ADOPTING NEW CARDIOVASCULAR MODELS TO ACHIEVE VALUE-BASED CARE

Valerie Handunge, MPH; Nathan Riner, MBA; Magdeline Aagard, EdD, RN, MBA; and Ronald Riner, MD

In this article...

Moving cardiovascular care to a value-based payment platform requires careful study and planning.

THE SHIFT FROM FEE-FOR-SERVICE TO VALUE-based care reimbursement has cardiovascular (CV) executives wondering how to position their service line in this new health care environment and how they potentially can change the business model.

Historically, CV reimbursement has been driven by units of work and procedure volumes. Process-based compliance measures were used as a proxy for performance. There were few incentives for care coordination, preventing readmissions or managing high-risk patients as a population.

With value-based care, the entire group of providers responsible for a patient's care is held accountable as a team. This doesn't end with CV and primary care providers but is expanded to coordinating care with hospitalists, oncologists, rheumatologists, neurologists and other care providers within the broader context of acute and chronic disease management.[1]

New payment mechanisms are tied to quality, patient outcomes and cost effectiveness not just for the individual patient but also for the share of lives covered. Comprehensive population management necessitates evidence-based protocols for preventive care, analytics and patient engagement among other capabilities.[2]

This new reimbursement paradigm and its associated financial risks are almost too complex to comprehend. The expectation to evolve CV services is pushing even the strongest CV executives to contemplate early retirement as they explore these new requirements and contracting strategies with payers.

Under the guise of a challenge lies an opportunity to implement innovative CV service line models that take advantage of financial risk-based reimbursement to positively transform patient care.

The current health care landscape should make the implementation of new models more successful in comparison to previous attempts. There is better access to capital for technology investments, payers are more open to unique demonstration projects and regulatory restrictions through Stark, anti-kickback and private inurement are more manageable through legal clinical integration.[3]

The health care industry has come a long way since co-management, joint ventures and marketing classifications such as centers of excellence and heart institutes. But one thing hasn't changed; CV services delivery has a significant halo effect on the rest of the hospital and health system.

CV reimbursement remains a major engine that will drive hospitals and health systems forward to succeed under risk-based payment models.[4]

MARKET DRIVERS AND ACCELERATED CHANGES — With the Accountable Care Act (ACA), health plans and hospitals are exploring alternative payment mechanisms to manage their economics better. It is pertinent to consider the multimodal factors that contribute to the changes in CV care to understand how hospitals can thrive in this cost-constrained environment.

- Overall, we see declining reimbursement rates across government and commercial plans.[5] Inpatient CV ser-

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vice volumes (particularly open-heart surgeries and percutaneous coronary interventions) and length of stay are on the decline, as care shifts to the outpatient setting. As a result, endovascular procedures and other forms of outpatient minimally invasive surgery, which are less favorable to reimbursement, are on the rise.[6]

- Advances in home monitoring technologies and services help move care to settings outside the hospitals, which comes at the right time as the U.S. health system faces workforce shortages with physicians, nurses and other clinical support staff.[7, 8] This also give impetus for physicians and nurses to practice at the top of their license by incorporating nurse practitioners, physician assistants, licensed practice nurses and other advanced health professionals.
- Technological innovations including advanced heart assist devices, pumps and implants and percutaneous procedures, stem cell therapy clinical trials and bioabsorbable treatments help reduce complications and increase lifespan.[9, 10] However, they bring a whole new set of operational, quality and reimbursement challenges, as does any new technology or procedure.
- An increasingly unhealthy lifestyle and diet as well as an aging population are driving growth to CV services. According to the CDC, 25.5 percent of U.S. adults have multiple chronic conditions.[11] This is a major public health concern. Patients with multiple chronic conditions (including obesity, hypertension and diabetes) require more complex post-surgery and preventive care.
- CV specialists are working more closely with medical home primary care practices to manage high-risk patients (hot spotters) using predictive analytics and risk stratification capabilities. There is a need for enhanced access, better disease management, care coordination across the continuum and patient activation, which has prompted multidisciplinary, team-based patient care.[12]
- There is a new appreciation of evidence-based medicine, transparency and adherence to appropriate-use criteria. Hospitals are putting together detailed guidelines, protocols and surgical order sets with defined responsibilities, working in collaboration with frontline staff and physicians.[13]
- Managing quality and outcomes requires stricter documentation, coding and reporting capabilities to allow for improved performance transparency as hospitals aim to provide more consumer-driven care.[14]

