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Case report

Patient-centered care innovations by accountable care organizations: Lessons from leaders

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A B S T R A C T

Although there is a widespread belief that ACOs must be patient-centered to be successful, evidence to guide them in achieving that goal has been lacking. This case report examines four ACO innovators in patient-centered care that together represent urban, suburban and rural populations with a broad range of economic, racial, ethnic and geographic diversity. Seven patient-centeredness strategies emerged: transform primary care practices into patient-centered medical homes; move upstream to address social and economic issues; use both high-tech and high-touch to identify and engage high-risk patients; practice a whole-person orientation; optimize patient-reported measures; treat patients like valued customers; and incorporate patient voices into governance and operations. Exemplars prioritized direct care interventions perceived as central to financial and clinical success, and organizational maturity played a role. Activities that decreased the traditional system's authority, such as incorporating patient voices, were less popular. Local practice factors were important, and a mixture of mission and margin energized front-line staff in implementing patient-centered care as "the right thing to do." Unresolved questions remain that are related to the impact of individual and multiple interventions and how successful interventions can be disseminated widely. In order for patient-centeredness innovations to enable transformation, providers, payers and policymakers alike must consciously adopt strategies that nurture it.

1. Background

Patient-centeredness was first designated an aim of U.S. health care by the Institute of Medicine (IOM) in 2001,[1] and it has continued to grow in significance. The Patient Protection and Affordable Care Act of 2010 (ACA) repeatedly cites patient-centeredness as a core goal, with accountable care organizations (ACOs) specifically required to include measures such as patient experience of care and use of individualized care plans. Patient experience measurement and care coordination are required by the bipartisan Medicare Access and CHIP Reauthorization Act of 2015,[2] while the Bipartisan Budget Act of 2018 encourages beneficiary engagement by allowing ACOs to assign a primary-care physician and to pay beneficiaries for making and keeping an appointment.[3]

At the end of the first quarter of 2018, commercial and Medicare ACOs covered more than 33 million lives.[4] For ACOs to be successful, there is a widespread belief[5,6] that, as an IOM workshop put it, they must embrace "prepared, engaged patients [as] a fundamental precursor to high-quality care, lower costs and better health."[7] In the following case report based on ACO innovators, we describe key structural and cultural changes that may help move patient-centeredness more rapidly from rhetoric to reality as organizations transition to value-based payment models.

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2. Organizational context

To ensure that the organizational lessons in this case report would be applicable, we included only Medicare ACOs, obviating questions about definitions or incentives that may vary among commercial ACOs. Due to the lack of validated empirical measures of organizational patient-centered care innovation,[8] we used purposive sampling techniques to identify "exemplar" organizations based on the academic and gray literature. We also consulted with a 10-member expert advisory panel (EAP) from the provider, academic and patient communities. This process identified 17 organizations, of which 15 agreed to semi-structured, one-hour screening interviews centered on their patient-centered activities.

Based on these interviews, we selected 4 exemplars for in-depth visits based on the breadth, depth and originality of their activities, while preserving heterogeneity of organizational sizes, structures, and population mix. The exemplars ultimately selected for two-day, in-person site visits represented urban, suburban and rural populations with a broad range of incomes and considerable racial, ethnic and geographic diversity.

The four Medicare ACOs chosen were: Fairview, a health system-led, ACO based in St. Paul, MN that serves a primarily urban and suburban population, with about 85% of the 15,000 Medicare ACO members seeing physicians from the system's Fairview Medical Group; Montefiore, part of the Bronx, NY-based Montefiore health system, with 50,000 Medicare ACO members primarily concentrated in the Bronx, a poor urban area in which over a third of residents were born outside the United States; RGV ACO in Donna, TX, a small, physician-led ACO near the U.S.-Mexico border, serving primarily a rural population of about 9000 Medicare ACO members with high rates of chronic disease; and Coastal Plains Network, part of Greenville, NC-based Vidant Health, serving about 18,000 Medicare ACO members in Greenville and 29 generally poor and rural counties spread over Eastern North Carolina.

Our visits involved 4 team members over a two-day period. Using semi-structured interview guides, we spoke to the chief executive officer, chief medical officer and other senior managers, as well as physicians, nurses, care coordinators, and patient representatives, resulting in between 26 and 34 interviews at each site and 114 interviews in total. We also conducted separate focus groups with primary care clinicians and patients. All respondents were guaranteed confidentiality, and the protocol was approved by the Brigham & Women's Hospital Institutional Review Board.

