i2i POPULATION HEALTH
Data. Insight. Action.

WHITE PAPER

Measuring Health System Performance

Population Health Analytics for Accountable Care

Powerful health system analytics solutions helps healthcare providers, networks and Accountable Care Organizations achieve higher levels of performance and profitability.

PART 1

In part 1 of this two-part paper, we discuss the challenges faced by provider organizations in today's increasingly complex healthcare environment and how an integrated data analytics solution can lead to greater transparency.

Taming Big Data Demands

Mounting pressures to improve care, deliver better outcomes and reduce costs are challenging healthcare providers and networks today. With the adoption of EHRs, healthcare organizations have more data, but no greater insight into the health of their patient populations. i2i Population Health' PopIQ, a cloud-based strategic analytics solution for Population Health Management on a broad scale, ensures that providers attain actionable insights, optimize clinical outcomes and improve network efficiency.

The healthcare industry today is facing increasingly complex challenges: to improve patient care and outcomes, reduce spiraling costs and optimize resource allocation. Providers must meet these demands while they care for an aging population with chronic health problems, in a system with increasing government regulations and reporting requirements. Because of the sheer number of measures and reports, particularly measuring and managing progress in accountable care and quality initiatives, healthcare networks must have an efficient and accurate way to show consumers, government and payers that they are measurably the best at what they do. Ultimately, providers must demonstrate that patient care is less variable and adheres to the highest quality of evidence-based practice.

Underscoring these pressures is the relentless flow of non-standardized data from multiple disparate systems, including electronic health records from more than 50 core vendors, sophisticated electronic medical devices and diverse health information systems. Fragmented data – in different categories, with varied definitions and incompatible platforms – will not provide the insights needed to enhance the quality of patient care. Indeed the biggest challenge facing healthcare providers is this lack of integration – the inability to integrate data from multiple sources and standardize it to ensure transparency and accuracy. Integrated clinical, operational and financial data is requisite for providers and stakeholders to make timely evidence-based strategic decisions.

Critical Data Demands for Networks and ACOs

To thrive in this new world of pay-for-performance and value-based healthcare, Health Center Controlled Networks (HCCN) and Accountable Care Organizations (ACO) must address these critical data demands:

- **How to measure and evaluate their clinical, operational and financial performance at the network level**
- **How to determine the best performers at the facility and individual provider level in order to spread best evidence-based practices across the network and reduce the variability of care**
- **How to improve efficiency of the health system and reduce costs overall across the continuum of patient care 2**
- **How to make strategic decisions about programs, processes and staffing to allocate resources wisely**

Creating Actionable Intelligence

The key to managing data to drive positive change lies in harnessing the power of analytics at a network level – in knowing the health of the patient population and the quality of care being administered across all provider organization in the health system. Data not previously available in a paper chart environment are now fully accessible in real-time via electronic health records and must be leveraged fully to impact population health as close to point of care as possible. In essence, providers need a way to convert massive amounts of data generated by health information technology into actionable intelligence that demonstrates where they have failed or succeeded in improving their patients' health. The path to such actionable intelligence is analytics supported by advanced data integration technology that aggregates data from multiple disparate systems.

Disparate and distant electronic health records—many times islands of data separated from one another in a health system—cannot be substituted for analytics solutions that can effortlessly integrate data across the system to meet the population health management challenges that today's health networks face. In fact, a true analytics solution, an intelligent solution, is attainable – with a super- fast, versatile, easy-to-use tool called PopIQ.

A Solution to Guide Quality and Cost Improvement – Today!

Janice Nicholson, CEO of i2i Population Health, has a national vision for healthcare providers and health networks to make data-informed decisions in real-time to proactively manage care of their patient populations, keeping them healthy while reducing costs. PopIQ is the result of her vision. PopIQ is a cloud-based system that extracts, standardizes and aggregates health record data globally across a healthcare network. PopIQ enables leaders to measure performance and make informed decisions about high-level policy and strategy that leads to clinical excellence, operational efficiency and fiscal sustainability.

PopIQ has three features that set it apart from any other system on the market today. First, it is the leader in health data integration capability. PopIQ features the largest portfolio of interfaces among its competitors. This enables PopIQ to bring together data from nearly every major electronic health record (EHR) system, practice management system (PMS) and laboratory system, plus flexible integration with health information exchanges, payers, patient registries and other databases into a standardized set of data that can be analyzed and compared, regardless of source system. It aggregates information about thousands of patients even though they are on different health information systems, reporting on everything from procedures performed and hospitalizations to lab results, medications and emergency room visits. No other analytics system has such robust integration capability.

