Population Health IT Definition

DEFINITION AND CRITICAL CHALLENGES OF PROVIDER POPULATION HEALTH IT SOLUTIONS

In September of 2016, executives from 16 healthcare IT vendor companies, 3 healthcare services firms, 31 provider organizations, and 2 payer organizations met just outside of Salt Lake City for one day. Goals of the summit included the following:

- *Definition of the required core competencies for a population health tool set*

- *Identification of critical challenges in vendor/provider partnerships, specifically those that might allow for more successful population health IT deployments*

The results of this summit are publicly shared in an effort to improve the success with which population health IT solutions are deployed and adopted.

Provider Population Health IT Framework

Objective

Define core competencies of a provider population health IT solution and recognize the vendors that have developed and widely implemented these solutions. This framework was developed to differentiate current technologies, with an expectation that it will need to evolve in parallel with the evolution of the population health IT market.

Validation of Solution Success

The following method for ongoing validation and reporting of which vendor solutions are "complete" has been developed by KLAS and the provider visionaries. Feedback on this process by summit participants was also welcomed.

- **Principle**: A solution is deemed complete after five provider organizations report to KLAS that all specified required functionalities in a vertical are implemented and live within their organization.

- **Method**: In order to ensure that these functionalities are implemented at scale, only provider organizations with more than 30,000 risk-based lives will be asked to report on their experiences. KLAS will continually ask organizations to report on these verticals until five fully adopted organizations can be identified.

- **Reporting**: KLAS will validate market and vendor progress toward the framework twice during 2017 (once mid-year and once at year-end). All providers and any subscribing vendors will have access to this research.

Framework Development

The initial definition was developed by four provider leaders:

- Shawn Griffin, MD: Chief Quality and Informatics Officer for Memorial Hermann Physician Network

- Richard Vath, MD: Chief Clinical Transformation Officer at Franciscan Missionaries of Our Lady Health System

- Keith Fernandez, MD: Senior Physician Executive at Privia Health

- Rick Schooler: VP and CIO at Orlando Health

After this initial first draft, all summit participants were asked to give significant feedback into a second draft iteration developed and released before the September summit. Subsequently, this final definition is released after feedback and agreement by summit participants. While not all participants agree with all portions of the definition, this work represents a multidisciplinary, multi-organizational, and multi-interested work effort around a unified goal.

Definition

The core functionalities that risk-bearing organizations need in order to manage risk are broad and interconnected. Risk-bearing organizations will often need functionalities not listed below, but nearly all risk-bearing organizations will require those listed below. Six key layers of functionality stand out as somewhat independent:

VERTICAL 1
Aggregation

Compilation of disparate clinical/ administrative data sources to support population health

Basic Functionalities

- Ability to incorporate data using common industry standards
- Timely aggregation/incorporation of
  - ADT feeds
  - Pharmacy, prescription data
  - Claims/payer data
  - *Inpatient* clinical (EMR) data
  - *Outpatient* clinical (EMR) data
- Aggregation of data from multiple, disparate sources
- Incorporation of platform-generated data (such as assignments to registries)
- Ability to normalize and clean incoming data
- Reliable MPI (including duplicate record merging/deletion)
- Compilation of a longitudinal record (multi-sourced longitudinal summary of all clinical activity, including clinical, claims, and care management interventions)

Advanced Functionalities

- Integration with other organization MPIs
- Advanced data quality monitoring tools (automated recognition and flagging)
- Data quality monitoring tools
- Aggregation of
  - Patient-sourced data
  - Social determinants of health/ community health data
  - Nontraditional data sets (i.e. public data sets, genomics, bio-market structures, etc.)
  - Imaging data

VERTICAL 2
Analyze

Segmentation of aggregated data to communicate meaningful information

Basic Functionalities

- Functionality to assign patients to registries (patient/risk stratification)
- Configurable functionality to attribute patients to care providers
- Quality measures and analytics (including MIPS, MACRA, etc.) scaled down to individual facility/caregiver level
- Integration with visualization tools
- Physician scorecard and dashboards
- Common predictive analytics (i.e. readmission risk)
- Goal targets/simple benchmarking (internal, static) including customized outcomes measurement tracking
- Regulatory reporting compilation and submission (if applicable)

Advanced Functionalities

- Advanced benchmarking (including external and dynamic benchmarks)
- Meaningful advanced predictive analytics (i.e. big data analytics, individualized disease progression)
- Analysis of data on social determinants of health

VERTICAL 3
Care Coordination/Health Improvement

Scalable care management support for standardized interventions

Basic Functionalities

- Configurable care plans
- Program management (including care coordination and care management)
- Making the care plan accessible across the continuum of care
- Tools for care managers (within-team communication, reference materials, consolidated patient view)
- Tools to manage care managers (monitoring of CM team including time spent, members reached, programs initiated and completed, etc.)
- Chronic disease management
- Online health risk assessments

Advanced Functionalities

- Single view of longitudinal data

VERTICAL 4
Administrative/Financial

*Internal and external strategic
program analysis*

Basic Functionalities

- Total-cost-of-care analytics
- Organization financial performance tracking under risk-based contracts
- Integration into organizational reporting dashboards (export/import capabilities into visualization tools)
- Executive quality performance tracking, including standard quality metrics (such as HEDIS/Stars)
- Role-based dashboard reporting (clinician, executive, administrative, etc.)
- Tools for tracking of ROI on care management activities and programs
- Employer/insurer dashboard
- Network utilization tracking (including "leakage," "steerage," and multiple-network tracking)