FIGURE 1

PAYER REIMBURSEMENT IS SHIFTING FROM A FOCUS ON "VOLUME" TO "VALUE"

HIGH

DEGREE OF PHYSICIAN ALIGNMENT

LOW

CONTRACTING STRATEGY	DESCRIPTION
Fee-for-service	Payment by units of services (e.g. admits, procedures, rates) for specific services rendered by provider to patients often based on % of charges, fee schedule, per diem of inpatient care.
Bundled payments	Physicians/other provider payment at the case level based on DRG or case rate. Little incentive for quality/outcomes.
Pay-for-performance (PfP) Pay-for-quality (P4Q)	Rewards or penalties tied to outcomes metrics that are aligned with clinical guidelines. Providers also use physician-level performance for incentive-based physician compensation. P4P and P4Q are often integrated into ACP and medical homes payment structures.
Episodic bundling	Provider payment for a specific procedure or condition(s) based on quality and cost.
Service/condition specific capitation	Per-patient payment for a specific specialty service (e.g. cardiologist visit), condition or group of conditions (e.g. chronic heart failure).
Per member per month	A monthly capitated payment per patient oftentimes used for the management of primary care and chronic diseases. Cardiologists may share in the population health management through medical homes or episodes of care.
Global capitation	Full risk, global payment per patient group regardless of the volume of care. Incentives reduced preventable complications, avoidable readmissions and cost management. Used in clinically integrated networks and ACO shared savings.

LOW

LEVEL OF FINANCIAL RISK

HIGH

FIGURE 2

MARKET DRIVERS AND THE ACCELERATED CHANGES IMPACTING CV CARE DELIVERY

- Quality and comprehensiveness of patient care has to be balanced across providers, as there are stricter regulations around utilization management. This includes RAC audits and penalties for clinically inappropriate utilization, preventable readmissions and hospital acquired conditions (HACs).[15, 16]
- Increased competition including retail clinics and competing networks has led hospitals to align with CV specialists through employment, clinical integration and narrow networks. This is in an attempt to build regional referral sources, while providing higher quality care and controlling total costs.[17] Hospitals are also banding together to form national specialty networks, creating a uniform patient experience and adhering to standardized care practices in order to jointly negotiate favorable payer contracts.
- As cost sharing with patients becomes more popular,[18] a robust patient engagement strategy including coordinating with community resources (wellness programs, health coaches), nonfinancial gamification and financial incentives (e.g., lower copayments or premiums for completing a health risk assessment) and disincentives become necessary. Such strategies reduce employee medical costs by approximately $3.27 for every dollar spent and absenteeism costs by approximately $2.73 for every dollar spent.[19, 20]

These fundamental changes require CV service lines to change their operating model to manage costs more stringently and negotiate new payer contracts. For many of these reasons cardiovascular care delivery has been front-and-center with risk-based reimbursement pilots including episodic bundling and capitation for share of lives through chronic disease management.

