectives, creating an implementation roadmap and guiding project governance and implementation teams.

Create a Multidisciplinary Team for Program Governance
The readiness assessment process illustrates why providers need a project governance team with clinical, data and operations functions represented to fully address how the platform will affect discrete processes, as well as interconnected operations, data and workflows. These three functions must collaborate on the care management system transition plan and apply their perspectives and input to ensure smoother acceptance of the platform from clinical, business and IT functional areas.

This multidisciplinary perspective is also critical for identifying all the existing and planned clinical and business systems – electronic health records (EHRs), health information exchanges...
Maturity Assessment of Provider-Led Population Health Management

Organizations that assess their readiness to adopt a care management platform can anticipate challenges and opportunities that arise during implementation. In one case, a client needed a strategy for accountable care, based on a sound business architecture with a care management platform as its centerpiece. We determined that the organization was at a “basic” maturity level, based on the following characteristics:

**Organizational Dimension**
- Virtually every physician practice was using a different electronic medical record (EMR) system, so effective data exchange was minimal.
- Patient identification was based entirely on discharge information and was limited to three disease cohorts.
- The effectiveness of existing care management programs had not been measured.
- The current care team was not geared for population health management efforts.
- The organization had not assessed the number of staff necessary to support the accountable care organization (ACO).

**Contract Dimension**
- The organization had four risk contracts, with three major health plans covering approximately 80,000 lives.

**Product Dimension**
- Several siloed applications across departments supported a portion of the population’s health requirements.
- Each team approached risk stratification differently; risk levels were not applied to downstream processes.
- There was a low level of staff involvement in previous platform implementation projects.
- A one-year implementation was expected.

Through this assessment, the client understood it needed to make essential changes to its governance and technology architecture, and thoroughly review its existing care management delivery processes in order to derive full value from automation and the other benefits of the platform.

**Ready, Set, Go …**

The readiness and maturity assessment results in a clearer picture of steps the organization must take to ensure the care management platform implementation delivers clinical and business benefits. Organizations with Level 1 or 2 scores will likely need to make a greater effort to transform care design before or during platform implementation.

![Figure 4](image-url)
A Typical Care Management Implementation Governance Structure

Quick Take

Organizations need to establish clear roles and tasks during the implementation period across systems, departments and facilities. Key entities for establishing program governance for implementation include:

- **Sponsor**: This role is accountable for managing the transition to a new model and application. The individual has an understanding of the short- and long-term goals of the initiative, as well as how decisions affect other health system programs and contracts.

- **Steering committee**: Project stakeholders and health system partners often include community organizations and patient advocates. This team works to address pain points during the implementation while accounting for a variety of stakeholder perspectives.

- **Task force organizations**: These teams provide input to solve issues and improve implementation activities specific to their functional roles, including clinical, IT, change management and innovation.

- **Project management organization roles**: These functions manage project activities and establish a transparent implementation plan. The team investigates near misses and failures, and focuses on measurable outcomes. Project managers also catalog potential issues across vendors and analyze risk mitigation plans.

- **The champions**: This includes enthusiasts across organizational roles who understand the workflow challenges of the implementation. These individuals provide feedback to project management and lead respective teams through a seamless transition.

(HIE), portals, analytic applications, etc. – that are intertwined with the care management platform, as well as their potential impact on the platform’s performance and expected benefits. To gather this information, the team will need to catalog technology initiatives under way in the organization and interact with multiple vendors to understand their systems and upgrade and maintenance schedules.

Such understanding is critical to ensuring the care management platform performs as expected. For example, an EHR vendor may have a stated delivery date for supporting Consolidated Clinical Document Architecture (C-CDA), and the care management implementation team might build on this standard, only to learn once approaching the go-live date that the EHR vendor has shifted its deadline. This greatly complicates EHR-to-care management platform communications.

Another disruption could occur when an HIE promises full interoperability, then is only able to exchange admission-discharge-transfer data sets. In either case, the lack of functionality expected in other key systems could potentially compromise the care management platform’s performance – and perhaps derail its implementation.

