

OVERVIEW

Innovations in **health care payment** and **service delivery** provide a rich testing ground for understanding the level of change that can be achieved in health care spending, while preserving or enhancing the quality of care. We systematically analyzed qualitative results from publicly available evaluation reports from innovations developed and tested under the auspices of the Centers for Medicare & Medicaid Services' (CMS) Center for Medicare and Medicaid Innovation (Innovation Center) to identify factors that facilitate or create challenges to these success of these innovations.

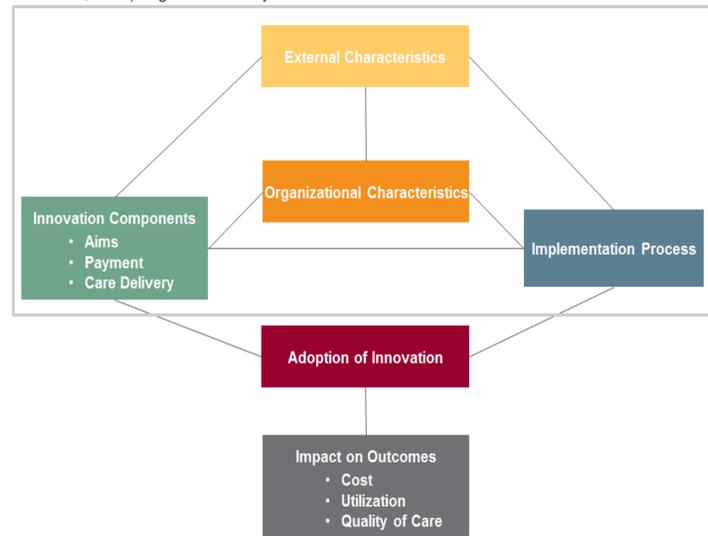
Several themes emerged around organizational and external factors, implementation process and long-term adoption of innovations that affect not just outcomes, but also the evaluation of these programs. These findings suggest considerations for future evaluations, including greater emphasis on understanding **how** and **why** results are achieved.

METHODS

DATA SOURCES. Final evaluation reports of **7 accountable care initiatives** and **10 primary care transformation/care delivery redesign** initiatives available on the CMS Innovation Center website, as of Spring 2017 (see references below).

ANALYSIS. Directed content analysis that involved coding along domains and subdomains related to characteristics of the innovation and organization, external environment, and implementation processes and people, and impact. Analysts used NVivo software (QSR International Pty Ltd., version 10, 2012) to code the data and achieved at least 87% inter-rater reliability with two other team members.

CONCEPTUAL FRAMEWORK. We adapted a framework on the adoption of innovation (from Fisher et al., 2016) to guide our analysis.



REFERENCES

Elliott S. Fisher, Stephen M. Shortell, and Lucy A. Savitz, Implementation Science A Potential Catalyst for Delivery System Reform. *JAMA* 2016; 315 (4): 340-341.

Hsieh H and Shannon SE. Three Approaches to Qualitative Content Analysis. *Qualitative Health Research* 2005; 15 (9): 1277-1288.

Reports examined include the following:
 Evaluation of CMMI Accountable Care Organization Initiatives: Advance Payment ACO Final Report
 Evaluation of CMMI Accountable Care Organization Initiatives: Pioneer ACO Final Report
 Evaluation of the Comprehensive Primary Care Initiative: Third Annual Report
 Evaluation of the Medicare Coordinated Care Demonstration: Final Report for the Health Quality Partners' Program
 Evaluation of the Medicare Frontier Extended Stay Clinic Demonstration. Report to Congress
 Evaluation of the Medicare Physician Group Practice Demonstration: Final Report
 Evaluation of the Multi-Payer Advanced Primary Care Practice (MAPCP) Demonstration
 Nursing Home Value-Based Purchasing Demonstration
 Evaluation of Health Care Innovation Awards (HCIA), Third Annual Reports:
 • Behavioral Health & Substance Abuse
 • Complex High-Risk
 • Disease Specific
 • Medication Management
 • Primary Care Redesign Programs
 • Shared Decision Making
 Medicare Health Care Quality (MHCQ) Demonstration Evaluation, Final Year 3 Evaluation Reports:
 • Indiana Health Information Exchange
 • Meridian Health System
 • North Carolina Community Care Networks

