



ACCOUNTABLE CARE MODEL TECHNOLOGY IMPERATIVES FOR PAYERS

Siva Nandiwada, Vijay Sylvestine

This point of view identifies the technologies that will help healthplans in fostering a strong partnership with providers, and in building a successful ACO model.

Though the key focus areas of the Patient Protection and Affordable Care Act (PPACA) are about expanding coverage to the uninsured and regulating the health insurance market, it also includes provisions to reform the healthcare delivery system as it exists today. This transformation will be driven by accountable care organizations (ACOs) – provider-led organizations that will be accountable for the cost and quality of care delivered to the Medicare members assigned to them. These ACOs will share the treatment cost savings achieved with Centers for Medicare and Medicaid Services (CMS).

The ACO is considered as one of the key solutions to reform today's unsustainable health system. By aligning it with improvements in outcome and reduced treatment costs, it goes beyond payment reform to transform healthcare delivery. The transformative nature of the ACO model enables both payers and providers to share the financial risk of health insurance. Since all the providers are still not setup to share the financial risk associated with ACO model, the healthplans are taking a cautious approach

towards ACO adoption. However, there is a high interest among healthplans to extend this ACO model to their commercial business. Today there are a lot of ACO pilots (Alternate Quality Contract, Premier ACO, Dartmouth Brookings, etc.) built primarily on the partnerships between the payers and large provider organizations. Physicians and their practices are also trying to consolidate to form ACOs and partner with healthplans.

In addition to the financial risk sharing, ACO model also necessitates shared responsibility between healthplans and providers across other areas. ACOs will be accountable for managing the full spectrum of care for the assigned population and their treatment cost. Thus functions like case management, disease management, and utilization management – that were traditionally owned by payers – will now be the responsibility of ACOs. Healthplans will need to share the wealth of information they have amassed over the years from running these programs with ACOs, to assist them with population health management (PHM). Technology is the key factor that will foster this partnership and it needs to be addressed in

a holistic and collaborative manner.

While there is an increased focus on the provider's need for health information technology (HIT) to set up and manage ACOs, payers also need to build significant business and technology capabilities. These capabilities are expansive - from operational capabilities for provider contracting, to advanced analytical capabilities for evaluating and managing ACO performance. Payers will be able to leverage some of their existing investments in programs like pay-for-performance (P4P) and patient-centered medical home (PCMH). The differentiating characteristic of the ACO model is the technology-driven collaboration that is required between healthcare payers and providers. To achieve this collaboration, payers will need new technology solutions. However, they cannot view these solutions in isolation. They must proactively engage with providers to define solutions that are mutually beneficial, and lay the foundation for a technology-enabled accountable care model that delivers value across the healthcare ecosystem.



The New Technology Mandate for Payers

To adopt the ACO model, payers must change their systems to support 'new' capabilities like member attribution, risk, and reward modeling. In addition, systems need to be 'enhanced' for business capabilities around provider contracting, claims adjudication, and reporting.



Advanced Analytics



To support the ACO model, healthplans need to develop key capabilities such as:

- Assessing viability
- Member attribution
- Member risk assessment and stratification
- Budget and spending target identification
- Performance measurement
- Incentive management

Each of these processes involves sophisticated analytical tools to obtain actionable insights.

Assessing viability – Health plans need to analyze the provider mix of the ACO, the geography that it operates in, and the demographics of the population to determine if the ACO has ability to achieve its goals.

Member attribution – Health plans need

to analyze the historical claims, identify existing relationship between providers and patients, and assign patients that providers will be accountable for.

Member risk assessment and stratification – Payers need to implement a comprehensive algorithm aggregating data from claims, member demographics, prescription, lab results, and medical records to assess the risk profile of the ACO population and the probability of the risk materializing. Techniques such as segmentation can help create groups of homogeneous members and a risk scorecard (developed from different techniques like Generalized Linear model (GLM), multinomial logit / probit, etc.) can help monitor these segments and individual members over different periods of time.