The analysis followed a multi-step, iterative process to ensure the quality of data and its interpretation.[9] Detailed written notes were supplemented by audio recordings. All focus groups and selected interviews were transcribed. At least 2 persons coded the notes and transcripts to develop and summarize the themes, until no new themes emerged. Team meetings were held to reach consensus. A case summary was prepared for each site and shared with the ACOs for accuracy checks.

3. Personal context

Leadership at each exemplar emphasized that PCC was a core institutional commitment, an attitude that also pervaded interviews with front-line staff. This PCC emphasis was sometimes, but not always, linked to an on-going "volume to value" cultural shift, which placed a premium on engaging patients in maintaining their health in order to reduce unnecessary utilization of services.

Before the advent of ACOs, for example, the Montefiore system concluded that it could not survive on low Medicaid payments and a large burden of the uninsured without a systemic strategy to prevent acute episodes and facilitate healthy behaviors among its population. At Fairview, with predominantly commercially insured patients, leadership nonetheless saw value-based purchasing as the wave of the future and launched "The Big Bang," a change strategy whose scope was emphasized by a name evoking the birth of the universe.[10] RGV, which was formed to participate in the Medicare ACO program, sought to inculcate a patient-centric orientation among its independent, fee-for-service physicians by employing a "social capital" approach to choosing physician partners. Its physicians all possessed social bonds (e.g., common town of origin, former roommates, etc.) that were drawn upon during a training program meant to shape behavioral norms. At Vidant, a comprehensive initiative to engage patients and families predated the advent of ACOs and was sparked by an incident where an employee's brother died alone in the intensive care unit (ICU) due to restrictive visiting hour rules.

4. Problem

Medicare payments to ACOs reflect the definition of an ACO as bringing together providers to manage and coordinate care, while maintaining responsibility for cost and overall quality.[11] ACO regulations from the Centers for Medicare & Medicaid Services (CMS) included a series of PCC requirements for these ACOs, such as including patients in governance.[12] However, we found little awareness of these requirements even among the leadership of the exemplar ACOs, except insofar as surveying patients and submitting Consumer Assessment of Healthcare Providers and Systems (CAHPS) scores was necessary in order to be paid.

Because the ACO concept went from policy proposal to patient care model in under five years, there's little evidence to guide ACOs on how best to become more patient-centered, nor is there much guidance related to the facilitators and barriers to achieving that goal. This case report addresses the pressing need for reliable operational information in this area by payers, policymakers and ACOs themselves.

5. Solution

We found seven patient-centeredness strategies applied across diverse ACO structures, geographies and populations, although all exemplars did not excel equally in each.

1) *Transform primary care practices into patient-centered medical homes*
   To better incorporate patient-centeredness into routine workflow, all four exemplars had either achieved or were pursuing some degree of patient-centered medical home (PCMH) certification as a core strategy. The PCMH structure is designed to help primary care practices better integrate and coordinate care in order to improve the health of individuals and communities.[13]
2) *Move upstream to address social and economic issues*
   All four exemplars recognized the need to move "upstream" to intervene in the social and economic problems of vulnerable patients before they appeared "downstream" seeking care.[14] As a senior Montefiore executive put it: "Ninety percent of what we do…has to do with the patient's life. If you don't build that into the model – if you think this is just a clinical program – you won't be successful." Strikingly, this theme was repeated by interviewees at all levels of all four ACOs, from nurses at isolated doctors' offices in rural North Carolina to behavioral health clinicians in suburban Minneapolis to primary care doctors in the Bronx to care coordinators in southern Texas.

3) *Use both high-tech and high-touch to identify and engage high-risk patients*

All four exemplars effectively employed technological solutions to ensure consistent and coordinated care, but they did so in conjunction with "high-touch." For example, Montefiore used sophisticated algorithms involving 20 separate domains ranging from depression to psychosocial factors to decide what phone call a patient receives within 72 h of hospital discharge (See Fig. 1). Patients at high risk for readmission are called by an RN, those at lower risk by an LPN and those at lowest risk by a non-clinician. Nonetheless, noted the senior director for data, Montefiore asks PCPs, "Who should we be reaching out to that has not triggered the data?"

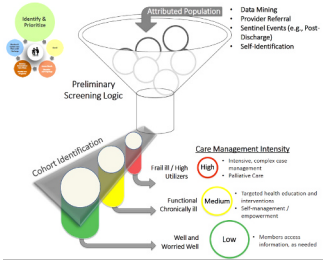

Fig. 1. The Montefiore ACO uses sophisticated information management in its care management process.

