

Moving from Care Coordination to Care Integration

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It has long been recognized that coordination of health services can improve patient outcomes and experiences, and reduce healthcare costs. Yet, this virtuous goal of aligning and coordinating all care an individual receives has proven to be difficult. Only 7% of healthcare executives, clinical leaders, and clinicians indicated that their patients' care is fully coordinated across various health settings.¹ Care teams are challenged in tracking, sharing, and acting on meaningful health information; communicating with patients, caregivers, and each other; addressing the social determinants of health; and managing care for both patients and populations. With 10,000 Baby Boomers turning 65 years old each day and individuals with multiple chronic diseases on the rise, new approaches to coordination across the care continuum are needed.²

Many health organizations have layered coordinating functions atop disparate clinical programs to support handoffs and transitions. However, this rarely addresses the underlying structures and processes of care delivery. While care coordination helps individuals connect the dots across multiple providers and settings, care integration brings these siloed services together to create a more seamless patient experience. Coordinated care is provider- and payer-centric, helping patients and their families navigate our complex and disjointed health system; whereas, care integration is more person-centric, endeavoring to fundamentally restructure the way care is delivered to support better outcomes and experiences. Care coordination and care integration are inversely related, as services become more integrated, the need for coordination decreases.

While much has been written about the need for integrated care, portability of health information, and alignment of value incentives across stakeholders, only a handful of organizations have been able to implement aspects of these goals within their health system and fewer still have been able to integrate with outside organizations.^{3–7} As organizations prepare for a more interwoven practice environment that bring together partners within and outside their system, three pillars for better integration that build on prior work may provide a useful framework: (1) identify a shared vision and community, (2) leverage shared platforms, and (3) work towards shared alignment of incentives and accountability. This framework provides a roadmap for healthcare organizations internally aligning people, processes, and technology to effectively integrate care, and also offers insight into how best to collaborate with unaffiliated organizations to achieve value in healthcare.

PILLAR 1: SHARED VISION AND COMMUNITY

Effective care partnerships share a commitment to improve outcomes (e.g., quality, experience, cost) for a defined population (e.g., clinical cohort, geographic community). Often, care partners must collaborate in different ways and with new organizations to achieve their goals. The Bronx Partners for Healthy Communities (BPHC), established as part of New York's Delivery System Reform Incentive Payment program, is one example.⁸ BPHC brings together over 200 organizations including hospitals, clinics, and community-based organizations with the aim to improve the health of Bronx residents and to reduce avoidable emergency department (ED) and hospital admissions by 25% over 5 years. To assist patients with uncontrolled asthma (3+ primary care visits or an ED visit or hospital discharge with asthma as the primary diagnosis in the past year), BPHC providers partnered with AIRnyc, a community-based organization that provides comprehensive asthma management at home with the help of community health workers.⁹ Community health workers identify and address home-based asthma triggers, provide comprehensive education on asthma disease processes, demonstrate proper use of medications, implement written asthma action plans, make key referrals for smoking cessation and pest management services, and coordinate with each patient's providers. BPHC's asthma initiative highlights a first step towards integration by establishing a shared vision and focusing on

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specific communities. This includes bringing together disparate organizations under shared governance, defining a focused patient community, establishing an overarching goal that is both measurable and meaningful, and breaking up that goal into smaller engagements that can be readily operationalized.

Health organizations may face challenges in creating effective partnerships, including identifying the right partners, understanding and addressing partner motivations, and sustaining commitment to the partnership. Research demonstrates that high-performing, health-related partnerships share several common traits: recruit partners who are leaders and respected within stakeholder populations; understand and address motivational issues of each partner; develop commitment through leadership, recognizing when and where different partners should take the lead; establish ground rules and decision-making protocols; and anticipate and manage conflict. Ultimately, these tactics build trust and mutual respect, empowering the partnership to improve the health of their shared population.

PILLAR 2: SHARED PLATFORM

To achieve their common goals, care partners must be able to effectively share and act on information. In Dallas, the Parkland Center for Clinical Innovation worked with community-based organizations to develop a software tool that enables health and community partners (e.g., homeless shelters, food pantries) to exchange information on their shared patients/clients, many of whom are homeless and vulnerable members of the community.¹⁰ Community partners gained visibility into their clients' healthcare needs and could identify if medications were being filled. Health providers benefited from more reliable information collected by community-based organizations, which are often more trusted by clients than health entities.

The Parkland initiative addresses information sharing for high-need, high-cost populations in an innovative manner, while other initiatives apply to a broader population. For instance, the Chesapeake Regional Information System for our Patients (CRISP) is a regional health information exchange serving Maryland and the District of Columbia. CRISP offers users the ability to access healthcare data across disparate entities, population health analytics and reporting, secure messaging, prescription drug monitoring, and real-time healthcare encounter notifications. Combined with Maryland State-sponsored regional partnerships, geographically based groups of health- and community-based organizations focused on improving quality and reducing costs (shared vision and community), this platform allows for a variety of care coordination and readmission reduction efforts. As an example, members of the University of Maryland Upper Chesapeake Health/Union Hospital of Cecil County Regional Partnership are working with CRISP to design and implement a common

care management platform allowing both provider and community organizations to document care plans in a shared, collaborative fashion. This platform comes complete with secure messaging, in-depth reporting and analytics support, as well as clinically relevant alerts that notify a user when a patient has been admitted, has a significant increase in their risk score, and has a documented care plan.¹¹

A major barrier, particularly for partners from different organizations, is establishing shared information and communication pathways. Stand-alone systems are often expensive propositions. Leveraging existing platforms (e.g., health information exchanges) and/or investing in solutions that not only fit the needs of current collaborators but also future partners is a good approach.