Ensure the Platform Has a Major Impact on Care Team Operations

For the organization to realize full value from the platform, care managers must focus on higher value outreach and interventions, accepting evidence-based workflows and allowing the platform to run rote and routine tasks. This shift to a collaborative, patient-centered model from a physician-centered approach can require substantial training and support-building efforts to ensure the new platform enables better clinical decision-making and outcomes.

For the organization to realize full value from the platform, care managers must focus on higher value outreach and interventions, accepting evidence-based workflows and allowing the platform to run rote and routine tasks.
Key considerations include:

- **Staffing levels.** By automating care management functions, providers should be able to manage a much larger number of patients. However, many providers have relatively few care managers; even with software augmentation, these smaller staffs would likely be overwhelmed by the patient load compiled by the system.

- **Redesigning care management processes.** Traditional provider-based care management is very labor intensive, with care managers accessing multiple systems just to identify patients. The care management platform will replace these manual, error-prone processes, automatically stratifying the provider’s entire population of patients by risk, providing validated contact data and serving up the appropriate evidence-based care plans for each patient. New care management processes that take advantage of the platform’s automation must also be designed.

  Care team members likely will need significant training and education to align their expertise and fully engage with the platform-generated evidence-based care plans and workflows. Extensive pilots and testing can help reveal these issues. Clinicians must transition from manual processes for data aggregation and care plan selection to automated tools that perform these functions via new business rules.

  Similarly, the platform would offer functionality that enables the care manager to manage entire groups of interventions at one time (e.g., marking them complete). It would also enable bulk transfers of patients within or outside the care team, shared work lists for staff pools, and supervisor workflows that reflect the organization’s structure and roll up appropriate patients for supervisor oversight.

  These and other new workflows, including patient identification, stratification and triggering of care programs, pose significant change management and training challenges.

- **Performance measurement.** With an automated platform, organizations can identify performance benchmarks that were difficult if not impossible to set up with manually-driven care management. These metrics include real-time identification of care gaps that affect quality measures. For instance, organizations can measure call center performance and its corresponding effects on avoidable utilization, provider engagement and medical adherence improvement. Further, they can track care manager effectiveness on specific interventions, such as the discharge process, post-discharge appointment scheduling and transitions of care. Providers can accrue substantial gains in population health improvement by continuously monitoring these care measures that affect outcomes.

  The platform also enables providers to drill down and objectively assess how well individual teams and their members work with specific disease groups or risk levels. Such information enables providers to more effectively align teams and care coordination with target populations.

  Together, these metrics help organizations understand how evidence-based plans are driving care improvements, and how well care team members are “listening” to the platform and using its analysis and decision-making guidance. This type of performance monitoring also helps ensure that care teams are managing new workloads appropriately, given that these platforms enable an organization to interact with an entire patient population, not just the highest risk members.

- **Division of labor.** The care management platform will offer more granular stratification of patient populations by risk and disease cohorts. Providers will likely find they require new methods and new training for clinicians to gain full value from this more precise risk data. Call centers equipped with wellness and prevention-trained clinicians can serve lower risk groups, enabling more highly-trained professionals, such as nurse case managers, to interact with higher risk patients.

  The clinical governance team should also identify issues such as how the frequency of real-time updates to patient conditions might affect workflows, the portfolio of necessary care programs and their timing (e.g., phased vs. big bang) and building support for evidence-based workflows.

**Take a Continuous Quality Improvement Approach to Data Governance**

Care management platforms rely on data from a wide variety of sources to ensure their functions streamline processes and provide accurate decision support data. A continuous quality improvement (CQI) approach to data governance can help prevent gaps in data that create work-
A continuous quality improvement approach to data governance can help prevent gaps in data that create workflow issues, such as a missing element from a patient’s longitudinal record preventing accurate stratification or predictive readmission modeling results.