RGV depended more upon repeated personal contacts after analytics and/or after a clinician identified high-risk individuals. Among the interventions was a "sandwich visit," where a care coordinator would meet with a patient prior to the PCP appointment to elicit issues that should be addressed and, afterwards, to ensure understanding of recommendations and prescribed activities. The ACO also provides 24/7 access to a clinician's cell phone; and after-visit outreach by care coordinators, typically based on a post-visit analysis of the patient's medical information.

Fairview prioritized behavioral health through three clinics that integrated physical and mental health care, using an approach of "unconditional positive regard" towards high-risk often-disruptive patients. (Co-location of primary and behavioral health has been shown to have numerous clinical and cost benefits.[15]) Fairview also operated a "complex clinic" for patients unable to travel to their PCP after a care transition and implemented a commercial remote monitoring program for discharged patients at risk of readmission.

Vidant promoted its patient portal to a largely rural and low-income population by promising that clinicians would respond within 24 h to prescription refill requests and medical questions. To lessen the need for office visits, the ACO also placed telehealth "pods" in 650 patient homes showing weight, blood pressure, glucose level and oxygen saturation. But when an office visit was necessary, staff could be proactive. A nurse, upon discovering that a female patient was skipping a doctor's appointment to get her hair done, telephoned the beauty shop and told the patient to remove her rollers and come to the office.

4) *Practice a whole-person orientation*

Recognizing the importance of religion among their populations, two exemplars serving rural and poor patients used chaplains and faith communities to head off avoidable hospital admissions. Vidant recruits Faith Help Ambassadors to work with local churches and report on needs as basic as meals or building a ramp for wheelchair access. Similarly, RGV included a chaplain in its disease management program for outreach to individuals resistant to more traditional care team members, as well as helping with end-of-life discussions.

At Fairview, leadership held patient focus groups with individuals who'd been discharged from the hospital. Those sessions highlighted psychosocial needs such as visiting patients who were alone at home and seen as a readmission risk or accelerating discharge for patients needing to return home to attend to a spouse. At Montefiore, a patient questionnaire assessed 10 categories of housing risk, including joblessness and personal trauma, to guide possible assistance from the ACO.

5) *Optimize patient-reported measures*

Use of a questionnaire-based screening tool for depression was common among all four exemplars; Vidant and Fairview also used the Patient Activation Measure (PAM). Fairview has found that the lower the activation level, the higher the utilization and cost of hospital services in each of the following 3 years.[16] Fairview also stood out for its PAM use with hospital patients pre-discharge to identify individuals with low self-activation and then provide them with greater care manager support.

In addition, Fairview routinely used up to nine patient-generated health data instruments for screening and management related to depression, anxiety, health-related quality of life, asthma, back pain and heart health, more than any of the other 15 ACOs interviewed.

The backdrop for these interventions, aimed mostly at identifying and intervening with potentially high-risk patients, was primarily financial, due to research showing that 40% of emergency department visits and 10–17% of inpatient costs may be preventable.[17] The potential high cost of these types of patients was particularly top-of-mind at Montefiore, where the Medicare ACO is one of many risk contracts, and at RGV, where the founding physician partners put their personal net worth at stake in forming the ACO.

6) *Treat patients like valued customers*

Unlike with Medicare Advantage, the ACO population has had no financial incentive to stay within the network. Indeed, few of the Medicare beneficiaries we spoke with even knew they were in an ACO. Thus, although not strictly a clinical strategy, patient-centered care within a customer service context helped bond individuals to the ACO and could also improve CAHPS scores.

For example, Montefiore, serving diverse communities ranging from Africans to Albanians, hired individuals from those communities at local offices to help with patient and family education. RGV hired a patient experience coordinator to conduct "mystery shopping" on physician service standards and also engage patients in doctor waiting rooms on their recommendations for practice improvements.

7) *Incorporate patient voices into governance and operations*

Two of the ACOs excelled in this area, seemingly motivated at least as much by organizational culture as financial calculations. The research evidence that "patient voice" activities such as shared decision-making saves money is weak.[18]

At Vidant, an Office of Patient and Family Experience was established in 2008 after the incident noted above, where an employee's brother died alone in the ICU because of restrictive visiting policies. What followed was a multi-year initiative leading to some 120 patient-family advisors being deployed throughout the system. Staff must complete a Vidant-developed curriculum, "The REAL Deal" (which includes videos, simulation and storytelling), and demonstrate a commitment to actively engaging patients and families "from the bedside to the boardroom" (See Fig. 2).[19]

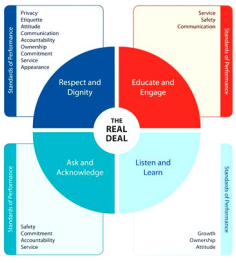

Fig. 2. Vidant developed The REAL Deal as a way to actively engage patients.