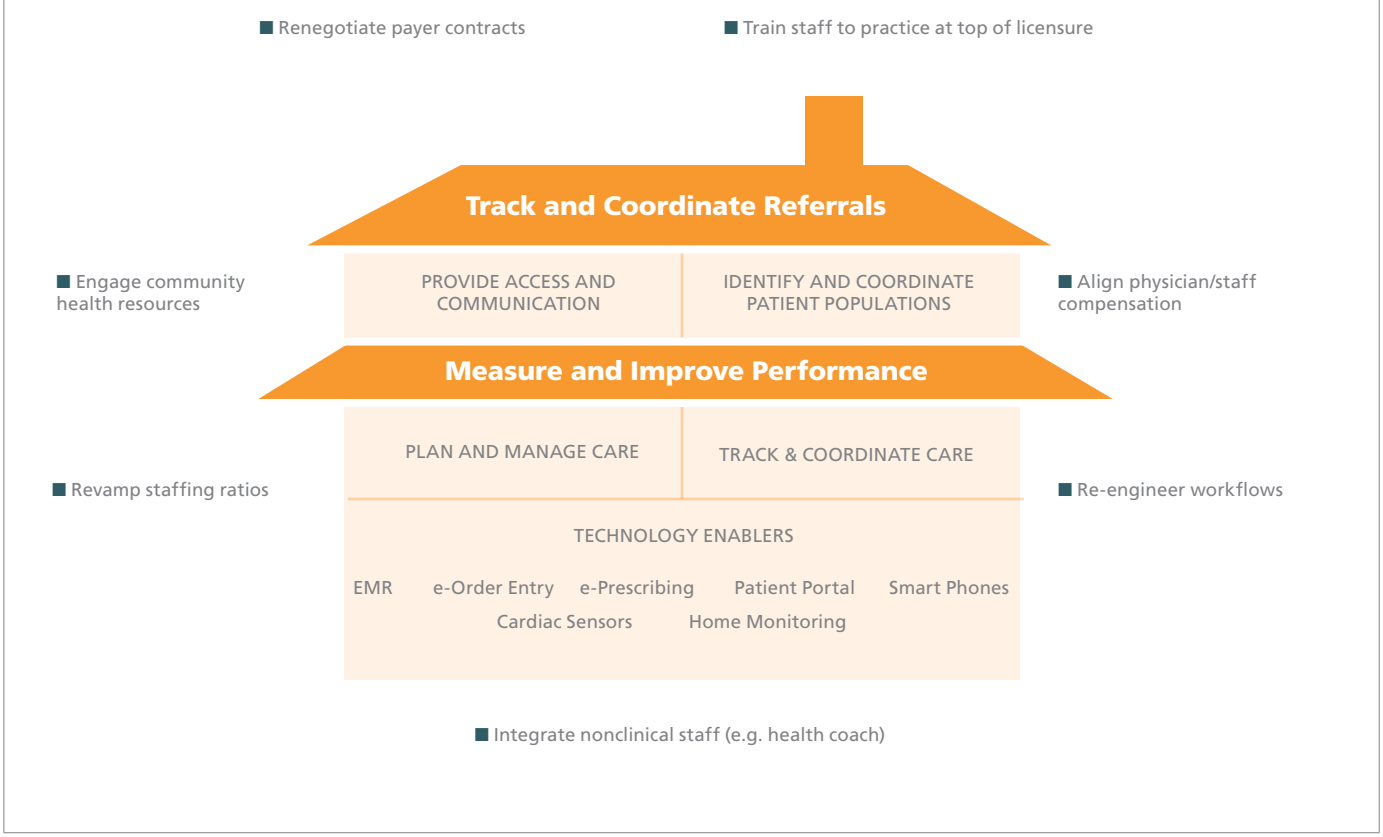
Let's review three innovative CV models that forward-thinking hospitals and CV programs have adopted to help their transition to the value-based care environment.

MODEL 1: CV-CENTERED MEDICAL HOMES — The primary care medical home model is likely here to stay and CV specialists may feel a downstream impact with a potential decline in CV volumes as primary care providers serve as gatekeepers to specialists.[21]

However, CV practices that have adopted the specialty medical home model may actually see a rise in their patient pool. As the complexity of managing CV patients with multiple chronic conditions has increased, CV specialists often serve as the first point of contact and they may provide a significant amount of patients' primary care. For this subset of patients,

FIGURE 3

ESSENTIAL COMPONENTS TO IMPLEMENT THE PATIENT-CENTERED SPECIALTY PRACTICE



having the CV specialist as the coordinating physician may be the most patient-centric and cost-effective model of care.

In 2013, the National Committee for Quality Assurance (NCQA) launched its new Patient-Centered Specialty Practice (PCSP) recognition program outlining the standards for CV-centered medical homes:[22]

- Track and coordinate referrals.
- Provide access and communication.
- Identify and coordinate patient populations.
- Measure and improve performance.
- Plan and manage care.
- Track and coordinate care.

Similar to primary care medical homes, CV specialist medical homes offer enhanced access, comprehensive preventive care, electronic communications, health coaching and other resources. But unlike primary care medical homes, CV specialists are able to handle more complex medical situations without referrals. Considering that these patients have CV-related chronic conditions, their personal physician is able to provide more holistic patient care.

Medical home reimbursement often includes incentives for care coordination and measurable quality improvement, which should be encouraging to CV specialists interested in serving as the personal physician through the CV specialist medical home. It remains to be seen whether the added cost incurred by running a medical home will be adequately reimbursed in future.

