Why Electronic Health Records are Ill-Suited for Population Health Management

An InfoMC White Paper

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Many studies have demonstrated that cost of care for patients with chronic illnesses is excessive and avoidable. Frequently, these patients have multiple chronic conditions and multiple providers across health care systems. Electronic Health Records have shown limited capacity to support the necessary care management and coordination of care for these patients. Population health management requires technology tools and resources that allow integrated care teams to actively collaborate and communicate in the development and implementation of patient centered care. The InfoMC white paper: Why Electronic Health Records are Ill-Suited for Population Health Management (available at www.infomc.com), outlines the tools and resources that must be in place to support effective care coordination and the management of population health outcomes.

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Introduction

Medical Records are the cornerstone of quality medical practice. As early as the era of Hippocrates, the medical doctrine of observation and documentation have established principles of sound clinical practice. Throughout medical history, paper records were the norm and limited and variable standards existed. Fast forward to the late 1960s and early 70s when a number of electronic health records (EHR) were developed and deployed and early adopters included Harvard, Duke, and Indiana (Regenstreif Institute) universities. In 1985, the Veterans Administration implemented their first EHR, which is still in operation today. Other advances in health technology include the use of computerized order entry, electronic prescribing platforms, and disease or health registries. Meaningful use standards have fostered a patient-centered approach to EHRs. Yet, a central challenge to the EHR has been its ability to track health information that is documented outside of the clinical system it supports and its limitations for broader population health management.

Registries are condition-specific tools for tracking care and managing quality outcomes for people with chronic illnesses. The World Health Organization (1974) defines registries in health information technology as “a file of documents containing uniform information about individual persons, collected in a systematic and comprehensive way, in order to serve a predetermined purpose.” Registries have been successfully implemented for managing chronic conditions like diabetes and heart disease, but their utility for tracking and coordinating care for those with multiple chronic illnesses and behavioral health conditions has been limited. Community-based Health Information Exchanges (HIE) are beginning to proliferate as an attempt to better share patient-level demographic and clinical information. These systems promote the linkage between clinical systems for enhanced access to shared clinical information. They are generally limited to care which is provided regionally among participating systems of care. And issues of Federal confidentiality for the re-disclosure of substance use conditions plague the shared dissemination of behavioral health clinical data across systems of care.

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Electronic Health Records have shown limited capacity to support integrated health care for individuals with behavioral health conditions. Challenges have been noted for the coordination of care among multiple providers (primary, specialty, and behavioral health) across different settings and over time. This includes supporting integrated care teams developing and working from shared care plans, and adequate documentation from providers of multiple clinical disciplines. “This limitation made it difficult for practices to find, extract, and track relevant behavioral health and physical health information to monitor quality and improve the delivery of integrated care” (Cifuentes et al., 2015). Additionally, these challenges require provider systems to adopt a number of workarounds to utilize their EHRs to support population health management. Some of these include:

- duplicate data entry and double documentation; transporting documents and scanning and merging information;
- reliance on patients and their clinicians for the recall of inaccessible information; and
- development and use of additional tracking systems.

As healthcare moves to greater accountability among providers and reimbursement is increasingly based on population health outcomes, new technology resources are required.

Population Health Management

The Affordable Care Act (ACA) and other aspects of healthcare reform are stimulating the growth of new delivery systems and payment/reimbursement structures. Provider organizations are forming new systems of care including Accountable Care Organizations (ACO) that provide care for designated populations. Medical Homes and Patient Centered Medical Homes (PCMH) are also expanding and being developed to foster the integration of physical and behavioral health and improve the coordination of care and health outcomes for designated populations. Recent federal legislation has also established funding for states to develop Certified Community Behavioral Health Clinics designed to further promote the integration of physical and behavioral health and foster new value based reimbursement strategies. Organizations are increasingly assuming both clinical and financial risk for the health outcomes of populations they are designated to serve. The information technology (IT) requirements to support these approaches goes well beyond the capacity of existing EHRs to monitor, track, and adjudicate services that are provided.

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Health Management and Chronically Ill Populations

Many studies have demonstrated that individuals with chronic illnesses are more costly to care for than those who do not have these conditions. In addition, these costs rise significantly when there are multiple chronic conditions. And when there are co-morbid chronic and behavioral health conditions these costs raise exponentially. Care coordination has been recognized as an effective tool for improving care outcomes and reducing healthcare costs in these populations.