Budget and spending target identification – Payers must develop statistical models and apply them to the historical claim data. This will help identify trends in utilization and cost data of the ACO population. These trends need to be extrapolated to arrive at the future utilization numbers and the targets that need to be defined. Time series modeling techniques such as ARIMA and ARCH can be used to identify trends and

simulate scenarios in the future.

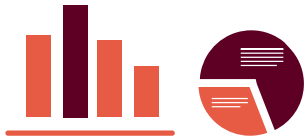
Performance measurement – Health plans need a performance management system with the ability to integrate with disparate data sources – including claims, medical records, and patient surveys – to assess ACO performance across a set of predefined measures.

Incentive management – The incentive management system must collate information about claim payments made, compare the actual cost against the targets defined, and be able to calculate the incentives due to the ACO based on their contracts.

Technical teams identified to work on analytics need to have a strong understanding of business and inter-relationships of various data elements. From a tools perspective, there are statistical packages like SAS, SPSS (licensed tools) and R (open source) — with different modules that can be used for data mining and analysis purposes.

A number of payers already use SAS-SPSS packages for generating marketing and operational reports, and statistical modeling. However, the adoption rates are yet to pick up in the healthcare industry.

Reports and Dashboards



Assessing the different reporting requirements of users within the payer organization and ACO is critical. While the reports and dashboard views needed will vary across users; they should cover the key dimensions below:

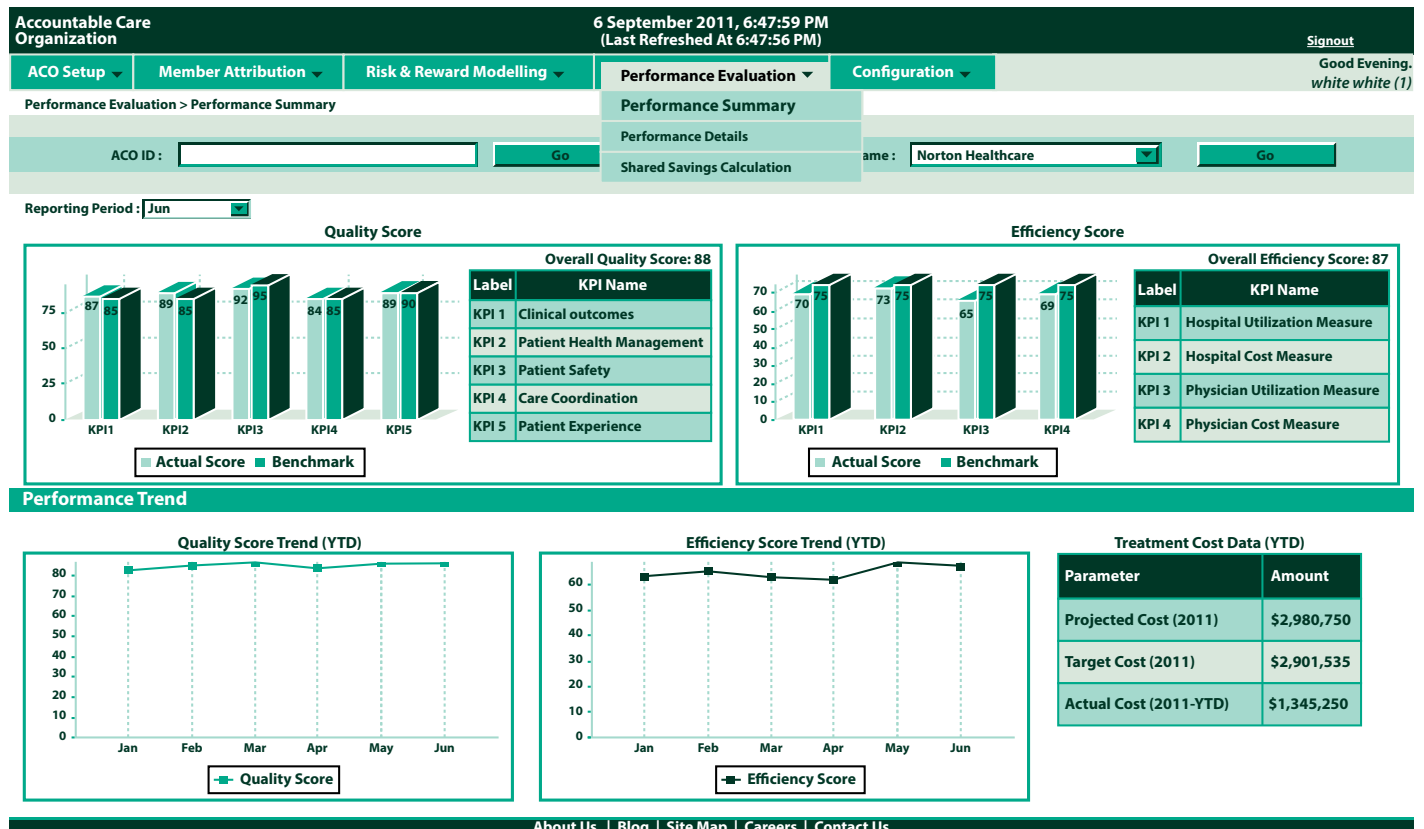
- **Historical trends** – Trends established from historical data, e.g. utilization and cost trends from historical claims
- **Comparison against benchmarks** – Comparison of actual results against regional, national or 'best-in-class' benchmarks, e.g. comparison of provider performance against benchmarks