PILLAR 3: SHARED ALIGNMENT AND ACCOUNTABILITY

It is important that care partners are aligned with respect to their incentives and accountability. While a fee-for-service payment model may make sense for a handful of stakeholders, value-based payment models, which are more appropriate for comprehensive management of populations (e.g., bundled payments over a defined care cycle and capitated reimbursement with bonus payments for performance based on outcomes), are often best suited for enhancing care integration.

In 2012, Oregon converted its managed Medicaid sector to a system comprised of more than a dozen coordinated care organizations (CCOs). CCOs are geographically defined, risk-bearing entities made up of multidisciplinary providers. These organizations are charged with managing the health and healthcare of Medicaid members under global budgets and beholden to quality and performance metrics. Oregon's transition to CCOs has been associated with lower expenditures in five principal areas (evaluation and management, imaging, procedures, tests, and inpatient care).¹² HealthShare, a CCO made up of more than a dozen providers, has made a strategic effort to develop a custom data system that aggregates claims and makes performance transparent. This effort has helped providers make strategic and operational changes to achieve performance targets in the areas of access to care, all-cause readmissions, timeliness of prenatal care, and enrollment in patient-centered primary care homes among others.¹³

The movement towards episode- and population-based reimbursement has also served to align previously disjointed parties. Since 2014, the State of Maryland has reimbursed their hospitals via an all-payer global budget, encouraging hospitals to closely collaborate with other health and community partners to improve outcomes and reduce avoidable utilization. Early results have demonstrated a reduction in overall expenditure (\$461 million in savings) and inpatient expenditure (\$586 million in savings) over 3 years without a significant increase in outpatient spending for Medicare beneficiaries.¹⁴ As a result, the Centers for Medicare and Medicaid

Services approved Maryland's request to continue the program through 2023, with an option for another 5 years.

Much has been written about the challenges of achieving alignment and accountability among partners in value-based settings.^{15, 16} Ensuring clear understanding of goals, implementing a mutually agreed upon alignment strategy, defining and sharing actionable performance data, and aligning reimbursement and performance measures to individual providers are some best practices for achieving effective alignment and accountability.^{17, 18}

PUTTING THE THREE PILLARS INTO ACTION

Several health systems are leading the way and restructuring care delivery to achieve better outcomes, experiences, and cost through care integration. The Geisinger Health System has been working to consistently deliver evidence-based care via its ProvenCare initiative.¹⁹ By engaging providers across the care continuum, redesigning workflows to incorporate best practices, integrating workflows into electronic health record, and aligning incentives around discrete procedure, Geisinger has been able to improve care and reduce costs. Meanwhile, the US Department of Veterans Affairs (VA) has implemented Patient-Aligned Care Teams (PACTs) as a cornerstone of their healthcare delivery transformation. PACTs consist of an integrated, multidisciplinary set of providers focused on delivering personalized care through teams and collaboration. Geriatric PACTs, which focus on seniors with multiple chronic conditions and physical debility and/or cognitive decline, integrate VA providers and strongly collaborate with non-VA partners in the outpatient, inpatient, and home setting.²⁰

Healthcare leaders wishing to steer their organizations towards integration using the pillar framework can follow four initial steps. First, identify specific clinical areas and/or populations where care integration would yield meaningful improvements in patient outcomes and experiences. Second, obtain buy-in from key stakeholders and commit to the journey of integrating care. Third, design a care model that is integrated and better meets the needs of patients and their families, considering input from a diverse set of stakeholders. Fourth, identify and resource a multidisciplinary team to operationalize this work, taking into account how existing care coordination resources, tools, and solutions can be reapplied in the new model. Throughout this process, organizations should keep the three pillars in mind and ensure the final model has a shared vision and community, shared platform, and shared alignment and accountability.

The pathway to care integration can be accelerated if certain features of the US healthcare system were addressed in a more fundamental manner, including consistent access to primary care and other key health services, investments to address the social determinants of health, and movement from incentivizing volume to rewarding value as defined by patient outcomes. In the interim, the number of partners involved in care

continues to increase and hiring additional staff to coordinate care will not be sustainable. Dismantling silos and establishing meaningful collaborative efforts with disparate groups are needed to usher in the next wave of healthcare integration.