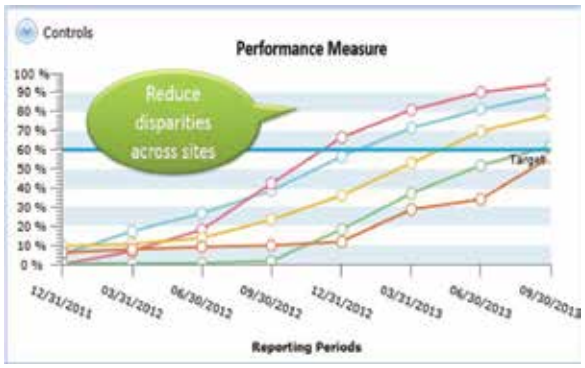
Second, PopIQ utilizes a revolutionary approach to storing and analyzing key sets of data and performance measures. Reports can be produced in seconds, equipping network leaders with real-time intelligence about the current health and proactive care opportunity for their patient population. And PopIQ refreshes this data every 24 hours. PopIQ supports clinic-to-clinic, hospital-to-hospital, community-to-community and even state-to-state comparisons.

Though an extremely powerful analytic engine, PopIQ incorporates a "light" approach to data management, leveraging the latest cloud technologies. It extracts only vital data elements from health information technology systems to optimize data analysis efficiency and provid provides friendly analytic drill-down functionality. The result is a fast, streamlined, intuitive user experience.

Pinpointing Opportunity for Improvement with PopIQ

1. Single Measure Trend

This trend of a single performance measure (clinical, operational, or financial) allows monitoring of priority measures at the facility, center, network and state levels.

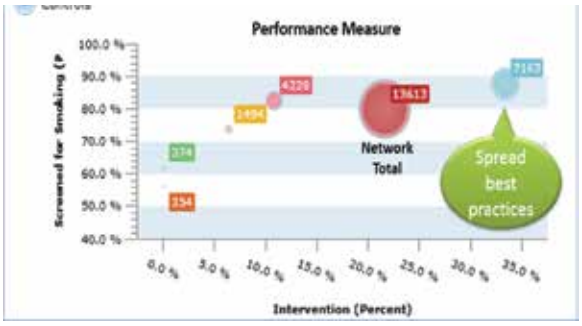


2. Single Measure Trend by Facility

This trend of a single performance measure stratified by facility highlights the variability in performance that can be reduced with focused improvement efforts.

3. Bubble Chart

This view brings together three variables that help identify opportunity based on patient impact: volume of patients (bubble size) and two measures (X, Y axis). This may be used at the center, network and state levels.



And third, PopIQ provides exceptional value as a complete turnkey solution with minimal capital investment, limited maintenance requirements and ongoing returns on investment. Healthcare organizations will not incur the costly expenses associated with development, implementation or system upgrades. Nor will they suffer drops in productivity while waiting – sometimes up to several months – for information technology staff to develop needed interfaces and custom analytic reporting. These are all centrally managed by i2i Population Health as part of the PopIQ solution package. In addition, PopIQ can be installed and up and running very quickly. Most implementations can go live within 30 days.

PopIQ also makes analytics for quality and performance improvement reporting much simpler. The agile reporting capability requires minimal analyst time, so staff can work on more value-added projects that facilitate change and improvement. Because PopIQ offers both standardized and customizable reports with real-time data, analytics staff, leadership and care teams have all the information they need today to proactively manage chronic disease, to outreach for preventive care and to promote wellness in the patients they serve.

Knowledge to Provide Exceptional Care

With its robust integration, unparalleled speed and ease of implementation, PopIQ enables systematic and informed dialogue among health centers across a system about health outcomes performance. For instance, healthcare leaders can identify a clinic that is providing exceptional diabetic care and profile best practices for use at lower performing clinics.

Ultimately, the clinical outcomes intelligence from PopIQ empowers leaders across systems to make informed and proactive decisions. Equipped with the capability to drill down into performance outcomes, management can further isolate causes in disparities. Based on data, they can decide whether to reallocate staff or other resources to ensure all diabetic patients are receiving the best care with minimal variability, while meeting performance targets.

With PopIQ, providers can also demonstrate to payers that they are heading in the right direction in a measurable way – increasing, for example, the percentage of women who receive PAP screening regularly, or meeting a benchmark of 99 percent of children being immunized by age two. Not only are patients healthier, but the increase in revenue contributes to a more profitable and effective organization.

Performance-related information, showing, for instance, that the number of women who have received mammograms has increased in a specific clinic, can be shared with other clinics in the same network. Leaders can even give report cards to individual doctors to encourage a culture of improvement across the network.