MODEL 2: DISEASE-FOCUSED CV CARE CENTERS — Hospitals are increasingly seeing the value of integrating services to provide subspecialized CV care that is comprehensive and cross-continuum. Setting up a CV disease center requires a quantitative strategic planning process including assessing the financial business case and developing a go-to-market strategy that is attractive to the population in the hospital's referral catchment area and palatable to cardiologists and other cardiovascular specialists practicing at the facility or health system.[23]

Hospitals must start off by assessing regionally specific population health trends and their financial implications across

FIGURE 4

PAYER REIMBURSEMENT IS SHIFTING FROM A FOCUS ON "VOLUME" TO "VALUE"

	DESCRIPTION	PATIENT CARE STANDARDS	EXAMPLES OF LEADING PROGRAMS
HEART FAILURE CENTERS	Heart failure is one of the major reasons for hospitalization, particularly among Medicare beneficiaries. It also has a high rate of readmissions.	Multidisciplinary staff use checklists and patient education to help patients better manage their care at home to reduce the risk of complications and readmissions.	• Johns Hopkins Heart Failure Bridge Clinic (MD) • Cleveland Clinic Kaufman Center for Heart Failure • Baptist Health, Outpatient Congestive Heart Failure Clinic (FL)
HEART DISEASE PREVENTION CENTERS	Managing chronic disease (hypertension, diabetics, obesity) can reduce the likelihood of heart attack, stroke, bypass, angioplasty and other costly conditions.	Comprehensive approach: advanced screenings, lifestyle and history to assess risk. Health educators help with smoking cessation, exercise, diet and stress management.	• NYU Langone Center for the Prevention of Cardiovascular Disease • Johns Hopkins Ciccarone Center for the Prevention of Heart Disease (MD)
CHEST PAIN CENTERS	Chest pain is a leading complaint by patients who use emergency care. Early detection can prevent a heart attack or reduce damage to affected heart muscle.	The Society of Chest Pain Centers accredits hospitals based on the "Eight Key Elements of a Chest Pain Center" published in the *American Journal of Cardiology.*	• St. Luke's University Hospital, Chest Pain Center (PA) • Yale New Haven Chest Pain Center (CT)
VALVE & STRUCTURE HEART CENTERS	Approval for new trans catheter valve technologies come with strict regulation that require operational and reporting infrastructure to provide high-volume services.	Often focused on minimally invasive, percutaneous procedures (e.g. TAVR) with resources to manage complex, long-term, multidisciplinary follow-up care.	• Emory Healthcare's Structural Heart & Valve Center (GA) • Brigham and Women's Structural Heart Disease Center (MA) • Rush University Structural Heart Disease Center (IL)

care settings and patient encounters. Set-up requires complex technological infrastructure, staffing models and operational processes.

Crucial to success is aligned, credible leadership and physician relationships in order to cohesively coordinate multispecialty treatment plans on a day-to-day basis, particularly for long-term care. This hard work pays off in increased market share, improved clinical quality, cost efficiency and higher patient satisfaction.[24]

Hospitals are implementing various disease-focused CV care centers around the country.[25-34]

Without a strict due diligence process (internal capacity and external demand), attractive clinical offerings based on patient needs and aligned incentives for care providers, the investment in disease-based care might not meet its desired results. However, doing it right may create a distinctive brand for the disease center that will positively impact the entire hospital.

MODEL 3: STREAMLINED AND ENHANCED SERVICE LINE STRUCTURE — Expanding the CV organization beyond hospital-based CV services helps manage care across the continuum and in nonclinical settings including patient homes. There are various legal models for this including clinical integration, multispecialty accountable care organizations (ACOs) and CV regional MSOs and IPAs that are designed to integrate with other specialties and services.

One of the main benefits of this model is that it sets the framework to reduce variations in clinical practices across the care continuum. The American Medical Association and the Joint Commission estimate that 1 in 10 elective angioplasty procedures performed may be "inappropriate," and another third questionable.[35]

Variations in care and intensity of end-of-life care, open-heart surgery and angioplasty costs the U.S. approximately $600 billion annually in avoidable costs. With a more efficient service line structure, hospitals can more easily facilitate reducing variations in clinical practices whether with care pathways, blood products, lab tests, medications (brand name versus generic) or implants.[36]

MANY HOSPITAL EXECUTIVES STRUGGLE TO BREAK THE SILOS OF ISOLATED CV CARE.

These drastic changes cannot be done without engaging leaders across the spectrum, from executives, physician leaders, acute care managers and primary care clinicians. Crucial to success is that there is a leadership team dedicated to managing all CV programs that fall within the service line. A budget must be tied to a CV-specific strategic plan and there must be hospital executive and physician buy-in for the purpose of the restructure.

Forming a multidisciplinary steering committee and subject matter advisory groups helps facilitate a participatory approach to reorganizing operations across the continuum while enfranchising physicians, nurses and other frontline staff. Having physicians lead the reorganization effort reinforces accountability, developing and meeting timelines and an organic communications strategy.