At RGV, an ACO Beneficiary Engagement Committee (BEC) was established to provide feedback on the patient experience to each participating practice. As with Vidant, the sharing of power was also distinctive. The BEC chair, a man with experience in community organizing, was a long-time patient of a founding physician partner. He sits on the ACO board of managers, trains BEC members to be advocates and reports on the BEC's monthly meetings to the board and directly to the physician partners. Changes that the committee prompted included reduced waiting times in doctors' offices and a new card to better explain patient medications. In interviews, two physician partners independently reported changes in practice style due to the feedback.

6. Lessons from the field and unresolved questions

This case report contains a number of lessons relevant to the challenges of implementing patient-centeredness in a Medicare ACO. First, these exemplars prioritized direct care interventions, particularly care coordination and attention to social determinants of health, that were perceived as central to financial and clinical success in an ACO payment structure based on improving patient health. Second, organizational maturity played a significant role. Two health system-led groups (Fairview and Montefiore) began the "volume to value" transformation years before becoming an ACO, while the third (Vidant) made a strategic commitment to patient-centeredness back in 2008. Even RGV expanded its PCC innovations as it matured; e.g., the patient experience coordinator was hired after three years of profitable operation.

Third, activities that decreased the authority of the traditional system and had no obvious short-term clinical or economic return, such as incorporating patient voices into governance and clinical decisions, were markedly less popular than doing things "for" patients, such as coordinating care, that seemed to have a better payoff. This behavior was seen despite regulations that nominally required a strong patient voice in governance, raising questions about the role regulation can or should play. It may be that simply putting forth a list of actions without implementation guidance (including guidance emerging through enforcement) has only a modest impact. Or it may be that regulations are less effective than broader efforts to change the culture of practice.[20]

Fourth, patient-centeredness at the front lines ultimately depends upon the local practice environment. In medically underserved areas, for instance, the pressure to simply provide access to care can at times overwhelm an organization's ability to undertake other patient-centered activities. Similarly, organizational financial stress can undermine support for innovative outreach.

Finally, while bottom line concerns were ever-present, equally powerful at all four exemplar ACOs was a sense of organizational mission. Together, mission and margin encouraged innovation, freed up resources to support it and energized front-line staff in implementation. "The right thing to do" is a call to arms that still reverberates. Above and beyond the various payment and delivery model changes, interviewees at all levels of these organizations were motivated in patient-centered innovations by the belief that they were fulfilling their professional mission of making care better.

Despite efforts by our exemplars to implement innovative patient-centeredness activities, unresolved questions remained about impact and spread. First, while the impact of some individual interventions discussed above has been measured rigorously (e.g., patient activation[16] and co-location of primary and behavioral health[15]), much of the evidence about the financial, clinical or patient experience effect of any one intervention remains anecdotal. Better analysis is needed of individual interventions and of multiple interventions over time.

Those types of analyses are related to the question of which patient-centered innovations will spread widely among ACOs and how rapidly that spread will occur. Diffusion of innovation theory gives particular weight to relative advantage, which can include issues such as the public perception of an organization. However, other factors also are important in diffusion, including compatibility with existing values and behaviors, lack of complexity, trialability, and producing observable results.[21] We were encouraged that innovation was robust among our exemplar ACOs serving lower-income populations.

ACOs remain at the center of the policy conversation, with CMS sparking debate about the role of provider risk, consumer incentives and other aspects of the model. This case report from the front lines of care showed that innovation in clinical, technological, customer service and "patient voice" aspects of patient-centeredness is substantial. In order for patient-centered innovations to enable transformation in the manner envisioned by the IOM and others, however, providers, payers and policymakers alike must consciously adopt strategies that nurture it.

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Conflicts of Interest

None.