Item	Target	Org A		Org B		Org C		Org D		Org E	
		Value	%	Value	%	Value	%	Value	%	Value	%
1. Patients age 50+ with at least 2 medical visits in the last 1 year		1,819	100.0 %	7,221	100.0 %	9,901	100.0 %	3,534	100.0 %	8,959	100.0 %
a. DM Enrollment: Diabetes Mellitus patients		657	36.1 %	2,571	35.6 %	3,424	34.6 %	1,133	32.1 %	4,422	49.4 %
i. DM patients on ACE		491	74.7 %	2,163	84.1 %	2,527	73.8 %	323	28.5 %	2,198	49.7 %
ii. DM patients on ARB		122	18.6 %	354	13.8 %	795	23.2 %	47	4.1 %	904	20.4 %
iii. DM patients on Statin	> 80%	509	77.5 % ✗	1,446	56.2 % ✗	2,571	75.1 % ✗	369	32.6 % ✗	2,694	60.9 % ✗
iv. DM patients on ACE or ARB	> 80%	541	82.3 % ✓	2,242	87.2 % ✓	2,866	83.7 % ✓	355	31.3 % ✗	2,971	67.2 % ✗
v. DM patients on ACE or ARB and Statin	> 80%	448	68.2 % ✗	1,341	52.2 % ✗	2,281	66.6 % ✗	276	24.4 % ✗	2,009	45.4 % ✗
vi. DM patients with calculated BMI	> 50%	646	98.3 % ✓	2,553	99.3 % ✓	3,237	94.5 % ✓	1,092	96.4 % ✓	4,349	98.3 % ✓
1. DM patients with last BMI Value > 25		576	89.2 %	2,192	85.9 %	2,759	85.2 %	917	84.0 %	3,802	87.4 %
a. DM patients with last BMI > 25 and have a self management goal	> 50%	32	5.6 % ✗	0	0.0 % ✗	444	16.1 % ✗	578	63.0 % ✓	551	14.5 % ✗
vii. DM patients with last HbA1c > 9	< 20%	100	15.2 % ✓	610	23.7 % ✗	438	12.8 % ✓	155	13.7 % ✓	567	12.8 % ✓
viii. DM patients with no HbA1c		62	9.4 %	249	9.7 %	399	11.7 %	229	20.2 %	1,355	30.6 %
ix. DM patients with last HbA1c > 9 or no HbA1c		162	24.7 %	859	33.4 %	837	24.4 %	384	33.9 %	1,922	43.5 %
x. DM patients with last BP < 140/90	> 65%	494	75.2 % ✓	1,860	72.3 % ✓	2,381	69.5 % ✓	795	70.2 % ✓	3,028	68.5 % ✓
xi. DM patients with last LDL < 100	> 65%	324	49.3 % ✗	1,092	42.5 % ✗	1,689	49.3 % ✗	482	42.5 % ✗	1,718	38.9 % ✗
xii. DM patients who were screened for tobacco in the last 1 year	> 50%	465	70.8 % ✓	49	1.9 % ✗	2,854	83.4 % ✓	113	10.0 % ✗	3,751	84.8 % ✓
1. DM patients who are tobacco users		14	3.0 %	0	0.0 %	557	19.5 %	12	10.6 %	410	10.9 %
a. DM patients counseled for tobacco use	> 50%	6	42.9 % ✗	0	0.0 % ✗	448	80.4 % ✓	11	91.7 % ✓	233	56.8 % ✓

A Call to Action for Data Transparency

As healthcare providers, networks and Accountable Care Organizations seek to improve care, deliver better outcomes and reduce costs in an increasingly competitive healthcare market, advanced analytics tools are needed to provide them with greater insight into the health of their patient populations. i2i Population Health' PopIQ ensures that providers attain actionable insights, optimize clinical outcomes and improve network efficiency by unleashing the power of health data and creating greater data transparency. PopIQ offers providers an efficient and accurate way to demonstrate to consumers, government and payers that they are measurably the best at what they do.

In the first part of this two-part paper, we have looked at the importance of having the genuine transparency that comes from a fully integrated global health analytics solution like PopIQ. In Part 2, we will examine how PopIQ fits within the full ecosystem of solutions that enable care teams to provide proactive care and will look at how Team Intelligence tools empower the front lines of care.

About i2i Population Health

A visionary in Population Health Management and Analytics, i2i Population Health helps health care organizations achieve excellence in clinical, operational and financial performance. The company was recognized as an early leader in the KLAS Report, "Population Health Management 2013: Scouting the PHM Roster."

Since it was founded in 2000, more than 1,000 facilities across 35 states have come to rely on i2i Population Health for proactive care insights and powerful analytics intelligence tools to measurably improve the health of the communities they serve. i2i Population Health' flagship product, i2iTracks, has been tested and certified to calculate more than 40 clinical quality measures (CQM) and achieved NCQA's Patient-Centered Medical Home (PCMH) Prevalidation status. i2i Population Health' population analytics solution, PopIQ, provides CQM intelligence across a health system to support strategic management of value-based care delivery. For more information, visit www.i2ipophealth.com. Contact i2i Population Health

Contact i2i Population Health

Contact i2i Population Health for more information on population health management or for a demonstration of i2iTracks:

- Call toll-free: 866-820-2212
- Email: info@i2ipophealth.com
- Visit: www.i2ipophealth.com