FIGURE 5

PAYER REIMBURSEMENT IS SHIFTING FROM A FOCUS ON "VOLUME" TO "VALUE"

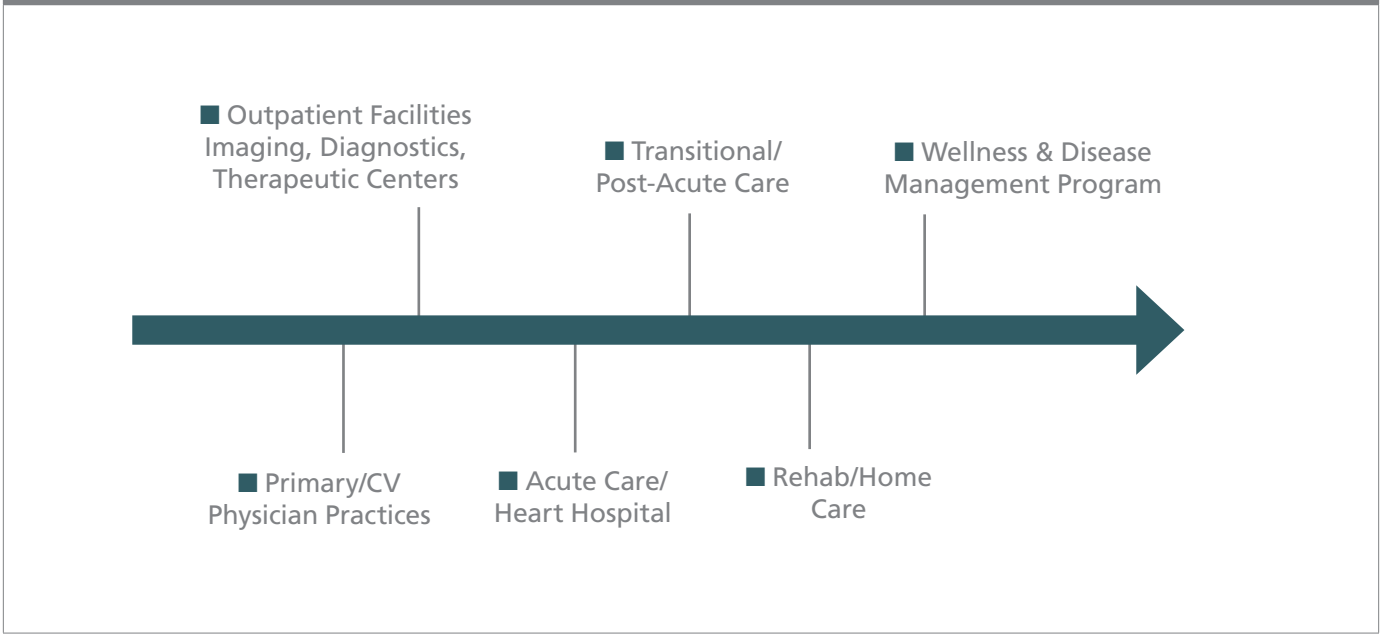
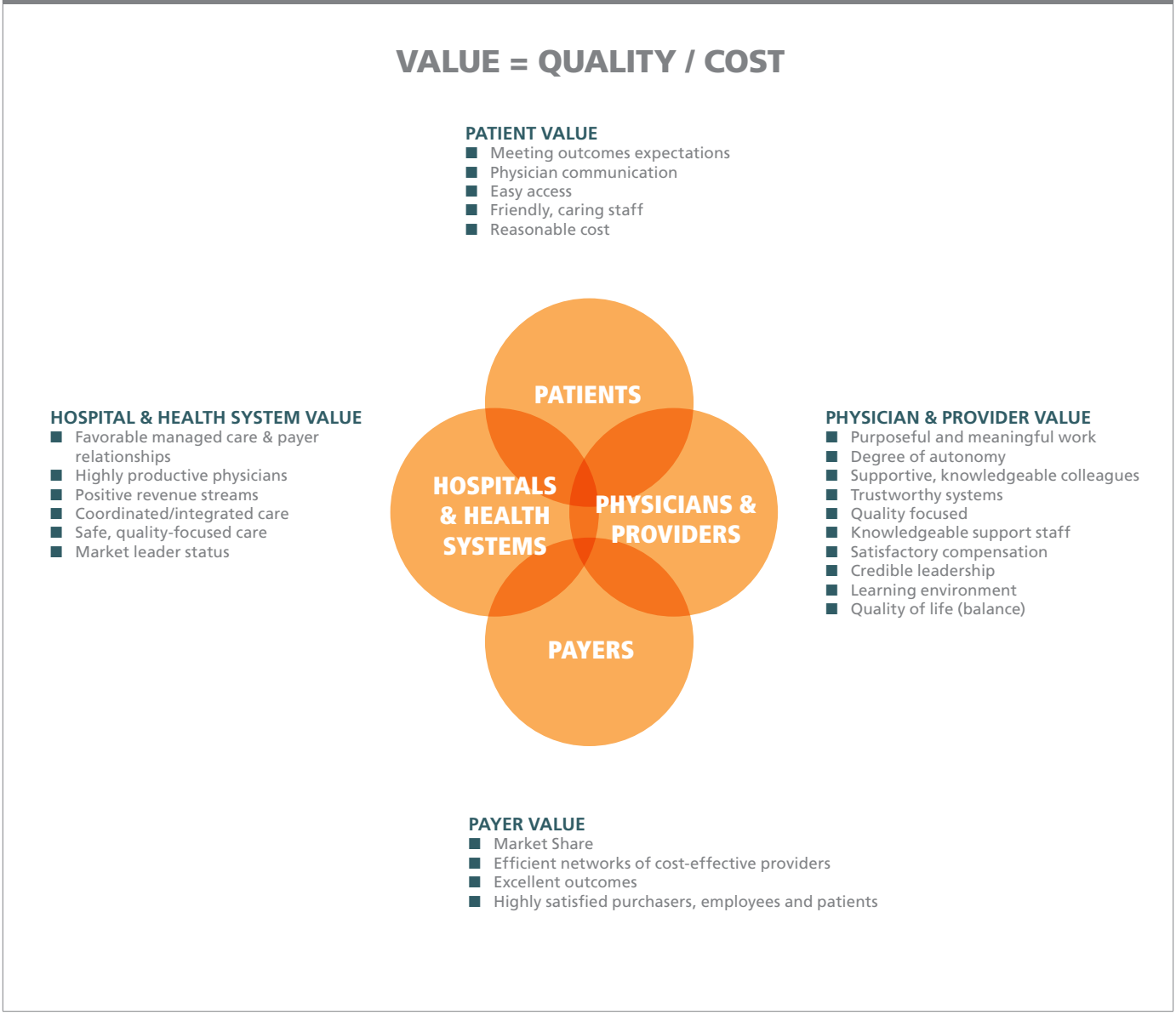