Flow issues, such as a missing element from a patient’s longitudinal record preventing accurate stratification or predictive readmission modeling results. The data governance team must understand these key interdependencies.

A key data team activity includes conducting a comprehensive inventory of data types and source systems and identifying platform processes with the highest dependency on interoperability. The team must identify impacts and risks and recommend workarounds or data optimization techniques to feed back to clinical teams.

Data sources typically include EHRs transmitting HL7 messages, CCDs or extracts, claims, electronic prescription data and lab results. Supplemental data sources include patient assessments, surveys and patient wearables. A reasonable amount of high-quality historical data is also necessary to provide context for current data. Another important factor to consider is whether the platform will exchange data with an HIE.

Align Workflows and Platform Configuration Decisions with Key Performance Indicators

Health systems need to model the structure of their post-implementation care teams and workflow designs based on the needs of patient populations and the specific requirements and KPIs of each contract, clinical outcome and other program success factors. These scenarios help ensure that the platform’s automated patient assignment features are properly implemented to support workflows. Organizations may also want to turn off certain features, such as intervention types to be managed, and launch with a smaller set of features that will enable care managers to gradually adjust to the system capabilities. This can help keep care managers from being overwhelmed by features and data availability.

The formal process modeling and workflow designs also inform report and dashboard configuration. This approach to process standardization and measurement creates a shift in reporting, from fragmented and department-specific to a more holistic and standardized definition of enterprise-wide data and process. Platform users will need training in order to effectively use the analytics outputs.

Use Business Needs to Guide Platform Customization and Feature Selection

Some healthcare platforms, such as EHRs, have well-honed implementation methodologies that guide customization choices. Because that is not the case with care management platforms for population health management, providers must endure more trial and error than necessary when selecting platform options. To avoid this situation and keep the project on schedule, implementation governance teams should use business requirements, namely key contracts and their requirements, as lodestars for choosing among available options (see Figure 5, next page).

Setting priorities for which features the care management platform will deliver first, whether out-of-the-box or custom-developed, is best driven by business needs. Two key areas to consider:

- **Care management risk.** Key considerations would revolve around how the care team will use patients’ care management risk and how the organization in general would accept and use the concept of care management risk. This could be a key contractual requirement and would define the segment of managed lives to be targeted with evidence-based care programs.

- **Evidence-based programs readiness.** The implementation readiness assessment should reveal the organization’s ability to use care
interventions as the platform generates them. Certain key parameters must be in alignment, including language of the interventions, the sensitivity of the business rules, and the number of similar-sounding interventions across care programs.

Finally, care managers and physicians who are expected to use the care management platform must work closely with teams charged with configuring features and deploying customizations.

The workgroups that create the list of required features should remain intact after the platform is live to gather and implement feedback.

**Start Small**

Organizations that embark on ambitious care management platform implementations find great success when they start with small, tightly planned rollouts by department and facility, and roll out the care management platform in phases. This phased approach helps minimize disruption and help gauge and adjust alignment of interoperability, analytics, IT and business maturity before expanding the rollout.

A phased approach also helps the implementation team understand the specific feature, configuration and process needs of individual departments and facilities that can be addressed or added to the platform in the future.

**Moving Forward: Best Practices for Care Management Platform Implementation**

Healthcare organizations may not be able to accelerate the technological maturity of care management platforms or avoid the impact these systems have on key processes and professionals. However, they can conduct a thorough assessment of their organization’s readiness in its operations, contracts and clinical processes to adopt such platforms.

Increasing readiness in those areas is rapidly becoming the cornerstone best practice for achieving the organization’s goals for population health quality, cost and patient experience from a care management platform.

**Leading with Feature and Functional Requirements**

*Healthcare organizations should initially look to their key contract requirements for guidance about which care management platform customization options to select. Prioritizing these requirements enables organizations to better evaluate their platform vendor’s off-the-shelf availability of features vs. custom development efforts. Necessary custom work can further be triaged and weighed against rollout schedules and business requirements.*

![Figure 5](image-url)
About the Authors

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