- **Actuals against expected** – Comparison of actual results against the targets defined, e.g. comparison of ACO's actual treatment cost amounts, against defined targets

The reporting infrastructure needs to support both the internal users within the payer organization and the Accountable Care Organization (ACO) since their needs are varied. The key users within the payer organization are the executive team and the care management staff. The executive team needs cost and performance-related reports, and the care management staff needs focused reports on population,

risk scores, and treatment gaps. The ACO management staff need cost, utilization and performance trend reports. The reporting needs of the clinical staff within an ACO will be similar to that of the care management staff within a payer organization. Clinical staff will also need reports comparing their performance against the benchmarks and compliance levels.

The existing reporting infrastructure of the payer can be leveraged for these needs. Some payers have also built custom reports to meet these reporting needs.



Technologies for Integration and Collaboration



The success of the ACO model hinges on the establishment of a trusted relationship between the health plans and the providers. To build this relationship, payers will need to share the tools, infrastructure and experience gained over the years (from care management and alternate payment programs already implemented). Focus areas include:

- Population health management – Proactively identify high-risk and high-cost patients so that the ACOs can focus their efforts on such patients
- Care management – Share infrastructure and personnel to help coordinate the care delivery for chronically ill patients
- Patient education – Share resources and tools developed to empower

consumers and enable them to manage their own care

- Provider performance management – Evaluate performance of providers, compare and rank them against their peers, and help them identify gaps in the care they have delivered so they can improve their quality of care
- Patient encounter data exchange – Exchange information about the services (encounters, medications, diagnostic tests, etc.) that the patients have incurred outside of the ACO network to help ACOs establish a holistic view of the patient's condition and treat them accordingly

All these aspects necessitate a system that integrates data available within the payer's systems with the providers. This

information sharing can be facilitated through provider portals established by payers, or through a sophisticated data exchange platform that facilitates two-way communication in real time.

Participation in the ACO model involves significant changes within the payer organization, as well in identifying ACO-attributed members, supporting the new provider structure, and handling newer types of provider contracts and newer payment models. This warrants integration among payer systems, especially the member, provider, claim, payment and portal functions. Healthplans need to ensure these systems are modified to support the new ACO model and facilitate greater collaboration capabilities.