FIGURE 6

THE IMPORTANCE OF UNDERSTANDING PERSPECTIVES: THE VALUE EQUATION (FOR PATIENTS, PHYSICIANS, HOSPITALS AND PAYERS)



Another factor that may accelerate the transition to cross-continuum care is elevating physicians with business acumen into strategic leadership positions beyond a high responsibility, nonincentivized auxiliary leadership role based on clinical merits. Such physician leaders will be committed to success, build trust among clinical staff and inspire others during the change management journey.

THE VALUE EQUATION — It certainly is no easy plight to transition the CV organization to succeed under value-based care. Many hospital executives struggle to break the silos of isolated CV care provided by departments while balancing the demand for clinical and technologic innovations alongside reducing reimbursement trends.

Key to success is the support of physicians to ensure adherence to new patient care protocols and commitment to cost containment, documentation and reporting. Hospitals are turning to a spectrum of options to align with physicians ranging from employment to clinical integration. As mentioned, credible, knowledgeable physician leadership is of paramount importance.

However, many physicians are cynical of the new risk-based payer reimbursement with only 13 percent of physicians believing that it is likely to enhance quality and reduce costs. Only 25 percent believe that the ACA will be effective and 37 percent believe that physician employment is a positive trend (although this is an improvement between 2012 and 2014).[37]

Our current lexicon does not help this situation. The dis-

course is focused on regulatory and compliance concepts (such as evidence-based care, appropriate use criteria, outcomes, readmissions and patient/ physician satisfaction) when instead our dialogue should be led by the perspectives and the variable needs of the patients, physicians and hospitals and an appreciation of the cultural and differing business motifs that exist across the environment where care is delivered.

In summary, we leave you with three recommendations to consider as you contemplate the future of your service line and its evolution:

- Don't protect the past simply for the sake of the past. Defend important core and anchors, but be willing to move to the next iteration.
- Guard against being defined by a product or prior service. Stay abreast of changes in evolutionary progress and be willing to endorse such where appropriate.
- Always be considering how you can transform your services, yourself and practices. Evolution was not about survival but adaptation.