There are a number of root causes for poorly coordinated healthcare (Kripalani et al, 2007). These include the challenges of linking multiple providers and facilities together into effective and integrated systems that effectively share treatment goals, care plans, and health information. Some of the key difficulties and challenges for effective care coordination include:

- Provider systems that have different electronic health records and systems;
- Difficulties for hospitals to effectively transmit information to physician offices after a patient’s discharge;
- Failure of primary care providers to know that transitions in care have occurred;
- Communicating the results of specialty tests, services, consultations, and referrals;
- Limited financial incentives or penalties for the failure to transmit information that supports care coordination;
- The availability of health information technology solutions to support care coordination across physical and behavioral health providers, and community and social supports.

It is important to note that each of these care coordination components require effective resources and tools for sharing information among providers, health facilities, and community supports. EHRs are ill-suited for this task because they are generally proprietary to separate clinical systems and closed to external access and input. Care coordination IT solutions provide a hub for the necessary clinical and other patient information to support integration of providers and effective health outcomes.

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Technology for Population Health Management

A comprehensive approach to population health management requires sophisticated information technology systems that are capable of a core set of functionality. These care coordination and health management IT system requirements go well beyond the capabilities of EHRs and include:

**Enrollment** – enrollment systems have the capacity to track assigned populations that may be fluid and change month-to-month and to track designated members that may be in active care or not presently affiliated with any care system.

**Network and Provider Management** – in order to provide care to designated populations it is necessary to establish a provider network. This includes the ability to monitor and track credentialing requirements and assign provider profiles and reimbursement schedules for both providers and facilities.

**Referral** – effective care management requires the capacity to monitor and track referrals for designated services, both within a provider system or outside of a designated network. Additionally, it may cover referrals across multiple levels of care, facilities, and providers.

**Care Coordination and Management** – a cornerstone of effective population health management is the development of care plans with evidence-based options, reviewing and tracking progress, coordination of care between physical and behavioral health providers, and designated workflows and data analytics.

**Utilization Review** – medical necessity criteria are the guidelines which track, monitor, and determine the appropriate services and levels of care provided within covered benefits. In collaboration with care managers, utilization review standards coordinate care between providers and across levels of care.

**Claims Adjudication** – claims adjudication is the ability to assign different levels of reimbursement for designated services. This level of functionality tracks covered services, adjudicates reimbursements, and either pays claims or tracks financial liability against designated population management payment management.

**Financial Reporting and Risk Management** – the ability to accept financial risk for designated populations requires the ability to monitor expenditures for care and track health outcomes and complex financial tracking and adjudication of services and reporting of services provided and outcomes. Predictive Modeling identifies candidates likely to have high care expenses and coordinates their service needs with care management resources.
Quality Monitoring and Reporting – quality standards exist across the entire spectrum of both providers and payers of healthcare services. At the provider level these may be accreditation standards like the Joint Commission and the payer-level NCQA. The ability to assimilate and report health data and outcomes are critical functions for a managed care IT system.

Powerful data aggregation and the exchange of information connects payors and providers with real-time data sharing and facilitates collaborative and well-informed care decisions.

Interdisciplinary care teams, including patients and caregivers, actively participate in the development of patient-centric care plans. Rules-driven workflow and automated assessments, tasks and actions ensure timely and well-coordinated care.

Business intelligence and robust data analytics support proactive identification of individuals and populations for meaningful engagement, intervention and outcome management.

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Electronic Health Records and Health Management Systems

There are a number of key differences between EHRs and Health Management technology solutions that support care coordination and integrated care.