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References

1. Institute of Medicine. Crossing the Quality Chasm: A New Health System for the 21st Century. March; 2001. 〈http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf〉.
2. Medicare Access and CHIP Reauthorization Act. 42 USC 1305, Pub. L. 114-10, 129 Stat. 87; 2015.
3. National Association of ACOs. Provisions in the Bipartisan Budget Act of 2018 Pertaining to Accountable Care Organizations. 〈https://www.naacos.com/provisions-in-the-bipartisan-budget-act-of-2018-pertaining-to-accountable-care-organizations〉. [Accessed 20 September 2018].
4. Leavitt Partners ACO Database. 〈https://torchinsight.com/〉. Accessed 12 July 2018.
5. Diaz C, Katikaneni P, Kocot L, White R. Why Patient Engagement is Key to Improving Health, Reducing Costs. Brookings. November 2014. 〈https://www.brookings.edu/blog/up-front/2014/11/13/why-patient-engagement-is-key-to-improving-health-reducing-costs/〉. [Accessed 19 September 2018].
6. Capretta JC. It's Time to Revamp Medicare ACOs. Real Clear Health. 〈https://www.realclearhealth.com/articles/2017/12/13/its_time_to_revamp_medicare_acos_110755.html〉. Published December 13, 2017. [Accessed 19 September 2018].
7. Partnering with Patients to Drive Shared Decisions, Better Value, and Care Improvement: Workshop Proceedings. Washington, D.C.: National Academies Press; 2014. 〈http://dx.doi.org/10.17226/18397〉.
8. Bodaken B, Ferris T, Hansen J, et al. Sustainable success in accountable care. *NAM Perspect.* 2016;6(4) https://doi.org/10.31478/201604d.
9. Miles MB, Huberman AM. *Qualitative Data Analysis: An Expanded Sourcebook*. 2nd ed. Thousand Oaks: SAGE Publications, Inc; 1994.
10. Martinson TL, Worley CG, Winby S. The Design and Acceleration of Healthcare Reform/ACOs: the Fairview Medical Group Case. *Reconfiguring the Ecosystem for Sustainable Healthcare.* Organizing for Sustainable Effectiveness. Emerald Group Publishing Limited; 2014:31–68. https://doi.org/10.1108/S2045-060520140000004006.
11. Patient Protection and Affordable Care Act. Pub. L. 111-148. 〈https://www.congress.gov/bill/111th-congress/house-bill/3590〉.
12. Centers for Medicare & Medicaid Services. Medicare Program; Medicare Shared Savings Program: Accountable Care Organizations. Vol 76 FR67801:67801-67990. 〈https://www.federalregister.gov/documents/2011/11/02/2011-27461/medicare-program-medicare-shared-savings-program-accountable-care-organizations〉; 2011.

13. Stange KC, Nutting PA, Miller WL, et al. Defining and measuring the patient-centered medical home. *J Gen Intern Med.* 2010;25(6):601–612. https://doi.org/10.1007/s11606-010-1291-3.
14. Bierman AS, Dunn JR. Swimming upstream. *J Gen Intern Med.* 2006;21(1):99–100. https://doi.org/10.1111/j.1525-1497.2005.00317.x.
15. Ader J, Stille CJ, Keller D, Miller BF, Barr MS, Perrin JM. The medical home and integrated behavioral health: advancing the policy agenda. *Pediatrics.* 2015:2014–3941. https://doi.org/10.1542/peds.2014-3941.
16. Hibbard JH, Greene J. What the evidence shows about patient activation: better health outcomes and care experiences; fewer data on costs. *Health Aff.* 2013;32(2):207–214. https://doi.org/10.1377/hlthaff.2012.1061.
17. Mostashari F, Sanghavi D, McClellan M. Health reform and physician-led accountable care: the paradox of primary care physician leadership. *J Am Med Assoc.* 2014;311(18):1855–1856. https://doi.org/10.1001/jama.2014.4086.
18. Katz SJ, Hawley S. The value of sharing treatment decision making with patients: expecting too much? *J Am Med Assoc.* 2013;310(15):1559–1560. https://doi.org/10.1001/jama.2013.278944.
19. Wynn JD, Draffin E, Jones A, Reida L. The Vidant health quality transformation. *Jt Comm J Qual Patient Saf.* 2014;40(5):212–218. https://doi.org/10.1016/S1553-7250(14)40028-X.
20. Phipps-Taylor M, Shortell SM. More than money: motivating physician behavior change in accountable care organizations. *Milbank Q.* 2016;94(4):832–861. https://doi.org/10.1111/1468-0009.12230.
21. Rogers, EM. *Diffusion of Innovations*. 3rd ed. 1983 New York, London: Free Press, Collier Macmillan; 1983.