ORGANIZATIONAL CHARACTERISTICS

Motivation	<ul style="list-style-type: none"> Innovation's alignment with existing organizational strategies and priorities. Attitudes toward assuming more financial risk vis-à-vis competitive pressure.
Size	<ul style="list-style-type: none"> Size of an organization affects the initial investment required to set up new programs as well as the organization's nimbleness in changing processes and responding to feedback.
Experience	<ul style="list-style-type: none"> Experience related to care coordination and population health management and use of health IT to support those efforts. Experience with primary care transformation and care delivery redesign innovations facilitated acceptance and effectiveness of implementation efforts. However, among experienced sites, there may have been less opportunity for the intervention to improve performance in targeted areas.
Leadership and management style	<p>Leadership attributes facilitating implementation:</p> <ul style="list-style-type: none"> Eliciting and listening to feedback from staff and stakeholders Fostering a non-punitive team environment Possessing recognition from stakeholders as a leader in the field Providing a consistent vision and sufficient expertise to ensure fidelity to models Identifying or serving as a champion for the innovation
Infrastructure and staff	<ul style="list-style-type: none"> Dedicated staff was important. The overall level of effort required to achieve transformation was often underestimated. Health IT capabilities including the ability to create patient registries and track prevention and follow-up services. Interoperability/lack of integration with larger EHR systems and lack of ability to adapt technology to meet innovation needs (e.g., EHR ability to modify care plans) created data exchange and communication challenges. Limited implementation assistance and feedback were commonly reported challenges. Many innovations had to deal with competing priorities and lack of clear protocols and process coordination.

EXTERNAL CHARACTERISTICS

Local resources	<ul style="list-style-type: none"> Availability of community resources such as food, affordable housing and transportation affected ability to meet complex needs of patients Rural areas tend to have low patient volume, which made the high costs associated with delivering services unsustainable
State health policy	<ul style="list-style-type: none"> Presence of Medicaid delivery system reforms had mixed associations with measures of accountable care cost, care coordination, and quality of care States with widely adopted managed care had robust networks that helped build partnerships and applied pressure on settings to engage in value-based purchasing models.
Market trends	<ul style="list-style-type: none"> Local health care market generally moving towards value-based models Pressure from private and public purchasers to engage in risk-based payment contracts

LONG-TERM ADOPTION OF INNOVATIONS

Administrative burden	<ul style="list-style-type: none"> Simplification, standardization, and refinement of data collection, sharing, and reporting may allow organizations to implement programs in a broader range of settings.
Achievement of shared savings / bonuses	<ul style="list-style-type: none"> ACOs that achieved shared savings were more likely to stay in the model or transition to another value-based care delivery initiative.
Beneficiary turnover	<ul style="list-style-type: none"> Organization's incentives and the control they can or cannot exercise over beneficiaries' choice of providers prevented some awardees from achieving savings.
Environmental support	<ul style="list-style-type: none"> Having a supportive internal and external climate for the program (e.g., economic climate, political climate, market dynamics, etc.) helped awardees to leverage state policy levers. Lack of payer participation in value-based care delivery models and/or lack of participation of other ACOs in local markets may have played a role in ACO's decision to sustain their work.
Funding stability	<p>Organizations established a consistent financial base for the program by:</p> <ul style="list-style-type: none"> Supporting programs with sufficient payments for implementation Identifying organizational barriers to implementation Using external funding sources Leveraging existing Medicare and Medicaid reimbursement policies Linking to new health care reform initiatives
Organizational capacity and partnerships	<ul style="list-style-type: none"> Leadership buy-in, partnerships with CMS and other services, and leveraging organizational resources helped organizations sustain interventions.