Valerie Handunge, MPH, is a health care solutions and strategy leader at Virtusa in Washington, D.C.

Nathan G. Riner, MBA, is a consultant with The Riner Group Inc., with offices in Naples, Florida, and St. Louis, Missouri.

Magdeline Aagard, EdD, MBA, RN, is a consultant with The Riner Group Inc.

Ronald N. Riner, MD, is president and CEO of The Riner Group Inc.

REFERENCES

1. Bailit M. and Burns M. ll together now: *Coordinating California's public sector health care purchasing*. California Health Care Foundation, Sept 2013, http://www.chcf.org/publications/2013/09/all-together-now (accessed December 28, 2013)..
2. Heidenreich P.A., and others. Forecasting the future of cardiovascular disease in the United States: a policy statement from the American Heart Association, *Circulation*, Jan 24, 2011, http://circ.ahajournals.org/content/123/8/933.long#ref-44 (accessed January 16, 2014).
3. Page L. and Fields R. 13 legal issues for hospitals and health systems. *Becker's Hospital Review*, March 11, 2011, http://www.beckershospitalreview.com/hospital-management-administration/13-legal-issues-for-hospitals-andhealth-systems.html (accessed January 27, 2015).

4. Cantlupe, J. Revenue-driving cardio subspecialties thriving. *HealthLeaders Media*, Aug 8, 2013, http://www.healthleadersmedia.com/page-1/LED-295013/RevenueDriving-Cardio-Subspecialties-Thriving (accessed December 28, 2014).

5. White, C. How do hospitals cope with sustained slow growth in Medicare prices? Center for Studying Health System Change, October 2013, http://onlinelibrary.wiley.com/doi/10.1111/1475-6773.12101/full (accessed January 25, 2015).

6. *Cardiovascular Market Trends for 2014*. The Advisory Board Company, http://www.advisory.com/international/research/clinical-investment-insights/resources/2014/cardiovascular-market-trends (accessed December 28, 2014).

7. Williams T.E., and others. The impending shortage and the estimated cost of training the future surgical workforce. *Ann Surg*. 250(4):590-7, Oct 2009.

8. Williams TE., and others. A formidable task: population analysis predicts a deficit of 2000 cardiothoracic surgeons by 2030. *J Thorac Cardiovasc Surg*. 139(4):835-40, Apr 2010.

9. *Cardiovascular Market Trends for 2014.* The Advisory Board Company, http://www.advisory.com/international/research/clinical-investment-insights/resources/2014/cardiovascular-market-trends (accessed December 28, 2014).

10. National Center for Health Statistics. Health, United States, 2009: With Special Feature on Medical Technology. Hyattsville, MD: National Center for Health Statistics, 2010, http://www.cdc.gov/nchs/data/hus/hus09.pdf (accessed December 15, 2014).

11. Ward B.W., Schiller J.S., Goodman R.A. Multiple chronic conditions among US adults: A 2012 update. *Prev Chronic Dis* 2014;11:E62. DOI: http://dx.doi.org/10.5888/pcd11.130389 (accessed December 28, 2014).

12. Gawande A. The cost conundrum, what a Texas town can teach us about health care. *The New Yorker,* June 1, 2009.

13. *Evidence-based Practice Centers (EPC) Program Overview*. Rockville, Md.: Agency for Healthcare Research and Quality, 2013, www.ahrq.gov/research/findings/evidence-based-reports/overview/index.html (accessed December 26, 2014).

14. Trends in an Era of Consumer-Driven Healthcare (2012). *Becker's Hospital Review,* http://www.beckershospitalreview.com/strategic-planning/6-trends-inan-era-of-consumer-driven-healthcare.html (accessed January 11, 2015).

15. *Hospital-Acquired Conditions*. Centers for Medicare & Medicaid Services, 2014, http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/index.html?redirect=/hospitalacqcond/06_hospitalacquired_conditions.asp (accessed December 28, 2014).

16. *Recovery Audit Program.* Centers for Medicare & Medicaid Services, 2014, http://www.cms.gov/Research-Statistics-Data-and-Systems/Monitoring-Programs/Medicare-FFS-Compliance-Programs/Recovery-Audit-Program/ (accessed December 28, 2014).