Enterprise Data Warehouse



The ACO model warrants changes in many existing functions within healthplans:



Products and plans

Defining newer products with features to support ACOs



Provider

Managing a new provider structure and new set of contracts



Member

Identifying members assigned to an ACO



Claims

Reimbursing providers based on new payment models



Payments

Managing payments to the ACO against the budgets defined and managing incentives

Today, all these functions are managed on disparate systems and the data is also distributed across these systems. The ACO model warrants sophisticated analytics and reporting capabilities. Running these analytics and reporting functions in data silos will be a daunting task to implement and manage. Payers need to aggregate and integrate all the data into an enterprise data warehouse. Data that will be important to draw patterns and relationships needs to be assimilated from disparate silos, cleansed and integrated into the data warehouse. The data warehouse should be structured in a manner that allows for easy and timely access. This 'single source of truth' about the patient, provider, claims and payment data is essential to build analytical models that support accurate and reliable predictions.

Unified Communications



In most organizations, communicating with members and providers happens in silos. In an Accountable Care Organization (ACO), building strong relationships with providers is critical for success – and hence building a unified communication strategy for members and providers becomes all the more important. A crucial step towards building this trusted relationship is to reduce the administrative burden on the providers, and integrating the communication process is a step towards achieving this administrative simplification.

ACOs require additional document handling – contract documents spelling out the budget and targets, documents describing the new payment models, letters detailing patient assignments and patient movements, incentive letters providing details about incentive payouts, etc. These documents may originate from different units within the payer organization. Payers need to integrate all these functions to simplify their processes, as well as those of the providers. Healthplans must ascertain potential

opportunities to digitize communication rather than using paper formats. Unified communication is imperative for healthplans, and the infrastructure developed should be able to cater to some of the key functions below:

1. Communication on-demand
2. Interactive and personalized content creation for communication
3. Self-service
4. Automated storage, retention and archiving

Portals and Mobility



The success of ACO model depends on the relationship between payers and providers, which is fostered by sharing information and best practices. Existing provider portals need to be enhanced to support this communication between healthplans and ACOs. The portals need to provide access to patient information, performance reports, and clinical resources that the payers have developed. In addition, the portals need to support reports,

dashboards and tools for data visualization — to help present the data in a manner that is easy to use, share and assimilate.

With the transition towards tablet computers and mobile devices, healthplans need to assess the mobility capabilities needed with the ACO model. All the content that's shared with the providers should be portable and accessible on mobile devices, while ensuring the same user experience. Mobile enablement of all

data and content provides convenience and integration for providers. This is essential to deliver data where it is needed, and achieve the combined goals of financial results and improved health outcomes. Mobility brings with it the challenge of ensuring data security. To this end, healthplans need to implement techniques such as data encryption.

On the Road to ACO:

The Payer's Technology-Readiness is All-Important

Participating and succeeding with the ACO model will require payers to gain new capabilities, and augment existing ones. Healthplans should carefully assess their readiness for the ACO model and validate the alignment of the ACO's goals against their own before they negotiate any contract.

Payers that will succeed in this new model are the ones that are able to leverage their existing capabilities intelligently, and foster a strong partnership with ACOs in their journey toward achieving common goals.



About the Authors



Siva Nandiwada

Associate Vice President, Infosys Public Services

Siva Nandiwada is responsible for client relationships in healthcare. He has more than 12 years of experience in managing large-scale technology-led business transformation programs that leverage global delivery, business consulting, senior client executive relationships, strategic planning, operations planning and marketing. Siva is an alumnus from the Indian Institute of Management, Ahmedabad.

He can be reached at siva_nandiwada@infosys.com



Vijay Sylvestine

Senior Consultant, Infosys Public Services

Vijay has nine years of experience in the IT industry and is a Senior Consultant with the Healthcare Consulting Practice at Infosys Public Services. He has been actively involved in strategic consulting engagements, new solutions development, business process study, pre-sales and sales support. He has diverse experience in the healthcare payer segment in both commercial and government plans, spanning diverse domains – accountable care organizations (ACO), consumer directed health plans, provider performance management, behavioral health and employee assistance programs.

He can be reached at vijay_sylvestine@infosys.com

For more information, contact askus@infosys.com



© 2018 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and/ or any named intellectual property rights holders under this document.