IMPLEMENTATION PROCESS

Infrastructure payments	<ul style="list-style-type: none"> Up-front payments enabled organizations to invest in infrastructure (e.g., health IT, administrative and care management staff). Timing of payments (e.g., up-front) and requirements for transformation may be an important consideration as policymakers design new initiatives.
Beneficiary Engagement	<ul style="list-style-type: none"> Time, manner, and place of enrollment (e.g., soon after an acute event, in the hospital, by a trusted provider) had to be tailored to certain populations. Opt-out enrollment strategies worked for some initiatives that coordinated closely with primary care providers. Patients were more engaged when they could easily access health information, e.g., via patient portals. Culturally aligned staff, face-to-face relationship building helped engage patients. Reaching patients through convenient modes (e.g., telemedicine) helped sustain patient engagement.
Complex and high-risk beneficiaries	<ul style="list-style-type: none"> Targeting high-risk populations had mixed effects on organizations' ability to demonstrate impact. Flexible approaches to target and engage individuals most likely to benefit from interventions may have generated stronger results. Effective data exchanges and algorithms that appropriately identified the "right" target population were critical to implementation success and reaching patients that were most likely to benefit from interventions.
Coordination and communication	<ul style="list-style-type: none"> Team-based care, with clearly defined roles EHR-based messaging, portable information (e.g., discharge documents), web-based resources, and partnering with health care systems enhanced care team's capacity to exchange information and keep up to date on patients' health status.
Access to information	<p>Provider access to the right information in a timely way. Health IT enabled some of these critical activities:</p> <ul style="list-style-type: none"> Generating quality reports Tracking follow-up and prevention services Informing care management meetings
Workforce	<ul style="list-style-type: none"> Care management / care coordination functions were centralized Care managers / care coordinators were usually nurses but could also be lay health workers, social workers, and other types of clinical or lay health care providers. Responsibilities assigned to allowed staff to practice at the top of their license.

CHALLENGES IN EVALUATING INNOVATIONS

Recruitment and attribution	<ul style="list-style-type: none"> Low recruitment of eligible program participants contributes to small sample sizes and made it difficult to detect statistical significance. Some results were sensitive to the methodology used to identify the treatment and/or comparison population and can affect the direction and magnitude of effects.
Availability of data and outcome measures	<ul style="list-style-type: none"> Most reports used administrative data on Medicare or Medicaid populations to assess program impacts, however, their innovation may have included beneficiaries from other populations. Administrative data may not represent all relevant outcomes. Payer type has affected impact evaluations where the impact results were based on a small subset of all patients that may not be representative of the study population.
Identifying credible comparison group	<ul style="list-style-type: none"> Ability to develop a credible comparison group with available data was crucial to support a robust impact evaluation. Identifying a comparison groups by replicating eligibility criteria using medical records, clinical outcomes, and other sources of data was a challenge for some programs targeting specific populations. Identifying a credible comparison group that is subject to the same local/market and policy influence as the treatment group was a challenge to generalizing program impacts.
Variation in innovation components	<ul style="list-style-type: none"> Many awardees (with common goals) varied in their approaches to implementation. This was often due to organizational and external factors. Individual awardees focused on different patient subgroups, different settings, and varied in population sizes, awardee specific objectives, and recruitment strategies. Innovation demonstrations encourage continuous improvement. The tradeoff between model flexibility and fidelity has posed challenges in synthesizing the evaluation impact. Most evaluations measure impacts of innovations but not the conditions under which innovations succeed or fail, which has implications for scalability and replicability.

CONTACT & ACKNOWLEDGEMENTS

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*This research was supported by the Laura and John Arnold Foundation.
 The views expressed in this presentation are those of the authors and do not necessarily reflect the views of the funder.*