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REFERENCES

1. **Compton-Phillips A, Mohta NS.** Care Redesign Survey: Strengthening the Post-Acute Care Connection. NEJM Catalyst. <https://catalyst.nejm.org/strengthening-post-acute-care-connection/>. Published November 10, 2016. Accessed March 7, 2019.
2. **Heimlich R.** Baby Boomers Retire. Pew Research Center. December 2010. <http://www.pewresearch.org/fact-tank/2010/12/29/baby-boomers-retire/>. Accessed March 7, 2019.
3. **Brennan BR, Brunisholz KD, Dredge C, et al.** Association of integrated team-based care with healthcare quality, utilization and cost. JAMA. 2016;316(8):826-834. <https://doi.org/10.1001/jama.2016.11232>.
4. **Hwang W, Chang J, LaClair M, Paz H.** Effects of integrated delivery system on cost and quality. Am J Manag Care. 2013;19(5):e175-84.
5. **Cohen DJ, Balasubramanian BA, Davis M, Hall J, Gunn R, Stange KC, ... Clark K.** Understanding care integration from the ground up: Five organizing constructs that shape integrated practices. J Am Board Fam Med. 2015;28(Supplement 1):S7-S20.
6. **McGovern M, Dent K, Kessler R.** A Unified Model of Behavioral Health Integration in Primary Care. Acad Psychiatry. 2018;42(2):265-268.
7. **Herrel LA, Kaufman SR, Yan P, Miller DC, Schroeck FR, Skolarus TA, ... Hollenbeck BK.** Health care integration and quality among men with prostate cancer. J Urol. 2017;197(1): 55-60.
8. **Gusmano MK, Thompson FJ.** An examination of Medicaid delivery system reform incentive payment initiatives under way in six states. Health Aff. 2015;34(7), 1162-1169.
9. New York State Department of Health. DSRIP Independent Assessor Mid-Point Assessment Report. https://www.health.ny.gov/health_care/medicaid/redesign/dsrrip/pps_map/midpoint/appx_narrative/sbh.pdf. Published November 2017. Accessed March 7, 2019.
10. **Allen A.** The 'Frequent Flier' Program That Grounded a Hospital's Soaring Costs. Politico Magazine. <https://www.politico.com/magazine/story/2017/12/18/parkland-dallas-frequent-flier-hospital-what-works-216108>. Published December 18, 2017. Accessed March 7, 2019.
11. University of Maryland Upper Chesapeake Health/ Union Hospital of Cecil County Regional Partnership. Regional Partnership Final Report: Regional Partnership for Health System Transformation. December 2015. <https://hsrcr.state.md.us/Documents/md-maphs/plan/Regional/UMUCH-UHCC/UMUCH%20-UHCC%20Regional%20Partnership%20Final%20Report%20PackageV2.pdf> Accessed March 7, 2010.
12. **McConnell KJ, Renfro S, Lindrooth RC, Cohen DJ, Wallace NT, Chernew ME.** Oregon's Medicaid Reform And Transition To Global Budgets Were Associated With Reductions In Expenditures. Health Aff. 2017;36(3):451-459. <https://doi.org/10.1377/hlthaff.2016>.
13. Oregon Health Authority. Oregon Health System Transformation: CCO Metrics 2017 Final Report. June 2018.
14. RTI International. Evaluation of the Maryland All-Payer Model Third Annual Report. March 2018. <https://downloads.cms.gov/files/cmimi/md-all-payer-thirdannrpt.pdf>. Accessed March 7, 2019.
15. Robert Wood Johnson Foundation and Woodrow Wilson School of Public & International Affairs at Princeton University. Shared Measurement and

- Joint Accountability Across Health Care and Non-Health Care Sectors: State Opportunities to Address Population Health Goals. January 2017. <https://www.shvs.org/wp-content/uploads/2017/01/SHVS-Shared-Measurement-and-Joint-Accountability-Across-Health-Care-and-Non-Health-Care-Sectors-January-2017.pdf>. Accessed March 7, 2019.
16. **Valentine S.** Key Strategies to Build Aligned, High-Performing Physician Networks. March 2018. <https://www.healthleadersmedia.com/strategy/key-strategies-build-aligned-high-performing-physician-networks>. Accessed March 7, 2019.
 17. **Brickman J.** How to Get Health Care Employees Onboard with Change. Harvard Business Review. November 23, 2016. <https://hbr.org/2016/11/how-to-get-health-care-employees-onboard-with-change>. Accessed March 7, 2019.
 18. Becker's Healthcare. Shifting Cultures: A Change Management Guide for Hospital Leaders. Becker's Hospital Review. <https://www.beckershospitalreview.com/hospital-management-administration/shifting-cultures-a-change-management-guide-for-hospital-leaders.html>. Accessed March 7, 2019.
 19. **Berry SA, Doll MC, McKinley KE, Casale AS, Bothe A.** ProvenCare: quality improvement model for designing highly reliable care in cardiac surgery. *BMJ Qual Saf.* 2009;18(5), 360–368.
 20. **Shay K, Phibbs C, Intrator O, Kinoshian B, Scott W, Dally S, Allman R.** Evaluation of the costs for veterans receiving care in geriatric medical homes (GeriPACT). *Innov Aging.* 2017;1(Suppl 1):1329.

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