<table>
<thead>
<tr>
<th>Functionality</th>
<th>EHR</th>
<th>Health Management Systems</th>
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<tbody>
<tr>
<td>Enrollment</td>
<td>Capacity is limited to former and existing patients</td>
<td>Able to receive and track covered enrollees across benefit plans and service systems</td>
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<td>Network and Provider Management</td>
<td>Limited to EHR user profiles</td>
<td>Track and monitor credentials for a network of providers</td>
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<td>Referral</td>
<td>Generally designed for referrals from practice sites to other providers for existing patients</td>
<td>Able to establish referral guidelines and track patient and provider authorizations across multiple systems of care</td>
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<td>Care Management</td>
<td>Limited to practice guidelines and established care plans in the EHR</td>
<td>On-line care management based on established and custom care plans and workflows</td>
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<td>Utilization Review</td>
<td>Generally not a functional capacity of the EHR</td>
<td>Capacity to review, track and authorize care based upon established protocols and workflows</td>
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<tr>
<td>Claims Adjudication</td>
<td>Generally not a functional capacity of the EHR, and limited to services billed within the EHR practice</td>
<td>System capacity to accept, adjudicate, and authorize for payment any claims/services submitted</td>
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<td>Financial Reporting and Risk Management</td>
<td>Generally not a EHR function – ability to bill provider charges only</td>
<td>Ability to monitor and track charges, claims payments, and report on contracts, risk corridors, and population health outcomes</td>
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<tr>
<td>Quality Monitoring and Reporting</td>
<td>Limited to active patient populations</td>
<td>Standard and custom reporting on quality metrics and population care data</td>
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Technology Solutions for Health Management

Utilizing a care coordination approach to improve healthcare outcomes and reduce costs are key goals for payers, providers, and recipients of care. Effective care coordination addresses the existing gaps in patient care, transitions between services and levels of care, and challenges to an individual’s community tenure. It also ensures that both physical and behavioral health needs are addressed and integrated among all providers. Integrated care coordination requires effective technology platforms that bridge the data sharing gaps across multiple provider systems, and establish workflows that direct and support the full spectrum of healthcare, social systems, and others who care for individuals. Improved outcomes and reduction in healthcare costs can be achieved through the following operational efficiencies:

- **Costs of Care** are reduced through effective coordination of services and resources. The reduction of unnecessary service utilization including hospital and emergency department admissions are achieved when care is integrated among providers and systems.
- **Effective Outcomes** are achieved when care coordination fosters services that are integrated, evidence-based, and medically necessary. Quality based outcomes are promoted by care coordination workflows that support integrated care teams.
- **Organizational Efficiencies** are realized when technology resources are leveraged to support all members of the care team with timely information and effective workflows. Care coordination technology is able to support all providers across physical and behavioral health care, and social systems.
- **Quality Improvement and Compliance Management** are promoted through care coordination staff and technology resources focused on improving outcomes, reducing costs, and maintaining clinical standards. Standardized quality metrics can be applied to monitor the process and outcomes of clinical services.
- **Utilization Management** is supported through technology resources that allow care coordinators to automate and monitor authorizations, and improve claims tracking and payment. Operational efficiencies support lower administrative costs and improved organizational effectiveness.

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Final Word

Electronic Health Records are an integral component of modern day healthcare provider systems. They are designed to manage and share patient-level data within defined systems of care and providers. This established functionality supports tracking and billing for services within closed systems of care, but is ill-suited for the technology requirements of managing the health of defined populations.

As outlined above, this includes the need to manage member-level data that is beyond the scope of patients who receive care within a single system. Additionally, there is the need to meet the data requirements for provider network development and credentialing. Care coordination and utilization review resources promote effective and efficient care outcomes between health systems and community support resources for complex cases. Risk-based population management also requires the capacity to adjudicate claims from diverse provider groups and monitor capitation, incentive payments, and risk corridors.

As healthcare continually evolves through an era of reform, the information technology needs are also expanding. EHRs are fundamental yet limited in their capacity to support risk-based population management. Provider systems that are assuming greater risk for health outcomes will need to recognize the limitations of their EHR and build the necessary resources to accommodate contracts for population health outcome management.

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*InfoMC Inc.* is a leading provider of cloud-based healthcare management and care coordination software. *InfoMC offers a suite of rules-based workflow, data exchange, and analytics products to health plans, managed care organizations (MCOs), health systems, and state, county and community health centers and programs. The *InfoMC Coordinated Care Solution* provides tools for optimal care coordination of complex or chronic physical and behavioral health conditions and populations, resulting in improved quality and cost of care outcomes. The solution is designed to enable care teams – across multiple providers and stakeholders – to play an active role in the patients’ plan of care. With *InfoMC solutions*, our customers receive comprehensive, sophisticated functionality that eliminates costly administrative and clinical process inefficiencies while promoting improved quality and cost outcomes.

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