Advanced Functionalities

- Actuarial contract risk analysis
- Network optimization analysis/modeling
- Timely medical economics analysis support (opportunity and performance tracking within episodic and procedural bundling)
- Service line modeling, including activity-based costing
- Identification and management of high-cost care options (medication, procedures, diagnostics, etc.), including ability to authorize
- Gainsharing tracking/windfall tracking

VERTICAL 5
Patient Engagement

*Patient-centric communication and alignment
with health goals and improvement*

Basic Functionalities

- Coordination and integration with organizational patient communication/engagement channel
- Secure messaging between patients/care providers/care managers
- Patient outreach tool set (phone, email, social media, etc.)
- Patient education delivery functionality
- Patient satisfaction monitoring of programs and providers
- Precision profiling and communications

Advanced Functionalities

- Full CRM tool set that includes integrated patient portal, patient outreach, education, satisfaction monitoring, and precision marketing
- Management of unique circumstances (behavioral health, adolescence data)
- Tracking of outreach efforts, including event tracking and management of closed-loop communication
- Patient health dashboard, including patient goals
- Ability to show/estimate patient out-of-pocket costs, or capability to connect to a third party to show/estimate
- Patient permissions for data sharing, gathering, etc.
- Virtual care tools

VERTICAL 6
Clinician Engagement

*Actionable workflow integration
for clinicians*

Basic Functionalities

- Supports single sign-on integration
- Integration/ability for a care provider working in the population health tool to efficiently take action in the EMR
- Integration/presentation of care gaps to providers within the provider (EMR) workflow.
- Ability to integrate with multiple EMR platforms
- Ability to track clinician usage and activity

Advanced Functionalities

- Timely integration of population health tool data and alerts to be displayed within the EMR workflow and stored within the EMR
- API-based (FHIR or other API) integration with EMR solutions
- Presentation of care gaps to providers within the provider workflow with the ability to act within the provider workflow

Dialogue for Improvement

At the summit, vendors and providers were asked to separate into two groups to discuss challenges observed in the partner group specific to understanding, focus, or experience that significantly impacts the success of population health IT solution deployments. Discussion leaders focused on developing powerfully constructive discussions that could enlighten all parties and enhance provider-vendor partnerships. The feedback from each group is shared below.

Provider Executive Recommendations for Vendor Leadership:

Underestimating Complexity: Vendor organizations tend to underestimate complexity in two key areas: (1) data aggregation and (2) clinical workflows. Vendors could do better in helping provider organizations locate and identify the scope of available data sources. Great vendors also accept the invitation to go on-site "in the trenches" and learn the complexity of clinical workflows.

Right People in the Room: Great vendors help ensure that the right people are in the room from the provider side, ensuring overall project success. Great vendors are not silo-selling.

Vision is Overrated: Many if not most vendors today have a great vision of where population health is going; however, providers are looking for real wins in the present. More than providing vision, great vendors are able to provide excellent examples of success.

More Than a Tool: Great vendors don't sell just a siloed tool. New population health tools need to fit into an overall ecosystem. While it scares many CIOs, the population health world today is a best-of-breed world, and everything needs to work together for organizational success.

Honesty and Sales: The biggest disconnect many providers see with vendors is not with the on-the-ground implementers or the leadership. Instead, the greatest disconnect is often with the sales teams. The population health market has been plagued by over-selling. Honesty and a lack of buzzwords are strong sales pitches in today's environment.

We Need the Best Practices: Some of the greatest value that vendors can provide is education and best practices. Vendors need to bring the best practices for their solutions as well as examples of success from other provider organizations.

Vendor Executive Recommendations for Provider Leadership:

CIO-to-CEO Relationships Are Key: Many vendors agree that a key predictor of success in provider organizations is the relationship that CIOs, CMIOs, and CEOs share. Vendors agree that when a sale is mostly to a CEO or mostly to a CIO, it often ends in failure. The CEO leads up culture while the CIO leads up technology. A combination of culture and technology comes from CIOs, CMIOs, and CEOs working together.

Strategy before Technology: Great provider organizations have aligned their strategies before focusing on technology. This is a relationship that is seen in many other industries but is often overlooked.

Becoming Risk Takers: Provider organizations that appear to be ready for risk have a deep respect for the way their business models are changing and are willing to take the risks that they need to in order to be successful in tomorrow's world. At the same time, these organizations are also great at executing on the basics that will be important regardless of changing business models.

Learning from Other Countries: Most vendors who have had international experience see the possibility that many countries outside of the United States could leapfrog forward with the care they provide because of a willingness to engage populations and social programs. Much can be gained by learning from these countries and their approaches to health.

Commitment to the Future of Value-Based Care: Today, conversations with provider organizations have changed significantly. No organizations are saying that they do not believe in changing business models. The great provider organizations realize that there will be a tipping point and are running toward that change, knowing that no organization can be great at delivering on two business models long term. Provider organizations who see population health as an adjunct, side business are those who are not ready for the future.

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