17. *Increasing Consumer Choice in Coverage and Care: Implications for Hospitals.* Chicago, IL: American Hospital Association, June 2014.

18. Begley S. Factbox: Value-based insurance in practice. Reuters, Dec 19, 2013, www.reuters.com/article/2013/12/19/us-usa-healthcareinsurancefactbox-idUSBRE9BI05220131219, (accessed December 27, 2013).

19. Baicker K., Cutler D., and Song Z., Workplace wellness programs can generate savings. *Health Affairs,* 29(2):304-11, Feb 2010.

20. Slen J., Bailit M. and Houy M. *Value-based Purchasing and Consumer Engagement Strategies in State Employee Health Plans: A Purchaser Guide.* Needham, Mass.: Bailit Purchasing, LLC, 2012, www.bailithealth.com/articles/042810_bhp_scivaluebased_report.pdf (accessed December 26, 2014).

21. Delaune J., Everett W. *Waste and Inefficiency in the U.S. Health Care System.* New England Healthcare Institute, 2008, http://media.washingtonpost.com/wp-srv/nation/pdf/healthreport_092909.pdf (accessed December 26, 2014).

22. *Patient-Centered Specialty Practice Recognition.* Washington: National Committee for Quality Assurance, 2013, http://www.ncqa.org/ (accessed December 28, 2014).

23. Infographic: Reorganizing around Cardiovascular Disease Centers. The Advisory Board Company, 2014, http://www.advisory.com/~/media/Advisorycom/Research/CR/Resources/2013/Posters/26059-CR-2012-InfoGraphic-new.jpg (accessed January 4, 2015).

24. Mulgrew L. *Care Center Model Allows Integrated Patient Care, Cardiovascular Business*, February 2, 2012, http://www.cardiovascularbusiness.com/topics/practice-management/back-page-carecenter-model-allows-integrated-patient-care (accessed January 4, 2015).

25. 100 Hospitals and Health Systems with Great Heart Programs, 2014-15. *Becker's Hospital Review*. September 9, 2014, http://www.beckershospitalreview.com/lists/100-hospitals-and-health-systems-with-greatheart-programs-2014.html (accessed January 27, 2015).

26. Johns Hopkins Heart Failure Bridge Clinic, http://www.hopkinsmedicine.org/heart_vascular_institute/clinical_services/specialty_areas/heart_failure_bridge_clinic/ (accessed January 30, 2015).

27. Cleveland Clinic Kaufman Center for Heart Failure, http://my.clevelandclinic.org/services/heart/departments-centers/heart-failure (accessed January 30, 2015).

28. Baptist Health, Outpatient Congestive Heart Failure Clinic http://www.baptistjax.com/services/heart-vascular-care/congestive-heart-failure (accessed January 30, 2015).

29. NYU Langone Center for the Prevention of Cardiovascular Disease, http://medicine.med.nyu.edu/cardiology/for-patients/center-prevention-cv-disease (accessed January 30, 2015).

30. Johns Hopkins Ciccarone Center for the Prevention of Heart Disease, http://www.hopkinsmedicine.org/heart_vascular_institute/clinical_services/centers_excellence/ciccarone/about_history.html (accessed January 30, 2015).

31. Yale New Haven Chest Pain Center, http://www.ynhh.org/heart-and-vascularcenter/chest-pain-center.aspx (accessed January 30, 2015).

32. Emory Healthcare's Structural Heart & Valve Center, http://emoryhealthcare.org/structural-heart/index.html (accessed January 30, 2015).

33. Brigham and Women's Structural Heart Disease Center, http://www.brighamandwomens.org/Departments_and_Services/surgery/services/cardiacsurgery/Services/structuralheart.aspx (accessed January 30, 2015).

34. Rush University Structural Heart Disease Center, https://www.rush.edu/services/structural-heart-disease-center (accessed January 30, 2015).

35. O'Connor A. "Heart stents still overused, experts say." *New York Times,* Friday, Aug 15, 2013, http://well.blogs.nytimes.com/2013/08/15/heartstents-continue-to-be-overused/?_r=0 (accessed December 28, 2014).

36. Delaune J., Everett W. *Waste and Inefficiency in the U.S. Health Care System*, New England Healthcare Institute, 2008, http://media.washingtonpost.com/wp-srv/nation/pdf/healthreport_092909.pdf (accessed December 26, 2014).

37. 2014 Survey of America's Physicians: Practice Patterns and Perspectives. The Physicians Foundation, available at: www.physiciansfoundation.org, (accessed January 11, 2015).